Morecambe Offshore Windfarm: Generation Assets

Examination Documents

The Applicant's Response to ExA's Written Questions 1

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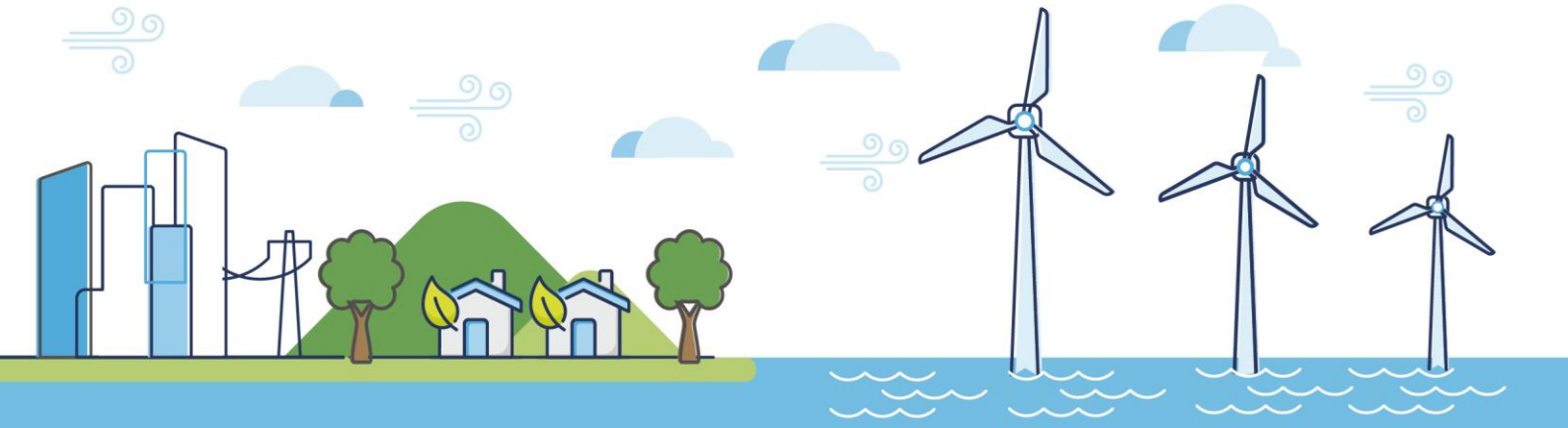

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Glossary of Acronyms

AfL	Agreement For Lease
AIS	Automatic Identification System
ALARP	As Low As Reasonably Practicable
AltMoc	Alternative Means of Compliance
AONB	Area of Outstanding Natural Beauty
ATC	Air Traffic Control
AyM	Awel y Môr
BDMPS	Biologically Defined Minimum Population Scale
BEIS	Department for Business, Energy & Industrial Strategy
BEM	Biodiversity, Ecology and Marine Processes
BNG	Biodiversity Net Gain
BoCC	Birds of Conservation Concern
CAA	Civil Aviation Authority
CAR	Civil and Military Aviation and Radar
CBRA	Cable Burial Risk Assessment
CC	Climate Change
CCUS	Carbon capture Usage and Storage
CEA	Cumulative Effects Assessment
CF	Commercial Fisheries
CfD	Contracts for Difference
CH	Cultural Heritage (including Marine Archaeology)
CIMP	Compensation Implementation and Monitoring Plan
CIRIA	Construction Industry Research and Information Association
CMS	Construction Method Statement
CNP	Critical National Priority
COLREGS	International Regulations for Preventing Collisions at Sea
CRA	Chemical Risk Assessment
CRM	Collision Risk Modelling
D1	Deadline 1
DCO	Development Consent Order
DDC	Drop-down camera
dDCO	Draft Development Consent Order
DF	Direction Finding

DIO	Defence Infrastructure Organisation
DML	Deemed Marine Licence
DMMMP	Draft Marine Mammal Mitigation Protocol
EIA	Environmental Impact Assessment
EIP	Environmental Improvement Plan
EIS	Environmental Impact Statement
EMF	Electromagnetic fields
EN-5	National Policy Statement for Electricity Networks Infrastructure
ENG	Environmental Net Gain
EPP	Evidence Plan Process
ES	Environmental Statement
ETG	Expert Topic Group
EU	European Union
ExA	Examining Authority
ExQ1	Examination Questions 1
FLCP	Fisheries Liaison and Co-existence Plan
FLO	Fisheries Liaison Officer
GBS	Gravity Based Structures
GEN	General and Cross-topic Questions
GHG	Greenhouse Gas
HRA	Habitats Regulations Assessment
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
ICES	International Council for the Exploration of the Sea
IEC	International Electrotechnical Commission
IFPs	Instrument Flight Procedures
INNS	Invasive Non-Native Species
IoM	Isle of Man
IoM TSC	Isle of Man Territorial Sea Committee
IOMCAA	Isle of Man Civil Aviation Administration
IPCoD	Interim Population Consequences of Disturbance
IPMP	In Principle Monitoring Plan
ISH1	Issue Specific Hearing 1

JNCC	Joint Nature Conservation Committee
KAMT	Kenneth Allsop Memorial Trust
LBBG	Lesser Black-Backed Gulls
LDNP	Lake District National Park
LSE	Likely significant effects
LURA	Levelling Up and Regeneration Act
LVIA	Landscape and Visual Impact Assessment
M&MTA	Morgan and Morecambe Offshore Wind Farms Transmission Assets
MarESA	Marine Evidence-Based Sensitivity Assessment
MCA	Marine Conservation Area
MCZA	Marine Conservation Zoning Assessment
MDE	Marine Data Exchange
MMMP	Marine Mammal Mitigation Protocol
MMO	Marine Management Organisation
MNEF	Marine Navigation Engagement Forum
MNR	Marine Nature Reserves
MSA	Minimum Sector Altitude
NATS	National Air Traffic Services
NC	Natural Capital
NE	Natural England
NFFO	National Federation of Fishermen's Organisations
NISA	Northern Irish Sea Array
NOTAM	Means of the Notice to Aviation
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NRW	Natural Resources Wales
NSIP	Nationally Significant Infrastructure Projects
NtP	Notice to Proceed
NWIS	North-West Irish Sea
OCMS	Offshore Construction Method Statement
OESEA4	Offshore Energy Strategic Environmental Assessment 4
OOI	Other Offshore Infrastructure
oPEMP	Outline Project Environmental Management Plan
OREI	Offshore Renewable Energy Installations

OSP	Offshore Substation Platform
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
oVTMP	Outline Vessel Traffic Management Plan
OWF	Offshore Wind Farm
PATP	Port Access and Transport Plan
PDE	Project Design Envelope
PEIR	Preliminary Environmental Impact Report
PEMP	Project Environmental Management Plan
PINS	Planning Inspectorate
PSR	Primary Surveillance Radar
PTS	Permanent Threshold Shift
PVA	Population Viability Analysis
RIAA	Report to Inform Appropriate Assessment
RIS	Information Sheet on Ramsar Wetlands
RR	Relevant Representation
RSPB	Royal Society for the Protection of Birds
RTD	Red Throated Diver
SAC	Special Area of Conservation
SAR	Search and Rescue
SEAA	Storage Exploration and Appraisal Agreement
SELcum	Sound Exposure Level from cumulative exposure
SETR	Socio-Economics, Tourism and Recreation
SLV	Seascape, Landscape and Visual
SMRU	Sea Mammal Research Unit
SN	Shipping and Navigation
SNCBs	Statutory Nature Conservation Bodies
SoCG	Statement of Common Ground
SPA	Special Protection Area
SSCs	Suspended sediment concentrations
SSR	Secondary Surveillance Radar
SSS	Side-Scan Sonar
SSSI	Site of Special Scientific Interest

SSSP	Skomer, Skokholm and the Seas off Pembrokeshire
TA	Transport Assessment
TAA	Terminal Arrival Altitudes
TMZ	Transponder Mandatory Zone
TT	Traffic and Transport
TTS	Temporary Threshold Shift
UK	United Kingdom
UKHO	United Kingdom Hydrographic Office
UNCLOS	United Nations Convention on the Law of the Sea
UWSMS	Underwater Sound Management Strategy
UXO	Unexploded ordnance
VHF	Very High Frequency
VMC	Visual Meteorological Conditions
VTMP	Vessel Traffic Management Plan
WoDS	West of Duddon Sands
WOZEP	Dutch Governmental Offshore Wind Ecological Programme
WR	Written Representation
WSoI	Written Scheme of Investigation
WTG	Wind Turbine Generator
ZTV	Zone of Theoretical Visibility

Glossary of Unit Terms

km	kilometre
km^2	square kilometre
m	metre
m^3	cubic metre
MW	Megawatt

Glossary of Terminology

Agreement for Lease (AfL)	Agreements under which seabed rights are awarded following the completion of The Crown Estate tender process.
Applicant	Morecambe Offshore Windfarm Ltd.
Application	This refers to the Applicant's application for a Development Consent Order (DCO). An application consists of a series of documents and plans which are published on the Planning Inspectorate's (PINS) website.
Generation Assets (the Project)	Generation assets associated with the Morecambe Offshore Windfarm. This is infrastructure in connection with electricity production, namely the fixed foundation wind turbine generators (WTGs), inter-array cables, offshore substation platform(s) (OSP(s)) and possible platform link cables to connect OSP(s).
The Planning Inspectorate	The agency responsible for operating the planning process for Nationally Significant Infrastructure Projects.
Windfarm site	The area within which the WTGs, inter-array cables, OSP(s) and platform link cables would be present.
Agreement for Lease (AfL)	Agreements under which seabed rights are awarded following the completion of The Crown Estate tender process.

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1 Introduction

1. This document presents the Applicant's response to the Examining Authority's (ExA) written questions and requests for information (ExQ1), issued to the Applicant on 18 December 2024 (Examination Library reference PD-011).
2. As the owner of the Morecambe Offshore Windfarm Generation Assets, Morecambe Offshore Windfarm Ltd is the named undertaker that has the benefit of the Development Consent Order (DCO). References in this document to obligations on, or commitments by, 'the Applicant' are given on behalf of Morecambe Offshore Windfarm Ltd as the undertaker of Morecambe Offshore Windfarm Generation Assets.

2 Comments on ExQ1

3. The Applicant's responses to the ExQ1 are presented in **Table 1**.

Table 1 Applicant's comments on ExQ1

ExQ1	Question to	Question	Applicant's Response
1.General and Cross-topic Questions (GEN)			
General			
1GEN1	All Parties	**National Planning Policy Framework** A replacement National Planning Policy Framework was published on 12 December 2024. All parties are invited to make any comments they wish as to how any changes within this document affect the consideration of the Proposed Development.	The Applicant has reviewed and considered the changes in the National Planning Policy Framework, published on 12 December 2024. The Applicant does not consider the changes in the document to affect the consideration of the Proposed Development.
1GEN2	The Crown Estate	**Agreement for Lease** At D1 the Applicant set out a note on the judgement of the High Court in the case of *R (Parkes) v Secretary of State for the Home Department* [2024] EWHC 1253 (Admin) [REP1-088]. This set out its view that the Application site did not represent 'land' or 'Crown land'. It also noted the Agreement for Lease between The Crown Estate and the Applicant and that, in the light of previous DCO decisions, the Applicant considers that no book of reference is required. The Crown Estate is asked: a) does it have any views on the opinions set out the Note [REP1-088], that is, does it agree with the analysis or have any different view?	The Applicant notes 1GEN2 is directed to The Crown Estate. However, in response to question 1GEN2 (b), the Applicant would note that it has the benefit of an Agreement for Lease (AfL) for the Order Limits from The Crown Estate which was entered into with The Crown Estate Commissioners on 17 January 2023. The AfL sets out the mechanisms by which a Lease will be entered into between the Applicant and the Crown Estate Commissioners following the satisfaction of specified milestones, including consenting requirements.

ExQ1	Question to	Question	Applicant's Response
		b) subject to the grant of the DCO and any terms therein and any other necessary and separate consents, does The Crown Estate believe that it would be able to grant the necessary rights for the undertaking of the Proposed Development?	
Design, parameters and other details of the Proposed Development			
1GEN3	The Applicant	**Potential Layout** In paragraph 8 of the Applicant's response to Spirit Energy's Deadline 1 Submissions [REP2-030] it is stated: *"the Applicant has further tailored possible layouts and considers it would still be possible to deliver the c. 480MW renewable energy potential of the site with this additional physical mitigation in place".* Therefore, in light of the constraints submitted, such as the draft Protective Provision and other zones including Archaeology Exclusions Zones, and two lines of orientation and other restrictions set out in the dDCO could the Applicant please provide two notional layouts showing how 30 and 35 WTGs and 2 OSPs could be delivered on the Application site.	**Appendix A: Notional Array Layouts** presents the notional layout for the Project with 30 or 35 wind turbine generators (WTGs) and 2 offshore substation platforms (OSPs).
1GEN4	The Applicant	**Good Design** The Applicant is directed to the Advice on Good Design recently published by the Planning Inspectorate and is asked to:	The Applicant has addressed how the Project achieves good design in the Design Statement (APP-021). The Applicant intends to provide further information on how the Project achieves 'Good Design' in accordance with section 4.7 of National Policy Statement (NPS) EN-1 and section 2.5 of NPS EN-3, and the Design

ExQ1	Question to	Question	Applicant's Response
		a) explain how the Proposed Development achieves 'Good Design' in accordance with section 4.7 of National Policy Statement (NPS) EN-1 and section 2.5 of NPS EN-3, and the Design Principles for National Infrastructure (National Infrastructure Commission, 2020). b) confirm how 'Good Design' would be implemented through all stages of the development including post-decision and construction, indicating how it would be secured.	Principles for National Infrastructure (National Infrastructure Commission, 2020) and to confirm how 'Good Design' would be implemented and secured at Deadline 4 of the examination. The Applicant will include revised wording within the Draft DCO submitted at Deadline 4 that secures the implementation of 'Good Design', likely by insertion into the Deemed Marine Licence (DML) condition securing the production and approval of a design plan (Condition 9(1)(a)(ii)).
1GEN5	The Applicant	**Good Design** Table 18.4 in ES Chapter 18 [APP-055] comments *"The Project considers that there would be merit in appointing a senior member of the Project team as design champion – ensuring that design options are explored, advice taken and decisions made to achieve a well-considered and good design"*. Could the Applicant please explain how this is to be secured?	As mentioned above, the Applicant intends to submit further information on 'Good Design' at Deadline 4. This will include additional information in relation to the Project's design champion. The Applicant will include revised wording within the Draft DCO submitted at Deadline 4 that secures the implementation of 'Good Design', likely by insertion into the DML condition securing the production and approval of a design plan (Condition 9(1)(a)(ii)).
1GEN6	The Applicant	**Foundation Design Selection - Environmental Criteria** It is noted that the foundation type for the proposed wind turbines could be one of: Gravity Based Structure, Jacket with pin-piles, Monopile or Jacket with suction bucket. While it is noted that the Environmental Statement (ES) provides a	a) The choice of foundation type, whether Gravity Based Structure (GBS), Jacket with pin-piles, Monopile or Jacket with suction bucket foundations will be informed by further site investigation and pre-construction site investigations. As per standard industry and consenting practice, these investigations will be conducted post submission and/or consent, with the output informing the Applicant on which foundation type(s) will be most suitable considering seabed conditions across the windfarm site. Initial surveys in the

ExQ1	Question to	Question	Applicant's Response
		description and the parameters of the different foundation types in its various maximum design scenario assessments, could the Applicant clarify: a) how the final choice of foundation(s) would be determined? b) the (environmental impact) advantages and disadvantages of each of the foundation types currently under consideration, including a summary table showing the scale and significance of impact on benthic habitats, fish and shellfish, marine mammals and marine physical features from each of the foundation types. If this is not possible provide a detailed explanation as to why not? c) should the parameters set out in Table 2 of the draft Development Consent Order (dDCO) be restricted to the specific turbine types assessed to ensure that works do not exceed the worst case assessed for the specific foundation design (for example, preventing a foundation type with a smaller development footprint from being able to impact a larger development footprint from the worst case turbine assessed)?	windfarm site undertaken by the Project have indicated that all foundation types included within the design envelope are technically viable within the windfarm site. However, further site specific information may preclude a certain foundation type for a specific location, hence the need to include multiple foundation types within the Project design envelope. This flexibility allows the Applicant to adopt the most appropriate foundation type for each location, as well as the selection of the most commercially favourable. b) The Rochdale Envelope approach used (see Volume 5, Chapter 6: Environmental impact assessment methodology (APP-043)) allows the Environmental Impact Assessment (EIA) process to be conducted on the basis of a realistic 'worst case' scenario selected from different design and construction scenarios (the Project Design Envelope (PDE)). The worst case assessed (which is undertaken for each discrete impact) is therefore the scenario which would give rise to the greatest potential impact, and therefore effect on any specific receptor. As such, it is not required to assess every possible combination of design parameters, only those that represent the realistic worst case for a particular impact being assessed. As each impact is considered separately, each environmental topic includes an assessment of a combination of foundation types. For example, for marine mammals piled foundations are assessed for noise impacts, but for suspended sediment effects gravity based foundations are assessed. Overall, the EIA has assessed the worst case of all the foundation types for each impact and this is what is presented in the Environmental Statement (ES). While there may be foundation types that present different impacts for different receptors, it is not appropriate to weigh up or compare effects of overall foundations options and the EIA Regulations do not require such assessments.

ExQ1	Question to	Question	Applicant's Response
			In applying the Rochdale Envelope approach to the assessment, in line with the Planning Inspectorate's guidance (The Planning Inspectorate, 2018), EN-1 (para 4.3.12) and EN-1 (para 2.6.2) it can therefore be concluded that the impact (and therefore the effect) will be no greater for any other design or construction scenario than those assessed as 'worst case' in the application. This approach is consistent with standard industry practice, and an assessment of all elements of the envelope is unnecessary and would result in a disproportionate EIA process. c) As identified above, each impact is considered separately, with the worst case identified from the relevant foundation type. As such the ES presents the worst-case impact following full consideration of all the potential turbine types included within the Project Design Envelope for each receptor, so should any of the foundations be selected no impact will be greater than the worst case presented in the ES. It is not considered that the parameters need to be updated in Table 2 of the DCO.
1GEN7	Mona Offshore Wind Ltd Morgan Offshore Wind Limited	**Interrelationship report on other infrastructure projects** A Report on Interrelationships with Other Infrastructure Projects was submitted by the Applicant at Deadline 1 [REP1-078]. The applicants of the other named projects which are IPs in this Examination are asked to confirm the accuracy of the information and, if they feel it appropriate, provide comments on the content of the Report.	The Applicant notes 1GEN7 is directed to Mona Offshore Wind Ltd and Morgan Offshore Wind Limited and shall not be responding.
1GEN8	The Applicant	**Morgan and Morecambe Offshore Wind Farms Transmission Assets (M&MTA) Application**	The Applicant notes that information provided in Table 8.4 of the Applicant's 'Report on Interrelationships with Other Infrastructure Projects' [REP1-078] is supported by the detail provided in the ES, specifically Chapter 23 – Summary: Generation and Transmission

ExQ1	Question to	Question	Applicant's Response
		Table 8.4 of the Applicant's 'Report on Interrelationships with Other Infrastructure' [REP1-078] provides an indication of likely cumulative effects with the transmission assets project. However, the information is considered to be high level and lacks detail to enable understanding of the effects highlighted. The ExA requests that more detailed information is provided to demonstrate that cumulative and in-combination assessment conclusions of the Morecambe ES and RIAA [REP1-012] remain valid in light of the conclusions of the final M&MTA ES and HRA.	Assets Assessment (APP-060) and the more detailed assessments of the Project and Morgan and Morecambe Offshore Wind Farms Transmission Assets (Transmission Assets) within each technical chapter of the ES. While it is acknowledged that Table 8.4 focuses on the overall assessment conclusions per topic it is also noted that the ES is now available for the Transmission Assets that includes a detailed assessment of the cumulative effects associated with both Projects up to date at the time of submission. The consenting strategy for the Morecambe and Morgan projects was established considering the phasing of the applications, that it would be the Transmission Assets that would contain the detailed cumulative assessment. The full assessment of the Transmission Assets could be submitted in the Examination, but it is considered disproportionate on all parties (including the ExA) to have this level of detailed information to consider, and the proposed approach is considered to strike an appropriate balance and allows for a full and valid understanding of the cumulative between the Project and the Transmission Assets. In light of the request from the ExA it is noted that a similar exercise was undertaken for the Morgan Generation project and submitted into Examination (Review of Cumulative Effects Assessment and In Combination Assessment: Morgan and Morecambe Offshore Wind Farms: Transmission Asset. Morgan Examination Reference REP2-023). The results shown by Morgan align with the conclusions made by the Project: '*the screening review presented in this document has concluded that the magnitude of the potential cumulative impacts is likely to be either the same as, or less than, that assessed in the Morgan Generation Assets CEA, with the Morgan Generation Assets CEA carrying additional precaution. There is no potential for new cumulative effects to arise or an increase in cumulative effects for each of the topics considered and the*

ExQ1	Question to	Question	Applicant's Response
			conclusions of the Morgan Generation Assets CEA (and in-combination assessments……. As no changes to the assessment conclusions have been identified for Scenario 3, which considers the Morgan Generation Assets plus Morgan and Morecambe Offshore Wind Farms: Transmission Assets plus other projects and plans, the same conclusion automatically applies to Scenario 2, which considers the Morgan Generation Assets plus Morgan and Morecambe Offshore Wind Farms: Transmission Assets and the Morecambe Offshore Windfarm: Generation Assets, and Scenario 1 which considers the Morgan Generation Assets plus Morgan and Morecambe Offshore Wind Farms: Transmission Assets.) therefore remain unchanged'. It is considered that if further granularity and detail is required the Applicant can include this information in the update of the Interrelationships report scheduled for Deadline 4.
1GEN9	The Applicant	**Cable protection assumptions** ES Chapter 5, paragraph 5.60 [REP1-022] sets out the Applicant's assumption that 10% of cable length will need cable protection (that is 10% would not be buried) due to ground conditions; and ES Chapter 7 section 7.6.3.5 [REP2-008] sets out what would happen where cables cannot be buried. Given the relatively soft ground conditions (mud/ sand) indicated within the Application site: a) please provide additional justification for this assumption; and	a) As set out in the Outline Scour Protection and Cable Protection Plan (APP-152), from the interpretation of data from surveys undertaken to date, the ground conditions across the majority of the windfarm site are conducive to cable burial, being of suitable slope, largely free of obstruction and formed of very loose to dense clayey sands. Given that the final layout of the Project would be finalised post consent and that further detailed surveys would be undertaken preconstruction the 10% allows for flexibility required for detailed design. Reasons for maintaining 10% include seabed mobility, variability in seabed characteristics and availability/suitability of specific tools. b) The worst-case estimate assumes that cable burial would not be possible at up to 10% of the overall cable length. This value has been considered within the relevant chapters of the ES. Given the

ExQ1	Question to	Question	Applicant's Response
		b) how likely is it that the cable cannot be buried and does this have any implications for the worst case assessed?	surveys on the site to date it is not considered that the requirement for cable burial would exceed the worst case assessed (as noted in point a above), with the likelihood of cables not being buried accounted in the 10% assessed in the ES. It is noted that if over 90% of the cable is buried there are environmental benefits in reduced requirements for cable protection (hence the maximum non-burial of 10% is considered to represent the worst case).
1GEN10	Ørsted IPs Barrow Offshore Wind Ltd MMO	**Decommissioning dates** Table 5.1 of the Applicant's response to Actions from PM and ISH1 [REP1-086] sets out the distances and expected decommissioning dates for various windfarms in the vicinity. This indicates that the Barrow OWF is due to be decommissioned *"by 2030"*. In their WR the Ørsted IPs [REP1-112] indicate that they are not aware of any requirement for additional consents or licences to continue operating this development beyond 2030. To Barrow Offshore Wind Limited a) Could Barrow Offshore Wind Limited please set out its understanding of the timing of its decommissioning processes, providing evidence to support this. The draft SoCG between the Applicant and the Ørsted IPs [REP1-073] indicates that the Applicant believes that a new Marine Licence would be required post 2030.	The Applicant notes 1GEN10 is directed to the Ørsted IPs, Barrow Offshore Wind Ltd and the Marine Management Organisation (MMO). However, in response to question a), the Applicant notes that information in the public domain regarding the Barrow Offshore Windfarm (OWF) (including the Environmental Impact Statement (EIS) prepared in May 2002) provide for an "operational period of 20 years". Any extension to the Barrow OWF operational lifetime would therefore not be in accordance with the worst-case scenario assessed for that project. Ultimately, the Applicant has carried out assessments for the Project on the basis of the information available in the public domain (which in the case of Barrow OWF includes this EIS), in accordance with EIA best practice. It is considered reasonable and appropriate to assume that projects cumulatively assessed will be constructed and operated in accordance with the consent and assessment for that project. The Applicant considers this is an appropriate principle on which to conclude the cumulative assessment in the EIA for the Project is appropriate, but if the ExA wishes to analyse the future position of Barrow OWF in more detail, then the Applicant would note: - The Section 36 Consent (reference GDBC/C/001/00025) granted for Barrow OWF on 10 March 2003 includes a condition which states "except where the written permission of

ExQ1	Question to	Question	Applicant's Response
		To the MMO c) Could the MMO please confirm its understanding of the Marine Licensing situation concerning this site, with particular reference to any end date or decommissioning requirements?	the Secretary of State has been given to any variation in design, construction or operation of the Development, the Development and the Ancillary Development shall be constructed in accordance with the details contained in the company's application of 31 May 2002". It is therefore unclear to the Applicant how Barrow OWF could continue to be operated outside the terms of the EIS without a further Secretary of State decision or consent, which would require environmental assessment of the proposed extension against the current baseline; and - The Applicant also notes that, in submissions made by the Ørsted IPs at Deadline 4 of the Morgan Examination (REP4-048), it was noted that the Barrow and Burbo Bank projects have marine licences relating to maintenance which will expire in 2030/2031, but that "these licences are not required for the ongoing operation of the developments". The Applicant would note that, should operations continue without corresponding maintenance licence extensions, this would leave the Barrow and Burbo Bank OWFs in circumstances where there would be no lawful ability to maintain the operating development.
Environmental Statement (General)			
1GEN11	The Applicant	**Updating of ES/ HRA** At Deadline 1 the Applicant submitted a number of Technical Notes providing information on Offshore Ornithology and Marine Mammals [REP1-080] to [REP1-084]. Some of these involve effective changes to the ES and HRA. However, the ES and HRA documents have not been fully updated to incorporate these changes.	The Applicant can confirm that all relevant ES chapters and the Report to Inform the Appropriate Assessment (RIAA) will be updated to include the information supplied in technical notes at Deadlines 1, 2 and 3. As set out in the Guide to the Application a number of chapters have been updated at Deadline 3. Further updated chapters (marine mammal and ornithology) and the RIAA are expected to be submitted at Deadline 4 where possible, however for some chapters/RIAA timescales will be dependent on feedback received from Statutory Nature Conservation Bodies (SNCBs) and further discussions at Hearings, as noted by the ExA.

ExQ1	Question to	Question	Applicant's Response
		Either the ES and HRA documents need to be updated, or the Technical Notes need to be included within Schedule 8 of the DCO (Documents to be Certified), together with a mechanism to be certain as to which document is to apply should there be any inconsistencies. Could the Applicant please consider this, noting that this as the Examination progresses further changes may well need to be made, as a result of responses to these questions, and following discussions as Issue Specific Hearings. The Applicant is advised that the preference is for the updating of the ES and HRA documents.	
1GEN12	The Applicant	**Environmental Net Gain (ENG) Statement and In Principle Monitoring Plan (IPMP)** Paragraph 21 of the ENG Statement [REP1-004] explains that the Applicant is involved or seeking opportunities to provide benefit to the environment and communities where feasible and in line with Project Objectives. It also suggests that data from surveys and post consent monitoring could feed back into the Marine Environmental Data and Information Network to further aid understanding. However, the IPMP [APP-148] states that many of these initiatives would be secured "*outwith of the IPMP*" (see references in paragraphs 6, 39, 48, 59 and 65).	a) The ES catalogues the wide and thorough assessment undertaken across environmental, social and economic receptors, which can be used to allow weighing of impacts and benefits in the decision-making process. This includes benefits that would be delivered through the construction and operation of the Project, for example job creation. The Applicant has also committed to the development of a Skills and Employment Plan (with an outline plan provided in the DCO Application) to enhance economic and social opportunities. The Environmental Benefit and Net Gain Statement (APP-022) has been updated at Deadline 3 to include further information and signposting to environmental benefits. For the avoidance of doubt, the Applicant considers that the overarching need for the Project – in terms of contribution to net zero as a Critical National Priority project – is of such significant weight that, it is respectfully submitted, the ExA and the SoS can be

ExQ1	Question to	Question	Applicant's Response
		a) If weight is to be given to the environment and community benefits/ contributions referred to, explain what these other opportunities are? b) Can the Applicant explain why these commitments sit 'outwith' the IPMP and how the opportunities would be secured? See also ExQ1CF3.	satisfied the limited residual impacts are outweighed by this core central need and benefit. The Applicant is not suggesting that weight is placed on any benefits not secured by the DCO. b) Some measures are secured elsewhere in the DCO (or in some cases are statements of future intention rather than firm commitments) and so do not need to be secured again via the In Principle Monitoring Plan (IPMP). Reference to 'outwith' measures in the IPMP are noted as below, along with an explanation of where that measure is secured outside of the IPMP (where relevant): ▪ Paragraph 6 – Mitigation for aviation and radar is secured in specific requirements in the draft DCO (requirements 4 – 8 of the draft DCO). Any requirement for monitoring of mitigation measures would be agreed as part of the mitigation requirements if necessary. However, the Applicant's position is that no aviation and radar monitoring to test the predictions of the ES is required. This is because any mitigation must be implemented as agreed and in line with all technical specifications prior to the operation of the wind turbines. The mitigation agreed should perform as necessary and secured by the agreement and technical scope. Prior to operational deployment, site, field and flight testing will confirm mitigation suitability. Therefore, further monitoring, apart from normal maintenance, is not considered required. ▪ Paragraph 39 and 65 – The Applicant notes consideration of involvement in a commercial fisheries working group. The establishment of this group is identified within the outline Fisheries Liaison and Co-existence Plan (FLCP) (secured by draft DML Condition 9(1)(k)). The FLCP is also to be maintained over the Project's lifetime and results of monitoring (committed to in the IPMP) would be managed via any updates to the FLCP where information is focused specifically on and for the fishing industry.

ExQ1	Question to	Question	Applicant's Response
			▪ Paragraph 48, 49 – The Applicant has not identified specific strategic opportunities that this stage that the Project could be involved in that would appropriately form part of secured monitoring proposals. However, the intent of the Applicant to seek opportunities to get involved in more wider and regional initiatives is made in the IPMP. The relationship identified between the Round 4 developers in the Irish Sea, as shown in the Interrelationships report, also demonstrates collective willingness to consider regional initiatives. This has been demonstrated to date via the Project's involvement in the Marine Navigation Engagement Forum (MNEF), established for all Irish Sea Round 4 developers. The MNEF is secured via the Vessel Traffic management Plan (VTMP) (updated at Deadline 3) (secured by draft DML condition 9(1)(j)), with a commitment from the Applicant to maintain the MNEF for a minimum of 5 years during the operational phase of the Project as required. It is not considered there is a requirement for any further initiatives to be secured, however the intent to data share has been demonstrated to date as shown below. The Applicant has provided survey data collected for the Project to The Crown Estate Marine Data Exchange (MDE). This requirement is captured in the Project's Agreement for Lease with the Crown Estate. This includes the following datasets: ▪ High-resolution video aerial ornithological and marine megafauna survey ▪ Offshore Phase I geophysical survey ▪ Benthic characterisation survey ▪ Vessel Traffic Survey Data held on the MDE uses the MEDIN discovery metadata standard and uses MEDIN Data Guidelines for quality assurance, and as such discoverable via MEDIN.

ExQ1	Question to	Question	Applicant's Response
			With reference to future survey and monitoring reports, including those agreed as part of the IPMP, the Applicant would continue to provide these to the MDE, and this has been added to the IPMP for Deadline 3. It is not considered appropriate to separately secure the provision of data to the MDE in the DCO.
1GEN13	The Applicant	**Natural Capital Approach** Could the Applicant comment on the applicability of the Natural Capital approach to the Proposed Development as outlined in paragraph 4.6.16 of NPS EN-1 and how the Proposed Development addresses this issue.	As stated by the Joint Nature Conservation Committee (JNCC)[1] 'The 25 Year Environment Plan (25 YEP) places a strong emphasis on the execution of a natural capital approach to achieve its environmental, economic and social targets. It stresses that the value of nature cannot always be quantified or given a monetary value, nor does it need to be, and as such affirms that the natural capital approach is simply a tool to aid in decision-making. The plan recognises that marine ecosystems do not adhere to territory boundaries and that healthy ecosystems are required to maintain the flow of benefits derived from them. It therefore states the need to work with bordering and international countries to protect natural assets and secure natural capital. Furthering the 25 YEP, the Environmental Improvement Plan (EIP) 2023 reiterates that human health and prosperity rely on "thriving ecosystems…"'. The Project demonstrates the approach taken to maintain healthy ecosystems and enable wider benefits for people and nature through: ▪ Developing a baseline understanding of the natural environment, assessment and identification of potential positive and negative effects in the ES (including physical, ecological and social receptor groups). This has been conducted for all identified receptors, with an overview of methods set out in ES Volume 5 - Chapter 6 - EIA Methodology [APP-043];

[1] https://jncc.gov.uk/media/8740/marine-nat-cap-uk-approaches.pdf

ExQ1	Question to	Question	Applicant's Response
			▪ Following good design principles, including the avoidance of designated sites (see ES Volume 5 - Chapter 4 - Site Selection and Assessment of Alternatives [APP-041]; ▪ Following the avoid-reduce-mitigate hierarchy throughout development and refinement of Project design; ▪ Development of mitigation and monitoring measure (see summary in ES Volume 5 - Schedule of Mitigation [APP-144] and ES Volume 6 - In Principle Monitoring Plan [APP-148]); ▪ Outline Skills and Employment Plan (ES Volume 6 - Outline Skills and Employment Plan [APP-155]) ; and ▪ Environmental Benefit and Net Gain Statement (ES Volume 4 - Environmental Benefit and Net Gain Statement Revision 02 [REP1-005]). It is noted that the Environmental benefits from Nature Tool largely considers terrestrial habitats, as it is primarily designed to enable wider benefits for people and nature from Biodiversity Net Gain (BNG), which does not apply offshore beyond the intertidal zone. The marine habitats included in the tool are coastal (at some distance from the windfarm site) or are features not present in the windfarm site (e.g. biogenic reef and seagrass beds). The comprehensive EIA undertaken for the Project includes assessment of natural assets and systems noting the Enabling Natural Capital Approach guidance lists marine as one of the 'broad habitat types'. The EIA also facilitates the natural capital approach in identifying natural resources (as done in the baseline environment section for each ES assessment chapter), identifying threats and opportunities to natural capital (the assessment of effects in the EIA), weighing up the available options and opportunities to make improvements (site selection, Project design refinement and development of mitigation and consideration of opportunities for enhancement).

ExQ1	Question to	Question	Applicant's Response
1GEN14	The Applicant	**Control of ballast water** Paragraph 5.4.23 of NPS EN-1 says that *"Energy projects will need to ensure vessels used by the project follow existing regulations and guidelines to manage ballast water"* and cross-refers to The Merchant Shipping (Control and Management of Ships' Ballast Water and Sediments) Regulations 2022, along with associated guidance published in Merchant Shipping Note 1908 and Marine Guidance Note 675. Please explain how the commitment in the outline Project Environmental Management Plan (oPEMP) (section 6.2, paragraph 34 [REP1-054]) to manage ballast water in accordance with International Conventions satisfies these UK regulatory requirements, particularly in respect of invasive non-native species.	The Applicant acknowledges this United Kingdom (UK) guidance and has updated Paragraph 34 of the Outline Project Environmental Management Plan (PEMP) (REP-016) to reflect these relevant UK regulatory requirements (Outline Project Environmental Management Plan_Rev 03 Clean).
1GEN15	The Applicant	**Opportunities to maximise the restoration, creation, and enhancement of wider biodiversity** Paragraph 5.4.33 of NPS EN-1 indicates applicants should consider reasonable opportunities to maximise the restoration, creation, and enhancement of wider biodiversity, and the protection and restoration of the ability of habitats to store or sequester carbon as set out in Section 4.6.	Opportunities for environmental enhancement undertaken by the Applicant are signposted and described in the Environmental Benefit and Net Gain Statement (REP1-004), noting the contribution the Project would make to decarbonisation of the UK's energy generation. The Applicant aims to conserve habitats through a number of measures adopted to reduce the impacts of the Project. The ES catalogues the wide and thorough assessment undertaken and mitigations identified. Mitigation measures for all topics are detailed within each chapter and in the Schedule of Mitigation (REP-016).

ExQ1	Question to	Question	Applicant's Response
		Could the Applicant explain through a signposting document how in the application materials this has been undertaken.	Any specific mitigation measures to minimise disturbance or damage to habitats and biodiversity have been identified and justified in the Schedule of Mitigation (REP-016). Further information and signposting has been added to the Environmental Benefit and Net Gain Statement at Deadline 3, therefore, the Applicant does not believe that further signposting in a separate document is required.
1GEN16	The Applicant	**Biodiversity management strategy** Paragraph 5.4.36 of NPS EN-1 requires that "*Applicants should produce and implement a Biodiversity Management Strategy as part of their development proposals. This could include provision for biodiversity awareness training to employees and contractors so as to avoid unnecessary adverse impacts on biodiversity during the construction and operation stages.*" Could the Applicant confirm which application document or documents constitute the Applicant's Biodiversity Management Strategy, signposting to where the provision of paragraph 5.4.36 has been addressed.	The Applicant can confirm that Paragraph 5.4.36 of the National Policy Statement (NPS) is addressed by the Outline PEMP (APP-146), submitted as part of the DCO application and secured by a DML condition which requires a final PEMP to be submitted and approved (in accordance with the Outline PEMP) (Condition 9(1)(e)). The Outline PEMP provides a key mechanism, through which the relevant regulatory authorities can be assured that environmental impacts, including those on biodiversity, associated with the construction, operation and decommissioning of the offshore infrastructure would be formally controlled and mitigated. Section 6 "Management of Other Key Environmental Issues" of the Outline PEMP provides an overview of the controls and procedures to be adopted to mitigate the environmental effects associated with the Project. This includes invasive non-native species, marine mammals and offshore ornithology. Section 11 of the Outline PEMP details "Training and Awareness", which includes vessel inductions and toolbox talks. The environmental component of the vessel induction is expected to include reference to environmental management contacts, site specific environmental sensitivities, waste management arrangements, hazardous material management, fuel, oil, and chemical management; environmental emergency response, reporting of incidents and complaints.

ExQ1	Question to	Question	Applicant's Response
			Other documents included in the DCO Application which include environmental management measures are as follows: ▪ In Principle Monitoring Plan (IPMP) ▪ Draft Marine Mammal Mitigation Protocol (MMMP) ▪ Outline Vessel Traffic Management Plan (VTMP) ▪ Outline Offshore Written Scheme of Investigation (WSoI)
1GEN17	The Applicant	**Environment Act 2021 and Environmental Improvement Plan 2023** To assist the consideration of the SoS in relation to paragraph 5.4.39 of NPS EN-1, the Applicant is asked to confirm whether the Proposed Development has potential to contribute to, or impact, relevant measures and targets set out in the Environmental Improvement Plan 2023 or the Environment Act 2021.	The Environmental Improvement Plan was published in 2023, which reinforces the intent of the 25 Year Environment Plan and sets out a plan to deliver on its framework and vision. The government's policy for biodiversity is set out in the Environmental Improvement Plan 2023, the aim of which is to halt overall biodiversity loss by 2030 and then reverse biodiversity loss by 2042 in the context of the challenge presented by climate change. The UK government set out its vision for a quarter of-a century action to help the natural world regain and retain good health and a commitment to review the plan every five years was set into law in the Environment Act 2021.The Environment Act 2021 sets out a number of targets. In-line with these targets the Project identifies and seeks to minimise, mitigate and contribute where possible to these legally binding targets as demonstrated in the ES. The RIAA (REP1-012) and the Marine Conservation Zone Screening Assessment (MCZA) (AS-004) also comply with the requirements regarding Marine Protected Areas. Mitigation is detailed in the Schedule of Mitigation (REP2-016). The Planning, Development Consent and Need Statement (REP1-010) and Environmental Benefit and Net Gain Statement (REP1-004) also identify the benefits of the Project, with further information added to the Environmental Benefit and Net Gain Statement at

ExQ1	Question to	Question	Applicant's Response
			Deadline 3. This includes information on the Project's contribution to decarbonisation.
1GEN18	The Applicant	**Consents and licences** Please could the Applicant provide any update on agreements with Statutory Consultation bodies regarding mitigation consents and licences as identified in the Other Consents and Licences Required document [AS-006].	As stated in the Other Consents and Licences Required document (AS-006), these relate to consents and licences that will be applied for outside of the DCO application process. Eight of the ten consents and licences detailed in the document are to be applied for post-consent and any necessary mitigation to secure these will form part of the relevant application and be secured through the determination process with the associated regulator, as is appropriate. While a separate marine licence application will be made for Unexploded Ordnance (UXO) clearance, a draft MMMP has been submitted into examination (REP2-018) to ensure that potential impacts from UXO clearance and piling were fully considered in the DCO application. This document details typical mitigation required for such activities, however the draft MMMP will be updated if necessary and finalised post-consent to ensure that appropriate mitigation measures can be secured following detailed Project design development and assessment of UXO clearance (if required) pre-construction. Of the remaining two consents and licences that will not be applied for post-consent, the Habitats Regulations Assessment (HRA) and Appropriate Assessment are to be issued by the Secretary of State and discussions with the relevant SNCBs are on-going around potential compensation. One licence to generate electricity under the 1986 Electricity Act has already been secured (as detailed in AS-006) and no specific mitigation was required to secure the licence.

ExQ1	Question to	Question	Applicant's Response
1GEN19	The Applicant	**Good environmental status** Could the Applicant please explain, as set out in paragraph 2.8.109 of NPS EN-3, how the Proposed Development has had regard to Good Environmental Status under the UK Marine Strategy.	The concept of 'good environmental status' is defined by the Marine Strategy Framework Directive through eleven 'Descriptors'. The Applicant has had regard to Good Environmental Status, in line with these Descriptors, throughout the assessments undertaken in the ES, MCZA and RIAA. The Applicant has provided further information in the Environmental Benefit and Net Gain Statement (REP1-004), with further information added to the Environmental Benefit and Net Gain Statement at Deadline 3 to address this question.
1GEN20	NE	**European Protected Species Licensing** The Applicant's response to Actions from PM and ISH1 [REP1-086] paragraph 24 notes that the regulations surrounding **EPS licensing are due to be updated at the end of 2024.** Can NE advise on the scope of these changes and highlight potential matters that could have implications for the consenting process.	The Applicant notes 1GEN20 is directed to Natural England and shall not be responding.
Need and Assessment			
1GEN21	All parties	**Application of s104 of the PA2008** In paragraph 171 of the revised Planning, Development Consent and Need Statement [REP1-010] the Applicant states *"NPS EN-5 sets out Policies concerning electricity transmission distribution systems. It is, therefore, not relevant to the Project"*. However, NPS EN-5 is referenced in both ES Chapters 15 (paragraph 15.20, [REP1-	NPS EN-5 provides detail of electricity networks (including grid connections for offshore wind farms) and sets out assessment principles in relation to the consideration of applications relating to such networks. In terms of offshore wind, this relates to substations, convertor stations and other kinds of electricity infrastructure such as onshore and sub-sea cables. The Applicant has considered the applicability of EN-5 to the Project. Paragraph 1.6.1 of EN-5 states that one element of electricity networks is transmission systems and "associated infrastructure, e.g. substations (the essential link between

ExQ1	Question to	Question	Applicant's Response
		034]) and 19 (paragraph 19.28, [REP1-040]). a) Having regard to the elements of offshore wind infrastructure identified within paragraph 2.8.4 of NPS EN-3, all parties are invited to give their views as to whether, for the purposes of sections 104(2)(a) or 104(3) of the PA2008, NPS EN-5 should be considered as 'relevant national policy' or whether it should be considered to be an 'other matter' for the purposes of section 104(2)(d) of the PA2008. b) Should any party hold the view that it should be regarded for the purposes of sections 104(2)(a) or 104(3) of the PA2008, they are asked to explain why they hold that view and identify any matters that should be particularly taken into account, providing references as necessary.	generation, transmission)". Paragraph 1.6.4 of EN-5 states that it will apply to "other kinds of electricity networks" including offshore transmission infrastructure (which is then defined in Paragraph 2.12.4 and the glossary of EN-5) and "associated infrastructure" in *inter alia* the following circumstances: "if it constitutes associated development for which consent is sought along with an Nationally Significant Infrastructure Project (NSIP) such as an offshore wind generating station". The DCO Application includes associated development that constitutes transmission infrastructure (offshore substations). As such, EN-5 does have effect in relation to the Project, although it is not the primary national policy statement which has effect. In light of this, the Applicant considers that EN-5 may be considered as 'relevant national policy' for the purposes of 104(2)(a) of the PA2008. If, however, it was not considered to be "development of the description to which the application relates", then the Applicant considers it would be an 'other matter' for the purposes of section 104(2)(d) of the PA2008. In either case, whether EN-5 applies by virtue of 104(2)(a) or 104(2)(d), the Applicant considers that the Secretary of State must have regard to EN-5. The Applicant has therefore updated the National Policy Statements Accordance Report (APP-033) and the Planning Development Consent and Need Statement (REP1-011) at Deadline 3 to address the relevant policies in EN-5.
1GEN22	NE	**Compliance with NPS EN-3** a) Could NE please reconcile its request in Annex 1 to its RR/ WR [RR-061] for a *"condition preventing the offshore works associated with the generation asset commencing until the necessary grid connection consents had been obtained*	The Applicant notes 1GEN22 is directed to Natural England and shall not be responding.

ExQ1	Question to	Question	Applicant's Response
		was included within the generation DCO/dML" with paragraph 2.8.338 of EN-3 which indicates that *"some proposals for transmission could be consented separately to those for wind farm (array) application"*? b) Could NE also respond to the proposition that one interpretation of paragraph 2.8.338 of EN-3 is that there is no policy requirement for one to be contingent upon the other.	
1GEN23	The Applicant	**Use of existing infrastructure** The use of existing structures has the potential to avoid some impacts arising from the creation of new OSPs. Repurposing of existing oil and gas infrastructure is ruled out in ES Chapter 5, paragraph 5.35 [REP1-022] due to structural integrity risks but no evidence has been provided to support this. Could the Applicant please provide further evidence to demonstrate how and why the alternative of using existing structures has been ruled out.	Offshore oil and gas platforms are typically designed for an operational life of 25 to 30 years. At the time of the Crown Estate bidding process for Round 4, DP3 was within the windfarm site. However, as this structure was built in 1983, it was considered beyond its expected design life and, in fact, the topside was removed in 2021. In regard to other platforms in the vicinity of the windfarm site (noting these are outside of the windfarm site): The Calder platform, installed in 2002, is scheduled for decommissioning, at which point it will have reached the end of its operational life. The CPP1 platform, installed in 1985, is also planned for decommissioning, having already been in operation for 40 years. Retrofitting or strengthening these platforms to extend their service life by another 25 to 30 years (i.e. to align with the operational life of the Project) would not be practical or feasible. The owners and operators of these platforms will also be subject to decommissioning obligations under the Petroleum Act 1998 which may prevent or restrict the ability to transfer of such infrastructure to a third party for reuse

ExQ1	Question to	Question	Applicant's Response
			Additionally, Calder's topside weighs 625 tonnes, significantly less than the approximately 3,800-tonne Offshore Substation Platform (OSP) topside. This indicates that, even without considering the platforms' design life limitations, the existing foundations would not be suitable to support the Morecambe OSP topside.
1GEN24	The Applicant	**Decommissioning** ES Chapter 7, Table 7.2 (page 49) [REP2-008] refers to a decommissioning plan. Could the Applicant please explain what would be in the plan and how the content of the plan would be secured?	The Applicant notes that the text in Chapter 7, Table 7.2 (page 49) [REP2-008] refers to a Decommissioning Programme, as secured in Schedule 2, Requirement 9: *No part of the authorised development may commence until a written decommissioning programme in compliance with any notice served upon the undertaker by the Secretary of State pursuant to section 105(2) (requirement to prepare decommissioning programmes) of the 2004 Act has been submitted to the Secretary of State for approval.*
2.Biodiversity, Ecology and Marine Processes (BEM)			
General			
1BEM1	The Applicant	**Ecological monitoring programme** Paragraph 2.8.221 of NPS EN-3 says that *"Applicants must develop an ecological monitoring programme to monitor impacts during the pre-construction, construction and operational phases to identify the actual impacts caused by the project and compare them to what was predicted in the EIA/HRA."* and in its RR [RR-065] North West Wildlife Trusts says *"We are disappointed that a future monitoring plan of many of the ecological receptors has not been embedded into the project to validate*	The Applicant notes that where there is a sufficient existing evidence base, monitoring is not required. In the United Kingdom (UK), offshore wind farms have been constructed and operational for over two decades, and the Applicant considers that, in many cases, the assessment of impacts are now well understood. The Applicant also notes the precautionary approach taken in the Environmental Statement (ES) that accounts for uncertainty or data limitations. The scope of the Project's Environmental Impact Assessment (EIA) is wide, and many of the topics included in the ES conclude negligible or minor adverse effects (which are not significant in EIA terms). Therefore, it would be highly disproportionate to monitor all these receptors and potential effects, and there is no precedent to doing so. The principles of monitoring requirements are outlined in

ExQ1	Question to	Question	Applicant's Response
		predictions in the ES and inform future projects". Concerns have been expressed that there would be no monitoring of matters where 'no likely significant effects' (LSE) have been identified, which may or may not in fact eventually be the case. Given the possibility of a reassessment which determines the possibility of a LSE, explain how would the Applicant ensure that all effects are properly monitored and that this NPS requirement is complied with.	the IPMP (APP-198) and it is noted the Marine Management Organisation (MMO) (2014) review of environmental data associated with post-consent monitoring of licence conditions of offshore windfarms highlighted that offshore wind monitoring requirements are driven by consideration of: ▪ uncertainty ('the extent of error or assumptions that were made in calculating the impact. The higher the degree of uncertainty, the greater the need to monitor') and ▪ significance ('the extent to which the identified impact is deemed significant') (MMO, 2014). This guidance highlights the importance of ensuring any monitoring requirements are based on sound risk assessment principles and are 'proportionate, consistent and appropriately targeted' (MMO, 2014). Furthermore, under section 12 of MMO (2014), 'Recommendations on the guiding principles associated with the spatial and temporal scale of monitoring', it is recommended that 'Across all topics monitoring should be receptor driven using EIA and Habitat Regulations Assessment (HRA) impact statements as a hypothesis for investigation. Monitoring should be used where there is uncertainty in the significance of an impact which could lead to a potentially significant impact on a sensitive receptor' and 'Monitoring should not be required for impacts where there is already high certainty' (MMO, 2014). The Applicant has demonstrated commitment to monitoring, including where monitoring has been proposed in cases where no Likely Significant Effects (LSE) have been identified, for example for Invasive Non-Native Species (INNS), where additional information could increase the evidence base. However, the Applicant maintains that monitoring proposals must be proportionate to the effects identified and level of uncertainty. The Applicant has provided further information into the examination, most notably for marine mammals and ornithology. No additional

ExQ1	Question to	Question	Applicant's Response
			information has identified a change to the conclusions made within the ES. However, it is noted that the Applicant has acted upon matters where Statutory Nature Conservation Bodies (SNCBs) identify uncertainty or disagreement with the conclusions of the ES, via additional monitoring or further mitigation. ▪ Marine mammals and fish – The Applicant has submitted an Outline Underwater Sound Management Strategy (UWSMS) to strengthen commitments to mitigate underwater noise effects for mammals and fish (REP2-026). ▪ Benthic – The Applicant maintains that the EIA has not identified sensitive habitats or the need for benthic monitoring. However, the Applicant has further clarified that geophysical surveys pre-construction will be used to validate assessments and a condition for micrositing Annex 1 reef (if identified pre-construction) will be included in the update of the draft DCO at Deadline 4. The In Principle Monitoring Plan (IPMP) has also been updated to include consideration of flaking paint in inspection surveys (In Principle Monitoring Plan_Rev 02 Clean (Document Reference 6.4)). ▪ Ornithology – Monitoring of red-throated diver (RTD) in consideration of displacement has been committed to by the Applicant and included in an updated IPMP. Note that this monitoring would be via aerial survey, which would capture data on marine mammal distribution, in addition to data on RTD.
1BEM2	The Applicant	**Electromagnetic fields (EMF) and thermal emissions: mitigation measures** ES Chapter 9, Table 9.3 [REP2-012] states that *"Cables would be specified to reduce*	Cables to be used for the Project will have a metallic screen surrounding them and also be buried (or protected). This would not only reduce the impact of the magnetic and electric fields, but also provide thermal insulation. Cables would also be sized appropriately to minimise thermal impacts to the surrounding seabed.

ExQ1	Question to	Question	Applicant's Response
		EMF and thermal emissions as per industry standards and best practice". Please explain how this process would work in practice and how would it be secured by requirement 9(1)d(i) of the dDCO.	Inter-array cables would have a copper wire screen and an aluminium moisture barrier on each core. Furthermore, calculations are made to show that these will be minimised to as low as reasonably possible. The Project would also undertake Distributed Temperature Sensing and Digital Acoustic Sensing at regular intervals as part of the Depth of Burial survey to confirm the cables remain suitably buried. Condition 9(1)(d)(i)(bb) requires a detailed cable specification and installation plan in accordance with the construction methods assessed in the environmental statement to be submitted and approved (as part of the offshore construction method statement) by the MMO, in consultation with the relevant SNCB, Trinity House and the Maritime and Coastguard Agency (MCA).
1BEM3	The Applicant	**Monitoring of EMF emissions** Paragraph 2.8.247 of NPS EN-3 states that *"It is unknown whether exposure to multiple cables and larger capacity cables may have a cumulative impact on sensitive species. It is therefore important to monitor EMF emissions which may provide the evidence to inform future EIAs."* Please explain how the Applicant intends to monitor EMF emissions.	The Applicant does not plan to undertake monitoring of Electromagnetic Fields (EMF) emissions. The effects of EMF have been assessed in detail within the ES (refer to Section 10.6.3.4 of Chapter 10 Fish and Shellfish (Document Reference 5.1.10) and no significant effects identified. The Applicant notes that the Project consists of inter-array and platform link cables and does not include an offshore export cable. As outlined in the response to 1BEM2 the cables would be armoured and insulated which mitigates the effects of EMF in the water column during operation (paragraph 2.8.245 of NPS EN-3). These cables would be buried to a target depth of 1.5m within a burial range of 0.5-3.0m to provide further mitigation by increasing the physical distance between the maximum EMF intensity and sensitive species (paragraph 2.8.246 of NPS EN-3). It should be noted that where cables are unable to be buried, they would instead be protected which would afford a degree of attenuation of EMF. Furthermore, cables will be specified to reduce EMF emissions, as per industry standards and best practice, such as the relevant IEC

ExQ1	Question to	Question	Applicant's Response
			(International Electrotechnical Commission) specifications. Therefore, it has not been identified there is a need to monitor EMF effects. To date, in-situ EMF strength measurement has been conducted by universities and research laboratories, and this has been primarily focussed on seabed cables (Gill *et al*., 2023). Field studies of EMF impacts on fish, shellfish and marine mammals are highly limited. These studies were primarily one-off measurement campaigns, and not monitoring over project life cycles (i.e. 25 years). The equipment used for the seabed EMF measurements was bespoke. The seabed EMF measurement equipment could also only be used in calm weather, which is when the wind speed is less, the power capture is reduced, and corresponding voltage is lower and hence the electric field is reduced. Furthermore, there is no standardised approach to EMF monitoring in which monitoring could be undertaken. The Applicant notes that cable monitoring, to the extent assessed in the environmental statement, is secured by the inclusion of cable monitoring details in the offshore Construction Method Statement (secured by Condition 9(1)(d)(i)(cc) of the Deemed Marine Licence (DML)).
1BEM4	The Applicant	**Outline Underwater Sound Management Strategy** Could the Applicant please update the Outline Underwater Sound Management Strategy [REP2-026] to current legislation, taking account of all updated legislation including the Retained EU Law (Revocation and Reform) Act 2023. Paragraph 52 needs particular attention.	An updated Outline UWSMS incorporating current legislation after the UK's departure from the European Union (EU) will be submitted at Deadline 4, as this will also allow for any further comments from SNCBs to be considered and incorporated in the update.

ExQ1	Question to	Question	Applicant's Response
Marine geology, oceanography and physical processes			
1BEM5	The Applicant	**Comparison of sediment composition and particle size fractions** ES Chapter 7, Table 7.12 [REP2-008] states that sediment mud content is 7.84% for Morgan, 9.44% for Mona and 17% for Morecambe (the Project). Table 7.13 states that the silt content is 4.6% at Morgan, 0% at Mona and 16.7% at Morecambe. Please explain: a) why the Morgan and Mona models are suitable proxies for the Morecambe site, where there is a high mud content in the eastern section of the site and the potential for remobilisation of mud and longer suspension times; and b) why the lack of site specific modelling does not affect the certainty or reliability of the impact assessments that have been undertaken.	Section 7.4.3.3 of Chapter 7 Marine Geology, Oceanography and Physical Processes (REP2-008) details the similarities and differences between the baseline environments of the Project, and Morgan and Mona. It is acknowledged that the Project windfarm site has a higher mud content than at Morgan and Mona. This has also been part of discussion through the Evidence Plan Process (EPP), with information presented by the Applicant (now reflected in the ES) to address the validity of using modelling from nearby sites. The Morgan and Mona models are considered suitable proxies for Morecambe. Despite the slightly higher mud content at Morecambe, once the sediment is mobilised into suspension in the water column, sediment particles will only travel a maximum distance from the point of disturbance that is equal to the length of the tidal excursion ellipse (in this case up to 10km), before the tide turns and the sediment travels in the opposite direction. Over a single tidal excursion, sediment has the potential to be mobilised into suspension when currents are at their peak and deposited when currents are lower during the neap phases of a tidal cycle. Once sediment is deposited onto the seabed, it will become entrained as bedload and currents acting on the seabed will winnow the finer sediment, leaving the coarser sediment on the seabed. Due to the larger amount of finer sediment at Morecambe, fine sediment may remain in suspension for longer periods of time when compared to Morgan and Mona. However, the volumes of sediment disturbed at Morecambe are lower in comparison so any changes in suspended sediment concentration are considered to be less than or comparable to those modelled at Mona and Morgan. Furthermore, the level of suspended sediment concentrations (SSCs) at Morecambe due to construction activities would be well within the range of SSCs experienced naturally during storms (up to 300mg/l).

ExQ1	Question to	Question	Applicant's Response
			As noted in Paragraph 7.77 of Chapter 7 Marine Geology, Oceanography and Physical Processes (REP2-008), there is a lower level of confidence implicit in using nearby projects as a proxy (as opposed to undertaking site-specific modelling). However, it is considered that due to the precautionary amount of sediment assumed to be released for Morgan and Mona, that the conclusions derived for the Project are robust. Even with these large volumes of sediment released during construction for Morgan and Mona, seabed changes were estimated to be in the order of millimetres (see Table 7.19 of Chapter 7 Marine Geology, Oceanography and physical Processes (REP2-008)). Disturbance would be temporary and intermittent over an overall cable installation period of up to approximately 9-12 months. Given the availability of the Morgan and Mona models and the assessment conclusions it was not considered proportionate to undertake modelling for the Project The Applicant notes that this approach was considered appropriate by Natural England in their Relevant Representation (RR-061), who commented that "*Natural England agrees that the baseline description of physical processes through the desktop review of existing literature and existing data sources, project specific surveys and numerical modelling baseline scenarios are sufficient to appropriately characterise the study area. Natural England advises that unless there are significant changes to project design parameters, we will provide no further comment on data during examination*". This approach was also considered appropriate by the MMO in their Relevant Representation (RR-047), who commented that "*The MMO considers that there are no outstanding concerns in relation to this application in regard to coastal processes".* The Natural Resources Wales Guidance Note on Marine Physical Processes (2018) states "*Numerical modelling should not necessarily be viewed as an essential requirement in potential*

ExQ1	Question to	Question	Applicant's Response
			impact assessments". It also states "*Assessments should never be based on numerical modelling alone*" indicating the need for incorporation of expert-judgment and evidence-based conceptual assessments (as specified in best practice guidance for coastal studies; Lambkin *et al*., 2009). Natural England's Approach to Offshore Wind guidance emphasises the importance of establishing the baseline and providing an evidence-base. Integration of the Morgan, Mona and Awel y Môr (AyM) projects' numerical modelling studies into the evidence base for the Project fulfils both of these strategic aims. This approach was originally discussed with the Marine Ecology Expert Topic Group (ETGs) in June 2022, November 2022 and June 2023 and has been confirmed as '*largely appropriate'* by the MMO in a letter to the Applicant dated 5th September 2023 and '*a more appropriate evidence base than Awel-y-Mor alone'* and '*presents an improvement to the previous conceptual approach and will result in a better supported ES'* by Natural England in a letter to the Applicant dated 13th September 2023.
1BEM6	The Applicant	**Comparison of project scenarios: operation and maintenance: scour protection** The total seabed footprint figure of 176,550m^2 shown in Table 7.14 (page 81) of ES Chapter 7 [REP2-008] for inter-array cable scour protection is similar to that quoted for Morgan (178,640m^2) and Mona (178,640m^2) windfarms, which are over 5 times as long. Please explain the apparent discrepancy and the assumption of 250m long cable crossing footprint rather than 60m long	The assumption on crossing length for the Project (250m) is dependent upon the burial technique employed. Some methods (cutters, jetters) allow a developer to get closer to the cable than others (ploughs), hence the opportunity to reduce the cable/pipeline crossing length. The Applicant has made conservative assumptions since availability of tools is unknown at the time of writing. In addition, the risk appetite of existing infrastructure owners is also unknown, i.e. regarding proximity. This supports a conservative assumption ahead of crossing agreement negotiations. It remains that Morgan and Mona have used a 60m long cable crossing. However, the Applicant also notes that the total seabed footprint figure for inter-array cables quoted in Table 7.14 for Morgan and Mona is incorrect. This error resulted because the

ExQ1	Question to	Question	Applicant's Response
		crossing footprint assumed for Mona and Morgan.	length of cable requiring cable protection was assumed to be 10% of 50km, rather than 10% of 500km (the total length of cables in the Morgan and Mona Preliminary Environmental Impact Report (PEIR)). The total seabed footprint for inter-array cable protection for Morgan and Mona has been updated in Table 7.14 in Chapter 7 Marine Geology, Oceanography and Physical Processes (Chapter 7 Marine Geology, Oceanography and Physical Processes_Rev 03 Clean (Document Reference 5.1.7)). This has no implications on the assessment undertaken in Chapter 7 Marine Geology, Oceanography and Physical Processes.
1BEM7	The Applicant	**Cable installation: sediment displaced/ removed** ES Chapter 7, Table 7.2 (pages 43 and 44) [REP2-008] shows that the total volume of sediment displaced during the installation of the cables is 540,000m^3. However, ES Chapter 5, Tables 5.14 and 5.15 [REP1-022] indicate that the total seabed volume removed is 561,463m^3, this total being made up of 481,463m^3 for gravity based structures (GBS) in Table 5.14, plus 70,000m^3 for the inter-array cables and 10,000m^3 for the platform link cables in Table 5.15. a) Please advise whether the seabed volume displaced is the same as seabed volume removed. b) If this is the case, please explain why there is a discrepancy in the figures quoted, and if not please explain the differences.	The Applicant can confirm that the term 'seabed volume displaced' is the same as 'seabed volume removed' and, in general, refers to the removal of sediment from the seabed for cable installation and/or foundation installation. The Applicant can confirm that there is no discrepancy in the figures quoted between Chapter 5 Project Description (REP1-022) and Chapter 7 Marine Geology, Oceanography and Physical Processes (REP2-008), which is explained in detail below: ▪ As noted by the Examination Authority (ExA), Table 7.2 of Chapter 7 shows that the total volume of sediment displaced during the installation of the cables is 540,000m^3. This is presented in Table 5.18 of Chapter 5 Project Description (REP1-022). ▪ Table 5.14 of Chapter 5 Project Description (REP1-022) shows total seabed preparation works for Wind Turbine Generator (WTG) and Offfshore Substation Platform (OSP) foundations alone, with Gravity Based Structures (GBS) requiring 481,463m^2 of seabed volume to be removed. ▪ Table 5.15 of Chapter 5 Project Description (REP1-022) shows the total amount of sediment required to be removed for sand wave clearance/levelling for inter-array and platform link cables

ExQ1	Question to	Question	Applicant's Response
			(which is additional to the amount of sediment removed for trenching – as presented above) which is 80,000m^3 (70,000m^3 for the inter-array cables and 10,000m^3 for the platform link cables). ▪ The impact that the ExA refers to on page 43 and 44 of Chapter 7 accounts for 'Change in SSCs due to sandwave clearance/levelling and installation of inter-array and platform link cables' only and doesn't account for WTG/OSP foundations.
1BEM8	The Applicant	**Maximum parameters for total footprint of scour protection** ES Chapter 5, Table 5.9 [REP1-022] monopile foundation row states that the maximum footprint of one OSP and scour protection is 7,916m^2 (= 15,832m^2 for two OSP), whereas the dDCO secures a "*Maximum total seabed footprint area for offshore substation platform foundations (including scour protection) (m^2)*" of 14,176m^2 for two OSPs or 7,088m^2 per OSP. Table 7.14 in ES Chapter 7 [REP2-008] states that 7,088m^2 is the maximum footprint per OSP for the GBS foundation type. Please confirm whether the maximum value secured by the dDCO should be 15,832m^2 and explain whether this change would have any implications for any chapters of the ES relying on this parameter.	To clarify, ▪ The value of 7,916m^2 in the monopile row of Table 5.9 in Chapter 5 is the footprint of the scour protection for **two** monopile OSPs, **excluding** the WTG foundation footprint. This aligns with the value presented for monopile scour protection in Table 5.8 of Chapter 5 Project Description. The total footprint of two monopile OSPs including scour protection is **8,144m^2** (a combination of **7,916m^2** of scour protection (Table 5.8) and **228m^2** for the OSP foundations (Table 5.6)) ▪ The draft DCO correctly presents the maximum total seabed footprint area for two OSPs with GBS foundations (**including scour protection**) of **14,176m^2** which is a combination of **7,540m^2** of scour protection (Table 5.8) and **6,636m^2** for the OSP foundations (Table 5.4) It is noted that although the scour protection (excluding OSP foundation footprint) is larger for monopiles, the DCO presents the footprint of OSP foundations *including* scour protection, and therefore GBS is the worst-case. To clarify, this is the worst-case scenario footprint assessed throughout the ES. ▪ Table 7.14 in Chapter 7 correctly states that 7,088m^2 is the maximum footprint per OSP for the GBS foundation type,

ExQ1	Question to	Question	Applicant's Response
			including scour protection (as per above: 14,176m^2 / 2 = 7,088m^2).
1BEM9	The Applicant	**Realistic worst-case scenarios: points of entry** Table 7.2 of ES Chapter 7 [REP2-008] presents the Applicant's realistic worst-case scenarios for marine geology, oceanography and physical processes. On page 47, Impact 5: Morphological and sediment transport effects due to cable protection measures within the windfarm site indicates that the worst case is 70 points of entry. Please explain why there are so many points of entry and how this has been determined to be a realistic parameter upon which to base the worst case.	This calculation is based on a maximum of 35 WTGs, arranged in 7 strings of 5 WTGs each. Every WTG within a string has two inter-array cable entries, except for the end WTG, which has only one inter-array cable entry. Thus, the total number of inter-array cable entries per string is: ▪ (4 WTGs × 2 inter-array cable entries) + 1 (end WTG) = 9 cable entries per string For 7 strings: ▪ 9 cable entries × 7 strings = 63 cable entries Adding 7 entries for the OSP connection: ▪ 63 + 7 = 70 cable entries in total.
1BEM10	The Applicant	**Change in suspended sediment concentrations (SSCs) due to seabed preparation and change in seabed level due to sandwave clearance/ levelling** ES Chapter 7, paragraph 7.139 [REP2-008] describes suspended sediment impacts, saying that "*the finer sand and clay fraction … is likely to stay in suspension for longer … as a modest concentration plume (tens of mg/l) for around half a tidal cycle (around six hours)*." and that "*Sediment would eventually settle to the seabed …up to around a kilometre along the axis of tidal*	As per the response to 1BEM5, a sediment particle in suspension, regardless of its size, will only travel a maximum distance from the point of disturbance that is equal to the length of the tidal excursion ellipse (in this case up to 10km). This assumption was confirmed by the Morgan and Mona modelling. A greater content of mud in the sediment from the Project does not equate to a greater distance travelled as the distance is limited by the tidal excursion, not the relative sediment composition. Therefore, one tidal excursion ellipse is still valid for the Project. As noted above, a greater volume of the finer sediment from the Project may remain in suspension for longer than it would if it was coarser, however, once it settles to the seabed it will either enter into bedload transport, or be remobilised and redeposited on a subsequent tidal cycle.

ExQ1	Question to	Question	Applicant's Response
		flow … within a short period of time (hours to days)." ES Chapter 7 paragraph 7.143 [REP2-008] says that "*The model showed that SSCs varied greatly … extending to a maximum of one tidal excursion ellipse …*" and ES Chapter 7 paragraph 7.233 [REP2-008] says that "*The finer sediment would … become more widely dispersed before settling on the seabed … the deposits would be very thin (in the order of millimetres)*." a) Could the Applicant explain why the assumption of settlement within 1 tidal excursion ellipse (based on Morgan modelling for sandy sediment) is valid when the Morecambe site contains substantially more muddy sediments. b) Similarly, could the Applicant respond to the proposition that mud may redistribute over sandy sediments from east to west, resulting in blanketing over a wider area of the site, changing the composition of the seabed and affecting spawning potential?	Once fine sediment has settled onto the seabed (potentially located on sandbanks), it will be remobilised by subsequent tides and winnowed away until the sandbank has reached equilibrium with the surrounding hydrodynamic conditions. The process of fine sediments being transported by tidal currents from the Eastern Irish Sea Mud Belt to the relatively stable sandbanks to the east of the Project is an existing natural process. As noted in Table 7.19 and Table 7.20 of Chapter 7 Marine Geology, Oceanography and Physical Processes (REP2-008), the changes in seabed thickness as a result of seabed preparation/clearance or drilling are expected to be in the order of millimetres and therefore, any fine sediment that settles onto sandy habitats, would be winnowed away by tidal currents relatively quickly, with no potential impacts to the spawning potential of sandy habitats.
1BEM11	The Applicant	**Construction impact 6: Indentations on the seabed due to installation vessels** In ES Chapter 7 paragraph 7.255 [REP2-008], Barrow Offshore Wind Farm (OWF) is cited as an example of jack up leg depressions being visible but filled after 1 year.	The jack-ups assumed to be used for Barrow Offshore Windfarm were smaller (50m^2 per leg x 4 legs = 200m^2 per jack up; BOWind, 2002) than those assumed for the Project (250m^2 per leg x 6 legs = 1,500m^2 per jack up). The duration of the indentations to 'fill in' for the Project would likely be longer for the Project than Barrow, however, as the jack-ups are remote from any receptors designated for geomorphological

ExQ1	Question to	Question	Applicant's Response
		a) Could the Applicant confirm whether the jack up barges proposed for this project likely to be of a size similar to Barrow OWF and therefore comparable? b) If not, please explain whether and if so, how this would affect the magnitude and duration of impact anticipated.	features (at least 8km away), there would be no change on these receptors.
1BEM12	The Applicant	**Operation and maintenance impact 1: changes to the tidal regime due to the presence of structures on the seabed (Wind Turbine Generator (WTG) and Offshore Substation Platform (OSP) foundations)** ES Chapter 7, paragraph 7.279 [REP2-008] says that *"… changes in the tidal regime due to the presence of foundation structures are both small in magnitude and local in spatial extent*". The evidence quoted is pre 2010 research. Could the Applicant advise whether there is there any more recent evidence that supports similar findings for the larger scale of turbines proposed?	The most timely evidence on this topic has been the numerical modelling undertaken for recent offshore windfarms, which have incorporated the increase in scale of turbines over the last ten years. The evidence used in Chapter 7 Marine Geology, Oceanography and Physical Processes (i.e. the modelling undertaken for Morgan, Mona and AyM) all assessed the effects on the tidal regime as a result of large-scale GBS foundations. Whilst the pre-2010 evidence was reviewed, it was not relied upon to base the environmental assessment.
1BEM13	The Applicant NE	**Operation and maintenance impact 6: cable and WTG/ OSP maintenance activities** ES Chapter 7, paragraph 7.339 [REP2-008] indicates that receptors have been assessed as of high value but low sensitivity to cable maintenance activities, and	Paragraphs 7.339 and 7.342 of REP2-008 refer to *Impact 5: Morphological and sediment transport effects due to cable protection measures within the windfarm site* and not Impact 6, as suggested. Regardless, the same sensitivity, value and significance of effect for the impacts on the receptors is concluded. The receptors for Chapter 7 Marine Geology, Oceanography and Physical Processes are assessed in terms of their geomorphological features, i.e. subtidal sand, as outlined in Table

ExQ1	Question to	Question	Applicant's Response
		paragraph 7.342 assesses the significance of the effect as negligible adverse. Given the potential presence of Sea pen, is this assessment of low sensitivity valid and consequently is there potential for the significance of effects from cable maintenance activities to have been underestimated, especially in light of comments in ES Chapter 9, paragraph 9.166 [REP2-012] that identify sea pen as "*highly sensitive to removal and/or penetration of the substratum*"? The Applicant may wish to combine its response with its response to ExQ1BEM21.	7.16 of REP2-008. Given their ability to tolerate change such small changes in the sediment transport regime, a low sensitivity is considered appropriate, regardless of the potential presence of sea-pen. The potential effects on seabed habitats and biotopes within the windfarm site, such a sea-pen, and across the Zone of Influence are assessed in Chapter 9 Benthic Ecology (APP-046). The 'seapens and burrowing megafauna communities in circa-littoral fine mud' biotope has an overall medium Marine Evidence Based Sensitivity (MarESA) sensitivity to abrasion/disturbance (Table 9.19 of Chapter 9 Benthic Ecology). The MarESA (Table 9.19 of Chapter 9 Benthic Ecology), the sensitivity to the removal of substratum is high as well as to penetration of the seabed. The MarESA sensitivity to changes in suspended sediments and smothering is not sensitive. Areas of burrowed mud were identified across the windfarm site within areas of EUNIS habitat A5.26 'Circalittoral muddy sand'. Areas where megafaunal burrows were present matched the criteria required to be classified as the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR)/FOCI habitat 'Sea-pens and burrowing megafauna'. Whilst no sea-pens were identified in drop-down camera (DDC) imagery collected, the presence of sea-pens is not required to meet this habitat classification based on Joint Nature Conservation Committee (JNCC's) interpretation of the OSPAR habitat definition (Robson, 2014). Given that sea-pens are assessed on a precautionary basis (Section 9.5.5.4 of Chapter 9 Benthic Ecology, on the basis of areas of burrowed mud rather than sea pen abundance), and whilst acknowledging that other burrowing megafauna may still be affected, it is considered that a sensitivity of medium would be appropriate considering seabed disturbance. This approach is in line with benthic assessments from other offshore windfarm

ExQ1	Question to	Question	Applicant's Response
			projects, such as the Morgan Offshore Wind Project Generation Assets.
1BEM14	The Applicant	**Consultation responses: secondary scour effects** ES Chapter 7, Table 7.1 (page 21) [REP2-008] states that *"Direct impact from scour protection is assessed as a worst-case. Secondary scour effects are not factored into the worst-case scenarios for footprints. Footprints for secondary scour are difficult to quantify and not directly comparable in terms of impact pathways to the use of scour protection. Therefore, it is not proposed to include a footprint of secondary scour within the ES assessment, however, secondary scour is assessed qualitatively using post-construction monitoring from other projects.".* Could the Applicant please confirm: a) which other projects' post-construction monitoring has been used? b) how and why are they comparable? c) how they have been used to inform this project? and d) how soon after installation of the WTG bases would the scour protection be installed, and where is this secured?	In response to points a – c, the post-construction monitoring referred to in Chapter 7 Marine Geology, Oceanography and Physical Processes (REP2-008) was analysed by Royal HaskoningDHV for a recent offshore windfarm. Unfortunately, the result of the monitoring is not publicly available and therefore cannot be submitted into Examination. The monitoring undertaken for this windfarm was carried out over two consecutive years post-construction. The results showed that at those foundations with scour protection surrounded by a mobile sandy seabed, there has been no scour and this condition is expected to continue. Hence, given this evidence, the placement of scour protection at Morecambe, which is built into the design of the Project, will mean that direct scouring of the seabed is unlikely to occur. Any secondary scour effects would be confined to within a few metres of the direct footprint of that scour protection material, and so the potential impact would be minimal. To note, given the distance of the receptors assessed for Chapter 7 Marine Geology, Oceanography and Physical Processes (REP2-008) (at least 8km) from the Project windfarm site, there would be no change on the identified receptors groups. The Applicant is not aware that there is any guidance on or information/data upon which to base a quantitative assessment of secondary scour or to estimate its potential scale. Bathymetric surveys pre and post construction, as described in the IPMP (In Principle Monitoring Plan_Rev 02_Clean (Document Reference 6.4)) (and see Section 7.11 of Chapter 7 Marine Geology, Oceanography and Physical Processes_Rev 04_Clean (Document Reference 5.1.7) could be used to determine changes in seabed topography.

ExQ1	Question to	Question	Applicant's Response
			In regards to point d) scour protection would be installed as soon as it is practically possible but given the flexibility required and further detail required on both Project design and construction scheduling post consent it would not be appropriate to secure a specific timeframe. However, the ES (Chapter 7 Marine Geology, Oceanography and Physical Processes_Rev 04_Clean (Document Reference 5.1.7)) and the Schedule of Mitigation (Schedule of Mitigation_Rev 03_Clean (Document Reference 5.5)) states that scour protection would be installed as early as practicable and this would need to be demonstrated in the Construction Programme and Offshore Construction Method Statement (CMS) (that are secured in the draft DCO) which require to be in accordance with the ES.
1BEM15	The Applicant	**Micro siting** ES Chapter 7, Table 7.3, item 2 seabed preparation line 2 [REP2-008] states that micrositing would be used *"where possible"* to minimise the area of seabed preparation. Please could the Applicant explain: a) in what circumstances micrositing might not be possible; and b) what happens in such circumstances. Please also confirm that, where micrositing would not be possible: c) how the Applicant would ensure that any resultant effects would remain within the assessed Rochdale envelope; and d) how this uncertainty is addressed through mitigation measures within the ES.	It is noted that the principle of reducing seabed preparation has been part of the design process of the Project to date. The change in the windfarm site boundary between PEIR and ES included the removal of an area identified as having prevalence of sandwaves. In response to the micrositing questions, the Applicant provides the following responses: a) Micrositing may not be possible in scenarios such as sudden changes in soil conditions, presence of exclusion zones, or other adjacent obstacles (e.g. Unexploded Ordnance (UXOs), boulders, etc). b) Where obstructions or seabed conditions prevent micrositing (that may facilitate reduced seabed preparation requirements), micrositing could not be considered in the final position of infrastructure including cables, OSPs and WTGs. However it is noted that given the site refinement made to date (as identified above) the seabed conditions are not expected to present a high opportunity to differentiate between areas that would result in more or less seabed preparation to a measurable degree given that this mitigation has been inherent in the design process to date. However, the principle remains that where

ExQ1	Question to	Question	Applicant's Response
			seabed preparation can be reduced, this will be undertaken where practicable. c) The project design envelope (PDE) sets out the maximum parameters for seabed preparation. The PDE is the largest footprint of where seabed preparation may be required and therefore the worst case scenario for seabed preparation has been assessed within the ES As such, any resultant effects would be within the PDE and have been assessed in the ES. In the event no micrositing is carried out, the worst case scenario has been assessed in the ES. d) As noted above, the ES assesses the worst-case requirement for seabed preparation which was not concluded to be significant in EIA terms. Measures to reduce effects further, via opportunities to reduce seabed preparation, align with the Applicant's good design approach but are not relied upon in the ES conclusion. As discussed by the Applicant at ISH1, and as noted in its Written Summary of Oral Submissions (REP1-085 at ID 3, pg. 20), as a PDE has been used to assess the worst case scenario. The precise locations of the WTGs and other infrastructure is not identified in the application because "micrositing" occurs at the detailed design stage to inform the final proposed locations of infrastructure within the design plan that is secured by DML condition 9(1)(a) (following completion of UXO and pre-construction surveys). However, the Applicant notes comments from interested parties including the MCA and others confirming that micrositing limits should be added to this condition. This will be added in the version of the draft DCO submitted at Deadline 4, consistent with the key commitment to maintain two lines of orientation in accordance with Marine Gudance Notice (MGN) 654 (draft DML Conditions 9(1)(a)(ii) and 12). See further response to question 1DCO8 below.

ExQ1	Question to	Question	Applicant's Response
1BEM16	The Applicant	**Foundations** ES Chapter 7, Table 7.3, item 3 box 2 [REP2-008] says that *"pile driving would be used in preference to drilling, where it is practicable to do so (ie where ground conditions allow)."*. Please could the Applicant explain: a) why pile driving would be used in preference to drilling; b) how this is consistent with 50% drive and 50% drill (see ES Chapter 7, footnote 8); and c) in what circumstances and why pile driving is practicable as opposed to drilling.	In response to point a) and b), pile driving would be used in preference to drilling to reduce the volume of sediment disturbed and released into the water column. However, given that the seabed conditions in certain foundation locations would require drilling over driving, a worst-case scenario of 50% drive and 50% drill (at 50% of foundation locations) has been considered to assess impacts of increases in suspended sediments from foundation installation. In response to point c), drilling is not feasible for non-cohesive and soft soils. Pile driving is less disruptive to the seabed and involves less offshore work (e.g., no grouting would be required, as would be required with drilling).
Marine Sediment and Water Quality			
1BEM17	The Applicant	**Potential effects during operation and maintenance: turbid wakes** ES Chapter 7, paragraph 7.304 [REP2-008] says that *"As no 'additional' sediment is being added to the water column, average SSCs … would be well within the range of SSCs seen during storms … and 'turbid wake' features would not be present at all times … no impact to water quality is expected …"*. ES Chapter 8, paragraph 8.122 [REP2-010] says that *"the magnitude of changes in SSCs within … turbid wakes would be within*	In response to point a to c, as detailed in Section 7.6.3.3 of Chapter 7 Marine Geology, Oceanography and Physical Processes (REP2-008), a growing body of evidence has found that turbid wakes are caused by the 'upward turbulent mixing' of existing suspended sediments from the lower water column, up into the middle and upper water column, and not the result of ongoing local scouring of seabed sediments, as previously thought (Titan, 2012, 2013; Forster, 2018). It was also noted that turbid wakes are unlikely to be continuously present, particularly following tidal reversal and at stormier times when there is enhanced mixing of the water column (Vattenfall Wind Power Limited, 2014). Furthermore, as detailed in Table 7.3 of Chapter 7, scour protection is built into the design for each foundation type in consideration and, where installed after the foundation, it would be installed as early as practicable to ensure

ExQ1	Question to	Question	Applicant's Response
		normal baseline conditions … no impacts are expected on water quality." a) Could increasing mobilisation of muddy sediment increase loads and permanently increase turbidity and/ or sediment blanketing effects? b) Is there potential for muddy sediments within the site to transport contaminants over greater distances due to their longer suspension periods? c) If this is the case, what is the risk that effects on water quality and sedimentation are worse than anticipated?	there would be no significant scour effects between the installation of foundations and scour protection. As detailed in the response to 1BEM5 and 1BEM10, fine sediment could remain in suspension for longer than it would if it was relatively coarser. However, the time that fine sediment is in suspension is determined by the twice daily tidal cycle. Over each cycle, SSCs and distance travelled will vary as the tidal currents increase and decrease between high and low tide. However, the distance travel/dispersed within one tidal cycle will always be limited by the length of 1 tidal excursion (in this case, up to 10km). As noted in Paragraph 8.123 of Chapter 8, sediment samples from site-specific sampling within the Project windfarm site do not indicate elevated levels of contaminants and therefore, there is no potential for contaminants to be transported over greater distances. Therefore, there is no possibility to permanently increase turbidity and/or sediment blanketing effects as a result of the Project. As above, the assessment in Chapter 7 and Chapter 8 remains robust, and there are no significant effects on water quality and sedimentation.
1BEM18	The Applicant	**Sediment classification and sampling locations** ES Chapter 7, Figure 7.7 [AS-008] shows an area of gravelly sand in the eastern part of the site, but the corresponding sampling locations in ES Figure 7.8 [AS-008] do not show a gravel fraction: indeed, the only sampling location showing a gravel fraction is ST01 which is shown on ES Figure 7.7 to be in an area of sand.	Figure 7.7 was sourced from the geophysical survey report produced for the Project by MMT (2022). It presents the surficial geology which was interpreted from the side-scan sonar (SSS) imagery based on the relative SSS reflectivity, where lighter reflectivity was interpreted as relatively finer grained sediments and darker reflectivity was interpreted as relatively coarser grained sediments. Other influences on SSS reflectivity that were considered included local seabed gradients. The sediments presented in Figure 7.7 were classified in three broad groups e.g. gravelly sand, sand and clayey sand, and were not based on site-

ExQ1	Question to	Question	Applicant's Response
		Please could the Applicant explain this apparent contradiction.	specific sediment sampling. The geophysical survey report details that "*larger areas classified as a major sediment type (i.e. gravelly sand, sand and clayey sand may have local variations in minor constituent content*". Figure 7.8 presents the site-specific sediment sampling undertaken by Ocean Ecology Limited in 2022 (and not MMT, 2022, as noted in the caption for this figure). This has been updated and resubmitted alongside this document at Deadline 4 (Chapter 7 Marine Geology, Oceanography and Physical Processes Figures_Rev 03).
1BEM19	The Applicant	**Offshore Construction Method Statement (OCMS)** In the Applicant's response [PD1-011] to the MMO's RR [RR-047] at point RR-047-48, it is stated *"The selection of scour protection methods … will be further considered post-consent in the Offshore Construction Method Statement … developed through consultation with MMO … secured in Condition 9(1)(d) of Schedule 6 of the Draft DCO …"* and Condition 9(1)(d)(ii) refers to an outline scour protection and cable protection plan [REP1-056]. The Applicant's response [PD1-011] to the MMO's RR [RR-047] at point RR-047-51, refers to an *"… Offshore Construction Method Statement … developed through consultation with the MMO … secured in Condition 9(1)(d) of Schedule 6 of the Draft DCO …"* and Condition 9(1)(d) [REP2-002] refers to an offshore construction method statement.	It is noted that the Offshore Construction Method Statement (CMS) is secured in the DCO (DML Condition 9(1)(d)) and would be provided post-consent as it will present the final design of the Project, selected from the design envelope parameters presented in the ES. It is noted that the responses highlighted in PD1-011 and reference to the Offshore CMS reflect comments from the MMO on the consideration of different scour protection and measures to release excess grout/cement to the wider environment, and the inclusion of these in the Offshore CMS. It is noted that the outline Project Environmental Management Plan (PEMP) includes the commitment (Section 6.7) to '*where grout is required, careful use would be ensured at all times to avoid excess grout being discharged to the environment'*. This would then be detailed in the final PEMP and Offshore CMS post-consent. The Applicant retains the need for flexibility on the choice of scour protection (with a number of types included as options in the Project description), focussing on both engineering suitability and environmental considerations. Approval of the Offshore CMS from the MMO Offshore is required post consent, and these matters will be dependent on the final design of the Project.

ExQ1	Question to	Question	Applicant's Response
		Please advise where the outline OCMS may be found.	The Schedule of Mitigation, and other documents such as the PEMP, outline aspects that would be included in the Offshore CMS. An outline Offshore CMS has not been provided as part of the DCO Application on the basis that the information to be included within the Offshore CMS is sufficiently detailed and secured elsewhere within the DCO.
1BEM20	MMO	**Disposal of sandwave material** In the MMO's RR [RR-047] at paragraph 4.3.10 it says that the Applicant *"… most likely would have to apply to the MMO to designate the area as a disposal site …"*. In its response at RR-047-53 [PD1-011], the Applicant argues that this is unnecessary as *"… the removal of and disposal of inert material is included as associated development …"* and is therefore authorised within the Order limits. The MMO's D2 response [REP2-035] says that it is currently in the process of designating disposal sites and states that *"sites should be secured within the DML. Once this has been completed the MMO will inform the Applicant and request that this is updated in the DML as part of the Examination process."*. At what point in the Examination does the MMO envisage being in a position to inform the Applicant?	The Applicant notes 1BEM20 is directed to the MMO and shall not be responding.

ExQ1	Question to	Question	Applicant's Response
Benthic ecology			
1BEM21	The Applicant	**Construction: habitat sensitivity** ES Chapter 9 paragraph 9.166 [REP2-012] says that *"… sea-pens are understood to be absent from the site …"* and therefore applies a medium sensitivity to disturbance of habitat. Paragraph 9.125 states that they are *"… absent from the Project windfarm site, or present only at very low density."* and paragraph 9.166 explains that *"The FOCI 'sea-pens and burrowing megafauna communities' … is highly sensitive to removal and/or penetration of the substratum."* Sea pen are also stated to be absent in paragraph 154 of [PD1-010]. Please provide further justification for the assignment of a medium sensitivity based on absence rather than a high sensitivity based on a very low density to disturbance of sea pen habitat and explain why this assessment is sufficiently precautionary in light of activities that would disturb the sea bed including cable layer and potential craters from Unexploded Ordnance (UXO) clearance.	Please refer to response to 1BEM13 above.
1BEM22	The Applicant	**Underwater noise and vibration** ES Chapter 9 paragraph 9.319 [REP2-012] says that *"Exacerbation of noise caused by vibration in high wind speeds would be infrequent."*.	a) As stated below in 1BEM23 given the sensitivity of benthic species and highly localised nature of effects, no significant effects for noise or vibration were identified in ES Chapter 9 paragraph 9.319 [REP2-012]. This is the case regardless of variability in wind speed.

ExQ1	Question to	Question	Applicant's Response
		Section 9.6.3.3 of ES Chapter 9 [REP2-012] is headed *"Impact 3: Underwater noise and vibration"* but appears only to consider noise. a) Please quantify what is meant by infrequent in this context; and b) Given that both noise and vibration are the result of energy travelling through a medium, could the Applicant please either: i) confirm that the analysis should be considered for both noise and vibration; or ii) analyse vibration effects of the Proposed Development explicitly.	Under normal operation, the noise from WTGs reaches its maximum near rated wind speed and is maintained until the WTG stops generating power and is put in idle mode, whereby the blades are pitched and the WTG is free spinning. While the WTG is in idle mode, the noise is comparatively lower. Under a very infrequent fault scenario, whereby the turbine has lost connection to the grid and the self-sustaining technology has failed and the WTG is rotated in a downwind direction such that the rotor cannot idle, then there is a chance that there could be increased vibrations within the structure of the turbine. b) The Applicant can confirm that the analysis in Chapter 9 Benthic Ecology does also consider vibration and the supporting studies have considered noise and vibration (e.g. Roberts *et al.*, 2016). This has been made clearer in an updated version of Chapter 9 Benthic Ecology (Chapter 9 Benthic Ecology_Rev 02 Clean (Document Reference 5.1.9)).
1BEM23	The Applicant	**Operation and maintenance: underwater noise and vibration** Operational vibration impacts were scoped out of assessment on the basis of evidence provided which related to monitoring studies undertaken for existing wind farms with relatively small turbines. However, paragraph 9.313 of ES Chapter 9 [REP2-012] says that *"… wind-induced vibration at high wind speeds, can be transmitted through the tower and foundations and radiate into the water column."*. Given the larger turbines to be used on this project:	In response to point a) although effects are not well documented, the MarESA sensitivity does not suggest any of the species present are sensitive to vibration. A taller turbine tower and larger base and tower surface area will certainly change the dynamics of the structure under high wind conditions. The effect of wind on the underwater noise output is due to vibration caused by internal machinery noise from the turbine rather than movement of the tower structure itself; the effect of the increased power of this machinery at the Project is taken into account in the calculations in the assessment. Acoustically, a larger tower would lead to a lower frequency of vibration, although it is not expected that vibration in the tower itself will contribute significantly to the overall noise, which will be dominated by the machinery. Noise and vibrations would be low frequency, so it is still the case that other noises (from shipping,

ExQ1	Question to	Question	Applicant's Response
		a) is this evidence relating to smaller turbines relevant; and b) does this alter the Applicant's assessment of noise and vibration impacts?	other industries) in the Irish Sea would likely mask turbine noise and vibration. Therefore, in response to point b), this does not alter the assessment of noise and vibration impacts. It is noted that in the Morgan Generation Offshore Wind Project (Table 2.5 of Chapter 2 Benthic Subtidal Ecology) it is stated that the MMO agreed that noise and vibration could be scoped out of the benthic assessment. The Applicant maintains that the magnitude of effects of noise and vibration on benthic species are too low to have significant effects.
Fish and shellfish ecology			
1BEM24	The Applicant	**Mitigation: timing of works** The MMO [REP2-035] has indicated that whilst an Underwater Sound Management Strategy [REP2-026] has been provided, a condition limiting piling during the cod spawning period is still necessary and will supply updated wording 'in due course'. Can the MMO confirm when the revised wording will be available.	The Applicant has confirmed with the ExA that 1BEM24 is directed to the MMO and shall not be responding.
1BEM25	NFFO	**Methodology for sampling fish and shellfish** The NFFO's RR [RR-059] indicates that *"Data presented from surveys to characterise sediment composition is* presented *as the correct methodology for sampling fish and shellfish, an incorrect assumption."*. Please could the NFFO explain, with reference to the Applicant's response at RR-	The Applicant notes 1BEM25 is directed to the National Federation of Fishermen's Organisation (NFFO) and shall not be responding.

ExQ1	Question to	Question	Applicant's Response
		059-04 [PD1-011], what methodological approach would be appropriate.	
1BEM26	NFFO The Traditional and Sustainable Commercial Fishing Association	**Baseline data** Paragraph 2.8.157 of NPS EN-3 states that applicant assessments should include robust baseline data and detailed surveys of the effects on fish stocks of commercial interest. In the NFFO's RR [RR-059] concerns were raised about a lack of contemporary and site-specific data presented in the fish and shellfish ecology assessments. The Applicant's response (see RR-059-03 of [PD1-011]) notes the concerns and highlights the limitations in the data but considers the data used provides a sufficient basis for the EIA. a) Could the NFFO and The Traditional and Sustainable Commercial Fishing Association confirm whether the Applicant's response addresses their concerns? If not, please can they explain what (if any) alternative approach or sources of data are considered to provide a sufficient baseline? b) In the absence of site-specific sampling (or other such alternative identified in the responses above) do NFFO and The Traditional and Sustainable Commercial Fishing Association have any comments	The Applicant notes 1BEM26 is directed to the NFFO and The Traditional and Sustainable Commercial Fishing Association and shall not be responding.

ExQ1	Question to	Question	Applicant's Response
		with regard to whether the requirements of NPS EN-3 have been met?	
1BEM27	The Applicant	**Shellfish sensitivity** ES Chapter 10, Paragraph 10.340 [REP1-028] explains that variations in sensitivity to fishing pressure exist in receptor groups and notes that slow growing bivalves have a higher sensitivity to physical damage from bottom towed gear than faster growing/maturing species. The assessment then states that given the within group variation in receptor sensitivity to fishing, all receptor groups have been assessed to have low sensitivity to changes in fishing activity. Could the Applicant please explain why this represents a worst case assessment with reference to the likely distribution and density of slow growing bivalves within the site.	Variations in sensitivity to fishing induced physical damage and/or mortality exist within the shellfish receptor group, in part due to life history factors, with growth rate cited as an example parameter that may influence sensitivity to fishing mortality. The slow-growing bivalve species of importance (which has conservation value) would be *Artica islandica,* which whilst identified as generally present in UK waters, has not been observed within the windfarm site (see Arctica islandica : Icelandic Cyprine | NBN Atlas[2] and Environmental Statement Volume 5 - Appendix 9.1 - Benthic Characterisation Survey (APP-063). It is acknowledged the cited text in ES Chapter 10, Paragraph 10.340 [REP1028] 'given within group variation' is potentially unclear. To clarify, with regard to the impact assessed, which is 'Changes in fishing activity', which is different to sensitivity to fishing mortality as it also relates to the existing level of fishing, all receptor groups have been assigned a low sensitivity. As set out in Chapter 13 Commercial Fisheries (APP-050), the baseline level of fishing in the windfarm site is not considered to be sufficient to be causing significant physical damage and mortality to bivalves and other receptor groups, with potting the main gear type used. The pathway for impact on receptors is therefore limited as receptors in the windfarm site are not in a position to benefit from a significant reduction in fishing pressure.

[2] https://species.nbnatlas.org/species/NBNSYS0000173928

ExQ1	Question to	Question	Applicant's Response
1BEM28	The Applicant	**UXO presence/ absence** ES Appendix 7.1 Offshore Geophysical Survey [APP-062] bathymetry data collection main objectives includes "*Identify potential UXO in combination with SSS and magnetometer data*". In contrast section 6.1 of the appendix states "*A dedicated UXO survey has not been performed, being the survey just focus on the identification of subsea structures such as cables and pipelines*." a) Could the Applicant please confirm which of these statements is correct. Table 15 of the Appendix identifies 55 unknown magnetic anomalies. Given the site history as an armament training area: b) Could the Applicant please confirm how many of these anomalies are suspected to be UXO that may require clearance and whether this information has informed the types of UXO assessed in section 6 of the Applicant's response to the Rule 9 letter [PD1-010]. The ExA notes that the Applicant intends to submit a separate marine licence application to the MMO and that the MMO is content with this approach; however, the ExA is seeking to understand how representative of the likely clearance activity the Applicant's UXO assessment is.	The response to point a), the quoted text from Appendix 7.1 Offshore Geophysical Survey [APP-062] *"Identify potential UXO in combination with SSS and magnetometer data"* relates to the MBES data processing workflow, which is a general data processing workflow designed to be appropriate to run on MBES data collected in multiple contexts and for multiple purposes. This text is therefore not intended to represent a 'bathymetry data collection main objective'. The general aims of the geophysical survey described in APP-062 are set out in Section 1.2 of the Appendix, and do not include generating a comprehensive list of potential UXO, despite the fact that some useful data on magnetic anomalies (that could be potential UXO) was generated. In this sense, whilst 55 magnetic anomalies of unknown type were identified in the survey, a further dedicated UXO survey will be required to generate a comprehensive target list of potential UXO requiring further investigation. This future survey will be subject to a separate marine licence application to the MMO (as detailed in Other Consents and Licences Required [AS-006]) and will inform a future Marine Licence application for UXO clearance, if required following the dedicated UXO investigation survey. In response to point b), it is not possible to say how many of the 55 magnetic anomalies may be UXO at this stage. Previous experience suggests that the vast majority of these anomalies are likely to be metallic (iron based) waste and debris, rather than UXO. However, it is only by further investigation (often with a remotely operated underwater vehicle) that a target list of potential UXO can be confirmed. Results can be highly variable and safety certificates for investigated areas are time limited. It is these activities that must be carried out nearer in time to commencement of construction, to ensure that As Low As Reasonably Practicable (ALARP) risk certification sign-off will cover construction activities, and allow safe

ExQ1	Question to	Question	Applicant's Response
			working during construction. It is also noted that work areas where further investigation of UXO are required (areas that will incur seabed disturbance) will only be finalised upon the final design and layout of the Project. The types of UXO assessed in section 6 of the Applicant's response to the Rule 9 letter were determined by a desk-based assessment undertaken by UXO experts, based on expert knowledge of present-day and historical military activity and publicly available datasets. In this way, the list is a conservative list of all UXO types that may be present in the region. This uncertainty, to be resolved post consent, is a key driver for the approach of committing to a detailed UXO assessment to inform a future Marine Licence application to be submitted to the MMO.
1BEM29	The Applicant	**UXO charge weights** ES Chapter 10, paragraph 10.378 [REP1-028] explains that UXO modelling for the transmission assets covered devices from 1.2kg to 907kg and range up to 590m, compared with Morecambe, which modelled up to approximately 5kg and a worst case 710m for mortality/mortal injury. Could the Applicant explain why the lower charge weights assessed on Morecambe give rise to a larger effect range than the heavier charge weights assessed for the transmission assets.	The input parameters for the modelling for the Project and for the Transmission Assets varied beyond just the charge weights considered, for example, water depth. However, upon review, the Applicant can see that the difference in presentation between the two reports can lead to confusion. The greatest UXO size considered in the Transmission Assets assessment (APP-036) is a 907kg device, with a maximum mortality range of up to 985m (not 590m) for a high order detonation. 590m was misidentified as worst case in Paragraph 10.378 of the Fish and Shellfish Report (REP1-028) as the maximum, but is in fact the lower end of the assessment range. The greatest UXO size considered in the Morecambe Offshore Windfarm Generation Assets assessment (APP-065) is a 578kg device (charge weight 353.6kg, not 5kg) with a maximum mortality range of up to 710m for a high order detonation. These figures therefore eliminate any

ExQ1	Question to	Question	Applicant's Response
			apparent discrepancy. Regardless, this has been updated in Chapter 10 Fish and Shellfish Ecology (Chapter 10 Fish and Shellfish Ecology_Rev 03 Clean (Document Reference 5.1.10)).
Marine mammals			
1BEM30	The Applicant	**Clarification** Marine Mammal Technical Note 1 (EIA) [REP1-083] sets out in paragraph 6 that *"the baseline noise level in open water, in the absence of any specific anthropogenic noise source, is generally dependent on a mix of the movement of the water and sediment, weather conditions and shipping"*. Paragraph 7 then moves on to anthropogenic noise sources which refers to shipping. Could the Applicant please explain why shipping occurs in both categories, and whether it should only form part of the latter. If that were to be the case, what effect would this have?	The Applicant acknowledges that this is likely an error in the text and corrected in an updated version of the Marine Mammal Technical Note 1 (EIA). Paragraph 6 in the Marine Mammal Technical Note 1 (EIA) (REP1-083) discusses natural and biological sounds and is therefore misplaced. Paragraph 7 in the Marine Mammal Technical Note 1 (EIA) (REP1-083) highlighted that heavy shipping traffic in the Irish Sea contributes to the ambient underwater noise. Vessel traffic is responsible for a steady increase in ambient noise at low frequencies (10–100 Hz) in many regions, with increases reported to be as high as 3dB per decade (Andrew *et al*., 2002; Miksis-Olds & Nichols, 2016). While shipping is considered part of the baseline environment, an additional assessment to the Cumulative Effects Assessment (CEA) in ES Chapter 11 Marine Mammals (APP-048) has been included in a Technical Note 1 (EIA), submitted at Deadline 3. This note provides a qualitative review of the cumulative disturbance effect from vessel traffic from overlapping plans and projects. For Project-alone disturbance from underwater noise, generation from vessels has been assessed in Sections 11.6.3.4 and 11.6.4.3 in the ES Chapter 11 Marine Mammals [APP-048] and was not significant (in EIA terms). In areas where there is high vessel traffic, marine mammals can be habituated to the effect.
1BEM31	The Applicant	**Marine Mammal Entanglement**	The Applicant acknowledges that entanglement has not been considered in the ES Chapter 11 Marine Mammals (APP-048) due

ExQ1	Question to	Question	Applicant's Response
		Could the Applicant please explain what consideration has been given to the potential for marine mammal entanglement and whether this is a likely risk, as referenced in Table 11.4 of ES Chapter 11 [REP1-030], and set out in paragraph 2.8.131 of NPS EN-3 as a potential assessment requirement.	to the Project design of a fixed foundation wind farm, where there is no likely significant effect from the risk of entanglement. Furthermore, throughout the evidence and plan process with stakeholders, the issue of risk through entanglement has never been raised. One key difference between fixed foundation and floating wind farms is the presence of suspended cables anchored to the sea floor. Marine mammals can become entangled in the mooring lines or cables associated with floating structures. To date, there have been no recorded incidents of marine mammal entanglement with cables in a fixed foundation wind farm where designs do not include any chains/mooring lines/cables etc that have the potential to cause entanglement to marine mammals.
1BEM32	The Applicant	**Population modelling for transmission assets** ES Chapter 11, paragraph 11.726 [REP1-030] explains that population modelling has been carried out for the transmission assets and other projects. It is stated that "*population modelling considered simultaneous piling of several projects, resulting in more realistic outcomes compared to the scenarios evaluated in Table 11.81. Consequently, these results should take precedence*." Explain why the transmission assets' assessment of simultaneous piling is considered to be more realistic and whether this means that the Morecambe assessment is insufficiently precautionary.	Section 11.7.3.1 of the CEA in ES Chapter 11 Marine Mammals (APP-048) considers only the Project and the Transmission Assets alone, using a quantitative assessment to estimate the number of animals disturbed per day from piling at the Project and the key components of the Transmission Asset (Table 11.81). The assessment combined the worst-case numbers from each component. To assess the long-term impact of piling, rather than just the daily affected animals, population modelling is a useful tool. However, population modelling has not been conducted for the Project and the Transmission Assets alone. Instead, it has been undertaken as part of the Chemical Risk Assessment (CRA) including other plans and projects, including the Project and the Transmission Assets (Section 11.7.3.2 of Chapter 11 of the Project ES). The results were assessed as having no significant effect (in EIA terms) and should take precedence over the quantitative assessments in Table 11.81, as the population modelling computes a more realistic case of disturbance compared to simply adding the worst-case numbers from each component. It is also noted that piling is no longer a component of the Transmission Assets Project

ExQ1	Question to	Question	Applicant's Response
			and therefore there could be no simultaneous piling between the Project and the Transmission Assets Project.
1BEM33	The Applicant	**Interim Population Consequences of Disturbance (IPCoD) modelling** The Applicant has assessed cumulative disturbance over a 25 year period in its Marine Mammal Technical Note 1 [REP1-083] (for example paragraph 50) and applies a >1% average annual decline over a six year period as a threshold of significance. Could the Applicant: a) explain why the assessment has not assessed disturbance over the full 35 year operational period; and b) explain why a 1% average annual decline rather than a 1% decline in any one year or a greater than 1% decline over a longer period is not considered to be significant. For example, minke whale and bottlenose dolphins are indicated to experience 3.2% and 4.73% declines in population size over a 25 year period; how would this change if assessed over a 35 year period?	In response to a): The source of piling effects assessed in interim Population Consequences of Disturbance (iPCoD0 modelling only occur during the construction period of the Project and not the operational lifetime. Piling would not occur over the lifetime of the project. The Applicant has assessed cumulative disturbance that occurs in construction over a 25-year period, which is the recommended maximum set by the interim Population Consequences of Disturbance (iPCoD) code developer, Sea Mammal Research Unit (SMRU) Consulting (Sinclair *et al*., 2019). Beyond 25 years, the model's prediction become increasingly uncertain and unreliable, and therefore, values exceeding this period are not recommended (Sinclair *et al*., 2019). In response to b): The average annual decline is determined by dividing the overall percentage change for the 25-year timepoints by 25, rather than considering the overall percentage from the start of piling (timepoint 0) to end of the 25 years (timepoint 25). The latter approach would result in larger percentages, such as 3.2% and 4.73% for minke whale and bottlenose dolphins respectively. The former and correct method is to determine the average change per year, i.e., 3.2% divided by 25 years, equalling 0.13% per year. Whether a result is significant has been set out in guidance by Natural Resource Wales (NRW), which states that "*if a population shows a continued decline of >1% per year (versus a modelled unimpacted reference population) over a set period of time […] then there is a high likelihood that a significant effect and an adverse effect on the site integrity, and therefore cannot be ruled out*" (NRW, 2023). The population modelling results showed less than 1% average annual decline over both the first six years and the 25-year

ExQ1	Question to	Question	Applicant's Response
			period, leading to the conclusion that there is no significant or adverse effect. As mentioned in response to a), the code developer states that it is not reliable to model beyond the recommended 25-year period, as this may produce unreliable results (Sinclair *et al*., 2019). Therefore, the impact over 35 years has not been assessed and is not standard practice.
1BEM34	The Applicant	**IPCoD modelling** Marine Mammal Technical Note 2 [REP1-084], Table 2.8 identifies a 4.9% drop in the median impacted as a % of unimpacted population between 2027 and 2051. With reference to ES Chapter 11, Table 11.10 [REP1-030] confirm why this is not a medium magnitude of impact based on a duration longer than 10 years and an effect between 1-5% of the reference population.	The Applicant acknowledges that the assessment identifies a change of population of 4.9%, but this change occurs over 25 years. NRW (2023) defined that if "*a population shows a continued decline of >1% per year (versus a modelled unimpacted reference population) over a set period of time […], then there is a high likelihood that a significant effect […] cannot be ruled out*". This means that the annual average decline (4.9% divided by 25 years) is equal to 0.2% per year, and thus, is under the 1% threshold set out by NRW. NRW highlighted in their Written Representation (WR-099-54) (REP2-027) that the result from population modelling is not a magnitude *per se*, but is a significance of effect. As such, the results from population modelling are not to be compared to with the definitions for magnitude as set out in ES Chapter 11, Table 11.10 [REP1-030]. An updated version of the ES Chapter 11 Marine Mammals is anticipated for submission to Deadline 4 removing reference to magnitudes and stating the significance of effect alone. This change does not alter the conclusions of the population modelling as presented in ES Chapter 11 Marine Mammals (APP-048).
1BEM35	The Applicant	**Source level and transmission loss assumptions**	The Applicant can confirm that the assumptions are derived from principles proposed by Tougaard *et al.* (2020). Although this paper presented a technique for extrapolation of noise output based on

ExQ1	Question to	Question	Applicant's Response
		Provide further detail regarding the baseline datasets used to derive construction noise source level and transmission loss assumptions in Appendix 11.1, Table 5-2 [APP-065]. In responding, explain why these assumptions are applicable to the scale and type of wind turbine generator development proposed.	turbine size and wind speed, the data used to derive the predictions was based on turbines somewhat smaller (up to 6MW) than those proposed at Morecambe Offshore Windfarm. Since then, the operational underwater noise from offshore wind turbines has been relatively little studied compared with piling, as the noise outputs from operational offshore turbines have been shown to be relatively low and therefore a low risk element of these developments. Recent studies have also investigated small turbines (Yoon *et al*. 2023; 3MW), or larger turbines but of a floating design (Rische *et al*. 2023; 9.5MW), unlike at Morecambe, however the most suitable up to date reference for the turbines at Morecambe is the review by Bellmann *et al* (2023). Based on the latest data available at the time of writing, it indicated that the larger turbines tend to actually be quieter than the smaller turbines as the more modern turbines optimise performance and although they are larger, their longer blades for example are comparatively lighter than shorter ones. This benefit is not included in the Tougaard *et al*. (2020) prediction methodology. Underwater noise from WTGs is also dominated by low frequency noise (<250 Hz), to which the most common species of concern, the harbour porpoise, are not sensitive, and then only to within 100m of the turbine foundation. It is anticipated that any risk of inaccuracy with the predictions based on smaller, older, turbines would be to overestimate the noise output from the larger, modern designs proposed for the Project.
1BEM36	The Applicant	**Non-concurrent piling** Explain how the commitment to non-concurrent piling referenced in ES Chapter 11, paragraph 11.878 [REP1-030] is secured by the dDCO and provide evidence to demonstrate that use of a single pile approach is secured for other contemporaneous Irish Sea projects.	Non-concurrent piling is secured in relation to piling for the Project, i.e., only one pile would be installed at any one time. This is secured in the MMMP (REP2-019) and the UWSMS (REP2-026). No commitment is made in terms of piling with other projects, although cumulative impacts would need to be considered in both documents to secure appropriate mitigation. Construction overlap with other projects is assessed within the CEA in the ES Chapter 11 Marine Mammals (APP-048). An additional

ExQ1	Question to	Question	Applicant's Response
			qualitative assessment for Irish projects with uncertain timelines is also provided in an EIA Technical Note submitted at Deadline 3 (Marine Mammals Technical Note 1 (EIA)_Rev 02 Clean (Document Reference 9.25)).
1BEM37	The Applicant	**Schedule of mitigation** Item 11.2 of the Schedule of Mitigation [REP2-016] refers to piling mitigation and cross references to dDCO Schedule 6 Condition 9(1)(d). However that condition does not make specific reference to piling. Please explain how the condition would implement piling noise controls, and update Condition 9(1)(d) to reflect these controls, where relevant.	Condition 9(1)(d) of the dDCO requires the submission and approval of a Construction Method Statement which must accord with the methods assessed in the ES. The Construction Method Statement will cover all construction activities and detailed methodology. The implementation of noise controls is secured within dDCO Schedule 6 Condition 9(1)(i), which refers to the MMMP (required "in the event that driven or part-driven pile foundations are proposed to be used"). The Construction Method Statement will reflect measures detailed in the MMMP. The dDCO Schedule 6 Condition 20 also secures the Underwater Sound Management Strategy, which secures appropriate piling controls and mitigation for fish receptors. As such no updates to Condition 9(1)(d) are considered to be required.
1BEM38	NE	**Risk of Permanent Threshold Shift (PTS)** In its joint RR and written representation (WR) [RR-061] NE indicates (Ref D36) that it does not agree that PTS should be screened out of the cumulative effects assessment (CEA) on the basis that mitigation has not been secured on other projects. How does NE reconcile this with its statement in NE Refs P6 and D1 that from January 2025 there will be an expectation of best endeavours to deliver noise reductions, and that "*we expect that the majority of*	The Applicant notes 1BEM38 is directed to Natural England however has noted that NRW have highlighted that the ES does contain population modelling of cumulative Permanent Threshold Shift (PTS), which is reflected in the updated EIA technical note submitted for marine mammals at Deadline 3 (Marine Mammals Technical Note 1 (EIA)_Rev 02 Clean (Document Reference 9.25). Regardless it is still considered valid to assume that all projects will be required to sufficiently mitigate PTS.

ExQ1	Question to	Question	Applicant's Response
		piling from 2025 onwards will not be able to go ahead without noise abatement in place".	
1BEM39	The Applicant, NE	**PTS and Temporary Threshold Shift (TTS) risk from operational turbines** ES Chapter 11, paragraph 11.583 and 11.584 [REP1-030] indicate that PTS and TTS could occur for marine mammals within <100m of WTGs. Is it correct to say that each turbine would therefore create a 200m diameter exclusion zone for marine mammals and if so: a) to what extent would this be true for other species? b) what is the cumulative area of such exclusion zones with other projects?	The underwater noise modelling (Appendix 11.1 PTS and Temporary Threshold Shift (TTS) for operational turbines noise as <100m. Ranges smaller than 100m for Sound Exposure Level from cumulative exposure (SEL_{cum}) have not been presented and, therefore, may actually overestimate the maximum impact ranges. Consequently, it cannot be presumed that such an 'exclusion zone' is equal to a diameter of 200m, but would, at the most, present the maximum diameter over which marine mammals could potentially be exposed to noise levels capable of inducing PTS/TTS. However, marine mammals are not excluded from any area *per se*, but if they were to remain within less than 100m of a turbine for a prolonged time, then there is a risk that auditory injury or PTS/TTS could occur. In response to question a): Fish species were the only other species for which underwater noise modelling was undertaken for the Project, using the Popper *et al*., 2014 noise criteria as per Appendix 11.1 Underwater Noise Assessment (APP-065). The impact ranges for recoverable injury and TTS from operational turbine noise were both estimated to be <50m away from the operational WTG. This recoverable injury and TTS impact range of <50m relates to a scenario where a fish remains stationary for 48 and 12 hours within 50m of a turbine, respectively (see Table 5-7 of Appendix 11.1 Underwater Noise Assessment (APP-065)). In this context the fish may receive the temporary and reversible impacts mentioned. It should be noted that 50m is the lowest level of precision for the modelling for fish – and so is considered a maximum impact range, rather than an expected impact range.

ExQ1	Question to	Question	Applicant's Response
			In response to question b): It is evident from monitoring studies that harbour porpoise and seals are not excluded from the array of operational turbines (Teilmann *et al*. 2006; McConnell *et al*. 2012; Lindeboom *et al*. 2011; Russell *et al*. 2014). As part of the Dutch Governmental Offshore Wind Ecological Programme (WOZEP), Leemans & Fijn (2023) reported observations of harbour porpoise in three OWFs: Luichterduinen, Gemini, and Borssele. The study highlighted that harbour porpoises tend to avoid the immediate vicinity of the turbines, with the closest recorded distance being 500m. There was also no statistical difference in porpoise densities within the windfarms compared to the borders of the array areas. From this, it can be inferred that the windfarm array area itself is the maximum extent where noise, caused by operational turbines, would be causing any disturbing effects. There would be no cumulative effect with other OWFs due to the limited range of effect for PTS and TTS.
1BEM40	The Applicant MMO	**Piling activity in the Irish Sea** Annex 1, Table 2 of the MMO D2 representation highlights that the proposed Morecambe OWF piling duration is assumed to be 37 days (assuming 1 foundation per day). The assumption is 35 days each for the larger Morgan and Mona schemes. Explain why Morecambe has a longer piling duration than the two larger schemes.	The Morgan and Mona projects have longer piling schedules due to the larger number of foundations that need to be installed if only one foundation was piled at any one time. It is noted that Morgan and Mona PEIRs include assessment for within project concurrent piling (two piling vessels at each project, resulting in a reduction of the installation time). The PEIRs for these projects identified one monopile installed per 24 hours (70 days for a single vessel and 35 days for two vessels, noting that the number of animals disturbed, i.e. the worst case was for the two vessels scenario). The information was based on the most current available information at the time of writing. The worst-case scenario for each project was used in the population modelling. For the Project, the worst-case scenario involved 37 piling days (35 monopiles for the turbine foundations and two monopiles for the OSP foundations).

ExQ1	Question to	Question	Applicant's Response
			Updated information on the piling durations for the Mona and Morgan Projects have been provided in their ES assessments. The number of animals disturbed by the Mona Offshore Wind Project and the Morgan Offshore Wind Project: Generation Assets has changed between the PEIR and draft ISAA, and the ES and final ISAA. However it is also noted that the need for a booster station for the Morgan Offshore Wind Project: Generation Assets has been removed and the offshore OSPs are also not part of the Transmission Assets infrastructure (removed from the Transmission Assets DCO application). To account for the change in disturbed animals, updated population modelling reflecting the ES values for the Mona, Morgan and Morecambe projects have been presented by the Mona and Morgan projects during Examination (Mona Examination reference: REP3-058, Morgan Examination reference: REP2-022). 66. The results presented in examination for Mona and Morgan (REP3-058 and REP2-022) showed that whilst more animals were disturbed, this does not give rise to increased population level impacts or change the level of significance for cumulative effects including Mona, Morgan and Morecambe.
1BEM41	The Applicant, NE	**Marine mammal data gaps** Appendix 11.5, Table 2.1 [APP-069] makes reference to additional datasets from Hilbre Island Observatory and the Offshore Energy SEA. The Applicant was unable to access either data set. a) Can the Applicant explain whether it has been able to obtain this information subsequently? b) Can NE and the Applicant comment on whether the absence of this information is material to the assessment of effects?	In response to question a): As stated in Appendix 11.5, Table 2.1 [APP-069], the Applicant has not been able to access the annual reports from the Hilbre Island Observatory. However, the Offshore Energy Strategic Environmental Assessment 4 (OESEA4) report has been made public in March 2022 (Department for Business, Energy & Industrial Strategy (BEIS), 2022) and has been incorporated into the ES Chapter 11 Marine Mammals (APP-048) and Appendix 11.2 Marine Mammal Information and Survey Data (APP-066). In response to question b): While the content of the Hilbre Island Observatory annual reports is unknown to the Applicant, additional information from grey literature helps to characterise the regional marine mammal baseline. The Applicant is confident that all

ExQ1	Question to	Question	Applicant's Response
			information presented in Appendix 11.2 Marine Mammal Information and Survey Data (APP-066) provides sufficient information to capture the grey seal baseline and that Hilbre Island has been identified as a main grey seal haul-out site in the Dee Estuary. Any additional information derived from the annual reports would have had no effect on the assessments in ES Chapter 11 Marine Mammals (APP-048).
1BEM42	The Applicant MMO	**Draft Marine Mammals Mitigation Protocol (dMMMP): soft-start procedures: breaks in piling** Section 3.1.4 of the dMMMP [APP-149] deals with breaks in piling and permits a reduced soft-start procedure provided that there are no marine mammals within the monitoring area. At paragraph 3.1.2 of it RR [RR-047], the MMO says that *"If a watch has been kept during the piling operation, the Marine Mammal Observer or Passive Acoustic Monitoring Operative should be able to confirm the presence or absence of marine mammals, and it may be possible to commence the soft-start immediately. However, if there has been no watch, the complete pre-piling search and soft-start procedure should be undertaken ..."* in accordance with the guidance, requesting that the guidance be adhered to. The Applicant's response at RR-047-27 [PD1-011] notes that *"the wording proposed by the Applicant has previously been agreed*	The Applicant has raised the item with the MMO but at this time has not agreed upon updated wording. The Applicant welcomes that further discussions with the MMO on the matter of the duration of breaks in piling and proposes this will take place before finalisation of the MMMP based on the final project design and requirements post consent.

ExQ1	Question to	Question	Applicant's Response
		for other offshore windfarm projects, including Dogger Bank A and Dogger Bank B … finalisation of wording … would be undertaken post-consent …". Could the Applicant and the MMO jointly consider whether the wording of the dMMMP, particularly paragraph 143, needs updating, and if so, could it please be so updated?	
1BEM43	The Applicant	**Drilling noise impacts** Although drilling is referenced in Appendix 11.1 [APP-065] as a potential noise source, the assessment summary tables for construction noise (Table 5-1 to 5-5) only refer to cable laying, dredging, trenching, rock placement, vibro-piling and vessel noise. Could the Applicant please provide equivalent information on the impact of drilling noise, and signpost to where this information may be found or provide robust justification for excluding this noise source from the assessment.	The Applicant acknowledges that drilling has not been presented in Table 5-2 in Appendix 11.1 Underwater Noise Assessment (APP-065). However, the modelling report stated that drilling, vibro-piling and other non-impulsive noise sources are considered as a low-level continuous noise source. The estimated source level for drilling is 169 dB re 1 µPa @ 1 m and is, together with any of the other assessed construction activities (other than piling) set out in Table 5.2, and would be well below the noise levels for impact piling. Drilling as an activity has therefore not been excluded from the assessment. Due to its low source level, the impact ranges are comparable to any of the other (and louder) activities that have been assessed in Table 11.47 in ES Chapter 11 Marine Mammals (APP-048). The assessment for construction activities specifically listed in Table 5.2 would also encompass the effects from drilling activities. The result for this assessment is minor adverse, which is not significant in EIA terms, for all construction activities (other than piling).
Offshore Ornithology			

ExQ1	Question to	Question	Applicant's Response
1BEM44	The Applicant JNCC NE NRW DAERA	**Northern Ireland windfarms – screening and CEA** To the Applicant a) Could the Applicant explain why it has been able to consider Sceirde, Codling, Dublin Array and North Irish Sea windfarms in its CEA for marine mammals (ES Appendix 11.4, Table 4.1 [REP1-048]) based on overlapping construction activities but has ruled out an assessment for these sites in relation to birds in ES Chapter 12, Table 12.54 [REP1-032] due to lack of data and does not reference Sceirde in its list of sites for the Ornithological Assessment? Oriel and Arklow windfarms, which are listed in ES Table 12.54 are not referenced in Table 4.1 of the HRA Screening Report [APP-034] or in the RIAA [REP1-012] and appear to have been ruled out of further assessment based on the Applicant's Appendix 6.1 CEA longlist [APP-061]. b) Could the Applicant please provide more detailed HRA screening information for Sceirde, Northern Irish Sea Array (NISA), Arklow and Oriel offshore windfarms? It is noted that applications have been lodged for NISA, Arklow and Oriel windfarms, meaning that detailed information is now available for assessment.	a) For marine mammals other construction activities were included for four Irish windfarm projects. Given at the time of the Project's DCO Application there was no Irish project that had made an application, the four Irish projects that were selected in the first offshore wind auction where there was the potential for construction overlap were included. It is however noted that is it unlikely that all the projects/activities assessed within the CEA would occur at the same time given the different stages and build out of each project. Given no site-specific information was available for these projects, the assessment was based on mammal density data from SCANS reports and wider Irish marine mammal datasets. A generic disturbance distance was then used for other construction noise to estimate the number of animals impacted. For ornithology, the impact assessed that is relevant to the cumulative and in-combination assessment with Irish Projects is collision and displacement effects during the operation and maintenance phase, rather than construction effects. No site-specific bird surveys or collision risk modelling for these projects was available at the time of assessment, and there is no generic value that is appropriate to use in the place of detailed site-specific collision risk modelling. At the time of writing no application for the Sceirde Rocks windfarm has been made publicly available by the An Bord Pleanála, and therefore no data is available to inform the cumulative and in-combination ornithological assessment. Therefore, the Sceirde Rocks project will need to consider the cumulative effects with the Project and the other Irish windfarm projects mentioned by the ExA, at the time that an application is available. b) As set out above, no application is available for Sceirde Rocks windfarm to date.

ExQ1	Question to	Question	Applicant's Response
		c) In addition, the Applicant should update the HRA screening report with information relating to Rockabill Special Protection Area (SPA) and the North-west Irish Sea (NWIS) SPA. d) In relation to all the above points, the Applicant's HRA screening and RIAA should be updated where relevant, to inform the SoS's Appropriate Assessment. <u>To NE, NRW, DAERA and JNCC</u> e) NE, NRW, DAERA and JNCC are invited to comment on the points above.	For Northern Irish Sea Array (NISA), Arklow Bank 2 and Oriel offshore windfarms, applications for these projects were submitted after a time where they could be included within the Project submission materials. However, each of these projects has considered the Project within their respective cumulative assessments. The cumulative assessment for each of these projects has concluded that there would be no significant effect for all species considered (kittiwake, great black-backed gull, herring gull, lesser black-backed gull, gannet, guillemot, razorbill, and Manx shearwater). As the Project was included within these cumulative assessments, these projects would make no difference to the conclusions for cumulative assessment for the Project, as presented in ES Chapter 12 Offshore Ornithology (REP1-032) and the Offshore Ornithology Technical Note 1 (EIA) Rev 02 (Offshore Ornithology Technical Note 1 (EIA)_Rev 02 Clean (Document Reference 9.22)). In terms of HRA effects, NISA, Arklow Bank 2 and Oriel offshore windfarms have not identified any measurable effects for SPAs likely to contribute to in-combination effects with the Project. Therefore, none of these projects would affect the conclusions of the RIAA (REP1-012) or Offshore Ornithology Technical Note 2 (HRA) Rev 02 (Offshore Ornithology Technical Note 2 (HRA)_Rev 02 Clean (Document Reference 9.23)). Further information on the cumulative and in-combination assessments for NISA, Arklow Bank 2 and Oriel offshore windfarms is summarised in the Morgan Offshore Windfarm Generation Assets '*Review of Cumulative Effects Assessment and In-Combination Assessment: Offshore ornithology*' (NIRAS, 2024; Morgan Examination Reference: REP3-019) and Mona Offshore Windfarm *'Review of Offshore ornithology CEA and In-Combination Assessment'* (RPS, 2024; Mona Examination Reference: REP4-

ExQ1	Question to	Question	Applicant's Response
			027). The Applicant concurs with the conclusions of these assessments in respect of the three identified Irish projects. c) An update to the HRA screening report is being submitted to the Examination by the Applicant at Deadline 3 (Habitats Regulations Assessment Screening Report_Rev 02 Clean (Document Reference 4.10)). This includes consideration of Rockabill SPA and the North-west Irish Sea (NWIS) SPA, as requested by the ExA. d) It is proposed by the Applicant that an update to the RIAA (REP1-012) will be submitted to the Examination at a later date (proposed at Deadline 4), once all matters relevant to the update have been agreed with Natural England and Natural Resources Wales. However, an update has been provided in HRA technical notes at Deadline 2 and 3 to provide the required information. e) The Applicant notes this point is directed to NE, NRW, The Department of Agriculture, Environment and Rural Affairs (DAERA) and JNCC, and shall not be responding.
1BEM45	The Applicant	**Cumulative displacement effects** a) Could the Applicant please provide further explanation in relation to ES Chapter 12, paragraph 12.169 [REP1-032] as to why consideration of cumulative displacement effects due to 'flying around' the windfarm (and other sites) has been scoped out as an impact on migrant birds and their fat reserves. The ExA is concerned that 'one-off avoidance' may not be reflective of the situation with multiple windfarms being constructed in close geographic proximity.	a) The cited example within ES Chapter 12, paragraph 12.169 (REP1-032) (Speakman *et al*., 2009) confirms that the effects of route deviation by migratory bird species would be very unlikely to result in any significant effect. This is because migrant birds will generally move between 'stop-off' points along the migration route, along which they will feed and replenish their fat reserves. Loss of a small percentage of the fat reserve would only be an issue if birds were to reach the next stop-off with fat reserves depleted close to zero. However, birds need to allow a significant buffer in reserve for each stage of the migration, for example to account for the risk of unfavourable weather, and it is therefore very unlikely that such a situation would occur. It is also unlikely that the presence of multiple windfarms would affect this conclusion. This issue is addressed specifically by Speakman *et al*. (2009) who stated 'Even if birds encountered

ExQ1	Question to	Question	Applicant's Response
		b) Also, could the Applicant explain whether the 2% loss of fat reserve is an average and could be worse for particular species.	multiple facilities the modelling suggests no major impact'. This is for the reason above, but it is also the case that for a bird travelling along a straight migration route, the chances of it encountering multiple windfarms (given that, even with the proposed future growth of projects the substantial majority of the sea area would be windfarm-free) would be low. b) To clarify, the study by Speakman *et al*. (2009) modelled four migratory seabird species, and for all of these species a loss of less than 2% body fat was predicted. For three of the four species, the loss was substantially below this level (0.7%, 0.2% and 0.9%) and for one species (Sandwich tern) the loss was predicted to be 1.75%. To answer the ExA's question, therefore, 2% is considered to be a likely maximum value, with the average much less than this.
1BEM46	The Applicant JNCC NE NRW NatureScot DAERA RSPB North West Wildlife Trusts	**Assessments** In paragraph 62 of the Offshore Ornithology Technical Note 1 (EIA) [REP1-080] it is noted that the NE advice in relation to the CEA was not to include historic projects with limited (or no) overlap with the construction and operational timeframe of the Proposed Development. a) However, would the existing background mortality rates include those associated with these windfarms? If so, does there need to be an associated assessment from the removal of their effects as they are decommissioned? It is appreciated that the assessment is precautionary, but without removing any such effects, is there a risk that the assessment	The Applicant agrees with the ExA that the ornithological assessment as presented includes a number of layers of precaution, which can provide the ExA with confidence that the conclusions of the assessment are robust, with very little risk that effects have been underestimated. The assessment has been undertaken in accordance with current best practice guidance, as advised by Natural England. While the Applicant agrees with the ExA that this could risk over-precaution in the assessment, deviation from the standard best practice would almost certainly raise significant concerns from Natural England and other stakeholders, and hence risk delay or stalling of the Examination process. For this reason, the Applicant does not consider it is able to comment specifically on whether or not the assessment is over-precautionary, but would welcome justification from Natural England and the other stakeholders for the approach that has been required. In response to the ExA's specific questions in (a) and (b): ▪ The background mortality rates used in the assessment have been derived primarily from demographic data published by

ExQ1	Question to	Question	Applicant's Response
		becomes over-precautionary, leading to mitigation that is not required? It is also appreciated that there is a separate discussion in relation to when the Barrow windfarm is to be decommissioned (see ExQ1GEN10) which may also need to be considered. This argument, taken to its logical conclusion, should also factor in any effects associated with the decommissioning of other windfarms (see Table 5.1 of Applicant's response to Actions from PM and ISH1 [REP1-085]) for longer-term effects). b) Could the Applicant, JNCC, NE, NRW, NatureScot, DAERA, the RSPB and the North West Wildlife Trusts please give their views as to how the effects of the decommissioning of existing windfarms should be considered to avoid over-precautionary mitigation/ compensation.	Horswill and Robinson (2015), combined with the most appropriate reference population. For the latter, this is the relevant Biologically Defined Population Scale (BDMPS) population from Furness (2015) at the EIA scale, or a recent Special Protection Area (SPA) colony count for the HRA assessment. ▪ The Horswill and Robinson (2015) demographic data is typically derived from a number of studies for each species, covering a broad time period. Taking guillemot as an example, Horswill and Robinson (2015) cites 13 studies, covering a period from 1983 to 2013, used to derive the advised demographic rates used in the assessment. These are likely to comprise a range of populations at different locations, each of which will be subject to different pressures. It is therefore appropriate to consider the derived rates as a typical average for that species at a national (UK) scale. It is possible that the effects of some older windfarms may be accounted for in the demographic data, but given the relatively small effect that these are likely to exert at this broad scale, it is considered unlikely that these would significantly affect the rates that have been applied. ▪ Similarly, the BDMPS population derived by Furness (2015) is based on colony counts covering a broad time period. Again, taking guillemot as an example, the counts used by Furness (2015) for the UK western waters non-breeding BDMPS cover a period from 1998 to 2013. There may, therefore, be some overlap with older windfarms, but it is considered unlikely that these would significantly affect the scale of population used for the assessment. ▪ At the HRA scale, recent SPA colony counts (e.g. from 2022 or 2023, which are contemporaneous with the Project survey data) have been used. It is the case that any effects of existing

ExQ1	Question to	Question	Applicant's Response
			windfarms would therefore be accounted for within these population estimates. However, given the broad range and complexity of different pressures that affect these populations, providing meaningful consideration of how this could affect the background mortality would be extremely challenging, and unlikely to be scientifically robust or meaningful. ▪ The Applicant agrees with the ExA that as the decommissioning of other projects during the lifetime of the Project has not been considered within the assessment, this will result in a likely overestimation (i.e. precaution) of the cumulative and in-combination assessments. For relevant species (i.e. where Natural England has outstanding concerns regarding the in-combination effects at the HRA scale) it may be possible to present adjusted in-combination mortality values towards the end of the Project life, to provide some understanding of the likely reduction in scale of the in-combination effect. However, it is not likely to be possible to provide more detailed analysis (e.g. Population Viability Analysis (PVA)) of the effects of this change, given the level of uncertainty that such analysis would have over such a long timescale. ▪ As above, the fact that the in-combination assessments include this additional precaution can provide the ExA with confidence in the assessment conclusions. In particular, the Applicant would draw the ExA's attention to the Applicant's conclusions of no adverse effect on site integrity in respect of: o Lesser black-backed gull at Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuaries SPA. o Red-throated diver at Liverpool Bay SPA. ▪ For these features, for which Natural England has identified outstanding concerns, the Applicant considers that the predicted

ExQ1	Question to	Question	Applicant's Response
			diminishing in-combination effect confirms that the Applicant's conclusion is robust, and that Natural England's concerns are not warranted.
1BEM47	The Applicant JNCC NE NRW NatureScot DAERA RSPB North West Wildlife Trusts	**Base cases** The ExA understands that, following NE advice, consented turbine parameters have been used as opposed to as built parameters on the basis that it is, theoretically, possible that the remainder of the consented scheme could be built out. a) However, either where a scheme is coming to end of its life (see Table 5.1 of Applicant's response to Actions from PM and ISH1 [REP1-085]) or where the scheme as built would prevent additional development, should not 'as built' data be utilised? Would this alter any of the effects assessed? b) Could the Applicant, JNCC, NE, NRW, NatureScot, DAERA, the RSPB and the North West Wildlife Trusts please give their views on this proposition.	It has long been argued by windfarm developers that use of as-built parameters would provide a more meaningful and realistic assessment of collision risk. However, as the ExA is aware, this has not been accepted by the SNCBs due to the theoretical risk that the consented capacity could be built out at a later date. The Applicant would argue that the risk that existing windfarms would build out the full consented capacity after completion of construction is so small as to be reasonably discounted from cumulative/in-combination assessment. This is because the cost and complexity of such a change would be prohibitive for developers, and in any event would likely require additional consent (e.g. a Marine Licence) that would allow any assessment conclusions to be revisited, for example through the HRA process. The Applicant would also highlight existing HRA case law (such as Boggis v. Natural England, 2009 and Morge v. Hampshire County Council, 2011) which makes it clear that HRA should consider 'real' rather than 'hypothetical' or 'fanciful' risks to designated features. The Applicant would argue that while the as-consented parameters for existing developments provide a hypothetical risk, this risk is so unlikely as to be discounted from the assessment. Use of as-built parameters would result in a substantial reduction to the predicted cumulative and in-combination mortality for species assessed for collision risk. The Applicant has not identified a significant adverse effect or adverse effect on integrity for any such species, aside for great black-backed gull at the EIA scale, where a potential cumulative moderate adverse effect has been identified within ES Chapter 12 (REP1-032). It is therefore possible that this effect would be reduced to a threshold below significance if as-built

ExQ1	Question to	Question	Applicant's Response
			parameters were considered. The Applicant would also highlight the conclusions in respect of lesser black-backed gull at Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuaries SPA, for which Natural England has identified outstanding concerns (i.e. it considers that adverse effect on integrity cannot be ruled out). The Applicant considers that use of the as-built parameters would provide further reassurance that the Applicant's conclusion is robust, and that Natural England's concerns are not warranted. The Applicant notes that use of as-built parameters is unlikely to substantially affect conclusions in respect of displacement effect. This is because displacement effect is assessed on the basis of windfarm site area, whereas as-built parameters typically differ in the number and size of deployed turbines when compared to the as-consented; these parameters are not used in displacement assessment.
1BEM48	The Applicant NE NRW RSPB North West Wildlife Trusts	**Assessments** The Offshore Ornithology Technical Note 3 (Red-Throated Diver at Liverpool Bay SPA Update Assessment) [REP1-082] notes the effects of existing disturbance by helicopters and seacraft. It is stated that, apart from ferries, a significant proportion is associated with the oil and gas industry. As it well known, the decarbonisation agenda will mean that these operations will be phased out over time (re-purposing for Carbon Capture Assessment would need a revised assessment as it is not currently consented). Should, therefore, the effects of the removal of this traffic form part of the overall assessment?	The Applicant considers that there is significant uncertainty regarding the future operation of the oil and gas industry in the vicinity of the Project, including the possible re-use or re-purposing of some of these assets for future uses such as Carbon Capture Usage and Storage (CCUS), and it is not, therefore, possible to meaningfully take into account potential future changes for the assessment.

ExQ1	Question to	Question	Applicant's Response
		Could the Applicant, NE, NRW, the RSPB and the North West Wildlife Trusts please give their views on this proposition.	
1BEM49	NE	**Liverpool Bay SPA extension** Could NE please briefly set out the rationale for the extension of the Liverpool Bay SPA in 2017, and in particular set out any changes to the features leading to the designation, especially where those features could be affected by the Proposed Development?	The Applicant notes 1BEM49 is directed to Natural England and therefore will not provide a detailed response. However, the Applicant would draw the ExA's attention to paragraph 424 of the RIAA (REP1-012) which provides a summary of the 2017 changes to Liverpool Bay SPA.
1BEM50	RSPB The Applicant	**Manx Shearwater – disorientation due to lighting** The RSPB challenges the assessment of no adverse impacts on Manx shearwater through collision with rotating turbines, highlighting concern about disorientation of shearwaters from lighting. It cites publications relating to collisions with lighthouses and other illuminated structures. The Applicant's 'Response to Relevant Representations' [PD1-011] references other papers, which present a counter view (eg at RR-073-13). Could the RSPB and the Applicant submit these papers into the Examination.	The Applicant has provided the two papers cited at RR-073-13 within the Applicant's Response to Relevant Representations (PD1-011) and submitted these alongside this document at Deadline 3 (Supporting Ornithological papers (Document Reference 9.40)).
1BEM51	The Applicant NE MMO	**Use of alternative ways of working and technology to reduce effects** Paragraph 2.8.214 of NPS EN-3 encourages alternative ways of working and	In response to point a), the Applicant reiterates that until the construction port is confirmed, it is not possible to determine the most appropriate route for vessels, should it be necessary to pass through Liverpool Bay SPA. However, should this be the case, the

ExQ1	Question to	Question	Applicant's Response
		use of technology to be employed to avoid environmental impacts. For example, construction vessels may be rerouted to avoid disturbing seabirds. Paragraph 37 of the outline Vessel Traffic Management Plan (oVTMP) [REP2-022] references minimising impacts on seabirds once ports are known but provides limited information in section 7 regarding how routes to the site would be determined to minimise seabird disturbance. a) Could the Applicant please explain how seabird disturbance would be considered within the route selection process, amending any documents as necessary to ensure it would be secured. b) Can NE and MMO comment on any necessary measures that should be secured relating to vessel movements to ensure that impacts are minimised.	most up to date available information available at that time would be used to agree with Natural England, the MMO and other stakeholders the most appropriate routes. This would need to take into account both ecological constraints and also navigation safety, emissions and other relevant matters. It is noted that the species most at risk of disturbance effects are common scoter and red-throated diver. Currently, the most up to date information on the abundance and distribution of these species is available Natural England report NECR440 'Densities of qualifying species within Liverpool Bay/ Bae Lerpwl SPA: 2015 to 2020' (HiDef Aerial Surveying Limited, 2023). The Applicant anticipates that this will be the key reference to inform consideration of vessel routeing, unless more up to date information becomes available. It is noted that measures to reduce disturbance to rafting birds are included in the Draft DCO (Schedule 6 condition 9(1)(e)) as part of the PEMP and also listed in the VTMP. The Applicant notes that point b) is directed at Natural England and MMO and shall not be responding.
1BEM52	The Applicant	**Non-breeding season mortality for lesser black backed gull** The Applicant's 'Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets', item R9-07 [PD1-011] acknowledges that there are erroneous values for non-breeding season mortality in ES Chapter 12, Table 12.47 [REP1-032] but concludes that the error does not affect conclusions as the value of 1.75 is correct. Summing the revised value of 1.10 for	The Applicant notes that the error referred to by the ExA is in respect of great black-backed gull, rather than lesser black-backed gull. The annual mortality value of 1.75 is correct. The reason that there is a small difference between the summed values presented in Table 12.47 (and also Table 12.46, which presents the monthly collision mortality estimate) of ES Chapter 12 (REP1-032) is because values are rounded to two decimal places. The unrounded and rounded monthly values (ignoring months where zero mortality is predicted) are presented below for clarity.

<table>
<tr><th>ExQ1</th><th>Question to</th><th>Question</th><th>Applicant's Response</th></tr>
<tr><td></td><td></td><td>September with the March to August value of 0.66 totals 1.76 rather than 1.75.
Could the Applicant please explain what the effect of an annual mean of 1.76 is for the collision risk assessment.</td><td>
<table>
<tr><th>April</th><th>May</th><th>Nov</th><th>Dec</th><th>Total</th></tr>
<tr><td>0.209</td><td>0.450</td><td>0.446</td><td>0.645</td><td>1.750</td></tr>
<tr><td>0.21</td><td>0.45</td><td>0.45</td><td>0.65</td><td>1.76</td></tr>
</table>
Therefore, the value of 1.75 has been correctly used for the assessment.
</td></tr>
<tr><td colspan="4">3.Civil and Military Aviation and Radar (CAR)</td></tr>
<tr><td colspan="4">Clarifications</td></tr>
<tr><td>1CAR1</td><td>The Applicant</td><td>Correction/ Errata - Appendix 16.1: Airspace Analysis and Radar Modelling
Paragraph 16.79 of ES Chapter 16 [REP1-036] refers to the Application site being in two different Area Minimum Altitudes which are shown in Figure 13 of Appendix 16.1 [REP1-050]. It appears that this should be a reference to Figure 12 of Appendix 16.1.
Could the Applicant please check and amend as necessary?</td><td>The reference in Environmental Statement (ES) Chapter 16 Civil and Military Aviation and Radar should be to Figure 12 of Appendix 16.1. This has now been amended and submitted alongside this document at Deadline 3 (Chapter 16 Civil and Military Aviation and Radar_Rev 03_Clean (Document Reference 5.1.16)).</td></tr>
<tr><td>1CAR2</td><td>The Applicant</td><td>Correction/ Errata - Appendix 16.2: Blackpool Instrument Flight Procedure Safeguarding Report
The text at the top of page 4 [APP-079] suggests that the assessment was based on wind turbine generators with a maximum height of 315m above mean sea level and a rotor diameter of 140m.
Should this be a rotor radius of 140m thereby giving a rotor diameter of 280m as per the maximum design parameter? Can</td><td>The text at the top of page 4 in Appendix 16.2 Blackpool Instrument Flight Procedure Safeguarding Report should refer to a rotor radius of 140m. This has now been amended and submitted alongside this document at Deadline 3 (Appendix 16.2 Blackpool Instrument Flight Procedure Safeguarding Report_Rev 02_Clean (Document Reference 5.2.16.2)).</td></tr>
</table>

ExQ1	Question to	Question	Applicant's Response
		the Applicant please clarify and correct if necessary?	
1CAR3	The Applicant	**Correction/ Errata - Figure 16.1: Civil and Military Aviation Radar Study Area** Paragraph 16.16 of ES Chapter 16 [REP1-036] refers to the radar facilities included within the study area as including *".....Neatishead to the southeast,…*". This facility is not shown on Figure 16.1 [APP-104] but does identify a site at Trimingham, Norfolk. Please can the Applicant check and confirm that the reference given is correct and if not amend the figure and ES accordingly?	The Air Defence Radar at Remote Radar Head Trimingham was relocated to Remote Radar Head Neatishead in 2023. Figure 16.1 has therefore been amended to remove the site at Trimingham and now shows the site at Neatishead, as correctly referenced in ES Chapter 16 Civil and Military Aviation Radar (Chapter 16 Civil and Military Aviation and Radar Figures_Rev 02 (Document Reference 5.3.16)).
1CAR4	The Applicant	**Effects of construction and decommissioning** Paragraphs 16.124 to 16.130 of ES Chapter 16 [REP1-036] set a series of tip heights for blades as they are installed and the effects that they may have on Terminal Arrival Altitudes (TAA) and Minimum Sector Altitudes (MSA) for various zones around airports/ aerodromes. a) Could the Applicant please set out information on the height of the likely installing infrastructure, that is crane heights? b) Based on this information, could the Applicant comment on whether this would have any greater effect when	In response to points a) and b), the height of the crane would be subject to the wind turbine selection, which remains ongoing. Whilst the crane heights are not yet known, the crane height would be significantly lower than the wind turbine maximum tip height. As such, the worst-case scenario has been assessed, and the crane height would not cause any greater effects to the assessment. In response to point c), the effects of decommissioning could be the same or less than the effects during construction as the wind turbines and any decommissioning infrastructure (such as cranes) will not be higher than during the construction phase. However the physical works of decommissioning would have less effect than the physical works of construction as during decommissioning the wind turbine obstacles would be gradually removed, reducing the existing obstacle effects. Whereas construction of the project introduces new infrastructure obstacles to the existing aviation baseline environment. The decommissioning phase would not introduce any

ExQ1	Question to	Question	Applicant's Response
		compared with the individual heights assessed? This applies to both construction and decommissioning activities. c) Paragraph 16.194 indicates that it considers that in the decommissioning phase there would be 'no change' on the aviation obstacle environment. Could the Applicant please explain why the physical works of decommissioning would have less effect than the physical works of construction?	significant effects on aviation stakeholders beyond those assessed for the operation phase and so the effect significance is considered to be 'no change'.
1CAR5	CAA	**New Civil Aviation Authority Regulations** Paragraph 6 of Appendix 17.1 [APP-081] notes that there are proposed changes in Civil Aviation Authority (CAA) Regulations which could mean day Visual Meteorological Conditions (VMC) only access is permitted to an offshore installation (helideck) located within 3nm of a wind turbine. In their WR paragraph 2.21, [REP1-116] Spirit Energy states that it understands the 3nm restriction will be secured by a regulatory change in 2025; however in its response at D2 (paragraph 49 of [REP2-030] the Applicant states that the latest consultation on changes to CPA764 did not incorporate such a change and so it is unclear whether the regulatory change could be secured by 2025 as suggested.	The Applicant notes 1CAR5 is directed to Civil Aviation Authority (CAA) and shall not be responding.

ExQ1	Question to	Question	Applicant's Response
		Furthermore, in its response at D2 (Section 3 of [REP2-033]) the Applicant raises concerns that the new CAA Regulations might seek to impose different separation distances for WTGs owned by a gas installation operator and that of a third party. In cases where the WTG is owned by a gas operator it is suggested the separation distance could be reduced from 3nm to 2nm. a) Can the CAA provide an update on the progress of the new CAA Regulations and likely timeframe for these coming into force? b) Can the CAA please confirm whether the new CAA Regulations being proposed will include exceptions such as those suggested by the Applicant? c) If safety is the determining factor for the proposed new CAA Regulations, what is the justification/ rationale for allowing exemptions for WTGs owned by an oil and gas operator as opposed to those owned by a third party? Please can the CAA explain?	
1CAR6	Harbour Energy Spirit Energy	**Additional Mitigation – Aviation Corridor** At D2 the Applicant introduced new mitigation in the form of a 2nm wide take-off access corridor from Spirit Energy's CPP1 platform (the Aviation Corridor) and this is	The Applicant notes 1CAR6 is directed to Harbour Energy and Spirit Energy and shall not be responding.

ExQ1	Question to	Question	Applicant's Response
		proposed to be secured within updated Protective Provisions contained within the updated dDCO [REP2-002]. Does the Applicant's response at D2 and the inclusion of this additional mitigation now address Harbour Energy and Spirit Energy's concerns and objection?	
1CAR7	CAA	**New Civil Aviation Authority Regulations: Alternative Means of Compliance** The Applicant states (Paragraph 18 of [REP2-030]) that even if the CAA regulatory change covering helicopter flights within 3nm of wind turbines did progress, then the combination of the newly proposed Aviation Corridor and existing unobstructed airspace would allow helicopter operators to demonstrate an Alternative Means of Compliance (AltMoc). Does the CAA agree with this stance and are there examples of similar AltMoc having been granted for similar situations?	The Applicant notes 1CAR7 is directed to the CAA. However, the Applicant has provided examples within Remaining Responses from the Applicant's to Spirit Energy Deadline 1 Submissions Appendix A: Report on Impact to Helicopter Flights (Document Reference 9.43.1).
1CAR8	The Applicant BAE Systems (Operations) Ltd BAE Systems Marine Ltd	**Mitigation** Paragraph 16.161 of ES Chapter 16 [REP1-036] sets out that CAP764 Policy and Guidelines on Wind Turbines (published by CAA) Outlines other mitigation options that could be used either singly or in combination. To the Applicant:	The draft Development Consent Order (DCO) contains requirements (4 (Great Dun Fell, Lowther Hill and St Annes Primary Surveillance Radars) and 8 (Ministry of Defence radar mitigation) that secure mechanisms for appropriate mitigation measures which prevent or remove any adverse effects on civil and military Performance Summary Records (PSRs) to be approved and implemented in respect of the Project post-consent. These requirements ensure that no Wind Turbine Generators (WTGs) can commence operation until a mitigation agreement has been offered to the PSR operator that ensures the approved mitigation can be

ExQ1	Question to	Question	Applicant's Response
	Blackpool Airport DIO NATS	a) Could the Applicant please set out what mitigation options it considers would be most suitable to ensure that the adverse effects of the Proposed Development caused by permanent interference with civil and military PSRs are fully mitigated? <u>Other parties:</u> b) Do relevant IPs have any views on whether the identified adverse effects can be fully mitigated?	implemented. This is a standard approach for radar mitigation. It also allows the final design of the Project to be reflected in the mitigation, where necessary. Paragraph 16.161 refers only to mitigation of interference with civil and military radar systems. Walney Aerodrome (run by BAE Systems (Marine) Ltd) and Blackpool Airport do not have radar systems installed at their airports and do not receive radar data by any other means. While the dDCO requirements provide that mitigation measures are to be approved post-consent, the Applicant has been in discussions with PSR operators to identify and agree suitable mitigation. The Applicant is confident that mitigation solutions are agreeable post-consent. National Air Traffic Services (NATS) has identified Radar Blanking as suitable mitigation to counter adverse effects on their St Annes, Lowther Hill and Great Dun Fell radar systems; this will be accompanied by implementation of a Transponder Mandatory Zone in order that aircraft transiting through the blanked area can still be tracked by means of Secondary Surveillance Radars not affected by the proposed development's wind turbines. Regarding mitigation of adverse impact on Warton Aerodrome's radar, the Applicant has commenced discussions with Defence Infrastructure Organisation (DIO) and BAE Systems (Operations) Ltd and is preparing a mitigation proposal for their consideration. The Applicant understands a mitigation option comprising Radar Blanking and a Transponder Mandatory Zone is already in place which would be suitable for the Project, and the Applicant is also

ExQ1	Question to	Question	Applicant's Response
			considering further permanent mitigation options and is confident that such options will be available. For further assurance, details will be shared with the Examination Authority (ExA) as the DCO process progresses. Requirements 4 and 8 secure that the appropriate mitigation must be agreed, and a method of implementation offered, before WTGs can commence operation.
Effects on individual sites			
1CAR9	The Applicant NATS	**Effects on Air Traffic Control Radars at Great Dun Fell/ Lowther/ St Annes** NATS RR [RR-060] objects to the Proposed Development due to impacts on the air traffic radars at Lowther, St Annes and Great Dun Fell. The Applicant's responses (RR-060-05 to 07 in [PD1-011]) state that mitigation has been identified for the affected radars and that negotiations with NATS are on-going. To NATS: a) Is NATS satisfied that the proposal has been designed, where possible, to minimise adverse impacts on the operation and safety of aerodromes and that the mitigation identified by the Applicant to address impacts on each of the radar system is realistically achievable? b) Having regard to paragraph Schedule 2, Requirement 4 of the revised dDCO [REP2-002] does NATS agree with the	As noted in the Applicant's responses (RR-060-05 to 07 in [PD1-011]) and the response to 1CAR7 above, requirement 4 of the dDCO provides that a primary radar mitigation scheme that has been agreed in advance with NATS must be submitted and approved (and mitigation implemented) before any WTGs can be erected. Radar mitigation measures have been identified and discussed between the Applicant and NATS, and contract negotiations relating to this primary radar mitigation scheme are ongoing between the Applicant and NATS. At the time of writing, the Applicant can confirm the contract is with NATS who are discussing internally. The Applicant will be able to sign the mitigation contract for the primary radar mitigation scheme in short order once NATS' deliberations are complete. Requirement 4 provides that this must be done post-consent prior to erection of WTGs.

ExQ1	Question to	Question	Applicant's Response
		drafting or are any amendments sought? If amendments are sought, please can NATS explain and provide any alternative drafting. Both parties: c) Can both parties provide an update as to any progress made towards agreement on the proposed mitigation identified and likely timeframe for this mitigation solution to be secured/ implemented?	
1CAR10	The Applicant BAE Systems (Operations) Ltd DIO	**Warton Aerodrome – Radar mitigation** In the Ørsted IPs WR [REP1-112] they have advised mitigation for the Warton PSR is currently being implemented and that they require assurances that the Project will not impact on the effectiveness or cost of this already agreed radar solution. For this Project we note that discussions between the Applicant and DIO/ BAE Systems have commenced to identify potential mitigation solutions to Warton's PSR and at D2 a new Requirement relating to this has been added to the dDCO [REP2-002]. To BAE Systems/ DIO: a) Can BAE Systems/ DIO confirm what radar mitigation solution has been agreed/ secured in relation to the Burbo Bank Extension and Walney Extension OWFs and whether this is now active or when it is due to become active? If the	As noted in the response to 1CAR7 above, requirement 8 of the dDCO provides that a mitigation scheme in respect of Warton Aerodrome PSR must be agreed and a mitigation solution must be delivered to the Ministry of Defence and BAE Systems (Operations) Ltd post-consent before any WTGs can operate. Regarding mitigation of adverse impact on Warton Aerodrome's radar, the Applicant has commenced discussions with DIO (on behalf of the Ministry of Defence (MOD)) and BAE Systems (Operations) Ltd and is preparing a mitigation proposal for their consideration, which is expected to be shared with the DIO by the end of January 2025. Further details will be shared with the ExA as the DCO process progresses. The Applicant considers that any arrangements currently in place relating to Burbo Bank Extension and Walney Extension Offshore Windfarms (OWFs) are primarily a matter between those developers and the BAE Systems (Operations) Ltd (and its agents). The Applicant notes that these agreements are not in the public domain and are not disclosable.

ExQ1	Question to	Question	Applicant's Response
		mitigation has not been implemented, how have impacts on the radar system been managed in the intervening period? b) What potential mitigation solution(s) are being discussed with the Applicant for the Proposed Development and are BAE Systems/ DIO content that any such mitigation is realistically achievable? c) Having regard to the answers to (c) above, is the mitigation being discussed in relation to this Project distinct and separate from that already agreed/ secured and as such are the solutions and costs associated with each of these independent of one another? d) Having regard to Schedule 2, Req 8 of the latest version of the dDCO [REP2-002], are BAE Systems/ DIO in agreement with the drafting? If amendments are sought, please provide alternative drafting. To all parties: e) Can all parties provide an update as to any progress made towards agreement on the proposed mitigation identified and likely timeframe for this mitigation solution to be secured/ implemented?	

ExQ1	Question to	Question	Applicant's Response
1CAR11	The Applicant	**Warton Aerodrome – Update to Schedule of Mitigation** At D2 a new Requirement was added to the dDCO [REP2-002] in relation to military radar mitigation but this is not reflected in the updated Schedule of Mitigation [REP2-016]. Please update the schedule of mitigation accordingly.	The Schedule of Mitigation has now been amended and submitted alongside this document at Deadline 3 (Schedule of Mitigation_Rev 03_Clean (Document Reference 5.5) to account for Requirement 8 in REP2-002.
1CAR12	The Applicant BAE Systems Marine Ltd NATS	**Walney Aerodrome – Minimum Sector Altitude (MSA)** Paragraph 2.10.3.2 of Appendix 16.2 [APP-078] indicates that the published MSA for Walney Aerodrome would need to be increased to maintain the necessary 300m obstacle clearance protection. In its RR BAE Systems Marine Ltd [RR-007] has indicated that the gap must be 305m and that BAE needs the height of the wind turbines to be verified by NATS. The Applicant's response ([PD1-011], RR-007-005) states that NATS has been commissioned to carry out an Instrument Flight Procedure (IFP) assessment on behalf of BAE and Walney Aerodrome and the results of this are expected in late 2024. To BAE Systems Marine Ltd: a) Please clarify and confirm what the published MSA for Walney Aerodrome is	The NATS Instrument Flight Procedure (IFP) assessment report was received on 20 December 2024 and is provided with this response to the ExA's questions (Impact Assessment of Proposed Morecambe Bay Windfarm Against Selected Instrument Flight Procedures (Document Reference 9.44)). The report concluded that there is a minor impact on Walney Aerodrome's IFPs which could be mitigated with relatively minor changes to the procedures.

ExQ1	Question to	Question	Applicant's Response
		and provide evidence to support this – i.e. is this 300m or 305m? To the Applicant and NATS: b) Please provide a copy of the NATS IFP assessment and its findings or, if this is not yet available, an update and likely timeframe for when this will be completed?	
1CAR13	The Applicant Blackpool Airport BAE Systems (Operations) Ltd BAE Systems Marine Ltd DIO NATS	**Instrument Flight Procedures (IFPs)** IFPs for Warton, Walney, Lowther and Blackpool Airport would require revision. In the Applicant's response to Blackpool Airport's Relevant Representation ([PD1-011], RR-013-02) it is stated IFP mitigation is predicated on revisions to Blackpool Airports IFPs following the CAA five-year audit review. This review is stated to be ongoing and due for completion by November 2024. If necessary, the IFP assessment may need to be reassessed. To the Applicant: a) Can the Applicant clarify and explain whether the CAA five year audit applies to all airports/ aerodromes or just Blackpool Airport? b) Can the Applicant please advise if this audit has been completed, summarise its findings (if known) and advise whether an update to the IFP assessment submitted as part of the application is required? If an update is	In respect of IFPs generally, the Applicant notes that requirements 5, 6 and 7 provide that IFP schemes addressing the potential impacts of the Project on the aerodrome IFPs (approved by the CAA, if required, NATS and the airport operator) must be submitted and approved before construction of the WTGs can commence. These requirements also ensure that no WTGs can be constructed until a mitigation agreement has been offered to the airport operator that ensures the approved mitigation can be implemented. As with radar mitigation, this is a standard approach which allows the final design of the Project to be reflected in the mitigation, where necessary. While the dDCO requirements provide that mitigation measures are to be approved post-consent, the Applicant has been in discussions with operators to identify and agree suitable mitigation. a) The Applicant can confirm the CAA five-year audits are carried on all civilian airports / aerodromes throughout the UK. b) The Applicant has been advised by Blackpool Airport that the CAA's recommendations from the audit have been actioned by the airport's contracted procedure design organisation (Cyrrus); this

ExQ1	Question to	Question	Applicant's Response
		required, please can the Applicant set out a likely timeframe for submission of such an assessment? c) Can the Applicant explain who would be responsible for making the changes to IFPs and the likely timeframe for completion? Would the timeframes differ for each airport or would these be the same? <u>All Parties:</u> d) Is there any reason or identifiable impediment why the required changes to the IFPs would not be agreed/ achieved? e) Having regard to Schedule 2, Requirements 5, 6 and 7 of the latest version of the dDCO [<u>REP2-002</u>], do parties agree with the drafting or are any amendments sought? If amendments are sought, please can all parties explain and provide any alternative drafting by Deadline 3?	involves changes to existing procedures which are currently being assessed by the airport. Once Blackpool Airport are satisfied with the changes, they will apply to CAA for the changes to formally approved and implemented. An update to the IFP assessment submitted as part of the application would be required following the completion of the five-year review process. In respect of Walney Aerodrome, as per the answer to 1CAR11 above, the report concluded that there is a minor impact on Walney Aerodrome's IFPs which could be mitigated with relatively minor changes to the procedures. The Applicant has held discussions with BAE Systems (Marine) Ltd regarding amendments to the IFPs. Progress on these discussions will be shared with the ExA as the DCO process progresses. c) The Applicant can confirm that any IFP changes at any airport is the responsibility of the airport's operating authority; however, oversight and approval from CAA is also required. Timelines of completion for IFP changes are dependent on resource availability of airport procedure design organisations and the CAA. The Applicant's contribution to or responsibility for any such changes would be secured as part of the mitigation agreements required by DCO requirements 5, 6 and 7. d) The Applicant does not foresee any reasons as to why the required changes to the IFPs cannot be agreed within the timescales provided by the dDCO requirements (i.e. prior to the construction of any WTGs), although it is anticipated that the IFP schemes will be finalised well in advance of WTG construction.

ExQ1	Question to	Question	Applicant's Response
			e) Requirements 5, 6 and 7 have been drafted by the Applicant. These have been shared with each relevant stakeholder for comment, and the Applicant does not envisage any issues with agreeing the wording of these Requirements.
1CAR14	DIO	**Military Low Flying Area and aviation lighting** Paragraph 5.5.5 of NPS EN-1 states that lighting may need to be compatible with night vision devices for military low flying purposes and in its RR [RR-021] the DIO refers to the Proposed Development lying within Low Flying Area 17 (LFA17). Please can the DIO: a) provide a plan showing the extent of the area covered by LFA17? b) advise whether low flying operations are restricted to daytime hours only or whether these can also be carried out during the night? c) having regard to Schedule 2, Requirement 3 of the latest version of the dDCO [REP2-002], confirm if it is agreement with the drafting or whether any amendments are needed. If amendments are sought, please can the DIO explain and provide any alternative drafting.	The Applicant notes 1CAR14 is directed to the DIO and shall not be responding.
1CAR15	The Applicant NATS	**Isle of Man Airport - Ronaldsway Airport Primary Surveillance Radar (PSR)**	a) The Applicant would defer to Isle of Man Territorial Sea Committee (IoM TSC) and Ronaldsway Airport for a definitive answer on this point, noting that the Isle of Man Civil Aviation

ExQ1	Question to	Question	Applicant's Response
	CAA Isle of Man Ronaldsway Airport IoM TSC	Paragraph 16.157 of ES Chapter 16 [REP1-036] indicates that Ronaldsway Airport has concerns about the number of offshore wind projects proposed in the Irish Sea and that there may be a technical impact with the processing capacity of the PSR. Paragraph 16.219 states that engagement is continuing to further understand any potential radar issues and mitigate these concerns. NATS have not commented on impacts to the Isle of Man Ronaldsway Airport in its RR [RR-060] and Ronaldsway Airport did not register a RR and so are not an IP. However, the RR from the IoM TSC [RR-031] does request continued engagement in relation to potential impacts on air travel and any mitigation and this is referenced within the draft SoCG with the IoM TSC submitted at Deadline 1 (item TSC 22 in REP1-066]). To All Parties: a) Please explain if and how the Isle of Man (IoM) Ronaldsway Airport regulations on air traffic safety relate to relevant UK regulations and guidance? To IoM TSC: b) Noting paragraph 14 of the draft SoCG submitted at D1 [REP1-066]), can the IoM TSC confirm it is representing the views of the airport at this Examination and, if so, can the SoCG be amended to	Administration (IOMCAA) sets regulations relating to aviation safety and air traffic services within the Isle of Man. The Applicant understands that various United Kingdom (UK) CAA policies have been adopted in the Isle of Man. In response to point c), the Applicant has undertaken engagement with IoM TSC and Ronaldsway Airport. A technical report is due to be undertaken by NATS on behalf of the airport to understand any potential effects as a result of the proposed development on the airport's Air Traffic Control (ATC) operations (including radar and VHF communications) and to identify a strategic route to mitigation, if needed. The technical report is expected by end February 2025. Progress on discussions will be shared with the ExA as the DCO process progresses. The Applicant is also in discussions with IoM TSC and Ronaldsway Airport on the wording of a requirement to be added to the version of the draft DCO submitted at Deadline 4 that secures appropriate mitigation, should this be required.

ExQ1	Question to	Question	Applicant's Response
		make this clear; and does it wish to make any further submissions in relation to the assessment or mitigation of potential interference with the airports PSR? To the Applicant c) Can the Applicant provide an update on discussions with the airport about potential concerns on radar processing capacity given the number of offshore projects and in particular whether any mitigation to address this has been agreed? If so, how is this to be secured?	
1CAR16	The Applicant	**Closure of airspace during UXO clearance** In their WR at Deadline 1 BAE Systems (Operations) Limited/ BAE Systems Marine Limited [REP1-100] highlighted potential impacts that could arise on their operations in the event there is a need for airspace to close during UXO clearance. Paragraphs 17.84 and 17.85 of ES Chapter 17 [REP1-038] note that UXO clearance will be the subject of a separate marine licence and that processes for managing UXO risk and communication would be followed, noting guidance such as Construction Industry Research and Information Association (CIRIA) C754, Assessment and management of UXO risk in the marine environment, 2015. Whilst we note this	a) The Construction Industry Research and Information Association (CIRIA) C754 guidance does not address Unexploded Ordnance (UXO) risk management with regards to risks regarding UXO clearance on airspace. The reference to CIRIA c754 in Chapter 17 was as follows "*There poses a risk to surrounding infrastructure and other marine users, however processes for managing UXO risk, and communication with surrounding users would be followed as appropriate, noting guidance such as:"* It is noted this guidance is noted in more general in terms of managing UXO risk. A synopsis of the document is available in Proceedings of the Institution of Civil Engineers – Maritime Engineering , but the Applicant cannot provide the document freely, given the purchase requirements. Further it is noted that UXO clearance is not part of this DCO Application. In response to point b) and c), the Applicant is unaware of the need to close airspace due to UXO clearance associated with the construction of other offshore infrastructure projects.

ExQ1	Question to	Question	Applicant's Response
		position, a series of UXO mitigation measures have been identified and outlined within the draft MMMP (Table 13.1 of [APP-149]) which are focused on protecting marine mammals. Therefore, the Applicant is invited to respond to the issues raised by BAE Systems and: a) Provide a copy of the CIRIA C754 guidelines and a brief summary of what these may say in relation to managing communications and risks regarding UXO clearance on airspace. b) Advise whether, given the windfarm site does overlap a historic military training area, there is a realistic prospect of the need to close airspace during UXO clearance operations? For example, have closures been necessary associated with the construction of other offshore infrastructure projects within the Irish Sea? If so, which projects and can the Applicant provide information on the number/ duration of any such closures? c) How would any closure of airspace be notified to other airspace users, in particular aircraft transiting the Class G (uncontrolled) airspace and so are not obliged to be in receipt of an Air Traffic Services?	The Applicant's preference for any necessary UXO clearance would be low order clearance, which is unlikely to result in any need for airspace closures. Limited airspace closures may be required in the unlikely event that high order UXO clearance is needed. Any closure of airspace would be notified to aircraft operators by means of the Notice to Aviation (NOTAM) system. In response to point d), it is envisaged that any closure of airspace would be subject to NOTAM action and only for very limited and specific time periods. The Applicant notes that these could be scheduled in coordination with local air operators so as to minimise any potential impacts to aircraft. The Applicant also notes that UXO activities would be subject to a separate licence application, which would be conditioned to secure any mitigation measures that were deemed necessary to mitigate impacts or disruption.

ExQ1	Question to	Question	Applicant's Response
		d) What measures would likely be put in place to mitigate impacts and disruption to BAE Systems (and other airspace users) should there be a need to close airspace during UXO clearance operations and how would these be secured (i.e. Requirement, Protective Provisions or Commercial Agreement)?	
1CAR17	Spirit Energy	**Helicopter flights - sectoring methodology** In its WR at D1 [REP1-116] Spirit Energy refers to the Applicant's analysis having split flights into multiple sectors, representing individual trips and stops on the flight route rather than as a whole trip. Spirit Energy argues this is wrong as *"...it is not possible to cancel separate sections of multi leg flights, or one sector of a multi sector flight"* and that *"Any routing changes must be made prior to the aircraft's departure from Blackpool which will cause a further 1hour delay for aircraft departure"*. Please can Spirit Energy expand and explain why it is not operationally possible to cancel separate sections/ sectors of a flight and why routing changes could not occur mid-flight given these flights take place within Class G (uncontrolled) airspace?	The Applicant notes 1CAR17 is directed to Spirit Energy and shall not be responding.
1CAR18	The Applicant	**Very High Frequency (VHF) and Direction Finding (DF) Communications**	In response to point c), the Applicant has requested proposals from qualified aviation consultancies to conduct the required Very High Frequency (VHF) and DF communications assessments for

ExQ1	Question to	Question	Applicant's Response
	BAE Systems (Operations) Limited BAE Systems Marine Ltd Blackpool Airport Ronaldsway Airport	In the draft SoCG submitted at Deadline 1 (BA 14, [REP1-070]) it is noted that Blackpool Airport has identified impacts to VHF radio and DF communications and stated that an assessment is required and needs to take into account other adjacent offshore wind farm projects. No such assessment is currently contained within the application documents, having previously been agreed to be scoped out. To Blackpool Airport/ BAE Systems: a) Please can Blackpool Airport/ BAE Systems explain why the concerns about potential impacts to VHF and DF communications were not identified earlier or whether something has changed since the Application was submitted which gives rise to these concerns? To BAE Systems (Operations) Limited, BAE Systems Marine Ltd and Ronaldsway Airport b) Do any of the operators of other aerodromes/ airports have any comments or concerns in relation to impacts on VHF and DF communications? If so please can summarise these concerns. To the Applicant: c) Discussions have commenced with Blackpool Airport about its concerns on VHF and DF communications and that	Blackpool Airport. Walney and Warton Aerodromes have also requested similar assessments to be undertaken (with the addition of UHF for Warton Aerodrome). The Applicant will confirm the position at Issue Specific Hearing 3 on Other Sea Users and Aviation on 5 February 2025. The Applicant would propose to submit these to the ExA as soon as they are received to be considered as Additional Submissions. The Applicant notes that Ronaldsway Airport is proposing to commission its own VHF communications assessment as part of their technical report, which is expected by the end of February 2025. Once the Applicant has received the results of the communications assessment, the Applicant will engage with the stakeholders and add the necessary requirements to the draft DCO that secures appropriate mitigation, should this be required. The Applicant also considers that, in the event it becomes apparent that commissioning and considering the results of any such assessments could extend beyond the examination timeframe, requirements can be added to the draft DCO that require such assessments to be carried out and make provision for any necessary mitigation thereafter.

ExQ1	Question to	Question	Applicant's Response
		an update will be given at a future deadline. Please can the Applicant provide an update by no later than Deadline 3 which includes: i) confirmation of whether an assessment is to be carried out and whether this is only required for Blackpool Airport or will include other aerodromes/ airports in the study area (and if so which ones); ii) if an assessment is to be undertaken, the timeframe for carrying out such an assessment and when it will be submitted into the Examination (albeit this must be received no later than D4 in order that parties have an opportunity to comment upon it). iii) if it is considered an assessment is not required, an explanation and justification to support the position and how the concerns raised by IPs will be addressed.	
Emergency Response Co-operation			
1CAR19	The Applicant	**Schedule of mitigation** Item 16.6 of the Schedule of Mitigation [REP2-016] still refers to the need to update IFPs in relation to RAF Valley however this has since been confirmed as not necessary	The Schedule of Mitigation has now been amended to remove Royal Airforce (RAF) Valley and submitted alongside this document at Deadline 3 (Schedule of Mitigation_Rev 03_Clean (Document Reference 5.5)).

ExQ1	Question to	Question	Applicant's Response
		and the dDCO updated to reflect this – see Schedule 2, Condition 7 of [REP2-002]. Please update the schedule of mitigation accordingly.	
4.Climate Change (CC)			
Assessment			
1CC1	The Applicant	**Greenhouse Gas Assessment** In relation to the assumptions for the GHG assessment (Table 21.12 of ES Chapter 21 [APP-058]) the Applicant has referred to "*Energy displaced by the Project*" in the *'Do Nothing*' scenario. Could the Applicant please comment in light of the recent cases of R *(on the application of Finch on behalf of the Weald Action Group) v Surrey County Council* [2024] UKSC 20 and *Friends of the Earth Ltd and South Lakeland Action on Climate Change v SSLUHC* [2024] EWHC 2349 (Admin), and whether these cases have any implications for the assessments of GHG emissions? If it is considered that it would affect the Assessment, could the Applicant please re-run the assessment (both individual and cumulative) based on any revised assumptions.	The outcomes of the Finch and Friends of the Earth cases would not affect the Assessment that has been undertaken. In the Finch v Surrey Council case, it was ruled that the grant of permission was unlawful for failing to assess 'downstream' Greenhouse Gas (GHG) emissions that had a causal link to the development that was being assessed. Within the judgment, causation was determined to be "a necessary condition for the occurrence" of the downstream effect – that is "would event Y have occurred but for the occurrence of event X" (para. 68). Thus, in the context of the Finch application, "extraction of the oil is not just a necessary condition of burning it as fuel; it is also sufficient to bring about that result because it is agreed that extracting the oil from the ground guarantees that it will be refined and burnt as fuel. As discussed above, a situation where X is both necessary and sufficient to bring about Y is the strongest possible form of causal connection." By considering energy displaced by the Project in the Assessment, and the assumption that electricity replaces generation from fossil fuel sources, the downstream use of products associated with the Project are inherently considered. Accordingly, the Applicant does not consider that there any implications for the assessment that has been undertaken.
1CC2	The Applicant	**Greenhouse Gas Assessment** It is noted that the Proposed Development would result in the re-routing of existing	a) The results from calculating emissions from vessel diversions are presented in Table 21.1 in Chapter 21 [APP-058]. Any changes to vessel routes associated with the Project is likely to result in a non-

ExQ1	Question to	Question	Applicant's Response
		ships (including ferries). The Applicant has undertaken an assessment of this in Section 5 of Appendix 21.1 of the ES [APP-087]. Could the Applicant a) explicitly set out how these have been included within the overall assessment as set out in Chapter 21 [APP-058]; and b) please explain how this has also taken into account adverse weather routings.	significant increase in journey times, and result in an estimated increase of 37.2 tonnes CO2e per year compared to current activities, which is considered to be negligible compared to direct Project emission sources. As such these calculations have been considered against the overall conclusions, with no identified material changes. b) Only one of Stena Line's Liverpool to Belfast route options will be diverted by the Project and the diversion on this route is the same for the Project alone in normal and adverse weather conditions. It is noted that the cumulative deviation in adverse weather conditions is greater, however this reflects deviations required for other projects outside the control of the Project. The approach to calculating emissions as a result of a deviation of re-routing vessels was aligned with the methodology to account for effects from the Morecambe project alone. Should the calculation of re-routing vessels consider the cumulative effect of all three projects, all potential emission savings from those projects would also need to be considered, resulting in a greater emission reduction compared to the established baseline scenarios. Therefore, the consideration of re-routing vessels on a cumulative basis would not affect the outcomes of the assessment, which is an overall net benefit to United Kingdom (UK) GHG emissions.
1CC3	The Applicant	**Greenhouse Gas Assessment** In the event that the Applicant accepts that there would be some reduction in wind speeds in relation to nearby offshore windfarms in the Irish Sea (see questions ExQ1OO1 to ExQ1OO5), could the Applicant please ensure that this is factored into any revised Greenhouse Gas	The Applicant acknowledges that reductions in wind speed at other operational projects could occur, however the variability in wake effects calculations compared to the small percentages presented by the Ørsted IPs (REP2-041) is noted. The Applicant has reviewed the numbers provided by the Ørsted Interested Parties (Ips) both annually and over the lifetime of the Project in terms of the loss of generation. Given the low magnitude for any potential wake effects, it is not considered that there would be a material impact on the

ExQ1	Question to	Question	Applicant's Response
		Assessment, explaining how any reduction in GHG benefits has been calculated.	predicted greenhouse gas savings and the outcomes of the Environmental Statement (ES) would not be altered. The Applicant has reviewed the numbers provided by the Ørsted IPs both annually and over the lifetime of the Project in terms of the loss of generation. This has confirmed the above statement. A revised Climate Change chapter including consideration of wake effects on a qualitative basis will be provided at Deadline 4.
1CC4	The Applicant	**Carbon Management in Infrastructure: PAS 2080** Paragraph 21.49 of the ES [APP-058] states that *"Best practice measures have been reviewed and identified as part of the GHG assessment …"* Paragraph 21.161 of the ES [APP-058] lists certain management measures during construction which are *"considered best practice for further consideration at the Project develops but are not required as additional mitigation …"* (sic): there appears to be no mention of PAS 2080 in relation to operation and maintenance but paragraph 21.173 states that these (construction) measures would also apply to decommissioning activities. Please could the Applicant explain in more detail: a) what would these best practice measures be? b) how would they be secured? and	a) There are opportunities for reductions in construction phase greenhouse gas emissions which can be captured through the implementation of standard carbon management processes. The following measures are examples of best practice: ▪ Optimise construction activities to maximise efficiency, resulting in a reduction in fuel and material consumption, and promote resource efficiency ▪ Explore opportunities to reduce embodied carbon and other emissions by developing carbon-focused procurement criteria and incentive mechanisms for material suppliers such as low carbon materials and performance benchmarking ▪ Consider opportunities for the potential re-use and recycling of material assets and waste ▪ Provide training and raise awareness among parties involved in the Project's delivery on key GHG emission sources and low carbon solutions ▪ Promote collaboration and information sharing across parties involved in the Project's delivery to encourage carbon reductions and continual improvement. ▪ Explore opportunities to reduce embodied carbon during construction and over the operational lifetime by: - adopting a design for longevity approach to minimise the frequency of maintenance, repair and replacement events

ExQ1	Question to	Question	Applicant's Response
		c) how the principles of PAS 2080:2023 Carbon Management in Infrastructure and Built Environment have been taken into account in the assessment methodology, with particular reference to the entire project lifecycle.	- consider alternatives during material specification where technically and commercially feasible (e.g. locally sourced, higher recycled content, low-carbon concrete) ▪ Consider aligning fuel specifications for marine vessels and plant and equipment with latest industry standards and available proven technologies during the construction, operation and decommissioning phases and maximise the use of electric and low-carbon fuel alternatives where practicable ▪ Consider aligning end-of-life strategies of infrastructure components with latest regulatory requirements, industry standards and available proven technologies at the time of replacement or decommissioning and maximise re-use and recycling where practicable b) During the detailed design stages of the Project, the Applicant will explore the potential to adopt low-carbon solutions. However, specific details and commitments regarding the use of materials with lower embodied carbon cannot be provided at this stage. The Applicant intends to update the Design Statement (APP-021) at Deadline 4 to secure best practice measures and design principles in relation to carbon management. The Applicant will include revised wording within the Draft Development Consent Order (DCO) submitted at Deadline 4 that secures the implementation of design principles, likely by insertion into the deemed Marine Licence (DML) condition securing the production and approval of a design plan (Condition 9(1)(a)(ii)). In addition, vessel movements will be managed through the Vessel Traffic Management Plan (VTMP) to further reduce emissions associated with vessels. c) The updated 'PAS 2080: Carbon Management in Buildings and Infrastructure' (2023) published by the British Standards Institution provides requirements for the management of whole life carbon in infrastructure projects. The principles of PAS 2080 have been

ExQ1	Question to	Question	Applicant's Response
			adopted in the assessment by calculating emissions across its full lifecycle, including construction, operation and decommissioning. The GHG assessment itself was undertaken using a realistic worst-case scenario, as detailed in Section 21.3.2 of the ES [APP-058], to ensure a conservative approach has been adopted when predicting emissions released from the Project. The Applicant recognises the principles of PAS 2080, and will consider how these can be incorporated into the updated Design Statement to be submitted at Deadline 4.
1CC5	The Applicant	**Worst Case scenarios – Transmission Assets and delay to the delivery of benefits** At D1 the Applicant presented Gantt charts showing the realistic expected and delayed scenarios to justify the proposed 7-year implementation period in the draft DCO [REP1-086]. Plate 3.2 presents the delayed scenario and includes a potential delay to the construction of the project in the event of a judicial review being lodged but does not take into account any potential similar challenge to the associated Transmission Assets project. In the Applicant's summary of oral representations made at ISH1 [REP1-085], it is stated that it is a realistic intention to have the project operational by 2030 and that "*The commercial position of the projects would dictate that you would need both the Generating Assets and the Transmission Assets to be fully consented and 'ready to go' before there would be any progress*	a) In the delayed scenario presented in Plate 3.2 of the Applicant's Response to Actions arising from Preliminary Meeting and Issue Specific Hearing 1 (REP1-086) a delay to the Project as a result of a judicial review results in the Project being ineligible for Contracts for Difference (CfD) AR8 in 2026. The Project might therefore be required to bid for CfD AR9 in 2027, which will delay project financing and the issuing of the Notice to Proceed (NtP). A 12 month delay to securing the consent free of challenge for the Transmission Assets project as a result of a judicial review to Q1 2027 would still allow the Project to apply for CfD AR9 in 2027 which, based on the timings of recent CfD auction rounds, is anticipated to open in Q2 2027. The Applicant does not, therefore, consider that a judicial review challenge to the Transmission Assets project will materially change this "delayed" scenario given the timescales of the CfD allocation rounds. b) The GHG assessment used two 'Do Nothing' scenarios, which consider the displacement of emissions associated with the provision of renewable energy from the Project. In Scenario 1, it is assumed that electricity displaces generation from 'non-renewable fuel' sources. The carbon intensity of electricity from 'non-renewable fuel' sources may decrease slightly beyond 2030, but not to the extent where it would change the outcome of the assessment. In Scenario 2, it is assumed that the Project

ExQ1	Question to	Question	Applicant's Response
		substantively with either part". Having regard to this position: a) Should there be a judicial review challenge to the M&MTA project, how might this impact upon the decision to commence construction of the Generation Assets project and therefore implementation within the 7 year period? b) What effect would any such delay also have in terms of the delivery of the benefits of the scheme by 2030 as intended? c) Should Plate 3.2 be updated to take into account the above scenario and therefore represent a worst case? Please also see ExQ1DCO2.	displaces electricity generated using all energy sources considered in the future UK grid mix, including renewable and other low carbon generation sources. This factor is derived from modelled scenarios to reflect the decarbonisation of the UK power sector as a result of policies such as the National Policy Statement (NPS) for Energy EN-1. A delay in the delivery of the Project would reduce potential emission savings when using the long run marginal factor. As noted in paragraph 21.179 of the ES [APP-058] however, there are limitations to using the long run marginal factor to predict emission impact from a project, as it assumes that renewable energy schemes such as the Project have been widely adopted. Even in 2050, the long run marginal factor still contains fossil fuels in the energy mix, so there is still a clear need and benefit from the Project. More generally, the Applicant reiterates its carefully planned and realistic intention for the Project to be generating by 2030. This is set out Plate 3.1. At the stage of applying for development consent, there can be no guarantee that any offshore wind farm can be delivered to a particular timeline, or indeed at all. This is particularly the case given the current structure of the UK energy market where projects seeking a support mechanism must 'bid' for a Contract for Difference so there is always a chance a bid will not be successful (see e.g. paragraph 2.4.2 onwards of NPS EN-1) (also note that the CfD differs from some historic support mechanisms in the UK for renewables projects, such as Renewable Obligation Certificates which were not limited in this way). The delayed scenario in Plate 3.2 is a worst case, and the 7-year commencement period proposed in the draft DCO to facilitate this is very much a fall-back position. The Applicant considers the detail in the Application around delivery (summarised in Plate 3.1) including matters such as the secured

ExQ1	Question to	Question	Applicant's Response
			Agreement for Lease with The Crown Estate (TCE) are more than sufficient for the ExA and the Secretary of State to be satisfied that significant weight can be placed on the anticipated contribution of the Project to the UK Government 50GW by 2030 ambition (see e.g. paragraph 3.3.21 of NPS EN-1). The potential for delay is not different to other offshore wind farms, and the weight placed on the expected contribution to targets should – as it is on other offshore wind farms – be substantial. In addition, and importantly, if delays mean the 50GW by 2030 targets are not met, this does not mean that the projects aiming for that target are no longer needed. The ultimate target of net zero by 2050, is a legal obligation (see 2.2 of NPS EN-1). Given the urgency, it is right that stretching interim targets are set (like 50GW by 2030), but if an interim target is not met then the task of meeting the next target is simply that much harder and the need for renewables projects that much greater. The 50GW ambition is a step, not the end goal. In terms of how much offshore may be needed to achieve that end goal, NPS EN-1 states: "*Our analysis shows that a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed predominantly of wind and solar.*" (paragraph 3.3.20). The analysis referred to contains scenarios with 120GW of offshore wind by 2050. Aligned with this need, NPS EN-1 goes on to identify low carbon infrastructure, such the Project, as critical national priority. This critical national priority category is framed by reference to achieving net zero by 2050, and there is no separate timescale criteria (i.e. offshore wind would still be Critical National Priority (CNP) if it were commissioned post 2030). This recognises that some CNP projects will be needed to deliver the 50GW by 2030 ambition, but others will contribute to later targets and the ultimate net zero by 2050 legal obligation. Also aligned with this approach, the NPSs impose no limit on the

ExQ1	Question to	Question	Applicant's Response
			capacity needed for offshore wind (see NPS EN-1 4.2.21 and NPS EN-3 3.3.9). c) The Applicant does not, therefore, consider that a judicial review challenge to the Transmission Assets project will materially change this "delayed" scenario given the timescales of the CfD allocation rounds, and therefore the Applicant considers that no update to Plate 3.2 is required.
5.Commercial Fisheries (CF)			
1CF1	The Applicant	**Correction/ Errata - oFLCP** Paragraph 7 [APP-147] makes reference to condition (e)(iv) of the dDML within the dDCO as securing the final FLCP whereas in the latest version of the dDCO [REP2-002] this is secured within Condition 9(1)(k). Please can the Applicant amend the oFLCP to reflect correct reference in the latest version of the dDML/ dDCO.	The Applicant confirms this has been updated in the Outline Fisheries Liaison and Co-Existence Plan_Rev 02 (oFLCP) (Document Reference 6.3) provided at Deadline 2.
1CF2	The Applicant	**Missing Plans - ES Chapter 13 and Appendix 13.1** Paragraphs 13.62, 13.89 and 13.92 of ES Chapter 13 [APP-050] refer to Figures 3.22, 3.24, 3.26, 3.28 and 3.30 in Appendix 13.1 [REP2-014]. However, these references do not appear to be correct, or the figures referenced are missing (as the series 3 Figures in Appendix 13.1 only go up to 3.21).	In Chapter 13 the correct references to figures in Appendix 13.1 are: Figure 3.22 should refer to Figure 4.1 Figure 3.24 should refer to Figure 4.10 Figure 3.26 should refer to Figure 4.6 Figure 3.28 should refer to Figure 4.11 Figure 3.30 should refer to Figure 4.7 The Applicant can confirm this has been updated in the Chapter and provided at Deadline 3 alongside a request from the Isle of Man Territorial Sea Committee (IoM TSC) to use the acronym of the MFPO rather than the full text of the Manx Fish Producers

ExQ1	Question to	Question	Applicant's Response
		Could this, and all cross referencing within this Chapter, please be checked and/ or the missing figures supplied?	Organisation (Chapter 13 Commercial Fisheries_Rev 2 Clean (Document Reference 5.1.13).
1CF3	The Applicant MMO NFFO IoM TSC	**In Principle Monitoring Plan - Landings Data and Monitoring** Paragraph 13.302 of ES Chapter 13 [APP-050] states that the IPMP includes for the monitoring of commercial fisheries data pre, during and post construction. Paragraph 39 of the IPMP states that this is likely to be managed outwith of the IPMP. Table 2.5 of the IPMP [APP-148] states that monitoring would be carried out for a minimum period of 5 years and does not include monitoring during or following decommissioning. Assuming an approximate construction period of 2.5 years, it is assumed that pre and post construction monitoring would therefore equate to approximately 1.25 years each. Please also see ExQ1GEN11. To the Applicant: a) Can the Applicant explain why a commitment to monitoring landings data is proposed to sit outwith the IPMP and, if so, how would this be secured? b) Rather than sit outwith of the IPMP, could the IPMP and/ or the oFLCP be amended to secure this and if not, why not?	a) The Applicant notes that monitoring of commercial fisheries is listed in the In Principle Monitroing Plan (IPMP). The detail of this monitoring will be agreed and secured in the FLCP and monitoring reports will be used to inform FLCP updates that may be required over the lifetime of the Project or identification of further monitoring or mitigation. The monitoring sits outwith the IPMP since results will inform commercial discussions with local fishers and any further iterations of the FLCP (where the monitoring is secured) that may be required. b) In line with above the Applicant confirms that the oFLCP (Document Reference 6.3) has been updated at Deadline 3 to include the monitoring stated in the IPMP. c) The Applicant is committed to updating the FCLP for the different phases of the development, including prior to operation and prior to decommissioning. A decision on the continuation of monitoring during the decommissioning phase will be based on the outcomes of the monitoring post-construction and made with respect to the Decommissioning Programme. d) The Applicant has no comment with the question addressed to other Interested Parties (IPs). e) The Applicant has no comment with the question addressed to other IPs. f) The Applicant has committed to five years of monitoring and acknowledges the importance of aligning with other projects in the region (i.e., for these 5 years of monitoring to be focused on post construction). The Applicant proposes that the details of methodology should be harmonised across regional projects post consent and through consultation with the fishing industry.

ExQ1	Question to	Question	Applicant's Response
		c) Can the Applicant explain why monitoring of landings data is not proposed during or post decommissioning given the potential impact of activities during decommissioning have been assessed as being the same as those during construction? To address this can the IPMP be amended to make clear monitoring would be carried out during and post decommissioning and for how long? <u>Other IPs:</u> d) Do any other IPs have any comments or views on how the commitment to monitoring should be secured? e) Is monitoring on landing data sufficient? f) Could NE confirm whether 1.25 years of data would be sufficient to evaluate the effect of the construction and operation of the proposed development on the fisheries resources at or near the site, or whether a longer post construction monitoring period is necessary. g) This has been addressed to NE but Should monitoring be extended to include during and post decommissioning activities and if so, can other IPs explain with reasons how long it is considered such monitoring would	g) The Applicant has no comment with the question addressed to other IPs.

ExQ1	Question to	Question	Applicant's Response
		be required following completion of the works?	
1CF4	IoM TSC	**Applicant's Response to Relevant Representation** In its [RR-031] the IoM TSC has stated that *"there remains some lack of consistency between Chapter 13 Environmental Statement and the baseline technical report (Appendix 13.1). This should be considered and corrected both for ensuing accuracy of the record, and also to ensure that the conclusions of the EIA are accurate".* The Applicant's response to RR-031-07 [PD1-011] states that it does not consider there is a lack of consistency. Please can the IoM TSC identify and explain the inconsistencies between ES Chapter 13 [APP-050] and the Appendix 13.1 [APP-072] that it is referring to?	The Applicant confirms that meetings held between the Applicant and with the IoM TSC provided further clarity on comments related to the baseline technical report (Appendix 13.1), which was subsequently updated (at Deadline 2) to address these comments. This included extending the baseline period for analysis of landing statistics from 2016-2022 to 2011 to 2022 which aligns with the long-term period assessed for queen scallop. The updates to the technical report did not change any conclusions assessed in the ES Chapter 13. The IoM TSC has made the Applicant aware of some further minor comments which are specific to Isle of Man territorial waters and do not change any conclusions assessed in the ES Chapter 13. The Applicant proposes to recognise these minor edits within the Statement of Common Ground (SoCG) at Deadline 4 and do not change any conclusions assessed in the ES Chapter 13.
1CF5	IoM TSC	**Applicant's Response to Relevant Representation** In its RR [RR-031] the IoM TSC states that it retains some concerns about the scope (number of years and period) and type of fishing activity data used to characterise the baseline of regional fisheries. It is added that *"Factors such as Covid, Brexit and cyclical patterns of particular species are acknowledged, but apparently not consistently or fully considered".*	It is noted that Appendix 13.1 has been updated (at Deadline 2) in response to discussions with the IoM TSC and their Relevant Representation (RR) in relation to the baseline data included. The Applicant confirms that the technical baseline has been updated to include an extended baseline period for analysis of landing statistics from 2016-2022 to 2011 to 2022 which aligns with the long-term period assessed for queen scallop. The Applicant considers the matter resolved.

ExQ1	Question to	Question	Applicant's Response
		Please can the IOM TSC explain what is meant by *"apparently not consistently or fully considered*"? Can the IOM TSC give examples or reasoning for this statement?	
1CF6	The Applicant	**Monitoring/ maintenance of retained features post-decommissioning** Table 13.2 of ES Chapter 13 [APP-050] states that it is likely that some infrastructure could be retained in-situ post decommissioning (e.g. inter-array and platform cables; scour protection; crossings and cable protection and part foundations of WTGs). Conditions 9(1)(d)(cc) and 16(5) of the dDML [REP2-002] provide for post-construction monitoring to be carried out but only until the development is decommissioned. Should cables not be buried and structures and cables were to be retained in-situ, can the Applicant, please advise and comment on: a) what measures would be in place to identify these features long-term? b) who would be responsible for monitoring/ maintaining retained features post-decommissioning, and for how long, to ensure they don't pose a long-term risk? c) how would such an obligation and commitment be secured given the	a), b) and c) The Energy Act 2004, specifically sections 105-114, make provision for decommissioning programmes to be required and approved in connection with the construction or operation of a renewable energy installation in United Kingdom (UK) waters. Section 105(8) sets out what a Decommissioning Programme must include and, where it is proposed that any infrastructure remain in situ, this must also include "provision about whatever continuing monitoring and maintenance of the object will be necessary" (sub-paragraph (e)). Section 109 of the Energy Act 2004 subsequently requires an approved Decommissioning Programme to be carried out in every respect and for any conditions to be complied with. The Applicant notes that, in addition to the requirement under section 105(8)(e) regarding post-decommissioning monitoring and maintenance, guidance issued by The Department for Business, Energy and Industrial Strategy (BEIS) also makes it clear that Decommissioning Programmes should include robust preparation for post-decommissioning monitoring, including mechanisms to manage any 'residual liabilities' for infrastructure left in-situ (BEIS, Decommissioning of Offshore Renewable Energy Installations under the Energy Act 2004: Guidance notes for industry (England and Wales), March 2019, para. 5.7.16, pgs. 21-22) The Applicant considers that full provision in relation to decommissioning (including any infrastructure to remain in situ) is made by the legal obligations under the Energy Act 2004, and the requirement to prepare a Decommissioning Programme included in the draft Development Consent Order (dDCO) provides further

ExQ1	Question to	Question	Applicant's Response
		current drafting of Conditions 9(1)(d)(cc) and 16(5)? d) if features were to be retained post-decommissioning, and no such post-decommissioning monitoring is carried out and secured, should the significance of effects be greater than that assessed for construction given the absence of any additional mitigation? If not, can the Applicant please explain why?	reassurance and, as such , no further amendment to the deemed Marine Licence (DML) conditions is required (see also response to question 1DCO4 below). The Applicant also notes paragraph 4.12.10 of EN-1 which notes that "The Secretary of State should work on the assumption that the relevant [...] regulatory regimes, including those on land drainage, water abstraction and biodiversity, will be properly applied and enforced by the relevant regulator. The Secretary of State should act to complement but not seek to duplicate them." It is difficult for the Applicant to consider at this stage, prior to detailed design, what measures might require to be in place long-term in the event that any infrastructure can remain in situ. This would be determined as part of the approval of the Decommissioning Programme, which would then be reviewed and revised at regular intervals until the point of decommissioning to ensure that it follows the best practice at the time decommissioning takes place. Possible measures that might be secured in the Decommissioning Programme, in the event that structures and cables are to remain in-situ, could include Notices to Mariners and informing the United Kingdom Hydrographic Office (UKHO) to ensure that any remaining infrastructure is sufficiently charted on the relevant marine charts. Periodic surveys would be carried out as required to check on the status of any remaining infrastructure, with the methodology and frequency to be agreed via the Decommissioning Programme, secured in the dDCO in Schedule 2 Part 9 and Schedule 6 Part 6. The Applicant also notes that, to the extent that any decommissioning activities constitute licensable activities in their own right, further consents or licences would be required, together

ExQ1	Question to	Question	Applicant's Response
			with an Environmental Impact Assessment (EIA) which would identify any further mitigation or monitoring that was required. d) The Applicant is working on the assumption, which is considered reasonable given the process for approving, implementing and complying with Decommissioning Programmes under the Energy Act 2004, that any features that are permitted to be retained post-decommissioning would either be environmentally benign or would be subject to suitable controls under the Decommissioning Programme such that the retained infrastructure would not give rise to significant effects. Finally, it is noted that the expectation is that Project would be repowered rather than removed at the end of the operational life (subject to the necessary consents being obtained). For example, the The Crown Estate (TCE) IM (REP1-091) states "we have updated our lease terms for Round 4, extending agreements from 50 to 60 years, allowing for a total of two full operational life-cycles."
1CF7	NFFO Traditional and Sustainable Commercial Fishing Association IoM TSC	**Displacement of fisheries during construction** In the RR from the NFFO [RR-059] it is stated the Applicant's assumption that commercial fisheries, specifically mobile gear, will be able to return post construction to mitigate impacts is exaggerated and that there is little evidence from current operational wind farms that mobile gear has returned to activity levels similar to pre-construction. The Applicant's response ([PD1-011, RR-059-05) comments that the impact assessment found relatively low levels of activity by mobile fleets within the Proposed Development site, as evidenced	The Applicant highlights that additional sources of spatial data have been added to the updated baseline technical report (Appendix 13.1 at Deadline 2) which demonstrate that: ▪ Activity for queen scallop dredge is predominately located south and west of the windfarm site, with a portion of overlap in the south-east corner (Figure 4.18); ▪ Activity by the European Union (EU) (including UK) beam trawl fleet within the Proposed Development was low to negligible during the period from 2014 to 2019; moderate activity is noted in 2012, 2013 and 2020, with the windfarm site located at the southern extent of the beam trawl targeted fishing ground (figure 4.19 and 4.20). ▪ Monitoring of potting activity by vessels that carry Automatic Identification System (AIS), indicates activity within the

ExQ1	Question to	Question	Applicant's Response
		by vessel monitoring system data and scallop grounds mapped by the ICES Scallop Working Group, as well as consultation via the FLO. Having regard to this response could the NFFO and The Traditional and Sustainable Commercial Fishing Association: a) confirm whether it is content with the methodology and sources of information used by the Applicant to identify and assess the extent of mobile gear fishing activity within the footprint of the Proposed Development. If not, why and what other evidence or sources of information do the parties consider should have been used in the assessment? b) confirm whether it agrees that activity by mobile fishing fleets within the Proposed Development footprint is relatively low? If not, can it please provide evidence which supports or substantiates that position? c) provide evidence to demonstrate and support the position that fishing activity within other operational offshore windfarms has not returned to that prior to construction? For example, which offshore windfarms, what was the level of activity before and post construction and how do those development compare with the Proposed Development in terms	windfarm site, as well as numerous other fishing grounds targeted in the east Irish Sea. ▪ Engagement with the inshore fleets has provided further information on fishing grounds including the following, which align with the findings of the baseline technical report: ○ mussels and cockles in the immediate inshore areas (inside 3 NM); ○ mixed demersal throughout International Council for the Exploration of the Sea (ICES) rectangle 36E6 (targeted by fixed/drift nets and gear with hooks); ○ whelk, crab and lobster targeted by pots throughout ICES rectangle 36E6.

ExQ1	Question to	Question	Applicant's Response
		of footprint size, distance between WTGs and types of fishing activity? Paragraph 13.170 of Chapter 13 of the ES [APP-050] makes clear it is up to skippers as to whether they would be willing to undertake fishing activities within the array once constructed. Having regard to the design parameters and mitigation measures proposed as part of this specific development (including the embedded and additional mitigation including those within the oFLCP). d) can the parties explain why it is considered access would not be possible post-construction? For example, are there nominal clearances that skippers would wish to see to ensure safety and, if so, can these be provided for each of the different fishing operations identified (and any others which the parties consider have been omitted)?	
1CF8	NFFO	**Significance of displacement effects and monitoring** In its RR [RR-059] the NFFO *"feel that the assumption of no displacement effects … is vastly underestimated, assessed as negligible on all occasions*". The Applicant's response ([PD1-011], RR-059-06) and Table 13.25 of ES Chapter 13 [APP-050] however indicate that the impact assessment found a	The Applicant notes 1CF8 is directed to the National Federation of Fishermen's Organisation (NFFO) and shall not be responding.

ExQ1	Question to	Question	Applicant's Response
		moderate adverse (significant effect) for the UK potting fleet during construction and for all other fleets the effect was assessed as being minor adverse (not significant). The only receptor where the effect of displacement was found to be negligible was the pelagic trawl fleet. Having regard to the above, please explain why it is considered the displacement effects have been underestimated and where it is stated such effects have been assessed as negligible?	
1CF9	The Applicant	**Transboundary Effects – Republic of Ireland and Belgium Fishing Fleets** Paragraph 13.296 of ES Chapter 13 [APP-050] states the potential transboundary impact of constraints on foreign commercial fishing activities is concluded to be of negligible adverse significance and is therefore considered to be not significant in EIA terms. This appears to be different to the conclusions listed in Table 13.25 for all phases of the development (that is construction, operation and maintenance and decommissioning) which identifies the residual effect would be minor adverse. Can the Applicant please check this and clarify/ confirm?	The Applicant confirms the position that: ▪ The transboundary impact on Irish and Belgian foreign fleets in non-UK Exclusive Economic Zone (EEZ) areas is considered negligible, as described in Section 13.8 of ES Chapter 13 (APP-050), and ▪ The impact of the Project on Irish and Belgian foreign fleets within the UK EEZ is considered minor adverse, as assessed in Section 13.6 and summarised in Table 13.25 of ES Chapter 13 (APP-050).
1CF10	The Applicant	**Fisheries Clearance and Safety Zones – Surveying and pre-construction activities**	a) and b) The Applicant confirms that standard safety zones and operational safety zones are legal Safety Zones related to the application for 500m and 50m radius Safety Zones under the Safety

ExQ1	Question to	Question	Applicant's Response
		Paragraph 9 of the oFLCP [APP-147] refers to potential restrictions as "*likely to include standard safety zones during surveying, pre-construction and construction, and operational safety zones around staffed or sensitive offshore platforms during operation and maintenance…*". Paragraph 22 states "*Fisheries clearance zones would be provided to the fishing industry prior to surveys and construction where required, …*". a) Can the Applicant please clarify and explain if there is a difference between '*standard safety zones*', '*operational safety zones*' and '*fisheries clearance zones*'? If so, please confirm the size of each and how long each of these would likely be in place? b) If safety and fisheries clearance zones are likely to be required during surveying and pre-construction activities (as indicated by paras. 9 and 22 of the oFLCP), should Table 3.1 of the revised Safety Zone Statement [REP1-006] be updated to include reference to these activities/ stages and confirm details of the sizes of such zones identified? If not, why?	Zone regulations (the Electricity (Offshore Generating Stations) (Safety Zones) (Application Procedures and Control of Access) Regulations 2007) during construction or major maintenance events during operation. Fisheries clearance zones relate to the area over which the Applicant would seek to establish a co-operation agreement with individual fishers and is likely to relate directly to the Safety Zones, but may, subject to negotiation and the Project requirements, extend beyond the safety zone e.g., related to cable installation specifications for inter-array cabling based on cable burial risk assessment. The Applicant has updated and simplified text regarding Safety Zones in the oFLCP for Deadline 3 (Outline Fisheries Liaison and Co-Existence Plan_Rev 02 Clean (Document Reference 6.3). Reference to Safety Zones in the oFLCP relates to Safety Zones as defined in the Safety Zone Statement (REP1-006): Safety Zones: ▪ 500m radius from any Project construction activity above or below water will be applied for ▪ 50m safety zone will be applied for around partially completed Project structures or complete Project structures undergoing commissioning The need for fisheries clearance may only be required with regard to static gear fisheries within construction/decommissioning work areas as outlined in Table 13.2 of ES Chapter 13 [APP-050] In relation to pre construction surveys the Applicant has updated the oFLCP (Outline Fisheries Liaison and Co-Existence Plan_Rev 02 Clean (Document Reference 6.3)), removing reference to pre-construction and surveys, as the scope of the FLCP is for construction, operational and decommissioning activities. Therefore, Table 3.1 of the Safety Zone Statement does not require update. To

ExQ1	Question to	Question	Applicant's Response
			date liaison with the fishing industry has been carried out via the Project Fisheries Liaison Officer (FLO) who have coordinated fisheries clearance to facilitate pre-construction surveys to date, which would also be undertaken for further pre-construction surveys.
1CF11	The Applicant	**Fisheries Clearance and Safety Zones – Construction phase** Paragraph 13.108 of ES Chapter 13 [APP-050] indicates that during construction, safety zones would be 500m whilst Table 13.2 indicates that these could be extend to up to 1000m around vessels, in exceptional circumstances, to allow safe passage. Can the Applicant please give an example of what an exceptional circumstance could be and how has this potentially larger area been reflected in the assessment given it is not identified as a worst-case scenario parameter?	Table 13.2 of ES Chapter 13 [APP-050] indicates that advisory safe passing distances around project related mobile installation vessels could in exceptional circumstances be extended up to 1000m. The Applicant confirms that safety zones would be limited to 500m as per Safety Zone legislation. The advisory safe passing distance is advisory and not enforceable; however vessels will also be displaying Restricted in Ability to Manoeuvre lights under the International Regulations for Preventing Collisions at Sea (COLREGs). The assessment has considered that the standard advisory safe passing distance would be 500m radius, and that 1,000m radius is unlikely to be used in all but exceptional circumstances. Such circumstances would include the instance of cable laying vessels towing significant lengths of equipment behind them when actively constructing or maintain inter-array or platform link cables. The Applicant confirms that the size and duration of advisory safe passing distances will be minimised where safe and practicable to do so.
1CF12	The Applicant	**Fisheries Clearance and Safety Zones – Operational and maintenance phase** Paragraph 14 of the Safety Zone Statement [REP1-006] states that it *"…does not currently foresee any specific need for Safety Zones to be established around the OREI during the operational phase, with the exception of during major maintenance*	Safety zones expected to be applied during operation and maintenance are as stated in the Safety Zone Statement [REP1-006]. a) The Applicant confirms that during the operation and maintenance phase Safety Zones of 500m would be limited to major maintenance activities and would be temporary. No permanent Safety Zone would be in place during the operational phase.

ExQ1	Question to	Question	Applicant's Response
		activities" whereas paragraph 9 of the oFLCP [APP-147] indicates the possibility of *"operational safety zones around staffed or sensitive offshore platforms during operation and maintenance, or in some cases, around access points to turbines".* Paragraph 13.173 of ES Chapter 13 [APP-050] also suggests there would be an assumed operating distance from infrastructure (50m radius) and paragraph 13.217 identifies such zones as being advisory around WTGs/ OSPs. Whilst we note the Schedule of Mitigation submitted at D2 (row 17.9 of [REP2-016]) sets out details of the sizes of such zones, please can the Applicant: a) clarify whether safety zones would be established during the operational phase (i.e. not just during maintenance) or whether these would simply be advisory? b) if zones are to be imposed, can the Applicant confirm how big these would be, to which specific infrastructure they would apply (e.g. WTGS/ OSPs, etc.) and what 'sensitive offshore platforms' are? c) if operational safety zones are to be imposed, how have these been reflected in the assessment given they are not	b) The Applicant confirms that no further Safety Zones (outside of maintenance activities) would be imposed during operation. A safe operating distance of 50m from infrastructure during operation is assumed for assessment purposes and is not enforceable. c) The Applicant confirms that the worst case scenario includes maintenance related Safety Zones of 500m which are temporary during the maintenance works and an assumed safe operating distance of 50m during the entirety of the operational phase. d) As detailed in the Safety Zone Statement (REP1-006) ,during major maintenance, it is considered that a Safety Zone of up to 500m would be required when a jack-up vessel is onsite undertaking major component replacements. It has been assumed and assessed that a jack-up vessel (or similar) would be used every other year across the windfarm site. In this instance, Safety Zones would be up to 500m. During this type of maintenance activity, a jack-up vessel would be required on site for a period of days to weeks. For comparison, this is expected to substantially less than the total duration of the construction phase. Periods of "heavy maintenance" (expected to be every fifth year) refers to scheduled maintenance activities requiring numerous vessels on site (as detailed in the Outline Offshore Operation and Maintenance Plan (REP2-020). Scheduled maintenance would not require a jack-up vessel (or similar). In periods of scheduled maintenance, a passing distance may be sought dependent on the activity and health and safety risk assessment. In this instance, guard vessels would be used if required (and are not Safety Zones under the Safety Zone regulations). The Applicant considers that the duration of a maintenance activity in a 'heavy' maintenance year would be a similar duration to a 'normal' scheduled maintenance' year (expected to be 2-3 days per

ExQ1	Question to	Question	Applicant's Response
		identified as a worst-case scenario parameter? d) during maintenance, what is the typical duration for such activities and how long would safety zones be in place? What about periods of heavy maintenance, how does this compare in terms of duration to that of construction activities?	Wind Turbine Generator (WTG)). However, there will be variability depending on the activities required and the number of workers/vessels used to undertake the maintenance activities. For comparison, this is expected to substantially less than the total duration of the construction phase.
1CF13	The Applicant	**Outline Fisheries Liaison Co-existence Plan – Compensation Strategy** The oFLCP [APP-147] states fisheries clearance zones (where required) would be provided to the fishing industry prior to surveys and construction and that in some cases individual affected fishers may be eligible for compensation. a) Given the effects of decommissioning works have been assessed elsewhere as being the same or similar to those as construction, could there also be a need for fisheries clearance zones to be established, and potential compensation payments, during the decommissioning phase? b) If so, then can the oFLCP be amended to make it clear such zones and payments could also be required for decommissioning works?	a) The Applicant confirms that the FLCP covers all phase of the Proposed Development from construction to decommissioning. The FLCP will be updated to cover the decommissioning phase in more detail upon approval of the Decommissioning Programme and associated licencing requirements. b) Decommissioning has been included in regard to fishery clearance in the updated oFLCP (Outline Fisheries Liaison and Co-Existence Plan_Rev 02 Clean (Document Reference 6.3)).

ExQ1	Question to	Question	Applicant's Response
1CF14	NFFO Traditional and Sustainable Commercial Fishing Association	**Outline Fisheries Liaison Co-existence Plan** – Timeframes for the distribution of Project information Table 3.2 of the oFLCP [APP-147] indicates that a notice period of not less than 2 weeks would be given to stakeholders prior to the commencement of activities that could impact on fishing operations/ activities. Can the NFFO and the Traditional and Sustainable Commercial Fishing Association confirm whether the timeframe cited is adequate and, if not, why?	The Applicant notes 1CF14 is directed to the NFFO and shall not be responding.
6.Cultural Heritage (including Marine Archaeology) (CH)			
Clarifications			
1CH1	The Applicant	**Clarification as to effect on setting of heritage assets** Paragraph 35 of Appendix Settings Assessment [APP-077] sets out a list of *"likely frequency of visibility"* for the Proposed Development based on distance. This is said to be derived from Table 18.10 of ES Chapter 18 [APP-055]. However, the information in Table 18.10 is discrete for distance. But visibility at, say 30-40km, would be not circa 55 days alone, but the total of all days when visibility would be greater than 30km, which is 15% (30km-40km) + 14.8% (40km-50km) + 9.6% (50km-60km) + 0% (>60km) which equals 39.4% or around 145 days per year.	It is acknowledged that the information derived from Table 18.10 of Environmental Statement (ES) Chapter 18 [APP-055] is discrete for each distance band. When calculating the total of all days for visibility in each range and beyond (for example greater than 20km), the Examining Authority (ExA) is correct that the values have to be totalled for observations within and beyond that distance range. The correct values are as follows. This information has now been updated (provided at Deadline 3) in Paragraph 35 of Appendix 15.3 Settings Assessment [APP-077] as follows: *The Met Office visibility data indicates likely frequency of visibility of the Project windfarm site over a 10 year period is as follows:* ▪ *At 20-30km the Project windfarm site may be visible for c.211 days a year* ▪ *at 30-40km the Project windfarm site may be visible for c.144 days a year*

ExQ1	Question to	Question	Applicant's Response
		Could the Applicant please revisit the settings assessment based on the correct length of time that the Proposed Development would be visible.	▪ *at 40-50km the Project windfarm site may be visible for c.89 days a year* ▪ *at 50-60km the Project windfarm site may be visible for c.35 days a year* However, this information was originally included to provide context and in line with Paragraph 34 of ES Appendix 15.3 (Settings Assessment [APP-077]) '*In all cases, an absolute worst-case assessment has been made, assuming ideal weather conditions for maximum visibility of the proposed development*'. As such, this will not change the conclusions of the setting assessment.
1CH2	The Applicant	**Clarification on settings of designated heritage assets** In paragraph 15.163 of ES Chapter 15 [REP1-034] there is a reference to *"Seven LBs"*. Could the Applicant please confirm whether this should be *"Seven Grade I listed buildings"*? If so, could the ES be updated, and if not please explain what this should be, given the references to Grade II* and II listed buildings elsewhere in the list.	This reference is to the seven Grade I Listed Buildings identified as potentially impacted as a result of change to their setting during the operation of the Project. These heritage assets are itemised at Table A.4 of Annex 1 of ES Appendix 15.3 (Settings Assessment [APP-077]). This has been updated in Paragraph 15.163 in Chapter 15 Marine Archaeology and Cultural Heritage and submitted alongside this document at Deadline 3 (Chapter 15 Marine Archaeology and Cultural Heritage_Rev 02 Clean (Document Reference 5.1.15)).
1CH3	The Applicant	**Clarification** Table 15.2 of ES Chapter 15 [REP1-034] sets out the realistic worst-case scenarios for marine archaeology and cultural heritage. In the operation and maintenance phase, in relation to Impact 4: Impact on the setting of heritage assets, in relation to the	In the context of vessel movements the term 'maximum number of vessel movements' or 'vessel movements' or 'X vessels' refers to return trips made by vessels from port to port.

ExQ1	Question to	Question	Applicant's Response
		maximum number of vessel movements, each effect is set out as "X vessels". Could the Applicant please clarify this, and whether, for example, the first should be "384 movements", and also, whether a "movement" is "port to port" or some other journey?	
Effects on assets			
1CH4	Affected local authorities HE	**Identification of heritage assets** In making their assessment the Applicant has only rarely referred to non-designated heritage assets. This question relates to both designated and non-designated heritage assets. Do IPs agree with the Applicant's assessment as to which heritage assets should be scoped out of assessment? If not, could they identify the asset including its heritage significance, and explain why the significance of the asset would be affected by the Proposed Development.	The Applicant notes 1CH4 is directed to affected local authorities and Historic England and shall not be responding.
1CH5	The Applicant	**2024 geoarchaeological assessment** In the responses to WRs with HE (for example, WR-095-27) [REP2-027], the Applicant makes reference to a technical note being provided to HE following the 2024 geoarchaeological assessment. Is it the intention of the Applicant to submit this information, without which the ExA would be	The Applicant has submitted the 2023 and supplementary 2024 geoarchaeological assessment alongside this document at Deadline 3 (9.39 Stage 1 Geoarchaeological Assessment of Geotechnical Data 2023 and 2024). It is noted this includes the assessment already provided to Historic England, as well as an additional note detailing analysis of further geotechnical information that has since been made available from further survey campaigns.

ExQ1	Question to	Question	Applicant's Response
		unable to take it into account? If so, could it please be provided.	
1CH6	The Applicant Affected local authorities HE	**Settings of heritage assets** In paragraph 15.216 of ES Chapter 15 [REP1-034], the Applicant indicates that construction effects on coastal (terrestrial) heritage assets *"are not anticipated to give rise to material harm"*. It then goes on to indicate *"changes are anticipated to be negligible adverse significance"*. Could the Applicant please clarify whether it considers the Proposed Development, within the terms set out in NPS EN-1, would result in less than substantial harm to the settings and significance of the heritage assets or preserve the settings and significance of the heritage assets? Could this also be reconciled with Tables 15.25 and 15.33. Any reassessment should consider both the Proposed Development on its own and cumulatively with other identified plans and projects.	Negligible Adverse has been used to characterise very minimal change in conditions to some of the identified heritage assets as a result of the Project. These changes would be too limited to give rise to any change in the contribution of setting to significance and therefore would not constitute harm as defined in NPS EN-1.
1CH7	The Applicant Blackpool Council HE	**Settings of Blackpool Heritage Assets** In Section 8.7 and 8.8 of ES Appendix 15.3 (Settings assessment) [APP-077] the Applicant asserts that the Proposed Development does not affect the settings of various heritage assets in Blackpool. Could the Applicant, and Interested Parties who wish, respond to the proposition that these	The assessment set out in Sections 7.7, 7.8, 8.7 and 8.8 of ES Appendix 15.3 (Settings assessment) [APP-077]) addresses this point in some detail. This assessment follows the advice set out in Historic England Guidance GPA 3 *The Setting of Heritage Assets* (Historic England, 2017) that the importance of setting '*lies in what it contributes to the significance of the heritage asset or to the ability to appreciate that significance'* and that assessment therefore

ExQ1	Question to	Question	Applicant's Response
		assets only exist because of the proximity to the sea, and its open seascape. Consequently, any interruption to the existing seascape would affect their settings. If IPs agree with this proposition, could they set out their views as to the effect on the identified assets.	needs to consider how change to setting affects any contribution to heritage significance. In terms of the North Promenade, Blackpool Conservation Area, the majority of buildings located within it are screened from the Project. Those heritage assets that have clear views to the proposed development, such that an effect may arise, have been identified and assessed in detail i.e. the Grade I Listed Imperial Hotel (see Section 7.7., Paragraphs 112 and 113 of ES Appendix 15.3 (Settings assessment) [APP-077]) Key elements of setting which contribute to the significance of the Conservation Area are listed in Paragraph 125 of ES Appendix 15.3 (Settings assessment) [APP-077], one of which is views from the Imperial Hotel. Paragraph 249 of ES Appendix 15.3 (Settings assessment) [APP-077] highlights '*The visibility of the Project on the horizon will not detract from the viewers ability to view and appreciate the historic and architectural interest of the CA"* views of the seascape may be affected by the Project, however, as described in Paragraph 250: '*the proposed turbines will be visible only as very distant elements of the background to views to the sea from the seafront and from the sea view rooms of the hotel. Therefore, they would not consequently affect the historic perceptual connection to the sea. The turbines would not be visible in views of the heritage assets which contribute to significance through allowing the architectural interests of the historic buildings within the CA or the wider architectural compositions to be appreciated, and would not affect a viewer's ability to perceive the historic seaside resort character of the CA'.* Regarding the Blackpool Town Centre Conservation Area and Listed Buildings, the majority of buildings are screened from the Project. Those heritage assets that have clear views to the

ExQ1	Question to	Question	Applicant's Response
			proposed development, such that an effect may arise, have been identified and assessed in detail. These are: ▪ the Grade I Listed Tower Buildings, the Grade II Listed Promenade Shelters, ▪ the Grade II Listed North Pier and ▪ the Grade II Listed Clifton Hotel (see Section 7.8., Paragraphs 135 and 136 of ES Appendix 15.3 (Settings assessment) [APP-077]). As noted in Paragraphs 144-147 of ES Appendix 15.3 (Settings assessment) [APP-077]), views from these assets out to sea contribute to their setting. Key views are detailed in Paragraph 152. However, as discussed in Paragraph 254 '*while the Project will be visible from various elements of the Conservation Area i.e., the Clifton Hotel, the Tower, the North Pier, the seafront and promenade views out as far as the Project are not considered to contribute to its setting'.* As such, the presence of the proposed turbines within the more distant seascape would not detract from the viewers ability perceive the historic seaside resort character of the Conservation Area and the listed buildings within it. As set out in ES Appendix 15.3 (Settings assessment) [APP-077], while the setting of some of the assets in the North Promenade Blackpool Conservation Area, the Blackpool Town Centre Conservation Area and Listed Buildings would be affected, this would not result in change to their heritage significance.
1CH8	The Applicant Affected local authorities	**Cumulative Effect with M&MTA project** In paragraph 15.263 of ES Chapter 15 [REP1-034] the Applicant sets out three marine elements which it considers would interact with the Proposed Development in relation to cultural heritage; this includes land based cultural heritage.	As acknowledged by Table 8.4 of the Report on Interrelationships with Other Infrastructure [REP1-078], there is the potential for cumulative effects in the marine heritage environment for both the Project and Transmission Assets. Following the application of mitigation by both projects (mitigation for this project is set out in Section 15.3.3 of ES Chapter 15 [APP-052] there would, however, be no significant effects.

ExQ1	Question to	Question	Applicant's Response
		In Table 8.4 of the Report on Interrelationships with Other Infrastructure [REP1-078], considering historic environment, which is noted as a receptor for the M&MTA project only, the Applicant indicates that it believes that *"there are potential significant effects on the historic environment arising from the Transmission Assets during the construction, operation and maintenance or decommissioning phases which would arise from loss of, or harm to, buried archaeological remains and deposits of geoarchaeological and Palaeoenvironmental interest during construction. This is a precautionary assessment and further investigation will be undertaken ahead of and during construction to identify any currently unknown buried archaeology.* *There are no significant effects in EIA terms cumulatively taking into account mitigation measures".* and in the sensitivity analysis notes that *"There is no connectivity to the Generation Assets CEA for potential direct effect on onshore receptors"*. Historic environment is noted as being one of the topics where *"Receptors and EIA topics for Transmission Assets only"*. There appears to be a dichotomy between these two assessments. Could the Applicant rationalise the assessments, confirming	In terms of terrestrial heritage assets, no cumulative effect would occur as the Transmission Assets project has not identified any terrestrial heritage assets that would also be affected by the Proposed Development, whether physically or by change to setting.

ExQ1	Question to	Question	Applicant's Response
		what its case is in relation to both the project alone and cumulative and in-combination assessments in respect of: ▪ Marine heritage assets; and ▪ Land-based heritage assets. In the interests of clarity could the Applicant confirm that it accepts there is the potential for cumulative effects in the marine heritage environment for both the Proposed Development and M&MTA, although it considers that, taking account of mitigation, there would be no significant effects?	
1CH9	The Applicant	**Cumulative effect on settings of heritage assets** The ES does not address potential cumulative effects on the settings and significances of terrestrial heritage assets. Could the Applicant please explain why this has not occurred given the conclusion in paragraph 15.216 of ES Chapter 15 [REP1-034] that there would be *"negligible adverse significance"* from the Proposed Development, which could be replicated in other projects leading to greater cumulative overall effect on the setting and significances of the heritage assets.	The projects identified for the Cumulative Effects Assessment (CEA) (Table 15.26 of APP-052) did not identify any potential for adverse effects on terrestrial heritage assets and this assessment was not scoped into the relevant assessments of these developments. Consequently, in the absence of any common receptors, no adverse cumulative effects would arise.

ExQ1	Question to	Question	Applicant's Response
7.Draft Development Consent Order [REP2-002] (DCO)			
Article 7 – Benefit of Order			
1DCO1	MMO	**Transfer of benefit of Order** Without concluding on the matter, in order to ensure that the MMO is satisfied as to the drafting of Article 7, could it provide a revised draft of Article 7, and also set out any other associated changes to the dDCO it would consider appropriate, were the SoS to conclude that they did not wish to include transfer of the benefit of the DML within the Order.	The Applicant notes that this question is directed at the Marine Management Organisation (MMO) and therefore shall not be responding. However, the Applicant notes that it has responded in detail to the MMO's stated concerns in relation to this Article in its response to the MMO's Deadline 2 submissions (REP2-035) submitted at Deadline 3 (The Applicant's Comments on Deadline 2 Submissions by Interested Parties (Document Reference 9.42).
Schedule 2 - Requirements			
1DCO2	The Applicant	**Req 1 – Commencement** In responding to the issue of the commencement period the Applicant has set out two Gantt charts. Plate 3.1 shows the realistic expected scenario, which has a maximum of a two year gap between consent and commencement, and Plate 3.2 shows a five year gap between consent and commencement. For the second timescale, can the Applicant explain why it has assumed that the consenting processes for the M&MTA project would not be delayed. The Applicant is asked to further expand on why it considers that a seven year commencement period is required?	As is noted in response to ExQ1CC5 above, the Applicant does not consider that a delay to the Transmission Assets project (including a delay caused by a judicial review challenge) would materially change the 'delayed' scenario set out in Plate 3.2. This is due to the timings of the Contracts for Difference allocation rounds. The response to ExQ1CC5 also sets out the Applicant's position on the worst case delayed project timescale, and a summary of the policy support for the Project which would remain even on the worst case delayed delivery project timescale, including noting that the Critical National Policy status of the Project is underpinned by the United Kingdom (UK) net zero by 2050 legal obligation. It is acknowledged that the delayed timescale is a worst case fallback position, so by definition the seven year commencement period is unlikely to be required. However, as noted in response to ExQ1CC5 and explained more fully in section 3 of the Applicant's Response to Actions arising from Preliminary Meeting and Issue Specific Hearing 1 [REP1-086] it is conceivable that there is a delay

ExQ1	Question to	Question	Applicant's Response
		See also ExQ1CC5.	outside the Applicant's control. As noted in the EM, a seven year period has been considered to strike an appropriate balance for other offshore wind farms, which will all have been facing equivalent delay risks (such as potential for legal challenge, Contracts for Difference (CfD) auction uncertainty, and global supply chains). It is further noted that the draft Development Consent Order (DCO) which accompanies the Transmission Assets application also seeks a seven year time period (and that application includes compulsory acquisition powers unlike this application), as does the draft DCO which accompanied the Morgan Generation Assets application. It is submitted that consistency is appropriate.
1DCO3	The Applicant	**WTG Spacing** In both Requirement 2 in Schedule 2, and Table 4 of Part 2 of Schedule 6 reference is made to the minimum distances of and between rows of WTGs. How is the orientation to be confirmed? In other words, how are 'rows' and 'columns' to be defined? Should these be on the face of the dDCO?	Rows are broadly perpendicular to the prevailing wind direction while 'columns' are broadly parallel to the prevailing wind. It should be noted that 'column' is not a term used by the Applicant. Rather 'in-row' and 'inter-row' are used and are defined within the Environmental Statement (ES). It is considered inherent in the context of the commitment to two lines of orientation (deemed Marine Licence (DML) condition 9(1)(a)(ii)) that the two specified minimum spacings apply to one each of the two lines of orientation. However, for absolute clarity, the Applicant will amend Tables 2 and 4 in the version of the draft Development Consent Order (DCO) submitted at Deadline 4 to clarify that these distances are 'in-row' and 'inter-row' with corresponding definitions added. 'Inter-row' refers to the distance between Wind Turbine Generators (WTGs) in different, parallel main rows and is ideally parallel to the prevailing wind. 'In-row' refers to the distance separating WTGs within the main rows and is ideally perpendicular to the prevailing wind.

ExQ1	Question to	Question	Applicant's Response
1DCO4	The Applicant	**Req 9 - Decommissioning** In its response to the Republic of Ireland's Department of Housing, Local Government and Heritage [REP1-092] the Applicant states *"No offshore decommissioning works will take place until a written decommissioning programme has been approved by the [SoS DESNZ]"*. However, Req 9 only requires a decommissioning programme if the SoS serves a notice upon the Applicant. Could this inconsistency please be resolved?	The wording in DCO Requirement 9 is standard wording replicated in many (albeit not all) offshore wind DCOs. As set out in response to ExAQ1CF6, the Applicant considers that the Energy Act 2004 provides a complete regulatory framework for decommissioning, under the jurisdiction of the Secretary of State. As such the Requirement is considered largely unnecessary. To the extent it does serve a purpose, it is to ensure that development may not commence without a decommissioning programme having been submitted and so ensure no project is missed from the Energy Act process. The reference to "any" in Requirement 9 is necessary because there is no requirement on the timing of a notice served under Section 105 – so avoiding a situation where the undertaker is ready to start works but is prevented from doing so because it does not have a notice under Section 105 with which to comply. In practice it is considered that any decommissioning programme submitted in advance of a formal notice, and outside of the Energy Act 2004 regime, would be superseded. The purpose of the condition is 'belt and braces'. There is some tension with paragraph 4.12.10 of National Policy Statement (NPS) EN-1 (in particular the direction to assume other environmental regulatory regimes will be properly applied and enforced by the relevant regulator), but the Applicant is content to accept the requirement on the basis of this (albeit limited) purpose, and the substantial precedent. Section 105(2) of the Energy Act 2004 states that "the appropriate Minister may by notice require [an Offshore Renewable Energy Installations (OREI) developer] to submit to him a programme for decommissioning the relevant object". The Applicant further notes that, in practice the Secretary of State has served s.105(2) notices on all offshore projects when they reach the appropriate milestone. This is because there is an

ExQ1	Question to	Question	Applicant's Response
			obligation on the United Kingdom to decommission disused installations pursuant to Article 60 of the United Nations Convention on the Law of the Sea (UNCLOS) 1982, as is confirmed by guidance issued by Department for Business, Energy & Industrial Strategy (BEIS) (Decommissioning of Offshore Renewable Energy Installations under the Energy Act 2004: Guidance notes for industry (England and Wales), March 2019).
Schedule 3 – Protective Provisions			
1DCO5	Those parties who would benefit from protective provisions	**Protective provisions** Could all parties who would benefit from Protective Provisions, please indicate whether they are content with the wording set out in Schedule 3 of the draft DCO [REP2-002]? If not, could the party please explain why it is not content and provide alternative wording, setting out why each and all proposed changes are necessary. Could Harbour Energy and Spirit Energy please liaise with each other to ensure that no proposed changes to respective Protective Provisions are mutually exclusive given their interests in the area.	The Applicant notes that this question is directed at 'parties who would benefit from Protective Provisions' and therefore it shall not be responding.
1DCO6	The Applicant	**WTG aviation corridor** In Schedule 3, Parts 2 and 3 paragraph 2 in the definition of *"WTG aviation corridor"* there is a reference to 220 degrees. Could this please be defined what measurement is this being considered against? For example,	The datum point used for the definition of "WTG aviation corridor" is CPP1. As weather forecasts, and CAP 437, are orientated to True North, the 220 degrees corridor is to be considered in relation to True North.

ExQ1	Question to	Question	Applicant's Response
		is it in relation to true or magnetic north, and from what datum point?	The Applicant notes that the protective provisions in Schedule 3, Parts 2 and 3 remain in discussion with the operators with a view towards updates being included in the draft DCO submitted at Deadline 4. This definition will be updated in that version.
Schedule 6 – Deemed Marine Licence			
1DCO7	NE The Applicant	**Pre-construction plans and documentation (Schedule 6, Part 2, condition 9(1)(c))** Could the Applicant and NE provide an update on any progress made regarding the timescales included in the dML conditions for approval of pre-construction documentation and agreement of documents, where 4 months can remain and those where 6 months can be accepted.	The Applicant notes that they have discussed the matter with Natural England and have provided a proposed list of documents where 6 months could be accepted by the Applicant. The Applicant will include any agreed changes in the version of the draft DCO submitted at Deadline 4.
1DCO8	The Applicant MMO HE MCA Trinity House Affected local authorities	**Micrositing** a) Within condition 9(1)(a)(ii) should there be a maximum limit for micrositing within the two lines of orientation? If so, what should this be? b) Should this be allowed to be varied by consent, and if so, who should grant this consent, and should there be any limits on variation?	a) As discussed by the Applicant at ISH1, and as noted in its Written Summary of Oral Submissions (REP1-085 at ID 3, pg. 20), as an envelope approach has been used and the precise locations of the WTGs and other infrastructure is not identified in the application, "micrositing" occurs at the detailed design stage to inform the final proposed locations of infrastructure within the design plan that is secured by DML condition 9(1)(a). However, the Applicant notes comments from the ExA and interested parties including the Maritime and Coastguard Agency (MCA) and others as to whether micrositing within the design submitted under Condition 9(1)(a)(ii) should be specified. The Applicant will add micrositing of up to 55m (reflecting the distance proposed by the MCA in its Deadline 2 response [REP2-034]) in any direction (unless it can be otherwise demonstrated to the satisfaction of the Marine Management

ExQ1	Question to	Question	Applicant's Response
			Organisation (MMO) that the layout still meets the requirements of MGN654) to the version of the draft DCO submitted at Deadline 4. b) The Applicant considers that this should be framed so that micrositing within 55m in any direction does not require any further consent. However, micrositing beyond that limit would require to be approved in writing by the MMO in consultation with the MCA and Trinity House. It is not considered that any 'upwards' limitation or restriction should be set, as the requirement for MMO approval (with consultation) ensures that any micrositing request is subject to regulator oversight and considered on its individual circumstances.
1DCO9	The Applicant NFFO The Traditional and Sustainable Commercial Fishing Association IoM TSC	**Schedule 6, Condition 9(k) - Fisheries Liaison and Co-existence Plan (FLCP)** To the Applicant: a) The Applicant's response to the NFFO Relevant Representation ([PD1-011], RR-059-02) states that the FLCP is secured in Schedule 6 Condition 9(1)(k), which would be approved by the MMO with consultation with the fishing industry. However, the pretext within Condition 9(1) only references approval by the MMO in consultation with the relevant statutory nature conservation body, Trinity House and the MCA. Can the Applicant amend the drafting so as to include reference to representatives of the fishing industry? If not, at what stage and how would the fishing industry be consulted on the final FLCP as indicated? How would this be secured?	For clarity, the Applicant's response to National Federation of Fishermen's Organisation (NFFO) was aimed at emphasising that there will be a Fisheries Liaison and Co-existence Plan (FLCP) in place for the project and that the document will require approval by the MMO. Consultation with the fishing industry will be ongoing, throughout the lifetime of the project, including in relation to the FLCP. Specific reference to consultation with the fishing industry is made in paragraphs 9 and 10 of the Outline Fisheries Liaison and Co-existence Plan (oFLCP) (APP-072). Paragraph 9 specifically makes reference to the FLCP being produced post-consent, based on the oFLCP, and developed, periodically reviewed and updated through the lifetime of the Project with this process facilitating document consultation and engagement with commercial fisheries stakeholders to form an audit trail. Paragraph 9 also notes that it is likely that the FLCP will evolve as the Project progresses, based on this ongoing consultation. The Applicant considers that Condition 9(1)(k) does not need amendment and notes that provisions for consultation are included in the oFLCP which, as already secured under Condition 9(1)(k), will form the basis of the FLCP

ExQ1	Question to	Question	Applicant's Response
		Other IPs: Do the parties have any comments on the drafting of Condition 9(1)(k) or the scope and content of the oFLCP at this stage?	
1DCO10	The Applicant	**WGS84 datum** In Schedule 6, paragraph 18(d) and (e) there is reference to "WGS84 datum". Could this please be defined either in paragraph 1(1) of the Schedule or specifically within this paragraph?	This will be added as a definition to the DML within the next version of the draft DCO submitted at Deadline 4.
Schedule 8 – Documents to be Certified			
1DCO11	The Applicant	**Documents to be Certified** It has been noted that while the Applicant has renumbered the tracked versions of the documents submitted at D1 with an extra .1, for example the D1 tracked version of the HRA without prejudice derogation case [REP1-014] is now 4.11.1, this does not tally with the list of documents to be certified at Schedule 8 of the dDCO where document 4.11.1 is currently shown as the outline Compensation Implementation and Monitoring Plan. Could the Applicant please ensure that all documents in Schedule 8 are correctly referenced. This should be updated with each submission of a dDCO.	The Applicant acknowledges that there is some overlap in numbering of documents, however, can confirm that the documents referenced in Schedule 8 of the draft DCO (REP2-002) are the latest 'Clean' versions of each document to be certified. The addition of '.1' in the tracked versions allows these to be separated from the clean versions, and will not be listed in the final DCO for the Project. The Guide to the Application lists each document name, version and number at each deadline and is more a useful tool for understanding document history. The numbering of the outline Compensation Implementation and Monitoring Plan in Schedule 8 will remain as 4.11.1. The Applicant will also apply the current Examination Library reference to each document included in Schedule 8 in the version of the draft DCO submitted at Deadline 4 and this will be updated with each subsequent submission of the draft DCO.

ExQ1	Question to	Question	Applicant's Response
8. Habitats Regulations Assessment (HRA)			
1HRA1	JNCC	**Habitats Regulations Assessment** As the JNCC do not delegate authorisation to NE for sites in Wales, Scotland and Northern Ireland. JNCC are requested to provide comments on the Applicant's HRA [REP1-012] in respect of the UK National Site Network sites for which it is the statutory advisor.	The Applicant notes 1HRA1 is directed to Joint Nature Conservation Committee (JNCC) and shall not be responding.
1HRA2	The Crown Estate The Applicant NE NRW	**Habitats Regulations Assessment from Round 4 Leasing** <u>To The Crown Estate</u> a) Could The Crown Estate please provide a copy of The Crown Estate Round 4 plan-level HRA. <u>To the Applicant</u> b) With reference to paragraph 2.8.71 of NPS EN-3, could the Applicant set out the relevant mitigation measures identified in the Round 4 plan-level HRA and signpost to where these have been addressed in the Applicant's submission. c) Does the Applicant consider that any representations are seeking to revisit matters dealt with in the Round 4 HRA where a conclusion has been reached without further evidence to indicate that the earlier conclusion was incorrect or that matters have subsequently changed?	The Applicant notes that point a) is directed to The Crown Estate (TCE) and shall not be responding. In response to point b), mitigation proposed for the Round 4 plan-level HRA is set out in Section 5 of that report. Additional mitigation in respect of cable export routes is also set out in Section 2.7, but this is not relevant to the Project, given that the consent would be for generation assets only. No measures were identified in Section 5 of the Round 4 plan-level HRA relevant to the Project ornithological assessment. The only ornithology-specific measure relates to the kittiwake feature of Flamborough and Filey Coast Special Protection Area (SPA), but this was in relation to east coast projects only, and no measurable effect on this feature as a result of the Project is predicted. Measures have been identified for all protected areas with marine mammals as features and include the mitigation of mortality or injury associated with underwater noise. The draft Marine Mammal Management Plan (MMMP) (REP2-018) for the Project sets out explicit measures to reduce the risk of Permanent Threshold Shift (PTS) and Temporary Threshold Shift (TTS) from piling at the Project and the potential clearance of Unexploded Ordnance (UXOs). The MMMP (based on the draft) is secured in the draft

ExQ1	Question to	Question	Applicant's Response
		<u>To NE and NRW</u> Should either NE or NRW consider they are seeking to revisit matters, could NE and NRW please set out why they hold that any conclusion in the HRA for the Round 4 Irish Sea Projects is incorrect or matters have subsequently changed? If this is the case, could NE and NRW please explain their reasoning.	Development Consent Order (dDCO) Schedule 6 Condition 9(1)i. Additionally the Project has produced an Outline Underwater Sound Management Strategy (UWSMS) (REP2-026). The UWSMS (based on the Outline) is secured in dDCO Schedule 6 Condition 20. Further measures are outlined for all species that are at risk of collision or disturbance from vessel traffic, which applies to all marine mammals and birds. Mitigation measures to reduce this risk are set out in the Vessel Traffic Management Plan (VTMP) (REP2-022), secured in the dDCO Schedule 6 Condition 9(1)j, and further best practice measures have been included in the outline Project Environmental Management Plan (oPEMP), secured as dDCO Schedule 6 Condition 9(1)(e)(v). Lastly, a further measure relates to the harbour porpoise feature of the Southern North Sea Special Area of Conservation (SAC), but this is in relation to east coast projects only. In response to point c), Natural England has stated that, at present, it is unable to conclude that there would be no adverse effect on integrity in respect of the following features: ▪ Lesser black-backed gull at Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuaries SPA. ▪ Red-throated diver at Liverpool Bay SPA. In each case the Round 4 plan-level Habitats Reulations Assessment (HRA) concluded no adverse effect on site integrity. The Applicant has reviewed the basis upon which the conclusions of the Round 4 plan-level HRA were reached, and compared these against the predicted Project conclusions: ▪ In respect of red-throated diver, the Round 4 plan-level HRA and the Project Report to Inform Appropriate Assessment (RIAA) both considered the Project red line boundary and its

ExQ1	Question to	Question	Applicant's Response
			proximity to the Liverpool Bay SPA (this proximity remains the same as assessed in the Round 4 plan-level HRA and the Project RIAA). The Round 4 plan-level HRA assumed an annual mortality (due to displacement) of 0.04 birds from Liverpool Bay SPA as a result of the Project, assuming a realistic mortality rate of 1% for displaced birds. This compares with a predicted mortality of 0.35 birds for the Project, as presented in the RIAA (REP1-012). Both assessments therefore concluded a mortality substantially below one bird per annum. The potential area of effect (applying a 10km buffer from the SPA) is the same as assessed in the Round 4 plan-level HRA and the Project RIAA. Round 4 plan-level HRA stated that *'When applying a 10 km buffer around the Preferred Projects, as advised by Natural England…. The densities of red-throated diver in the area of overlap (both the original and updated SPA boundaries) are below the threshold used to identify the SPA boundary based on diver density alone (Webb et al., 2006). This indicates that the area of overlap (both the original and updated SPA boundaries) is also not important for red-throated diver in the context of the SPA designation.'* Based on the same area of overlap as was assessed in the Round 4 plan-level HRA the Applicant detailed the 'effective area of displacement' as presented by the Applicant in the Project RIAA (REP1-012) and also concludes no adverse effects in integrity. The information supplied by the Applicant at Deadline 2 (REP1-082) also provided further information that the density of Red-Throated Diver (RTD) in the area of overlap (assuming a 10km buffer) was low and included further data sources that have become available since the plan level HRA, with the sources reaffirming the position of the plan level HRA. ▪ In respect of lesser black-backed gull the impact of relevance is collision risk. The Project RIAA used site specific density

ExQ1	Question to	Question	Applicant's Response
			data that was not available at the time of the plan lever HRA. From Morecambe Bay and Duddon Estuary SPA, the R4 HRA predicted a maximum mortality of 2.2 birds as a result of the Project, and in-combination mortality of 70 birds per annum. This compares with a predicted mortality of 0.33 birds for the Project, and 22.85 birds in-combination, as presented in the Offshore Ornithology Technical Note 2 (HRA) Rev 02 (Document Reference 9.23) submitted at Deadline 3. In respect of lesser black-backed gull from Ribble and Alt Estuaries SPA, the R4 HRA predicted a maximum mortality of 3.1 birds as a result of the Project, but has not quantified in-combination mortality. This compares with a predicted mortality of 0.69 birds for the Project, and 36.82 birds in-combination, as presented in the Offshore Ornithology Technical Note 2 (HRA) Rev 02 (Document Reference 9.23) submitted at Deadline 3. In each case above, therefore, the Applicant considers that the Project contribution would be comparable to or less than that presented in the Round 4 plan-level HRA. The Applicant is unaware of representations from Natural England or others regarding the conclusions of the Round 4 plan-level HRA, but it would appear, as the Examining Authority (ExA) suggests, that there is a disparity between Natural England's current position and the conclusions of the Round 4 plan-level HRA. It is also noted that the Round 4 plan-level HRA had to be, and was, reviewed and endorsed by the Secretary of State (at the time for Department for Business, Energy & Industrial Strategy (BEIS), the predecessor to The Department for Energy Security and Net Zero (DESNZ) who also has responsibility for the HRA for this Project), Letter from Kwasi Kwarteng MP of 15 July 2022 states "I am content that The Crown Estate has appropriately assessed the impacts of the plan on the protected sites within the National Site Network that may be affected and

ExQ1	Question to	Question	Applicant's Response
			am content for the plan to proceed subject to the condition set out in this letter." The letter can be submitted into the Examination if it would assist the ExA (or viewed at Microsoft Word - 2022-07-15 Letter from Secretary of State to Dan Labbad, The Crown Estate on LR4 Plan Level HRA). Given the Secretary of State for the same department will reach conclusions on the same sites for the same project, it will be particularly important to understand the reasoning if any different conclusions are reached. The Applicant's position is that the conclusions of the Round 4 HRA in relation to these sites hold good.
1HRA3	NE	**HRA Screening: Bats** Can NE confirm if it is content with the Applicant's approach to screening out terrestrial ecology including bats from the HRA on the basis described in [APP-028]. If not, please outline any concerns and give reasons.	The Applicant notes 1HRA3 is directed to Natural England and shall not be responding.
1HRA4	The Applicant	**HRA Screening: Site codes** Site codes are not always legible in Appendix 2 of the HRA Screening Report [APP-028], for example pages 154, 161, 185 and 214 (not exhaustive list). Provide an updated version of the HRA Screening Report with the full site codes.	Noted, Appendix 2 of the HRA Screening Report has been updated (with formatting of site code corrected) and has been submitted alongside this document at Deadline 3 (Habitats Regulations Assessment Screening Report_Rev 2 Clean (Document Reference 4.10)).
1HRA5	NE	**HRA Screening and RIAA** NE is requested to confirm its advice regarding the Applicant's screening assessment [APP-028] and RIAA [REP1-012] conclusions. To date, NE have not	The Applicant notes 1HRA5 is directed to Natural England and shall not be responding.

ExQ1	Question to	Question	Applicant's Response
		provided full commentary on their agreement or disagreement in relation to all sites and features screened into the assessment and therefore conclusions on LSE and the conclusions on Adverse Effect on Integrity.	
1HRA6	The Applicant	**HRA Screening: Qualifying features of Skomer, Skokholm and the Seas off Pembrokeshire (SSSP) SPA** Two qualifying features of the SSSP SPA (Chough and short eared owl) are not referred to in the screening conclusions in Appendix 2 of the HRA screening document [APP-028] (these features are listed in Appendix 4). There appears to be no assessment in the RIAA. Can the Applicant provide an update in relation to these species.	The Applicant can confirm that there would be no Likely Significant Effects (LSE) for these species, as there would be no potential connectivity between the SPA and the Project for these features. Accordingly, these species were not included within the RIAA (REP1-012). The Applicant has updated in Appendix 2 of the HRA screening document to include reference to these features and submitted this at Deadline 3 (Habitats Regulations Assessment Screening Report_Rev 02 Clean (Document Reference 4.10)).
1HRA7	The Applicant	**HRA Screening: Little gull, Liverpool Bay SPA** Appendix 2 of the HRA screening document [APP-028] states that risk to the little gull qualifying feature of the Liverpool Bay SPA would be assessed for all phases but is only assessed for operation in the RIAA. Can the Applicant provide an updated assessment or justify this.	The Applicant can confirm that little gull at Liverpool Bay SPA was screened out from assessment of all effects apart from collision risk during the operation and maintenance phase of the Project. The Applicant has updated in Appendix 2 of the HRA screening document removing reference to construction/decommissioning and submitted this at Deadline 3 (Habitats Regulations Assessment Screening Report_Rev 2 Clean (Document Reference 4.10)).
1HRA8	The Applicant	**HRA Screening: Rationale** The HRA Screening Report [APP-028], Table 8.1 sets out potential effect pathways	Indirect effects from habitats and prey species have been screened out from the requirement for appropriate assessment due to the very low risk that such impacts (if they occurred) would result in any

ExQ1	Question to	Question	Applicant's Response
		considered. Appendix 2, Section 12 presents a screening summary, including rationale for screening conclusions. Limited explanation is provided for the Applicant's decision not to take forward the pathway of indirect effects from changes to habitats and prey species to the next stage of assessment. Can the Applicant provide further explanation of this.	tangible effect on any SPA qualifying feature. As set out in ES Chapter 12 (REP1-032), negligible effects on fish prey species are predicted, and a minor adverse effect on habitats. It is very unlikely that minor changes in seabed habitat would affect SPA features, as these would be too deep (i.e. between 18m and 40m) within the array area to be regularly used by bird species. Accordingly, these pathways were screened out. The Applicant notes the sections identified related to ornithology. There is the potential for indirect changes in habitat and prey species (e.g., fish species) abundance and distribution to arise as a result of construction activities which physically disturb the seabed, result in increased suspended sediment concentrations or which generate underwater sound. Reduction or disruption to prey availability to seabirds has the potential to cause displacement from foraging grounds in the area or reduced energy intake, affecting survival rates or productivity in the population in the short-term. Any risk of effects on prey species is expected to be greatest during the construction phase (e.g., due to seabed disturbance and/or underwater sound during construction) with risk of effects during the operations and maintenance phase expected to be much reduced. Any potential temporary changes to the fish community in the vicinity of the Project as a result of construction impacts, such as underwater sound, are unlikely to result in significant effects to SPA populations bird species given that the majority of impacts on prey species will be spatially limited to the windfarm site (for habitat disturbance) and surrounding area (e.g., behavioural effects from underwater sound), particularly in the context of the extensive foraging ranges for bird species and the highly mobile nature of these species. Potential changes to habitats (given the Project is outside of any SPA or any designated site) are indirect, as a result of sediment transportation. It is noted that the habitats are highly mobile and

ExQ1	Question to	Question	Applicant's Response
			subject to baseline sediment transportation. Temporary increases in suspended sediment and settlement during construction and operation are not considered to relate to a direct effect on ornithological species. This is inline with screening for the plan level HRA whereby only the physical presence of the Project (disturbance) was considered, with remaining impacts (including habitat changes and prey availability) considered to have a negligible impact on any species at a population level. All seabird species screened in forage widely within the marine environment and the predicted effects on habitat and prey represents a very small proportion of the foraging habitat available. As such, no LSEs are anticipated to occur as a result of changes in prey availability to bird populations or habitat changes for the SPAs considered due to the limited scale of effects, spatial extent of potential effects as well as natural baseline conditions.
1HRA9	The Applicant	**RIAA: Conservation Objectives** The ExA notes that for offshore ornithology in the RIAA [REP1-013] the conservation objectives for the Ramsar sites are not provided. The Applicant is requested to explain its approach to assessment of the Ramsar sites in the absence of the conservation objectives.	The Applicant understands that specific conservation objectives for Ramsar sites are not produced by the Statutory Nature Conservation Bodies (SNCBs). On its Designated Sites View pages (https://designatedsites.naturalengland.org.uk/), Natural England states *'For Ramsar sites, a decision has been made by Defra and Natural England not to produce Conservation Advice packages, instead focussing on the production of High Level Conservation Objectives. As the provisions on the Habitats Regulations relating to Habitat Regulations Assessments (HRAs) extend to Ramsar sites, Natural England considers the Conservation Advice packages for the overlapping European Marine Site designations to be, in most cases, sufficient to support the management of the Ramsar interests'*. Accordingly, the Applicant has assumed that the conservation objectives for the corresponding SPA apply to the Ramsar site, and the assessment has been undertaken on that basis.

ExQ1	Question to	Question	Applicant's Response
1HRA10	The Applicant	**RIAA: Condition assessments** The RIAA [REP1-013] notes that condition assessments are not available for a number of the SACs. Can the Applicant and/or relevant SNCB confirm if condition assessments have since become available for these sites. The ExA requests that should these become available during the examination, this information is brought to the attention of the ExA.	The Applicant notes the appliable SACs are: ▪ River Derwent and Bassenthwaite Lake SAC – The Applicant has not identified any further information available for this site. ▪ Solway Firth SAC - The Applicant notes that the last update to the Solway Firth SAC on the Nature Scot website (https://informatics.sepa.org.uk/ProtectedNatureSites/)) (listed as being last updated on the 11th September 2024) notes marine habitats as part of the SAC as 'Not Assessed'. As such the Applicant is not aware of any further assessment being available for this site.
1HRA11	The Applicant	**HRA screening and RIAA audit** The Applicant is requested to audit the screening summary tables and Appendices 1 and 2 [APP-028] and address the responses to all questions on HRA and provide an updated HRA screening report which includes a screening decision with reasons for all qualifying features on each European site considered.	The Applicant has carried out an audit of the HRA Screening Report and RIAA and updated (and provided at Deadline 3), where necessary, including to address the ExA's queries above (1HRA4, 1HRA6, 1HRA7 and 1BEM44). The following changes have been identified: ▪ Appendix 1 Marine Mammal: Cardigan Bay SAC - Grey Seal should be as in summary of report changed to "Potential for LSE (Screened in)". ▪ Site code formatting in Appendix 2 of the HRA Screening Report has been updated ▪ Appendix 2 Ornithology: short-eared owl added as "screened out' for Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro ▪ Appendix 2 Ornithology: text for Liverpool Bay; Little Gull: updated to clarify disturbance is only screened in during the operational phase of the Project. ▪ Rockabill SPA and North West Irish Sea SPA added to the screening report

ExQ1	Question to	Question	Applicant's Response
1HRA12	NE	**Effects on Red Throated Diver, Liverpool Bay SPA** In paragraph 3 of the updated assessment for Red Throated Diver [REP1-082] it is noted that the Applicant states that the lack of reference of disagreement by NE to other conservation objectives such as population for the Liverpool Bay SPA has led to the view that NE is content with the conclusions in relation to these. Can NE confirm this position by commenting on each of the objectives set out in Table 1.2 of the document.	The Applicant notes 1HRA12 is directed to Natural England and shall not be responding.
1HRA13	NE	**Effect on little gull** In the Applicant's Comments on Written Representations Appendix A: Applicant's Comments on Natural England Risk and Issue Log [REP2-028] under reference WR-097-038 it is stated that on 28 November 2024 NE confirmed that it was now satisfied with the little gull Collision Risk Modelling. Could NE please confirm whether this is the case, and if not, explain what it considers to be not agreed.	The Applicant notes 1HRA13 is directed to Natural England and shall not be responding.
1HRA14	The Applicant	**HRA Without Prejudice Derogation Case** Can the Applicant signpost where the potential effects for of the installation of predator fencing as mitigation have been considered in the screening report.	The Applicant advises that the documentation provided in the DCO Application did not document where potential effects of the potential compensation measures had been considered. This has now been added to the updated Habitats Regulations Assessment Without Prejudice Derogation Case for Lesser Black-Backed Gulls (LBBG) at Deadline 3 (Document Reference 4.11). The HRA for the

ExQ1	Question to	Question	Applicant's Response
			installation of the predator fence has also been provided (see 1HRA25).
1HRA15	The Applicant	**Without prejudice derogation case - Liverpool Bay SPA** The RSPB relevant representation [RR-073] and NE's Deadline 2 risk and issues log [REP2-038] item B34 and NE's comments on the Offshore Ornithology Technical Note 3 [REP1-082] maintain that a potential adverse effect on integrity for Red Throated Diver of the Liverpool Bay SPA cannot be ruled out. Consistent with paragraphs 2.8.267 to 2.8.275 of NPS EN-3, could the Applicant please provide information to inform a without prejudice derogation case under the Habitats Regulations, unless the Applicant intends to secure a 10km buffer from the original SPA boundary.	The Applicant reiterates that it considers sufficient information has been provided within the RIAA (REP1-012) and Offshore Ornithology Technical Note 3 (Red-Throated Diver at Liverpool Bay SPA Update Assessment) (REP1-082) to enable the Secretary of State to conclude that there would be no adverse effect on integrity in respect of this feature, in line with the conclusions of the Round 4 Plan Level HRA (see response to 1HRA2 above). Notwithstanding this position, the Applicant has submitted a without prejudice derogation case at Deadline 3 (Document Reference 9.11, Appendix 2, Annex 2b (Section 6)), as requested. The Applicant will also include a new schedule, presented on a without prejudice basis, to the draft DCO submitted at Deadline 4 that secures compensatory measures.
1HRA16	The Applicant	**HRA without prejudice derogation case** In paragraph 109 of the Applicant's 'Habitats Regulations Assessment Without Prejudice Derogation Case' [REP1-014], the Applicant suggests that a greater air gap would be impractical as it would limit the number of vessels able to install at the hub height. Could the Applicant explain why a change in air gap limits the number of vessels able to install at the hub height, given that a change	The applicant notes that, in order to maintain the capacity of the Project, an increase in the air gap would result in an increase in hub height for any given turbine, rather than a decrease in the blade diameter - reducing blade diameter to maintain hub height would impact the power output and is not an option offered by Original Equipment Manufacturers. An increase in hub height necessitates a vessel with a higher crane hook height and, as this is increased, the number of suitable vessels reduces. A 25m to HAT air gap has been secured in the dDCO (REP2-002). It has been confirmed by the SNCBs that an increase in air gap beyond this would not present measurable benefits, for example as set out in Natural England's Deadline 2 responses (REP2-037) where it has stated

ExQ1	Question to	Question	Applicant's Response
		in air gap could only affect the blade diameter rather than the hub height?	*'We accept that the Applicant has sufficiently demonstrated that this mitigation measure* [increase in air gap] *is unlikely to affect the outcome of the assessment, nor lead to a material improvement in terms of the Project's impact on the lesser black-backed gull feature of Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuary SPA'*. Natural England has made a similar comment in REP2-037 in respect of great black-backed gull at the EIA scale.
1HRA17	NE	**HRA without prejudice derogation case** Could NE explain why the Ribble and Alt Estuaries supplementary advice on conservation objectives applies a more stringent 'maintain' objective of 8,097 breeding pairs of Lesser Black Backed Gulls, compared with the citation figure of 4,100 breeding pairs.	The Applicant notes 1HRA17 is directed to Natural England and shall not be responding.
1HRA18	The Applicant	**HRA without prejudice derogation case** The 'Habitats Regulations Assessment Without Prejudice Derogation Case' [REP1-014] Annex 1A, s4.3.2(b) sets out the Supplementary Conservation Advice objective to 'maintain safe passage of birds moving between nesting and feeding areas'. In light of a predicted increase in in-combination collision mortality identified for Lesser Black Backed Gull of the Ribble and Alt Estuary SPA (RIAA, Table 8.31) [REP1-012], could the Applicant explain how the Proposed Development would meet this objective and whether compensation is required.	As set out in the Habitats Regulations Assessment Without Prejudice Derogation Case' (REP1-014) Annex 1A, s4.3.2(b); 'Lesser black-backed gulls nest on Banks Marsh and feed on the intertidal mudflats and saltmarsh of the Ribble Estuary as well as outside of the SPA on the Mersey Estuary and further inland in urban areas, fields and landfill sites (Scragg *et al*., 2016)'. In other words, there is little risk that the Project (which is located outside of key foraging areas for this species) would present any kind of barrier to birds moving 'between nesting and foraging areas'. Further information to support this position is provided in Paragraph 628 of the RIAA (REP1-012). Furthermore, the very low predicted mortality (0.61 birds during the breeding season and 0.69 birds annually), which itself is considered precautionary, provides additional evidence to support the Applicant's position.

ExQ1	Question to	Question	Applicant's Response
1HRA19	The Applicant	**HRA without prejudice derogation case - Compensation ratios** Could the Applicant explain why the minimum mean number of 1.15 individuals per year rather than the precautionary upper confidence limit of 3.83 individuals has been used to calculate the required compensation for the Proposed Development (Annex 1A: Initial Review of Compensatory Measures and Ecological Evidence for Lesser Black-Backed Gull s4.1) [REP1-014].	The use of mean predicted mortality has been applied to comparable projects elsewhere in the United Kingdom (UK); for example for the agreed compensation for effects on lesser black-backed gulls from the Alde-Ore Estuary SPA due to the Norfolk Boreas and Vanguard projects (MacArthur Green and Royal HaskoningDHV, 2020). The proposed scale of compensation is considered by the Applicant to be appropriate and suitably precautionary, taking into account: ▪ the inherent precaution in the predicted mortality; ▪ a ratio of 3:1 (new adult birds in the population compared to predicted mortality) is proposed; and ▪ that all proposed measures are expected to deliver significant over-compensation. In relation to compensation level (comments from Natural England in their Deadline 2 Risks and Issues Log submission) Natural England has advised the Project that the method used by Hornsea 3 Offshore Windfarm (OWF) to calculate compensation requirements for their predicted kittiwake impacts is also appropriate for calculating lesser black-backed gull compensation. The Hornsea 3 OWF approach uses detailed demographic data which are not available for most species and is also quite difficult to follow as limited explanation was submitted by the project. However, Hornsea 3 OWF produced a compensation multiplier of 25.6 for kittiwake. To address this comment, the compensation multiplier of 25.6 produced by Hornsea 3 has been applied to update the compensation level of lesser black-backed gulls for the Project – the text in sections 2.4 and 2.5 of Annex 2A: Site Selection for Compensatory Measures for LBBG of the Habitats Regulations Assessment Without Prejudice Derogation Case have been updated accordingly at Deadline 3 (Habitats Regulations Assessment Without Prejudice Derogation Case_Rev 03 Clean (Document Reference 4.11)).

ExQ1	Question to	Question	Applicant's Response
			Attempting to replicate the Hornsea 3 method for LBBG is problematic as there isn't the level of detailed information available for this species relative to kittiwake, but by applying the final multiplier developed by Hornsea 3 to LBBG does produce a generous level of compensation. Applying this 25.6 multiplier to the mean mortality of 1.02 lesser black-backed gulls (refer to section 4.1 in Annex 1A Initial Review of Compensatory Measures for LBBG of the Habitats Regulations Assessment Without Prejudice Derogation Case ((Habitats Regulations Assessment Without Prejudice Derogation Case_Rev 03 Clean (Document Reference 4.11))), it can be estimated that a total of 26 (25.6 multiplied by 1.02) new nest spaces would be required to offset the mortality of 1.02 lesser black-backed gull adults per year. The Applicant considers a suitable level of compensation has been outlined in the updated LBBG compensation documents at Deadline 3 (Habitats Regulations Assessment Without Prejudice Derogation Case_Rev 03 Clean (Document Reference 4.11)).
1HRA20	The Applicant	**Compensation measures: Habitat management** The compensation measures secured by Article 16 and Schedule 7 of the dDCO [REP2-002] reference maintenance of mammalian predator-proof exclusion fencing for the operational lifetime of the proposed wind turbine generators. In contrast Schedule 7 does not make specific reference to the duration or frequency of habitat management measures, where these are the preferred option.	Based on the conclusions of the RIAA [APP-029] the Applicant maintains their position that compensation is not required for the Project and the Derogation Case for lesser black-backed gulls (LBBG) [APP-030] has been submitted into examination on a 'without prejudice' basis should the Secretary of State, in determining the application, consider that LBBG compensation measures are required. Natural England have indicated in their Risks and Issues Log submitted at Deadline 1 [REP1-097 and REP1-098] that each measure alone is 'likely to be effective' (see WR-097-63 (Banks Marsh) and WR-097-73 (Steep Holm)). It is noted in response to 1HRA19 that the Applicant has also sought to resolve comments from Natural England on the level of compensation necessary ('the quantum').

ExQ1	Question to	Question	Applicant's Response
		The ExA notes from the Applicant's 'Update on without prejudice compensatory measures' [REP1-093] that negotiations with stakeholders are ongoing. Can the Applicant confirm when the detail of the ongoing annual habitat management maintenance at Steep Holm Island, fence maintenance at Banks Marsh and any necessary monitoring will be agreed and how this would be secured by the dDCO for the lifetime of the project?	Given the requirement for adult birds to be compensated for the operational phase of the Project, and the four-year maturation period for LBBG, the Applicant needs to move forward with the LBBG compensation proposals prior to a decision from the Secretary of State as to whether or not they are required. Mindful of Natural England's advice, it is likely that either Steep Holm or Banks Marsh will be adopted as a compensation measure for LBBG if required. The Project has therefore focused on delivery of the Steep Holm measure, with discussions at an earlier stage of development but continuing for Banks Marsh and a number of details, including monitoring and how fence maintenance would be managed for the operational lifetime of the Project, yet to be agreed. Whilst baseline survey work and initial scrub clearance works at Steep Holm are being planned for 2025 in light of the LBBG maturation period, on-going habitat management for the lifetime of the Project has not yet been formally agreed between the landowners and MOWL and discussions are likely to continue on these matters throughout and beyond the examination period. Final agreement with relevant landowners on these matters (including megafence maintenance for Bank Marsh) is likely to follow the Secretary of State's decision on the need for such compensation measures to be implemented. The dDCO sets out in Schedule 7 paragraph 8 that the measures must be secured in accordance with the Outline Compensation Implementation and Monitoring Plan (CIMP, APP-030), together with a timetable for delivery of the measure, delivery and monitoring details in addition to adaptive management measures and success criteria. For the measure to be successful, the Applicant will need to provide information on habitat management or fence maintenance as part of this process, if the need for LBBG compensation has

ExQ1	Question to	Question	Applicant's Response
			been confirmed by the Secretary of State's Appropriate Assessment. Paragraph 12 of Schedule 7 requires the fence to be maintained for the operational lifetime of the WTGs. The Applicant therefore considers that on-going maintenance of the measures has been appropriately secured in the dDCO (PD1-002) and Outline CIMP (APP-030)
1HRA21	The Applicant	**Compensation measures: Habitat management** Please provide evidence to demonstrate that the proposed habitat management measures on Steep Holm Island (for example, Annex 2B, Section 5 of the 'Habitats Regulations Assessment Without Prejudice Derogation Case' [REP1-014]) would not give rise to effects on other designated species or features of the Severn Estuary SPA or the Steep Holm SSSI.	The Applicant has maintained regular dialogue with Natural England and the Kenneth Allsop Memorial Trust (KAMT) throughout the development of the habitat management proposals for Steep Holm, as set out in the Update on Without Prejudice Compensation Measures issued at Deadline 1 (REP1-093). All parties have confirmed that they have no concerns regarding impacts on features of the Site of Special Scientific Interest (SSSI), and as set out in Section 3.3.4 of REP1-093 Natural England has confirmed that it does not foresee any difficulty in providing the required SSSI consent for the work. Similarly, Natural England has raised no concerns regarding effects on the Severn Estuary SPA, and the Applicant has identified no mechanisms or pathways by which such effects would be likely to occur.
1HRA22	The Applicant NE	**Compensation measures: Vegetation survey at Steep Holm Island** The Applicant's 'Update on Without Prejudice Compensatory Measures' [REP1-093] indicates that vegetation surveys would be carried out during January to March. Can the Applicant confirm, and NE comment on, whether this period would be optimal for such surveys and whether additional surveys would need to be carried out later in the year to characterise the existing vegetation?	The Applicant has discussed the approach to vegetation surveys with Natural England during consultation meetings. The key feature that will be determined through the surveys will be the extent of scrub, and this will be more easily identified during the winter period, when areas of tall Alexanders vegetation have died down. It is also the case that surveys should seek to minimise disturbance to lesser-black backed gulls during the breeding season, and also that there may be some difficulty in safely accessing all areas when the gulls are present (due to aggression by the nesting birds). The Applicant, Natural England and KAMT have also recognised the potential access restrictions to the island, and therefore vegetation surveys have been proposed as early as possible, to provide greater flexibility should any delays occur. Ultimately, it is

ExQ1	Question to	Question	Applicant's Response
			considered that the required surveys (which are proposed to be undertaken by drone combined with ground-truthing if possible) could be undertaken at any time of year, but that the January to March period is considered most appropriate survey time period if possible.
1HRA23	NE	**Compensation measures: Habitat management** Annex 2B, section 5 of 4.11 'Habitats Regulations Assessment Without Prejudice Derogation Case' [REP1-014] states that habitat management would be undertaken outside the breeding season to avoid disturbance to the Lesser Black-Backed Gull compensation colony and of other designated features if present. In contrast Annex 2B, section 7 states that "*Where possible the compensation measure will be implemented outside of the lesser black-backed gull breeding season (September to February) to minimise disturbance to breeding birds, although potentially some vegetation management (depending on the type of vegetation to be controlled) may need to be conducted early or late in the breeding season.*" Could NE confirm whether the Applicant should fully avoid the breeding season or whether some management early or late in the breeding season might be acceptable.	The Applicant notes 1HRA23 is directed to Natural England and shall not be responding.
1HRA24	The Applicant	**Compensation measures: Habitat management – landowner agreement**	Discussions with KAMT on the habitat management works at Steep Holm are on-going. KAMT and the Applicant met on 20 January

ExQ1	Question to	Question	Applicant's Response
		The Applicant's Habitats Regulations Assessment Without Prejudice Derogation Case' [REP1-014] and D1 'Update on without prejudice compensatory measures' [REP1-093] signpost to a letter from the KAMT to the Applicant to confirm landowner agreement with the habitat management works on Steep Holm Island. The letter in Appendix 3 of [REP1-014] references its in-principle support but confirms that discussions are ongoing and subject to commercial terms. Can the Applicant please provide any update on the status of agreement with KAMT.	2025 to further discuss a commercial agreement for the works. In the meantime, plans are on-going to develop baseline monitoring and habitat management, which are intended to be formalised within the planned commercial agreement between the two parties prior to the commencement of works in 2025 for the proposed compensation measure.
1HRA25	The Applicant	**Compensation measures: Banks Marsh megafence** Could the Applicant please indicate whether an Appropriate Assessment was undertaken in relation to the Banks Marsh megafence? If so, can a copy of the Appropriate Assessment be provided to the Examination.	As set out in Section 3.2.4.2 of the Update on Without Prejudice Compensation Measures (REP1-093), a Habitats Regulations Assessment has been completed and approved by Natural England for construction of the megafence. No detrimental impacts or pathways for potential impacts to protected site features were identified. A copy of the HRA has been submitted into examination as requested (Appendix C: Natural England Habitats Regulations Assessment ('HRA'): Rapid Screening of a Plan or Project).
1HRA26	The Applicant	**Local Planning Authorities' engagement in compensation discussions** Paragraph 2.8.56 of the 'Habitats Regulations Assessment Without Prejudice Derogation Case' [REP1-014] and D1 'Update on without prejudice compensatory measures' [REP1-093] reference the role of	Discussions are yet to take place with Sefton and West Lancashire Council on the megafence delivery, however given that the new fence will be replacing an existing fence line, Natural England consider that it would fall under 'permitted development' (pers comm Natural England, January 2025). Confirmation is anticipated through pre-planning advice with the Council, however this has not yet been requested given the position of the scheme at the time of writing, which is out to tender with potential delivery contractors.

ExQ1	Question to	Question	Applicant's Response
		the local planning authority in delivering compensation measures. a) Could the Applicant please provide evidence of discussions with Sefton and West Lancashire Council regarding planning consent for the West Bank megafence and/ or informal confirmation from them of whether the fence would be treated as permitted development. Could the Applicant please provide evidence of discussions with North Somerset Council regarding works at Steep Holm in relation to the proposals and any consents it may require.	The proposed 'without prejudice' compensation measure at Steep Holm relates to scrub management and subsequent habitat management using standard gardening and habitat management tools. Consent from North Somerset Council is not required for such works since they would not require any form of planning permission under the Town and Country Planning Act 1990 and as such, no discussions have taken place with them to date on this matter since their consent is not required for any element of the works.
1HRA27	The Applicant	**Approach to non-measurable effects** In its response to RR [PD1-011] to the RSPB (RR-073-18) the Applicant states *"The Applicant does not agree that there is no threshold below which a project would not be considered to contribute to cumulative/in-combination effects"*. Could the Applicant rephase this sentence for clarity to avoid a triple negative which leads to uncertainty as to the meaning.	As requested, the Applicant has rephrased this sentence as follows: '*The Applicant does not agree with the Royal Society for the Protection of Birds (RSPB) on this point, and considers that in some circumstances it is reasonable and proportionate to apply a threshold below which a contribution to cumulative/in-combination effects would not occur.*'
1HRA28	NE MMO	**Cumulative effects relating to Invasive Non-Native Species (INNS)** The Applicant's assessment for INNS cumulatively with the M&MTA project focuses on the impact of vessels (such as ballast water) but does not consider the	The Applicant notes 1HRA28 is directed to Natural England and the Marine Management Organisation (MMO) and shall not be responding.

ExQ1	Question to	Question	Applicant's Response
		potential stepping stone effect of introduced hard standing from the M&MTA project. This could enable propagation of species from the shore to the site. Can NE and the MMO provide commentary on the risk of such propagation, the likelihood of a significant effect relating to INNS and any measures required to avoid or minimise such effects.	
1HRA29	Mona Offshore Wind Ltd Morgan Offshore Wind Limited The Applicant NE MMO	**Co-ordination/communication between projects during construction to minimise effects** The Applicant's 'Report on Interrelationships with Other Infrastructure Projects - Revision 01 (Volume 9)' [REP1-078] explains why the Applicant considers that a legal obligation to co-ordinate with other developments in the Irish Sea could impede delivery of the Morecambe OWF. Paragraph 86 of the report concludes that opportunities for coordination would be explored where relevant and in respect of project timescales as these develop further. In the absence of a legal obligation, explain what formal mechanisms exist to ensure that there would be meaningful engagement around coordination and that it would happen in a timely fashion. The ExA is particularly concerned about mechanisms to minimise the impact of noise on marine receptors at a cross project level.	b) The Applicant does not consider that any coordination needs to be legally secured between the projects, The Applicant notes that in relation to underwater noise a number of measures have been proposed, namely a Marine Mammal Mitigation Protocol (MMMP) and an Underwater Sound Management Strategy (UWSMS) which will ensure the application (post-consent) of the most appropriate mitigation dependent on the final design of the Project. While the effects of other projects cannot be mitigated by the Project, the UWSMS will be used to consider the potential for any cumulative activities and to reduce the Project's contribution to cumulative effects. It is noted the projects included in the Cumulative Effects Assessment (CEA) extend beyond the Mona and Morgan projects and through the mitigations secured for each project there is sufficient mechanisms to minimise the impacts to marine mammals. It is considered by the fact that Mona, Morgan and the Project have all committed to an UWSMS, that these projects have sufficiently aligned on their separate commitments to reduce underwater noise impacts and no further controls are required. The Applicant has completed a full CEA as part of the EIA. Part of the CEA, where relevant, has identified effects where the contribution of the Project to cumulative effects is minimal. Mitigation specific to cumulative effects, beyond that outlined above for underwater noise, includes continuation of the Marine Navigation

ExQ1	Question to	Question	Applicant's Response
		I To Mona Offshore Wind Ltd and Morgan Offshore Wind Limited a) These IPs are invited to make comments in relation to the above and to point to any provisions set out within their respective applications which would provide such co-ordination. To the Applicant, Mona Offshore Wind Ltd and Morgan Offshore Wind Limited b) While noting the issues identified in paragraph 43, should one (or more) of the other projects not proceed, could this be resolved by ensuring that any secured co-ordination was only relevant for those projects under implementation? To NE and MMO Would a mechanism to ensure co-ordination of OWF construction activities assist in reducing the cumulative effect of the Proposed Development with other projects and, if yes, do NE and MMO have examples of how such a mechanism would function and be secured?	Engagement Forum (MNEF). In this instance (as added to the oVTMP at Deadline 3) wording has been added to outline the Applicant would progress the MNEF on a Project-alone basis if required. This would allow consideration of the requirement should other projects not go ahead.
1HRA30	The Applicant	**Clarification - Missing reference** The RIAA (paragraphs 256, 289 and 356) [REP1-012] references Hawkins and Johnstone (1978) but does not include this in the reference list.	The missing reference is as follows: *Hawkins, A.D. and Johnstone, A.D.F (1978). The hearing of the Atlantic salmon, Salmo salar. Journal of fish biology, 13, 655-673.*

ExQ1	Question to	Question	Applicant's Response
		Could the Applicant confirm the correct reference.	
1HRA31	IoM TSC The Applicant	**Isle of Man proposed Ramsar sites** The RIAA [REP1-012] summarises comments from the IoM Government (Table 8.2, p194) including reference to "*potential further Ramsar sites*" on the IoM. The text includes a broken hyperlink to the UK Overseas Territories Conservation website. Paragraph 5.4.5 of the NPS EN-1 requires that proposed Ramsar sites should be given the same protection as designated sites and assessed as part of a HRA, where relevant. a) Can the IoM TSC confirm whether the potential further Ramsar sites meet the NPS definition of being 'proposed Ramsar' sites and therefore require assessment? b) Where the IoM TSC confirms that the potential Ramsar site(s) meet(s) the criteria within the NPS, the Applicant should provide information on the likely effect of the Proposed Development on those sites and their qualifying features. The Applicant may wish to liaise with IoM Government to expedite the provision of information. In responding the Applicant should include specific reference to the following sites - Central Valley Curragh, Dalby Peatlands, Gob ny Rona, Maughold Heead and Port	The Applicant has discussed the status of the 'proposed Ramsar' sites with Isle of Man Government (meeting on 9th January 2025). As far as the Applicant is aware, there is no clear definition of a 'proposed Ramsar' site (as would be the case, for example, with a 'Proposed SPA'). It is understood from discussions with the Isle of Man Government that for the sites identified by the ExA, information was gathered to provide evidence of their suitability as Ramsar sites (which is presented within 'Information Sheet on Ramsar Wetlands (RIS), available at http://www.ukotcf.org/pubs/ramsarreview.htm), but that no formal submission to the Ramsar Convention Secretariat has been made to enable these sites to be designated. At this stage, it appears that these sites would not be considered 'proposed Ramsar', until such time as they were submitted to the Secretariat. Therefore, the Applicant considers that formal assessment of these sites as part of the HRA would not be required. Notwithstanding this position, the Applicant considers that effects on any ornithological features of these sites have been appropriately considered within the EIA assessment presented in ES Chapter 12 (REP1-032). Further information is provided as follows: ▪ Central Valley Curragh: No designated ornithological features are identified in the RIS for this site, and therefore no assessment would be required. ▪ Dalby Peatlands: The RIS for this site lists habitat for hen harrier as a feature. An assessment of the effects on hen harrier at Ballaugh Curragh Ramsar site is presented in the RIAA (REP1-012). The Ballaugh Curragh site supports a large roost for this species, and it is likely that this roost would include the same birds that occur at Dalby Peatlands. The assessment concludes that there would be no (zero) mortality of this species, and therefore no risk of effect on the Dalby Peatlands site would

ExQ1	Question to	Question	Applicant's Response
		Cornaa, Southern Coasts and Calf of Man and The Eyres.	occur. There is no potential for a receptor-impact pathway for any of the other features (i.e. wet heath and bog habitat supporting onshore birds such as linnet, stonechat and meadow pipit). ▪ Gob ny Rona; Maughold Head and Port Cornaa; Southern Coasts and Calf of Man; The Ayres: These sites are located within Marine Nature Reserves (MNRs) designated by the Isle of Man Government in 2018. An assessment of effects on these areas is presented within Section 12.8.1 of ES Chapter 12 (REP1-032), which concludes there would be (at worse) a minor adverse (non-significant) effect on these sites. The only exception to this is for great black-backed gull, for which a potential (worst case) cumulative moderate adverse effect was predicted. However, the predicted contribution of the Project to this cumulative mortality is very small, and would be substantially less that one bird per annum once apportioned to the respective sites. It is also worth noting that it is unlikely that great black-backed gull would be considered a qualifying species for Ramsar site designation, as the population at the relevant sites would not meet the appropriate criteria (i.e. 1% of the biogeographic population). The Applicant also highlights confirmation from the Isle of Man Government that it has agreed in the SoCG with the Isle of Man Territorial Sea Committee (IoM TSC) (REP1-066) that the scope of the ornithological assessment is appropriate and that the conclusions in respect of Isle of Man are agreed (aside from an overarching concern regarding the cumulative effect on great black-backed gull, towards which the Project would make a very small contribution).
1HRA32	The Applicant	**Overarching avoidance rate assumption – Morecambe Bay and Duddon Estuary SPA and Ramsar sites**	An avoidance rate of 0.980 has been applied to the migratory collision risk assessment as species-specific rates are not available for these species, as set out in Section 8.5.2.1 of the ES Chapter 12

ExQ1	Question to	Question	Applicant's Response
	NE	The RIAA [REP1-012] paragraph 532 assumes a 0.980 collision risk avoidance rate to all species. Could the Applicant confirm whether this was agreed with NE and why it is appropriate to assume one figure rather than applying species specific avoidance rates.	(REP1-032). This approach is considered precautionary, as this represents a low rate of avoidance, i.e. it would be expected that for most species much higher levels of avoidance would occur. Use of a 0.980 avoidance rate follows the approach used by Scottish Marine and Freshwater Science in 'Strategic assessment of collision risk of Scottish offshore wind farms to migrating birds' (WWT Consulting, 2014). Natural England has confirmed in its relevant representations that it agrees with the results of the migrant Collision Risk Modelling (CRM) (RR-061 Ref B13).
1HRA33	The Applicant NE	**Abundance of harbour porpoise within the site** The RIAA [REP1-012] paragraph 3356 states that "*The two-year monthly aerial surveys reported an increased number of harbour porpoise at the site. However, it is important to note that these animals exhibit a broad range of prey preferences and extensive foraging ranges. Consequently, the higher observed numbers at the Project site should not be interpreted as inferring an exclusive or restrictive feeding ground, as harbour porpoise have been known to maintain flexibility in utilizing various foraging areas beyond the Project site*." If there is not an exclusive or restrictive feeding ground, could the Applicant and NE explain why harbour porpoise are so abundant within the site boundary and can the Applicant explain whether there is a specific reason why harbour porpoise may be favouring this area (for example, prey abundance, lower vessel movements) and	A very high abundance of harbour porpoise in the Project area was recorded in a single month (May 2022) within the two years of digital aerial surveys (2021- 2023). In all other months within this timeframe, harbour porpoise were less abundant (refer to Plate 11.1 in ES Chapter 11 Marine Mammals (APP-048)). The site-specific digital aerial surveys provide only a snapshot of a single day in a month. The literature evidence provided in Appendix 11.2 Marine Mammal Information and Survey Data (APP-066) highlighted variability in harbour porpoise densities in the Irish Sea. Distribution patterns vary between seasons and months, particularly May to September, which is their breeding season (Evans & Waggitt (2023). An aggregation of harbour porpoise in the Project area in May 2022 could therefore be linked to mating behaviour where more porpoises would be present in the same area, or there is the possibility that an abundance of prey was available at that particular time. While sandeels are a preferred prey item for harbour porpoise and there is evidence suggesting a link between their distribution and sandeel abundance (MacLeod *et al.,* 2007; Schubert *et al.,* 2019), the ES Chapter 10 Fish and Shellfish Ecology (APP-047) states that there is a lack of suitable sandeel habitat in the majority of the wind farm site, and site-specific grab samples did not record sandeel. Harbour porpoises feed on a variety of fish species, suggesting that the presence of another fish species in large

ExQ1	Question to	Question	Applicant's Response
		whether this has any implications for the assigned magnitude of impacts or sensitivity of receptors? For example, the ExA notes that changes in distribution of harbour porpoise may be linked to sandeel abundance (ES Chapter 11, paragraph 11.170)	numbers could have attracted them to feed in that area. The Benthic ES chapter has not identified a specific area at the windfarm site where benthic habitats would favourably support harbour porpoise prey, with habitats typical of the wider Irish Sea. The Applicant notes the recorded density of this species at the windfarm site has been used in the assessment (rather than the lower density from widescale studies across the Irish Sea) and is factored into the magnitude calculation and thus the assessment
1HRA34	The Applicant	**In Principle Monitoring Plan** Paragraph 24 of the IPMP [APP-148] references a *'Cable specification, installation and monitoring plan'*. Could the Applicant signpost to where this plan may be found in the Application documents or provide an outline plan.	At the current stage of the Project, neither cable contracting nor detailed cable design have been completed and therefore it would be inappropriate to provide a cable specification, installation and monitoring plan based on undefined cable specifications into Examination. For this reason, and the fact that the ES considers the maximum design parameters and installation techniques, the Applicant does not consider that it would be useful or relevant to provide an outline plan at this stage, which is why this has been secured in the dDML (REP2-002) to be provided post-consent in Section 9(1)(d).
1HRA35	The Applicant	**In Principle Monitoring Plan** Table 2.3 of the IPMP [APP-148] references the potential for the Applicant to undertake monitoring of marine mammal behavioural response to disturbance. Table 2.4 refers to ornithological distribution/ abundance post construction surveys and review of existing and additional survey data with potential to look at onsite collision risk and flight behaviour. However, the monitoring/ survey activity is not committed, is stated to be unlikely to be required and in light of the general principles in section 1.3 of the plan it	The options provided in the In Principle Monitoring Plan (IPMP) form the basis of discussion with SNCBs and the MMO. Following responses on the DCO Application, the Applicant has proposed to undertake RTD disturbance monitoring. The Applicant has also proposed to monitor marine mammal distribution during aerial flights taken for RTD in the winter, particularly to provide further information on marine mammal abundance. This has been updated in the revised IPMP (In Principle Monitoring Plan_Rev 02 Clean (Document Reference 6.4)) provided at Deadline 3. Given the effects identified for the Project, other options are not considered to be required, and this has been clarified in the IPMP provided at Deadline 3 (In Principle Monitoring Plan_Rev 02 Clean (Document Reference 6.4)), however the Applicant notes that

ExQ1	Question to	Question	Applicant's Response
		is unclear whether such measures would ever be implemented. Could the Applicant please explain the circumstances that would require the Applicant to implement these measures.	monitoring would be agreed and secured post-consent via the plan secured in Schedule 6 Condition 9(1)(c) of the draft DCO (REP2-002) following further discussion with SNCBs and the MMO in-line with the final design of the Project.
1HRA36	The Applicant	**Draft Marine Mammal Mitigation protocol: bubble curtains** Paragraph 76 of the dMMMP [REP2-018] states that "*bubble curtains or other approved noise abatement systems would be used for any high-order detonations, to reduce underwater noise impacts"*, however para 79 notes that "*there are likely to be limits to the environmental conditions within which they are able to provide effective mitigation*". Can the Applicant explain: a) what are the *'other approved noise abatement systems*' referenced; b) what are the circumstances in which bubble curtains would be required rather than other forms of mitigation; and whether the conditions are appropriate at the site to deploy bubble curtains, that is how likely is it that this form of mitigation would be employed?	The Final UXO Clearance MMMP will be developed in the pre-construction period, when more information is available on the sizes and locations of any UXO devices present and potential mitigation available. Current practice to mitigate high order UXO clearance is to use a bubble curtain (this would be secured if needed in any future marine licence from the MMO for UXO clearance – see below). It is noted that JNCC guidance released in January 2025 notes that: *A key difference in the mitigation procedure for high order clearance is the need for noise abatement, which some regulators require for devices with 50 kg TNT equivalent of explosive content or greater, due to the larger injury zones associated with high order clearance of UXOs. Use of noise abatement should always be discussed and agreed with the appropriate regulator and SNCB at the application stage, including (if appropriate) reasons why using some systems may be problematic (e.g. due to water depth or currents).* As noted here, bubble curtains are currently subject to a number of operating constraints to which the ExA has referred, and as detailed in the Draft MMMP (REP2-018). Marine conditions are dynamic throughout any particular day, and normal practice would be to wait for conditions to allow deployment and use of bubble curtains for UXO clearance since there is some flexibility with regard to the exact timing of any clearance activities. It is anticipated that, with sufficient planning, bubble curtains could be used to mitigate underwater noise from UXO clearance within the proposed DCO boundary for the Project. The Applicant is not

ExQ1	Question to	Question	Applicant's Response
			aware of any other direct noise mitigation system than bubble curtains that has recently been authorised to reduce impacts of underwater noise from high order UXO clearance. The Applicant wishes to highlight that any required UXO clearance will be the subject of a separate post-consent marine licence application for the MMO to determine and low order clearance would be the preferred clearance method. The 'other approved noise abatement systems' referenced in the draft MMMP could include any other approved measures which may be available at the time of the marine licence application to provide suitable mitigation for underwater noise. The detail of appropriate mitigation would be a matter for the MMO to consider and approve at the time of determining a UXO licence application (if required).
1HRA37	The Applicant, NE	**Birds of Conservation Concern – Breeding Seabirds** On 2 September 2024 the latest status assessment of breeding seabird species in the UK was published. This addendum completes the 2021 Birds of Conservation Concern 5 review and updates the second International Union for Conservation of Nature Red List review of extinction risk for breeding seabird species in Great Britain. Confirm whether this assessment has any implications for the conclusions of the HRA/ ornithological assessments.	Five seabird species were added to the UK Red List.as part of the Birds of Conservation Concern (BoCC) 5 update (Stanbury *et al*., 2024); Arctic tern, Leach's petrel, common gull, great black-backed gull and great skua. Of these, only two species (great black-backed gull and common gull) occurred regularly at the Project site in sufficient numbers to be subject to detailed assessment within ES Chapter 12 (REP1-032). These species were identified as having 'high' sensitivity to collision risk. As set out in Section 12.4.3.1 of ES Chapter 12 (REP1-032) 'conservation value' has been used to provide context to the assessment, but was not a key input into the assessment process, for the reasons set out in that section. Therefore, the assessment conclusions would not be affected by the status update in BoCC5, noting that a moderate adverse cumulative effect on great black-backed gull has been identified. BoCC status has not been used to inform the HRA assessments presented in the RIAA (REP1-012) and Offshore Ornithology Technical Note 2 (HRA) Rev02 (submitted at Deadline 3 (Document

ExQ1	Question to	Question	Applicant's Response
			Reference 9.26)). The HRA is instead driven by consideration of SPAs and associated qualifying features. For the reasons set out above, the BoCC5 review would make no difference to the assessments in the EIA or the HRA.
1HRA38	The Applicant, RSPB MMO	**Ecosystem effects due to ocean stratification** The RR from the RSPB [RR-073] references the ecosystem impact of water column stratification on prey availability. The Applicant's comments on WR at D2 item WR-112-11 [REP2-027] suggests that this issue may have been resolved in SoCG discussions with MMO. a) Is the RSPB able to provide specific evidence to demonstrate that such an effect is likely for example, the provision of the Isaksson *et al* (2023) reference, where relevant? b) The Applicant's response to RR item RR-073-16 [PD1-011] responds to the RSPB comments, cross referencing ES Chapter 12 [REP1-032]. Neither of the cross-referenced sections of text explicitly address stratification. c) Can the MMO confirm that it is satisfied with the Applicant's approach to consideration of water column stratification? d) Could the Applicant please address this point (it is noted that ES Chapter 7	The Applicant notes that point a) is directed at RSPB and point c) is directed at the MMO and shall not be responding. In response to point b), the Applicant agrees that the sections referred to in the response to RSPB (RR-073-16) do not explicitly refer to stratification, but rather the relevant sections of the chapter which considered ecosystem effects (such as indirect effects on prey species and inter-relationships). However, as noted by the ExA in point d), an evaluation of the effects of stratification was undertaken in Section 7.6.3.3, Paragraphs 7.289 – 7.290 of Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-044). The assessment concluded that any changes to ocean stratification as a result of the Project foundations are expected to be small and only occur during periods when the sea is stratified. As noted in Paragraph 7.290 of Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-044), the Irish Sea is well mixed throughout the year due to tidal mixing (Howarth, 2005). Areas of stratification can form to the east and west of the Isle of Man due to weaker tidal currents, however this is only in hot, calm conditions and even if stratification occurred, the stratified areas would be easily mixed away during storms or spring tides (Howarth, 2005). Therefore, in response to point d), the effects of stratification on the wider ecosystem were not considered in Chapter 12 Offshore Ornithology as Chapter 7 concluded that the Project would not have a significant effect on ocean stratification.

ExQ1	Question to	Question	Applicant's Response
		[REP2-008] does include reference to stratification).	
10.Other offshore infrastructure (OOI)			
Wake effects			
1OOI1	Ørsted IPs (which includes Barrow Offshore Wind Limited; Burbo Extension Limited; Morecambe Wind Limited; Walney (UK) Offshore Windfarms Limited; Walney Extension Limited; Ørsted Burbo (UK) Limited) Mona Offshore	**Potential Wake Effects** Table 17.10 of ES Chapter 17 [REP1-038] identifies the approximate distances between the Proposed Development and other offshore wind projects including proposed and operational wind farms. At Deadline 1, in response to the Action Points for ISH1, the Applicant submitted further details including the orientation, hub height and blade tip height of other offshore wind projects in the Irish Sea (Table 5.1 of [REP-1-086]). To the Applicant: a) Having regard to the orientation, wind direction and distance between the Proposed Development and the Mona Offshore Wind Project (10.56km to the WSW) as shown in Table 5.1 and Figure 5.1 of [REP-1-086] does the Applicant have any concerns regarding the potential impact of wake loss from that proposal on the Proposed Development? If not, please explain why this is the case? To the other IPs:	a) The siting of the Mona Offshore Wind Project was undertaken in accordance with The Crown Estate's Round 4 leasing requirements and the separation distance of 7.5km. As The Crown Estate took account of minimising impacts on other licensed activities in identifying this distance, and the absence of further guidance or policy basis for undertaking an assessment, the Applicant considers that no assessment or approval from other operators awarded sites as part of Round 4 is required. Therefore, the Applicant has no concerns regarding the potential impact of wake loss from the Mona Offshore Wind Project, as this will be factored into detailed design and layout in due course.

ExQ1	Question to	Question	Applicant's Response
	Wind Limited Morgan Offshore Wind Limited Scottish Power Renewables (WODS) Ltd	b) Do the other referenced IPs agree that Table 5.1 accurately reflects the approximate distances, orientation and heights as provided by the Applicant? If not, please can the parties provide a similar table which shows the same information as it considers to be correct. Noting the distance between the proposed Mooir Vannin and existing Walney Extension OWF (as shown Table 5.1 and Figure 5.1 of [REP-1-086]), do the Ørsted IPs have concerns about potential wake loss effects from the Mooir Vannin proposal and, as the proposed operator of that project, can the parties confirm whether a wake loss assessment has been scoped in as part of the EIA for that application? If not, please can the parties explain why such an assessment is not considered necessary in that case?	
1OOI2	Ørsted IPs	**Potential Wake Effects: Wood Thilsted Partners Ltd Report – Installed capacities of Ørsted projects** Section 1, Table 2-1 and Table 5-3 of the Wood Thilsted report [REP2-041] identify each of the Ørsted operational windfarms and provide information including the rated power of turbines used, number of turbines within each project and their installed capacity.	The Applicant notes 1OOI2 is directed to Ørsted Interested Parties (IPs) and shall not be responding.

ExQ1	Question to	Question	Applicant's Response
		Walney Extension is cited as having a capacity of 659MW within Section 1 and Table 5-3 and in Table 2-1 this project is broken down into two separate phases (i.e. Walney 3 and Walney 4) with installed capacities assigned to each phase which combined total 661MW. Different capacities are also cited for Burbo Bank Extension within section 1 of the report (i.e. 256MW), Table 2-1 (i.e. 265.6MW) and Table 5-3 (i.e. 258MW). a) Why has the information for Walney Extension been provided as individual phases rather than as a single project? Please check and confirm that the total installed capacities for Walney Extension and Burbo Bank Extension are correct and that the correct baseline capacities have therefore been used in the assessment and that the results within Table 5-4 and Table 5-5 are accurate. Please provide updated tables (if necessary).	
1OOI3	Ørsted IPs	**Potential Wake Effects: Wood Thilsted Partners Ltd Report – Tables 5.4 and 5-5** Tables 5-4 and 5-5 provide a summary of the results of the wake loss assessment for each of the main scenarios on each of the Ørsted IPs windfarms. In addition to any corrections required as result of the Ørsted IPs response to ExQ1OO12 above, please can the Ørsted	The Applicant notes 1OOI3 is directed to Ørsted IPs and shall not be responding.

ExQ1	Question to	Question	Applicant's Response
		IPs update Tables 5-4 and 5-5 to include additional columns that: a) identify what the percentage losses cited equate to in terms of total energy loss (in MW) for each scenario and windfarm affected each year; b) taking into account the answer to (a), what the overall total energy loss (in MW) would be for each windfarm having regard to the consented/ remaining operational life of each of those projects. having regard to the electricity sale price agreed in relation to each of those projects, the remaining life of those projects and overall total energy loss identified (as identified in the response to (b)) what would the financial consequences of such wake losses equate to for each of these projects?	
1OOI4	The Applicant Ørsted IPs	**Potential wake effects – NPS EN-3 paras 2.8.200 and 2.8.344** Paragraph 2.8.200 of NPS EN-3 states "*Applicants should engage with interested parties in the potentially affected offshore sectors early in the pre-application phase of the proposed offshore wind farm, with an aim to resolve as many issues as possible prior to the submission of an application".* Paragraph 2.8.344 adds *"…the Secretary of State should expect the applicant to work with the impacted sector to minimise*	The Applicant intends to submit an updated Statement of Common Ground (SoCG) with the Ørsted Interested Parties at Deadline 4. The updated SoCG will provide further information on how the Applicant has engaged with the Ørsted Interested Parties in accordance with paragraph 2.8.200 of National Policy Statement (NPS) EN-3. The Applicant considers there is no policy requirement to undertake a wake assessment as part of the Environmental Impact Assessment (EIA) which was undertaken in accordance with the EIA Regulations, the relevant NPSs, Marine Plans and the Planning Inspectorate's Scoping Opinion. Therefore, the EIA has not identified wake effects to the Ørsted IP assets.

ExQ1	Question to	Question	Applicant's Response
		negative impacts and reduce risks to as low as reasonably practicable". Noting the Ørsted IPs position and disagreement within the SoCG submitted at Deadline 1 [REP1-073]: a) can the Ørsted IPs confirm if/ when concerns about potential wake loss effects were first identified and raised with the Applicant during the pre-application stage? b) can the Applicant explain how it has worked with the Ørsted IPs (and any other operators of existing OWFs in the Irish Sea) to minimise negative impacts on energy yield since these concerns were first raised?	The Applicant has continued to engage with the Ørsted IPs to understand the issues raised in relation to wake effects. The Applicant is committed to continuing to engage with the Ørsted IPs on the Project.
1OOI5	Ørsted IPs The Applicant	**Potential Wake Effects – NPS EN-3 para 2.8.342** Having regard to paragraph 2.8.342 of NPS EN-3 which advises the SoS to employ "… *a pragmatic approach ..."* where a proposed offshore wind farm potentially affects other offshore infrastructure or activity. <u>To the Ørsted IPs</u> a) Can the Ørsted IPs please set out what outcome they seek from this Examination in relation to wake effects? <u>To the Ørsted IPs and the Applicant</u> b) Could there be any role for Protective Provisions or a commercial side	b) The Applicant does not consider that Protective Provisions are required in relation to wake effects for the reasons set out previously. The Applicant is proposing protective provisions (and/or negotiating commercial side agreements) in respect of parties where there are identified residual effects under the EIA process undertaken against established guidance by established regulators, where there is a relevant NPS or other policy which is considered to be engaged, or where there is a situation which could give rise to a legal liability (such as a crossing) which can appropriately be regulated. However, as this is not the case for the Ørsted IPs, the Applicant therefore does not consider this is an appropriate requirement. In relation to an Awel y Mor type requirement, the Applicant notes that planning conditions (including Development Consent Orders (DCO) requirements) must satisfy the policy tests set out in national

ExQ1	Question to	Question	Applicant's Response
		agreement or in the event that no wake assessment is undertaken during the Examination? Would both the Applicant and the Ørsted IPs comment whether a requirement along the same lines of Requirement 25 of The Awel y Mor Offshore Wind Farm Order 2023 (requiring such an assessment post-consent) would be justified and would meet the relevant legal and policy tests.	planning policy (EN-1 paragraphs 4.1.16-18 and The National Planning Policy Framework (NPPF) paragraph 55), namely that they are: (1) necessary, (2) relevant to planning, (3) relevant to the development to be permitted, (4) enforceable, (5) precise and (6) reasonable in all other respects. The Applicant does not consider that an Awel y Môr type requirement would be necessary or relevant to planning, as it considers that there is no legal or policy requirement for a wake loss assessment to be carried out for the Ørsted IPs. The Awel Y Môr DCO, as made includes the following requirement: *Wake effects 25.—* (1) No part of any wind turbine generator shall be erected as part of the authorised development until an assessment of any wake effects and subsequent design provisions to mitigate any such identified effects as far as possible has been submitted to and approved in writing by the Secretary of State, in order to mitigate the impact of the authorised development on the energy generation of Rhyl Flats Wind Farm. The assessment must be based on the scope of this Order as granted. (2) The authorised development shall be carried out in accordance with the approved details. It is unclear to the Applicant what is intended by "subsequent design provisions to mitigate any such identified effects". The Applicant is not aware of design changes which can be made to materially influence wake at the distances at issue here. Given its lack clarity and reasonableness in the current situation, the Applicant considers that a similar condition would not meet the policy tests set out above.

ExQ1	Question to	Question	Applicant's Response
1OOI6	The Crown Estate	**Crown Estate Round 4 Separation Criteria** Paragraph 4.10 of the ES Chapter 4 [APP-041] suggests that when refining potential sites for Round 4 offshore wind projects, areas were excluded due to a number of hard constraints including maintaining a separation from operational windfarms of 7.5km. Can The Crown Estate advise upon what basis/ reason the 7.5km separation distance is used when identifying potential sites? For example, does this distance consider potential for wake effects/ reductions in energy output to other offshore wind farms or is this based upon some other consideration? Can The Crown Estate please comment and explain.	The Applicant notes 1OOI6 is directed to The Crown Estate and shall not be responding.
1OOI7	The Applicant Spirit Energy	**Future Carbon Capture Storage** Spirit Energy in their WR [REP1-116] refer to their Carbon Storage Licence CS010 associated with the potential future repurposing of the Morecambe Hub gas fields. Concerns are raised about potential implications and challenges the Proposed Development could have on their ability to carry out activities under the terms of this licence as well as future access and well monitoring. Spirit comment that this is not provided for in the protective provisions (or elsewhere) in the draft DCO.	a) The Applicant considers that 'licence' is the appropriate term for a Carbon Dioxide Appraisal and Storage Licence CS010. However, the Applicant notes that for a licensee to undertake any intrusive exploration work in accordance with a Carbon Dioxide (CO2) Storage Licence, paragraph 21 of the CS Licence Guidance notes, '…*the licensee will not be able to undertake any intrusive exploration work (including the drilling of a well) under the CS Licence without having the corresponding Crown Lease from TCE/CES as appropriate.'* Through engagement with The Crown Estate the Applicant understands that Spirit Energy are not yet in receipt of a Storage Exploration and Appraisal Agreement (SEAA) which provides CO2 developers with the necessary permissions to undertake their initial

ExQ1	Question to	Question	Applicant's Response
		<u>To both Parties:</u> a) Having regard to paragraph 2.8.197 of NPS EN-3, is the Carbon Dioxide Appraisal and Storage Licence CS010 a 'licence' for the purposes of this paragraph, or is it something else? If it is something else, please explain what it is. <u>To Spirit Energy:</u> b) If Spirit Energy is seeking a revision to the current Protective Provisions to address its concerns, please can it provide an alternative drafting which identifies the changes sought? (See also ExQ0.) <u>To the Applicant</u> c) Can the Applicant please respond to the concerns raised by Spirit and in particular comment on whether the Protective Provisions could be amended to include the identified wells and set appropriate stand-offs in order to safeguard and ensure future access is maintained?	exploration and appraisal activities. Further, the Applicant understands that Spirit Energy do not currently have the Carbon Storage Agreement for Lease which follows the issuance of the SEAA. It is understood from The Crown Estate that the Appraisal Term which includes achieving both SEAA and Carbon Storage Agreement for Lease (AfL) is approximately 8 years. By contrast, the Project entered into its Agreement for Lease with The Crown Estate in January 2023. Paragraph 39 of the Licence requires "when planning any activity or operation under this licence, the Licensee shall take into consideration any activities being undertaken, or likely to be undertaken, in the licensed area or that impact, or are likely to impact, such licence activities or operations". c) The Applicant requires to understand further Spirit Energy's position and its technical requirements in order to develop a refined position on whether Protective Provisions are an appropriate measure to enable the Project and any potential future carbon capture storage to co-exist. The Applicant notes that Spirit Energy stated within its comments at Deadline 1 (REP2-042) that it intends to comment on the Applicant's Deadline 2 submissions at Deadline 3. The Applicant will subsequently respond to further comments received in relation to Morecambe Net Zero (MNZ) in due course. The Applicant is expecting revised Protective Provisions from Spirit Energy's solicitors, and it is anticipated that the drafting proposed will allow the Applicant to understand what is being requested by Spirit. However, the Applicant also notes that the MNZ Carbon Capture Usage and Storage (CCUS) project is at an early stage of development and that there is still considerable uncertainty if or when the MNZ CCUS project will proceed to the next phase of the North Sea Transit Authority.

ExQ1	Question to	Question	Applicant's Response
10.Seascape, Landscape and Visual (SLV)			
Clarifications			
1SLV1	The Applicant	**Clarifications** There are some typographic errors in ES Chapter 18 [APP-055], principally to do with figure enumeration and road numbering. Could this please be checked? Similarly, the identifying numbers for Landscape Character Types for the Sefton Metropolitan Borough area appear to have been omitted from Figure 18.11a [APP-107]. Could these please be added.	Typographic errors in Environmental Statement (ES) Chapter 18 [APP-055] have been checked and updated in the version submitted to the Examining Authority at Deadline 3 (Chapter 18 Seascape, Landscape and Visual Impact Assessment_Rev 02 Clean (Document Reference 5.1.18)). ID numbers for Landscape Character Types for the Sefton Metropolitan Borough area have been added to the updated version of Figure 18.11a [APP-107] submitted to the Examining Authority at Deadline 3 (Chapter 18 Seascape, Landscape and Visual Impact Assessment Figures (Part 2 of 34) Rev 02 (Document Reference 5.3.18)).
1SLV2	The Applicant	**Clarifications** In discussing the effects on MCA38 – Irish Sea South (England), in Table 18.36 in ES Chapter 18 [APP-055], it is indicated that *"Tidal flows are generally quite weak"* under the 'Tidal range' heading but there are *"Strong tides"* under the 'Exposure' heading. Could the Applicant please explain this apparent dichotomy.	The Applicant notes this apparent contradiction and has checked the published seascape character assessment for the North-West Inshore and Offshore Marine Plan Areas (Marine Management Organisation (MMO), 2018), which confirms (p49) that for MCA38 – Irish Sea South (England) *"Tidal flows are generally quite weak".* This has been corrected in the version of ES Chapter 18 submitted to the Examining Authority at Deadline 3 (removing reference to 'strong tides') (Chapter 18 Seascape, Landscape and Visual Impact Assessment_Rev 02_Clean (Document Reference 5.1.18)).
Lighting Effects			
1SLV3	The Applicant	**Lighting of OSPs** Table 18.2 of ES Chapter 18 [APP-055] sets out the worst-case for assessment. While	The Applicant can confirm that no aviation lighting on the Offshore Substation Platforms (OSPs) is necessary due to the height of the OSPs (70m to the highest point including helideck and lightning protection), which falls below 150m for structures requiring to be lit under the requirements of the Air Navigation Order 2016.

ExQ1	Question to	Question	Applicant's Response
		lighting has been set out for WTGs, it has not been described for OSPs. Could the Applicant please set this out, explaining what effects this may have, given the 'worst-case' location shown on Figure 18.1 [APP-106].	The Project design includes potential for a helideck on the OSPs, therefore any lighting needed for this helideck will be accordance with CAP437: Standards for Offshore Helicopter Landing Areas (CAA, 2016). It is expected that lighting on the helideck will only be required when flying under poor visibility or at night during periods of maintenance. The Applicant can confirm that assuming the 'worst-case' locations shown on Figure 18.1 [APP-106] (where the two OSPs form peripheral structures), the OSPs will be marked by aids to navigation lights in accordance with MGN372 (Maritime and Coastguard Agency, 2022) and IALA Guideline G1162 on the Marking of Offshore Man-Made Structures (IALA, 2021). Aid to navigation lights are likely to be fitted to OSPs around the lowest point of the topside, typically at the top of the 'yellow' foundation section. Light will require to be visible from all directions in the horizontal plane, flashing yellow, with a range of not less than five (5) nautical miles. Assuming the 'worst-case' locations shown on Figure 18.1 [APP-106], aid to navigation lights at OSP and Wind Turine Generators (WTG) platform level are unlikely to be visible from low lying coastal viewpoints, due to the influence of earth curvature forming an intervening horizon between the low lying position of the light (at foundation/topside interface level) and the low lying coast. The prevailing visibility conditions at distances beyond 30km (Table 18.10 of ES Chapter 18 [APP-055] are also anticipated to further limit the potential for visibility of the aid to navigation lights at such range. Aid to navigation lights may be visible from more elevated areas of coastline that afford an aspect out to sea, albeit with the lights being very low to the sea horizon and located at long range (over 30km) with low intensity. Aid to navigation lights on the OSPs are assessed as having a negligible magnitude of change on views from the coast at night and will result in not significant effects.

ExQ1	Question to	Question	Applicant's Response
			The Applicant can confirm that there is a possible requirement for operational lighting on the OSPs during maintenance periods that would be limited to walkway/stairway/task lighting that has low levels of lighting intensity when in use and is unlikely to be visible from the coast.
1SLV4	The Applicant DIO/ MoD	**Lighting intensities** In paragraph 18.399 of ES Chapter 18 [APP-055] it is indicated that when meteorological conditions permit, that is with visibility greater than 5km, then the aviation lighting would be reduced in intensity to 200 candelas (cd). Requirement 3(3) in the dDCO [REP2-002] indicates that aviation lighting *"shall be operated at the lowest permissible lighting intensity level"*. a) Could the Applicant and DIO/ MoD please set out where the *"lowest permissible lighting intensity level"* is defined and provide a copy of the source document. Should any source defining these levels be specifically referenced in Requirement 3(3)?	The Applicant highlights that The Air Navigation Order 2016 is specifically referenced in the Development Consent Order (DCO). In respect of aviation lighting, under Requirement 3(1) of the dDCO [REP2-002], "*the undertaker must exhibit such lights, with such shape, colour and character and at such times as are required by Air Navigation Order 2016(a) and/or determined necessary for aviation safety".* Under section 223(2) of the Air Navigation Order 2016 requires the WTGs to be lit to assist their detection by aircraft with a medium intensity steady red light as close as reasonably practicable to the top of the fixed structure (the WTG nacelle). Schedule 1 clarifies that medium intensity steady red light should comply with the characteristics described for a Type C light as specified in Annex 14 to the Convention on International Civil Aviation (Volume 1 - Aerodrome Design and Operations) (ICAO, 2018). The intensity of fixed red lights of medium intensity is defined as 2000 candela (cd) in Table 6-1. The lowest permissible lighting intensity for WTGs in United Kingdom (UK) waters is further defined in Article 223(8) of The Air Navigation Order 2016, which equates to 200cd (i.e. 10% of 2000cd): *"If visibility in all directions from every wind turbine generator in a group is more than 5km the light intensity for any light required by this article to be fitted to any generator in the group and displayed may be reduced to not less than 10% of the minimum peak intensity specified for a light of this type".*

ExQ1	Question to	Question	Applicant's Response
Array layout			
1SLV5	The Applicant	**Compliance with NPS EN-3** Paragraph 2.8.351 of NPS EN-3 indicates that the SoS should not refuse to grant consent solely in relation to seascape, landscape and visual grounds unless it is considered an alternative layout within the identified site could be reasonably proposed which would minimise harm, taking into account other constraints. Could the Applicant please explain how the SoS can be satisfied that the layout for the Proposed Development would be the most appropriate in seascape, landscape and visual terms taking account of other constraints.	Embedded mitigation relevant to seascape, landscape and visual, which has been embedded into the design of the Project, is summarised in Table 18.3 of ES Chapter 18 [APP-055] and includes a reduction in the spatial extent of the windfarm site and a reduction in the maximum height of the WTGs between the Preliminary Environmental Impact Report (PEIR) and ES stage. Chapter 5 Project Description (Document Reference 5.1.5) gives indicative details of the layout, which would follow a regular pattern, or as close to this as is practicable. The assessment in ES Chapter 18 [APP-055] is based on a worst-case scenario layout, such that any design changes made to the layout post-consent in line with the design code will not materially affect the significance assessed. As set out in the Design Statement [APP-021], the Design Code (Section 6.2 and Table 6.1) establishes key control measures for the design of the final layout of the Project site. The final layout would be determined post-consent, following a design exercise, which would include a balance between various objectives, including the commercial need to maximise energy production, sufficient space between individual WTGs for navigation and Search and Rescue (SAR), appropriate separation from existing cables, pipelines or other infrastructure, and consideration of ground conditions and other constraints. The Applicant has committed in the Design Code (Section 6.2 and Table 6.1) [APP-021] to adopting two lines of orientation for the windfarm layout i.e. WTGs would be set out in a regular pattern such that they are aligned in two straight, intersecting rows. As a result, the WTGs are more likely to have a consistent and regular appearance when viewed from the coast. The Applicant considers that taking into account the various objectives and constraints, and

ExQ1	Question to	Question	Applicant's Response
			the control measures for the design of the final layout in Design Code (Section 6.2 and Table 6.1) [APP-021], no alternative layout within the windfarm site can reasonably be proposed to materially change or minimise seascape, landscape and visual effects.
1SLV6	The Applicant MMO Ips generally	**Detailed array layout** Under condition 9(1) of Part 2 of Schedule 6 of the Ddco [REP2-002], the Applicant needs the consent of the MMO, following consultation with the relevant statutory nature conservation body, Trinity House and the MCA, for the detailed array layout. a) Could the MMO please explain how its internal procedures would ensure that its consideration of the layout would take account of seascape, landscape and visual effects from coastal regions (including inland locations with a view of the Application site) as considered within the ES, particularly as it is noted in the SoCG with the MMO [REP1-060] that the MMO defers to other parties in respect of seascape, landscape and visual impact assessment. b) Does the Applicant, or any other IP, consider that there is a case for widening those bodies the MMO needs to consult to include relevant planning authorities falling within the Zone of Theoretical Visibility to ensure that any harm is minimised in line with paragraph 2.8.351 of NPS EN-3?	(a) The Applicant notes that this question is directed to the MMO and shall not be responding. (b) The Applicant has no comments on the potential widening of those bodies the MMO needs to consult with, however it notes that Local Authorities within the Zone of Theoretical Visibility (ZTV) have been consulted through the statutory consultation and the Evidence Plan Process (EPP) via the Seascape, Landscape and Visual Expert Topic Group (ETG). A summary of consultation responses received in relation to Seascape, Landscape and Visual Impact Assessment (SLVIA) and how they have been addressed in the ES is provided in Table 18.1 of ES Chapter 18 [APP-055].

ExQ1	Question to	Question	Applicant's Response
Landscape effects			
1SLV7	The Applicant	**Cumulative effects** Could the Applicant please explain why it has not undertaken a CEA in respect of the proposed substation(s) at Penwortham as part of the M&MTA proposal given that this site falls within the Zone of Theoretical Visibility of the Proposed Development? If there would be any cumulative effects could the Applicant please undertake such an assessment. If appropriate, this should also include any effects relating to the East Irish Sea Transmission Project which also indicates a connection to the National Grid at Penwortham.	The proposed onshore substations for the Morecambe Offshore Windfarm and Morgan Offshore Wind Projects at Penwortham are considered in the Cumulative Effects Assessment (CEA) in Section 18.7 of ES Chapter 18 [APP-055]. At the time of undertaking the assessment, the Transmission Assets project was at pre-application stage, therefore information from the PEIR (published in October 2023) was used to inform the CEA undertaken in ES Chapter 18 [APP-055]. This assessment found (para 18.479) that there is very limited potential for the Morgan and Morecambe onshore substations to result in cumulative effects with the Project windfarm site, as they are located well inland onshore, with different receptors impacted compared to those impacted by the Project windfarm site. There is very limited potential for combined or sequential visibility of the substations and the Project windfarm site, as evident in the preliminary ZTVs for the Morgan and Morecambe onshore substations (Figure 1.2 and 1.3 of the Transmission Assets PEIR (Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Ltd, 2023a)). In the period since the assessment was undertaken in ES Chapter 18 [APP-055], the application for the Transmission Assets project has been submitted, which includes a CEA of the transmission assets together with Morecambe Offshore Windfarm: Generation Assets in Chapter 10: Landscape and Visual Resources [APP-123] (Section 10.14 – Scenario 1). The ZTV for the substation(s) is shown in Figure 10.2 [APP-135] and is largely contained within the immediate 2-3km area around the substation(s) between Kirkham to the north, Freckleton to the south and Newton-with-Scale/Clifton to the east. No possibility of the proposed substation(s) at Penwortham resulting in a cumulative onshore visual impact with Morecambe Offshore

ExQ1	Question to	Question	Applicant's Response
			Windfarm: Generation Assets (Scenario 1) was found in Chapter 10: Landscape and Visual Resources [APP-123] (Section 10.14.4, Table 10.26) from the eighteen representative viewpoint locations chosen to assess effects on visual receptors within the vicinity of the onshore substations. The Applicant notes this is due to the lack of visibility of the Project windfarm site from the landscape and visual resources study area for the substation(s), given the distance of the Project windfarm site over 40km from the substation(s) and visual separation by intervening landscape screening and urban areas. The Applicant notes that a direction has been issued by the Secretary of State for the East Irish Sea Transmission Project of which it forms part necessary for the connection to the National Grid of the generation assets of the Mooir Vannin Offshore Wind Farm. The Applicant considers that as the East Irish Sea Transmission Project is yet to submit a Scoping Report, there is insufficient information available on the relevant proposals for the indicated connection to the National Grid at Penwortham on which to make an informed assessment.
1SLV8	Affected Local Authorities NE	**SLVIA Methodology** In section 4.1 of Appendix 18.1 to ES Chapter 18 [APP-083], the Applicant has explained why it has not followed GLVIA3 methodologies in all respects. Do any IPs have any views as to the appropriateness or otherwise of this approach? If so, please explain why the parties hold this view, and any implications that may arise.	The Applicant notes this is a question to affected local authorities and Natural England, however it would offer the comment that GLVIA3 provides guidance but it is not prescriptive about the approach that should be taken by Landscape and Visual Impact Assessment (LVIA) practitioners. Divergencies from GLVIA3 noted in Appendix 18.1 of the ES [APP-083] are not new diversions and follow practice established on other Nationally Significant Infrastructure Projects (NSIPs).

ExQ1	Question to	Question	Applicant's Response
1SLV9	The Applicant NE Local Authorities	**S245 Levelling Up and Regeneration Act 2023** Table 18.4 of ES Chapter 18 [APP-055] refers to s245 of the LURA in respect of the revised duties on National Landscapes (Areas of Outstanding Natural Beauty). However, there is no reference to this legislation in respect of National Parks. Could the Applicant, and other IPs as they consider appropriate, comment on any implications of s245 of the LURA in relation to the effects on National Parks. Could IPs set out any implications for the consideration of the Application in light of the coming into force of section 245 of the LURA?	The Applicant accepts that s245 of the Levelling Up and Regeneration Act (LURA) also applies in relation to the effects on National Parks. This places a duty in respect of all 'relevant authorities' (such as the Secretary of State) when performing planning functions to 'seek to further the purpose' of National Parks, which are: (a) conserving and enhancing the natural beauty, wildlife and cultural; and (b) promoting opportunities for the understanding and enjoyment of the special qualities of those areas by the public. The Applicant highlights that LURA does not say that a project cannot have an impact on natural beauty, or for that matter, that it cannot result in harm(s) to special qualities. The duty is to 'seek to further the purpose'. As the Project is located approximately 43km outside the Lake District National Park (LDNP), the relevant policy test is that *"[t]he Secretary of State should be satisfied that measures which seek to further the purposes of the designation are sufficient, appropriate and proportionate to the type and scale of the development"* (NPS EN1 5.10.8). The Applicant notes that the duty to 'seek to further' (LURA, 2023) was considered by the Secretary of State (SoS) in determining the Sheringham and Dudgeon Extension Projects DCO (2024). The duty was held to be met because in that case the *"the Applicant has taken reasonable precautions to avoid compromising the purpose of the designation".* The Applicant would submit that it has also taken reasonable precautions and meets the standard as applied by the SoS. The Applicant considers that the Project reasonably conserves the special qualities and features of National Landscapes, including the

ExQ1	Question to	Question	Applicant's Response
			seascape. Reasonable efforts have been made to avoid or minimise significant adverse impacts on the LDNP, as far as the scope of the project allows. The Applicant considers that it has sought to conserve the natural beauty of the LDNP through the siting of the windfarm site and mitigation embedded in the Project design set out in Table 18.3 of ES Chapter 18 [APP-055]. This has included siting of the windfarm site at long distance from the LDNP (over 43km), largely behind existing wind farms; a reduction in the spatial extent of the windfarm site to limit the eastward spread/extent of WTGs; and a reduction in maximum height of the WTGs that can be installed under the dDCO. As a result, although there will be effects on the special qualities of the LDNP, these are likely to be minor at worst, and they are not significantly adverse. In respect of enhancement, the Applicant takes the position that the impact of the Project on the natural beauty and special qualities of the LDNP is no greater than minor and not significant and does not result in such a degree of 'harm' to the special qualities of the LDNP that requires to be offset. The Applicant considers, given there are no significant effects, that it is not proportionate for further enhancement measures to be imposed and that current measures are sufficient and appropriate. The Applicant submits that no such necessity has or can be demonstrated given the assessed level of potential worst case impact on the LDNP special qualities is not significant. The Applicant submits that it cannot be the intention of the duty to outweigh all other considerations, including the considerable policy support for offshore wind, on this single factor. It cannot be the policy objective of the duty to prevent development, however needed or beneficial overall, simply because its main purpose is not to enhance the landscape.

ExQ1	Question to	Question	Applicant's Response
1SLV10	All Parties	**Guidance on LURA Protected Landscapes duty** On 16 December 2024 Defra published 'Guidance for relevant authorities on seeking to further the purposes of Protected Landscapes'. All parties are asked to consider this guidance and how it may affect the consideration of the Proposed Development providing comments as appropriate.	The Applicant notes this December 2024 The Department for Environment, Food and Rural Affairs (DEFRA) guidance for relevant authorities on seeking to further the purposes of Protected Landscapes. In line with this guidance, and as set out further above in response to 1SLV9, the Applicant considers that the measures embedded within the design of the Project ensure that it avoids harm to the statutory purposes and contributes to the conservation of the natural beauty/special qualities of National Landscapes (the LDNP, Forest of Bowland Area of Outstanding Natural Beauty (AONB) and Arnside and Silverdale AONB). The Applicant notes an apparent emphasis in the guidance on measures being reasonable and proportionate; and being 'reasonably practical' an 'operationally feasible'. The Applicant considers that it is not reasonably practical for an offshore wind farm to enhance the natural beauty of the area, which cannot readily be achieved through the siting and design of an offshore windfarm site located at long distance outside the area of the designated landscape. The Applicant considers that it must be anticipated that any offshore windfarm NSIP will give rise to some degree of friction with the duty to seek to enhance natural beauty and is unlikely to be entirely consistent with objectives that seek to enhance natural beauty. The Applicant has focused on making reasonable efforts to avoid and minimise significant adverse impacts on the LDNP, as far as the scope of the Project allows through its siting and design, to avoid harm to the statutory purposes of the LDNP.
Visual effects			
1SLV11	The Applicant	**Visibility** Could the Applicant please explain how the precise percentages for visibility set out in the last column of Table 1.1 SLVIA	The precise percentages for each viewpoint in Appendix 18.3 to the ES Chapter 18 [APP-085] have been interpreted directly from the Met Office visibility frequency data (Walney Island Weather Station), which provides a more detailed breakdown of visibility by distance in

ExQ1	Question to	Question	Applicant's Response
		viewpoint assessment of Appendix 18.3 to the ES Chapter 18 [APP-085] have been calculated given that they, often, do not concur with the information set out in Table 18.10 of ES Chapter 18 [APP-055]? If necessary, can these please be reconciled.	1km bands (up to 30km), compared to the bands presented in Table 18.10 of ES Chapter 18 [APP-055] which are ranged according to visibility definition (e.g. poor, good, very good etc). The Applicant has provided the full Met Office visibility frequency data table in **Appendix B Met Office visibility frequency data** to these responses to ExQ1. For example, Viewpoint 9 Blackpool is located 29.2km from the closed proposed WTG. The visibility frequency for this specific viewpoint 9 is calculated by totalling all visibility frequency observations beyond 29km (40.9%). Similarly, for viewpoint 15, as a further example, visibility frequency is calculated by totalling all observations beyond 45km (17.2%). In summary, the viewpoint assessment in Appendix 18.3 to the ES Chapter 18 [APP-085] uses this Met Office visibility data to provide as precise as is possible measurement for each viewpoint based on their distance, whereas in Table 18.10 of ES Chapter 18 [APP-055], visibility range and frequency is provided in the context of the Met Office visibility range definitions (*see below) to allow broader observations to be made. * *<1km Very Poor; 1-4km Poor; 4-10km Moderate; 10-20km Good; 20-40km Very Good; >40km Excellent.* The Applicant notes that as highlighted by the Examining Authority above at question 1CH1, the information in Table 18.10 is discrete for distances within each of these ranges. Total visibility at say 30-40km would by the total of all observations when visibility would be greater than 30km. Further comments are provided by the Applicant on this in answer to question 1CH1.
11.Shipping and Navigation (SN)			
Clarifications			
1SN1	The Applicant	**Worst-case Scenarios re Vessel Movements**	The Applicant notes that the reference to 9 vessels at any one time in Chapter 15 Marine Archaeology and Cultural Heritage (REP1-

ExQ1	Question to	Question	Applicant's Response
		In comparing the various 'worst case' scenarios set out in the individual Chapters of the ES, there appear to be two anomalies. i) In Chapter 15: Marine Archaeology and Cultural Heritage [REP1-034] the maximum number of vessels on site at any time in a 'heavy' maintenance year is given as 9, while in other chapters it is given as 10. ii) In Chapter 21: Climate Change [APP-058] the maximum number of return trips is 4,128 over the construction period when in the other chapters the annual figure is 2,583. Given a 2.5 year construction period, the 4,128 would appear conservative and the Applicant is asked to justify this figure further. Could the Applicant please clarify these metrics, and report on any implications both for the assessment of individual projects and cumulatively.	034) is an error and should read 10, as per other chapters. This has been updated and submitted alongside this document at Deadline 3 (Chapter 15 Marine Archaeology and Cultural Heritage_Rev 03_Clean (Document Reference 5.1.15)). This change is confirmed to not impact the assessment conclusions, either Project alone or cumulatively. The Applicant notes that a maximum of 2,583 a year is used in the assessment as the highest number of vessels in any one year. However, the total anticipated number of vessels is not calculated to be at this peak over the duration of the construction period. The Environmental Statement (ES) makes an assessment of the highest number of vessels in a year (2,583) but also, in the case of total emissions, Chapter 21 Climate Change considers the overall vessel numbers during the total construction period which is not a sum of 2,583 x 2.5, and instead has been calculated as 4,128 based on the overall figure across the construction period.
1SN2	The Applicant	**Clarification** The second sentence of paragraph 14.171 in Chapter 14 [APP-051] does not complete grammatically. Could the Applicant please clarify this.	The Applicant has updated this sentence in Chapter 14 Shipping and Navigation (Chapter 14 Shipping and Navigation_Rev 02_Clean (Document Reference 5.1.14)) to read "*During construction, safety zones of up to 500m from the outer extremity of structures, above and ~~or~~ below water, would be applied ~~marked~~. Further, safety zones of up to 50m ~~safety zones~~ would be applied around partially completed, ~~Project structures~~ or complete ~~Project~~ structures undergoing commissioning*."

ExQ1	Question to	Question	Applicant's Response
1SN3	The Applicant	**Clarification** Could the Applicant please clarify paragraph 8.4.6.1.2 fourth bullet of the navigational risk assessment [APP-073]?	The Applicant has updated this sentence in Appendix 14.1 Navigation Risk Assessment (Appendix 14.1 Navigation Risk Assessment_Rev 02 Clean (Document Reference 5.2.14.1)) to read "Larger vessels ~~(30,00139lludinglliding~~ (30,000 DWT) alliding with the turbine might typically result in the tower collapsing away from the vessel".
1SN4	The Applicant	**Clarification** The Applicant's Response Spirit Energy Deadline 1 Submissions [REP2-030] in paragraph 90 cross-refers to paragraph 90. It is assumed this is a typographic error. Could the correct reference please be provided? There is also a cross-referencing reference to paragraph 90 in paragraph 91. Can this please be checked.	The Applicant can confirm this is an error. The cross-references in Paragraphs 90 and 91 should be to Paragraph 89.
1SN5	The Applicant	**Outline Vessel Traffic Management Plan** There are typographic errors in the oVTMP [REP2-022] in paragraph 19. Can these please be corrected. It would also be beneficial to define "Inter-row" and "in-row" in relation to orientation since this is not clear (see also ExQ1DCO3).	Paragraph 19 of the Outline Vessel Traffic Management Plan (oVTMP)_Rev 03 Clean (Document Reference 6.9)) has been updated and submitted at Deadline 3 to correct this typographic error and add further clarification (copied below) on "inter-row" and "in-row" orientation. 'Inter-row" refers to the distance between Wind Turbine Generators (WTGs) in different, parallel main rows and is ideally parallel to the prevailing wind. 'In-row' refers to the distance separating WTGs within the main rows and is ideally perpendicular to the prevailing wind).
Effects on shipping and navigation			

ExQ1	Question to	Question	Applicant's Response
1SN6	The Applicant Stena Line	**Ferry routing** a) Figure 44: Impact on Ferry Routing of Appendix 14.2 [APP-074] sets out alternative routes, and in particular the Stena Line route. It is noted that the 'Futurecase' route, for the north of the Isle of Man route, dog-legs around the Morecambe and Morgan proposed OWFs. Could the Applicant explain why this routing was chosen as opposed to, say, travelling to the east of the Proposed Development and then heading in a northwest direction between the two proposed OWFs and the existing arrays? Does Stena Line have any comments on this?"	Each revised future case passage plan was developed by the NASH project team, including master mariners, and account for existing decision-making principles and passage plans, where provided by Stena Line (such as passing at least 1.5nm from a wind turbine) or that were obtained during consultation with Stena Line. These were further developed during the navigation simulations involving Stena Line vessel Masters. The decision to travel west of the proposed development is based around the avoidance of the shallow area near Shell Flat as well as the avoidance of various navigational features, including the cardinal mark to the northeast of Morecambe Offshore Windfarm (*Q(9)15s Morecambe),* and the Gas Field itself.
1SN7	The Applicant Shipping companies	**Adverse weather** a) Could the Applicant and the various shipping companies set out their understanding of what would constitute 'adverse weather'? b) Could the same parties identify the frequency of such effects, number of days per year, with any particular markers for when this occurs. Should different effects, for example on different routes, be occasioned by specific different 'adverse weather' events, could	a) Section 7.3.3 of the Collision Risk Navigational Risk Assessment (CRNRA) [APP-074] explains that adverse weather is considered to be any weather where '*ferries may take less direct routes to take advantage of lees from land masses, avoiding dangerous sea states or minimising the motions onboard'*. Typical adverse weather routes taken by the vessel masters during these times were provided by the operators of the ferries during the NRA process. b) The Applicant refers to Table 23 of the NRA (APP-073) that shows that the two most frequently transited routes within the Study Area during 2022 were the Isle of Man Territorial Seas Committee (IoMSPC) route between Heysham and Douglas (1492 total transits) and the Stena Line route between Liverpool and Belfast (W of IoM and No TSS) (1,113 total transits). On

ExQ1	Question to	Question	Applicant's Response
		these please be identified, along with likely frequency of such events.	each of these routes, 41 and 15 of the total number of transits were identified to be adverse weather routes (as provided by the operators) respectively, suggesting that 5 – 10 days per year experienced adverse conditions. c) Analysis of how ferry and commercial operators and routing is impacted by the windfarm site in adverse conditions is presented using vessel track data in 2022 in Section 8.2 and 8.3 of the NRA [APP-073]. The results show that Stena Line is the only operator with adverse weather routes directly impacted by the Project, with an additional transit distance of 1.5nm on the Liverpool/Belfast (East of IoM) route (0.1nm less than the deviation required for the typical weather route). On a 113.9nm passage, this deviation is not likely to adversely impact upon ferry operations. Moreover, during adverse weather, the Applicant notes that there is very infrequent use of the affected Liverpool to Belfast (East of IoM (East of Calder)) route with no vessels in 2019 and only two in 2022. With regard to commercial operations, there was a greater demand for the anchorages along the Welsh coast, and no discernible impacts as a result of the windfarm site are identified regarding availability of anchorages for vessels to seek shelter in adverse weather.
1SN8	The Applicant	**Navigational Risk to Other OWFs** The Navigational Risk Assessment [APP-073] highlights the potential for main vessel routes in the area to be deviated creating a potential increase in vessel numbers in the vicinity of Barrow's and MWL's developments. In the WR from Barrow and Morecambe Wind Limited [REP1-112] concern is expressed about the increased allision risk. It is unclear if this change creates increases to risk levels for the	The Applicant has provided a response to the WR from Orsted IPs on this matter. The Applicant refers to Section 8.2 and Section 8.3 of the NRA (APP-073) which demonstrates that the only commercial/passenger routes that will be deviated closer to Barrow and West of Duddon Sands (WoDS) Offshore Windfarms (OWFs) as a result of the Project-alone, are the routes between Heysham/Barrow and the Off Skerries TSS. These are minor routes, with fewer than one vessel per day, suggesting that there would a very limited increase in the vessel numbers in the vicinity of Barrow or WoDS OWF due to the Project. Nevertheless, the Applicant acknowledges that the deviations mean the vessels transit

ExQ1	Question to	Question	Applicant's Response
		Barrow and Morecambe Wind Limited developments. Could the Applicant please set out its understanding of the situation, particularly if Barrow or Heysham were to be used for their port facilities? Please also see ExQ1TT1.	within 2nm of WoDS, and approximately 1nm closer to Barrow OWF. It is noted that this could increase the risk of an allision, however this is no closer than existing shipping routes. The Applicant refers to Section 8.4.2 of the NRA (APP-073) which considers the impact of allision, including allision modelling, which showed that the allision likelihood for WoDS OWF is greatest on the southern structures, but these likelihoods remain very similar to the base case scenario. The operations and maintenance port is currently not confirmed but the Applicant will continue to engage with the Orsted IPs throughout the development of this Project. In the event that Barrow or Heysham were to be used for port facilities, Project vessels on transit to the Windfarm would transit out of Lune Deep approach channel and continue south-west toward the proposed site, further away from Barrow and WoDS windfarms, minimising the allision risk.
1SN9	The Applicant	**Navigation Engagement Forum** Item 14.5 of the Schedule of Mitigation [REP2-016] references maintaining a Navigation Engagement Forum to share information and cross references relevant sections of the dDCO /dDML. The dDCO/ dDML contain no explicit reference to the Forum, so it is unclear whether or how this commitment is actually secured**.** Could the Applicant please set out how such a Forum is to be secured?	The oVTMP (Outline Vessel Traffic Management Plan_Rev 03 Clean (Document Reference 6.9)) has been updated at Deadline 3 to set out that the Marine Navigation Engagement Forum will be continue to be used as a means to engage stakeholders post-consent. The Applicant has committed within the oVTMP for maintaining the Marine Navigation Engagement Forum (MNEF) for a minimum of 5 years into the operations and maintenance phase of the Project. The obligation to submit and approve a VTMP (in accordance with the oVTMP) is secured in deemed Marine Licence (DML) Condition 9(1)(j) of the draft Development Consent Order (dDCO).
1SN10	The Applicant	**Navigational Risk** The oVTMP [REP2-022] includes reference in section 5.3 to Navigational Stakeholders, who would be involved in consultations identified in paragraph 49.	The Navigational Stakeholders referenced within the oVTMP will be identified as those involved in the Marine Navigation Engagement Forum meetings as it is expected that those which attended previous meetings will continue to attend. Appendix B of the NRA [APP-073] provides a list of minutes and attendees of the previously

ExQ1	Question to	Question	Applicant's Response
		Could the Applicant please set out how Navigational Stakeholders would be identified? Should the oVTMP be amended to include this?	held MNEF meetings. The MNEF, and continuation post-consent has been included in the updated oVTMP at Deadline 3.
1SN11	The Applicant	**EMF effects** In its Written Representations [REP2-034] when considering Cable Routes notes, in particular the effect of EMF on ships' compasses, the MCA notes that it may request a deviation survey post cable installation. The Applicant is asked to demonstrate how these surveys and any necessary mitigation would be secured.	The Applicant has responded to the Maritime and Coastguard Agency (MCA's) Written Representation within the Applicant's Comments on Deadline 2 Submissions by Interested Parties (Document Reference 9.42). The response notes that the cable envelope for inter-array, and possible platform link cables only includes for High Voltage Alternating Current (HVAC) cables, High Voltage Direct Current (HVDC) cables will not be installed, and therefore no effect is anticipated on ships' compasses. The MCA's comment in REP2-034 only implies that a compass deviation study would be required if HVDC are to be installed which is not the case (as outlined above). Therefore, the Applicant does not believe this is necessary, nor does the Applicant believe that it is typical for the requirements for compass deviations studies to be included as specific conditions within a draft DCO or dML.
1SN12	The Applicant MoD/ DIO BAE Systems Marine Ltd	**Submarine Nautical Paths** BAE Systems Marine Ltd [RR-007] has commented that there appears to have been no consideration regarding potential impacts on submarine nautical paths. Submarines are part of national defence and national security and so BAE requires further and more in-depth consultation with the Royal Navy/ MoD on the matter of submarine nautical paths.	The Applicant has discussed impacts to submarine nautical paths with stakeholders and as noted in the Statement of Common Ground (SoCG) with the Defence Infrastructure Organisation (DIO) and the SoCG with BAE Systems Marine Ltd, no effects have been identified to the Applicant.

ExQ1	Question to	Question	Applicant's Response
		In its response [PD1-011] the Applicant indicates that previously no concerns had been raised, by the MoD and ABP. Could all parties please set out their latest understanding of the situation.	
12.Socio-Economics, Tourism and Recreation (SETR)			
Retail storage on IoM			
1SETR1	IoM TSC	**Applicant's Response to RR: Retail Storage Capacity** The Applicant responded to comments in the RR of the IoM TSC [RR-031] regarding proposals to increase retail storage capacity on the island (see RR-031-12 of [PD1-011]). Does this response address the concerns, or do the IOM TSC wish to make any further comments on this matter?	The Applicant notes 1SETR1 is directed to Isle of Man Territorial Sea Committee (IoM TSC) and shall not be responding.
Community benefits			
1SETR2	The Applicant	**Community Benefits** The Applicant has confirmed its commitment to delivering a community benefit scheme and RR-091-07 of [PD1-011] states that it has been engaging with local people, businesses and organisations to identify key themes and projects that would deliver strategic benefits and directly support the local community and local priorities. Can the Applicant please provide an update on the proposals including their likely remit and how the areas/ communities that would	The Applicant is committed to delivering community benefits and continues to develop its approach, noting that benefits would be advanced post-consent and considered across the whole Morecambe scheme (Generation and Transmission Assets). As such, one community benefit scheme is proposed wholistically across the entire project. It is not intended that the proposed community benefit scheme would be given weight or material consideration in the Examining Authority's recommendation for the Project. As such the Applicant has not detailed or secured the community benefit scheme as part of this Development Consent Order (DCO) Application. However,

ExQ1	Question to	Question	Applicant's Response
		benefit from this would be defined and identified? How would this be secured?	the Applicant has included the intent around community benefits within the Outline Skills and Employment Plan (APP-155).
13. Traffic and Transport (TT)			
Port Access			
1TT1	The Applicant	**Port Access** Under Schedule 4 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended) there is a requirement for the Environmental Statement to include *"a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases"*. In the documentation the Applicant has indicated that 'progress is on-going'. a) Could the Applicant please give an update as to the latest position. b) The Applicant has indicated that it intends to resolve the issue of the choice of Port and Port Access post-consent. Could the Applicant explain how the effects of the whole development are to be assessed if the information relating to port access has not been assessed at this stage? Please also see ExQ1SN8.	The Applicants response is as follows: a) The latest position remains as set out within The Applicant's Response to Relevant Representations [PD1-011], ID: RR-091-06 that: *"The Applicant has yet to determine which port(s) will be used during the construction phase and the operational and maintenance phase for the Project. This process remains ongoing and a decision on the port selection will be made post-consent"* There are no further updates on this matter and the Applicant re-iterates that no decision on port selection will be made until post determination. b) The Applicant considers that it is initially beneficial to provide a recap of the history of this matter. During scoping (Scoping Report and Scoping Opinion (APP-142)), the Applicant sought to scope out assessment of potential traffic and transport impacts associated with the offshore generation assets, and instead consider them separately within a Port Access and Transport Plan (PATP). In the Scoping Opinion response however, the Planning Inspectorate noted that *"Inspectorate considers that it is unlikely that the volume of traffic movements arising from the Proposed Development would result in significant onshore traffic, air quality and/or noise effects but does not have sufficient information to exclude this possibility. The ES [Environmental Statement] should confirm that the anticipated road vehicle movements are below the screening*

ExQ1	Question to	Question	Applicant's Response
			values in relevant guidance for these aspects, and if values are exceeded then an assessment of LSE [likely significant effects] should be provided." Section 22.6 of Chapter 22 Traffic and Transport (APP-059) provides a response to this point. In summary the section notes that any meaningful screening and robust assessment of LSE would not be possible at this stage and would represent a purely 'academic' exercise. Any such assessment would be contrary to the approach accepted by the Planning Inspectorate (PINS) for other recently consented windfarm schemes. Notwithstanding, section 22.6 of Chapter 22 Traffic and Transport [APP-059] outlines a strategy to secure the future assessment of any potential terrestrial traffic and transport impacts, through the development of a PATP. This is secured by Requirement 10 of the Draft Development Consent Order [REP2-002]. Paragraph 22.21 of Chapter 22 Traffic and Transport (APP-059) outlines that this approach was agreed with both National Highways and Lancashire County Council. In response to the ExA question relating to Schedule 4 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 the Applicant offers the following clarification on this matter. Schedule 4 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires: *"a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases"* This description is provided within Paragraph 5.82 of Chapter 5 Project Description (APP-042) for the Development that is being

ExQ1	Question to	Question	Applicant's Response
			applied for. The Development Consent Order (DCO) is not seeking permission for a base port for the construction or operation of the Project. Section 22.4.1 and 22.4.2 of Chapter 22 Traffic and Transport (APP-059) outlines the means by which a base port would be brought into operation. These options can be summarised as follows: a) A preferred port(s) is selected which has the requisite planning permissions; or b) A preferred port(s) is selected where permissions are not in place and new permissions would be sought from the respective planning authority. With regard to option a) the effects of operating this port will have been historically considered. The port would therefore form part of the existing baseline situation i.e. it is assumed working within the port(s) permitted activity would avoid the potential for significant effects in the context of Environmental Impact Assessment (EIA). With regard to option b), new permissions would be sought and as part of this there would be a requirement to consider any cumulative effects that could occur (this would include with the Project). With regard to how the effects of the whole development are to be assessed, Chapters 7-22 identify any pathways of effects to the onshore environment as a result of the Project. Potential impacts as a result of the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project are included within the cumulative assessments for each chapter (Chapters 7-22) and also summarised in a separate Chapter 23 Summary: Generation and Transmission Assets Assessment [REP1-042]. The approach to the onshore traffic and transport assessment and related onshore topics are outlined in Chapter 19 Human Health,

ExQ1	Question to	Question	Applicant's Response
			Table 19.1 (REP1-040) and Chapter 20 Socio-economics, Tourism and Recreation, Paragraphs 20.14 and 20.15 (APP-057).
1TT2	The Applicant	**Outline Port Access and Transport Plan** The Outline Port Access and Transport Plan [APP-151] indicates in paragraphs 14 and 19 that a 'sustainable transport audit' would be undertaken. Could the Applicant please explain why only an 'audit', which would measure existing operations, rather than a plan to deliver necessary mitigations/ enhancements is proposed?	Section 3 of the Outline PATP (APP-151) considers input and baseline data that would be required to develop the PATP screening report post determination and notes that: *"Opportunities for operational personnel to commute to the operation port by means other than single occupancy car trips would be established through a sustainable transport audit"* Section 4 of the Outline PATP (APP-151) goes on to say that: *"These parameters [from section 3] would be used to inform a PATP screening report. The PATP screening report would be submitted to the relevant highway authorities to understand if there would be a requirement for a Transport Assessment (TA), the proposed scope of the TA and any required management measures, for example this could include a Travel Plan, Construction Traffic Management Plan, etc."* Should it be determined that a transport assessment is required, the assessment would be undertaken and any mitigation measures would be identified during this process. It would be typical that for employees, any additional mitigation would be captured and secured through a Travel Plan.
1TT3	The Applicant	**Port Access and Transport Plan** Could the Applicant please explain how the PATP would relate to National Highways or Traffic Wales in the event that access to the relevant port involves the strategic road network, but the relevant strategic highway authority does not have highways within the administrative area of the port. This may	Requirement 10 (referred to as Requirement 9 by the ExA as the requirements have been renumbered following the addition of a new requirement in the version of the draft DCO submitted at Deadline 2) of the Draft Development Consent Order (REP2-002) notes that *"relevant highway authority"* means the planning or highway authority or authorities in whose area the relevant port is located. The definition includes for highway authorities (plural). It is implicit that in the situation where access to a port would potentially impact

ExQ1	Question to	Question	Applicant's Response
		involve redrafting of Requirement 9 in the draft DCO [REP2-002].	upon the local road network (managed by the local highway authority) and strategic highway network (managed by either National Highways or Traffic Wales) the Requirement requires consultation with both highway authorities. The Applicant notes that in drafting the requirement wording, regard has been given to similar wording accepted by the Secretary of State for other offshore windfarms where a PATP requirement has been applied. The Applicant provides the following examples for consideration: The Hornsea One Offshore Wind Farm Order 2014: *" (3) For the purposes of this requirement— "relevant highway authority" means the highway authority or authorities in whose area the relevant port is located*" The Hornsea Two Offshore Wind Farm Order 2016: *"(3) In this Requirement— "relevant highway authority" means the highway authority in whose area the selected base port is located"* The East Anglia TWO Offshore Wind Farm Order 2022: *"(5) For the purposes of this requirement— "relevant planning authority" and "relevant highway authority" mean— (a) in respect of sub-paragraph (1), the planning or highway authority or authorities in whose area the relevant construction port is located; and (b) in respect of sub-paragraph (2), the planning or highway authority or authorities in whose area the relevant operation port is located;"* The East Anglia ONE North Offshore Wind Farm Order 2022:

ExQ1	Question to	Question	Applicant's Response
			"5) For the purposes of this requirement— "relevant planning authority" and "relevant highway authority" mean— (a) in respect of sub-paragraph (1), the planning or highway authority or authorities in whose area the relevant construction port is located; and" The East Anglia THREE Offshore Wind Farm Order 2017: *"(2) For the purposes of this requirement— "relevant planning authority" and "relevant highway authority" mean the planning or highway authority or authorities in whose area the relevant port is located"* The Applicant would also note that no port management plan requirement was required for other similar recently consented offshore windfarm projects: ▪ The Hornsea Three Offshore Wind Farm Order 2020 ▪ The Norfolk Vanguard Offshore Wind Farm Order 2022 ▪ The Awel y Môr Offshore Wind Farm Order 2023 ▪ The Hornsea Four Offshore Wind Farm Order 2023 ▪ The Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024 The Applicant asserts that the wording of Requirement 10 of the Draft Development Consent Order (REP2-002) is sufficient and appropriate and consistent with that accepted by the Secretary of State for other offshore windfarms.

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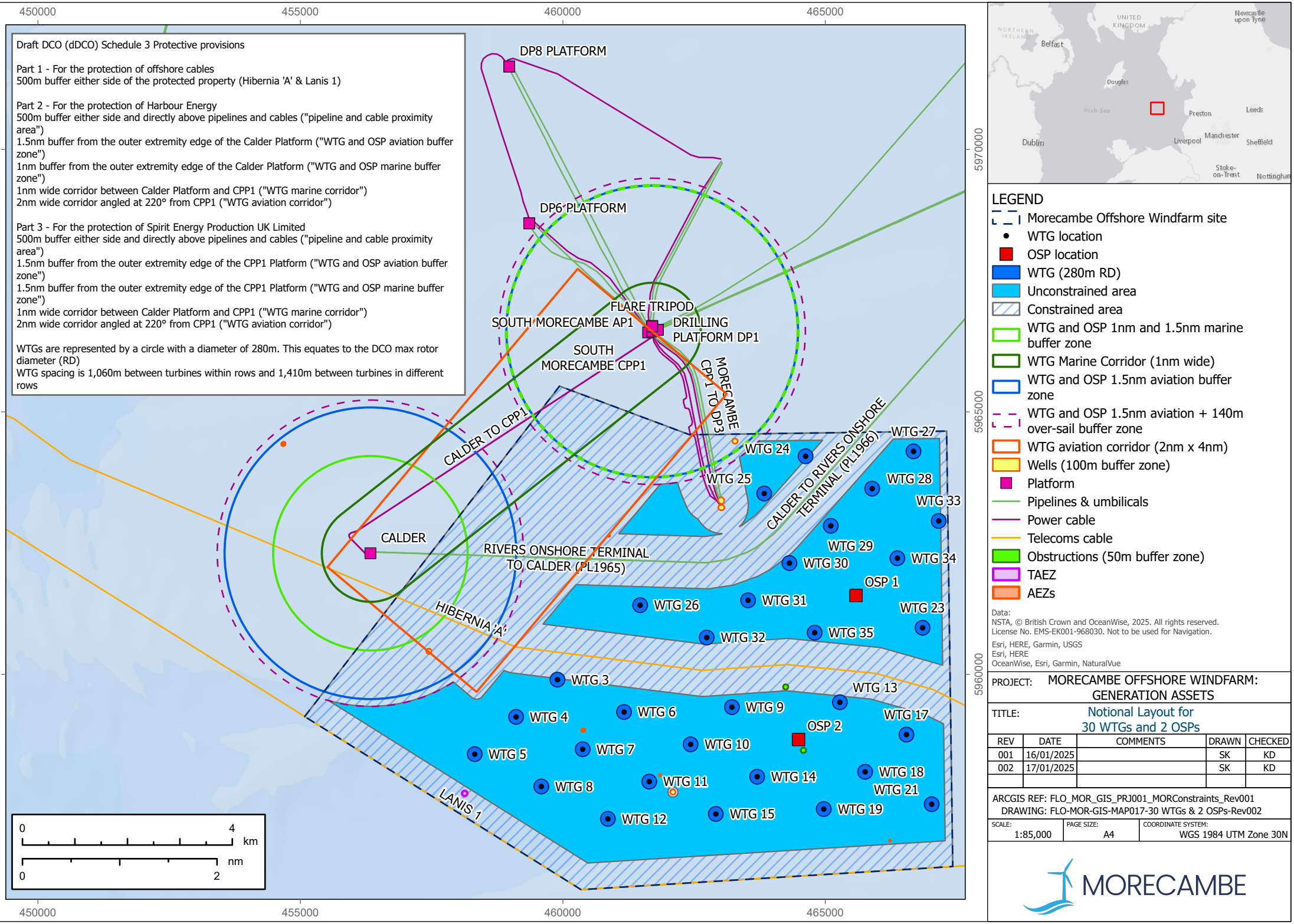
Appendix A: Notional Array Layouts

4. **Figure 1** and **Figure 2** present the two notional layouts:
   - 35 no. smaller diameter WTG's and 2 no. OSPs
   - 30 no. larger diameter WTG's and 2 no OSPs.
5. As requested by the Examining Authority Written Question GEN3, the notional array layouts take account of the draft Protective Provisions (REP2-002) and other zones including Archaeology Exclusions Zones, and two lines of orientation and other restrictions set out in the dDCO. The notional layouts have been provided within this Appendix to illustrate how the maximum design scenario (including the DCO minimum in-row and inter-row spacing) may be constructed within the array area subject to the constraints applied.
6. The notional array layouts are not optimised for energy yield and serve no other purpose than illustrating there is sufficient room within the array area to build 30 or 35 turbines. Therefore, these notional array layouts should not considered indicative of the final as-built layout.



LEGEND

- Morecambe Offshore Windfarm site
- WTG location
- OSP location
- WTG (280m RD)
- Unconstrained area
- Constrained area
- WTG and OSP 1nm and 1.5nm marine buffer zone
- WTG Marine Corridor (1nm wide)
- WTG and OSP 1.5nm aviation buffer zone
- WTG and OSP 1.5nm aviation + 140m over-sail buffer zone
- WTG aviation corridor (2nm x 4nm)
- Wells (100m buffer zone)
- Platform
- Pipelines & umbilicals
- Power cable
- Telecoms cable
- Obstructions (50m buffer zone)
- TAEZ
- AEZs

PROJECT: MORECAMBE OFFSHORE WINDFARM: GENERATION ASSETS

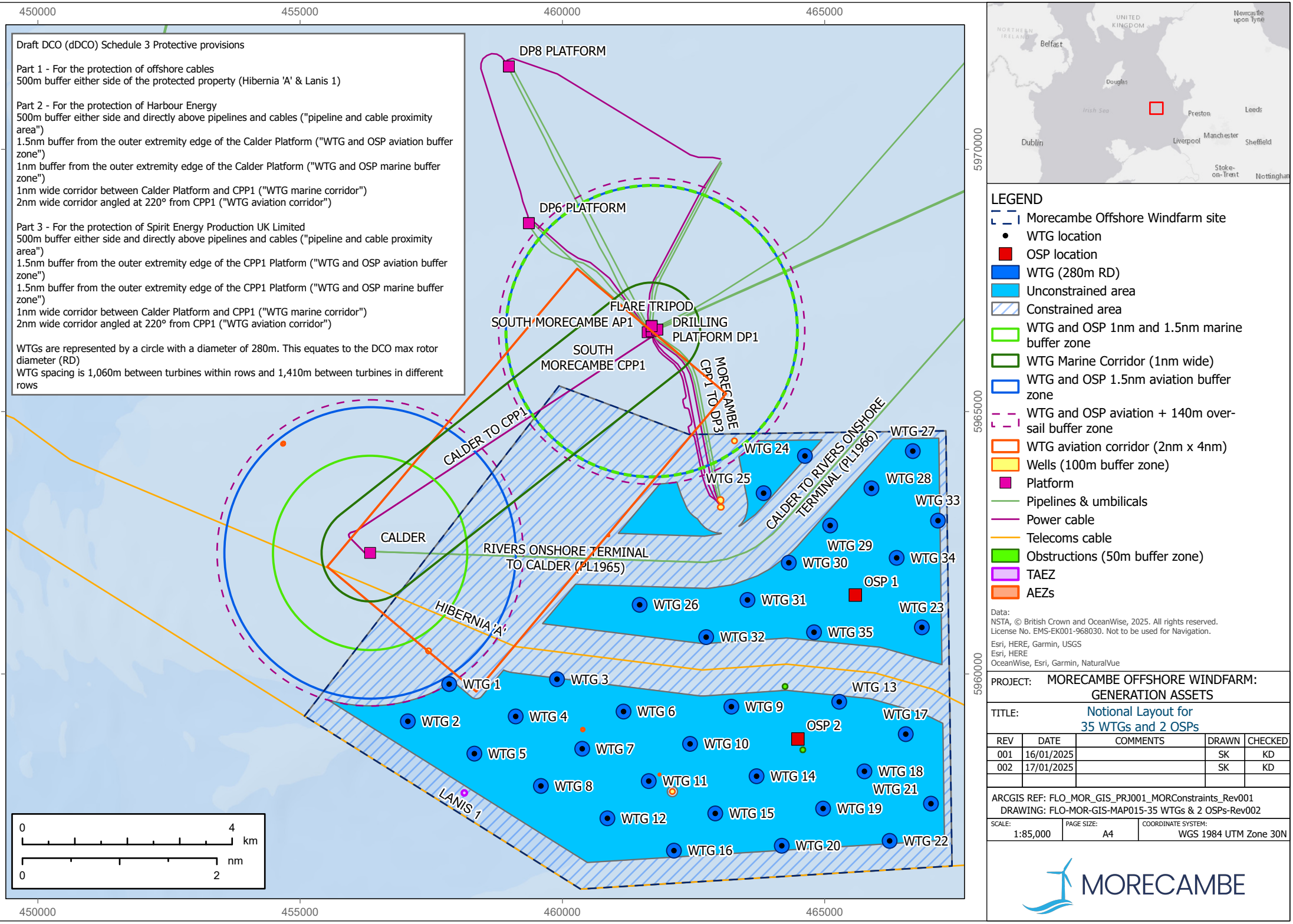
TITLE: Notional Layout for 30 WTGs and 2 OSPs

REV	DATE	COMMENTS	DRAWN	CHECKED
001	16/01/2025		SK	KD
002	17/01/2025		SK	KD

ARCGIS REF: FLO_MOR_GIS_PRJ001_MORConstraints_Rev001
DRAWING: FLO-MOR-GIS-MAP017-30 WTGs & 2 OSPs-Rev002

SCALE:	PAGE SIZE:	COORDINATE SYSTEM:
1:85,000	A4	WGS 1984 UTM Zone 30N

MORECAMBE


Draft DCO (dDCO) Schedule 3 Protective provisions
Part 1 - For the protection of offshore cables
500m buffer either side of the protected property (Hibernia 'A' & Lanis 1)
Part 2 - For the protection of Harbour Energy
500m buffer either side and directly above pipelines and cables ("pipeline and cable proximity area")
1.5nm buffer from the outer extremity edge of the Calder Platform ("WTG and OSP aviation buffer zone")
1nm buffer from the outer extremity edge of the Calder Platform ("WTG and OSP marine buffer zone")
1nm wide corridor between Calder Platform and CPP1 ("WTG marine corridor")
2nm wide corridor angled at 220° from CPP1 ("WTG aviation corridor")
Part 3 - For the protection of Spirit Energy Production UK Limited
500m buffer either side and directly above pipelines and cables ("pipeline and cable proximity area")
1.5nm buffer from the outer extremity edge of the CPP1 Platform ("WTG and OSP aviation buffer zone")
1.5nm buffer from the outer extremity edge of the CPP1 Platform ("WTG and OSP marine buffer zone")
1nm wide corridor between Calder Platform and CPP1 ("WTG marine corridor")
2nm wide corridor angled at 220° from CPP1 ("WTG aviation corridor")
WTGs are represented by a circle with a diameter of 280m. This equates to the DCO max rotor diameter (RD)
WTG spacing is 1,060m between turbines within rows and 1,410m between turbines in different rows
450000
455000
460000
465000
5970000
5965000
5960000
DP8 PLATFORM
DP6 PLATFORM
FLARE TRIPOD
SOUTH MORECAMBE AP1
DRILLING PLATFORM DP1
SOUTH MORECAMBE CPP1
MORECAMBE CPP1 TO DP3
CALDER TO CPP1
CALDER
RIVERS ONSHORE TERMINAL TO CALDER (PL1965)
CALDER TO RIVERS ONSHORE TERMINAL (PL1966)
HIBERNIA 'A'
LANIS 1
WTG 1
WTG 2
WTG 3
WTG 4
WTG 5
WTG 6
WTG 7
WTG 8
WTG 9
WTG 10
WTG 11
WTG 12
WTG 13
WTG 14
WTG 15
WTG 16
WTG 17
WTG 18
WTG 19
WTG 20
WTG 21
WTG 22
WTG 23
WTG 24
WTG 25
WTG 26
WTG 27
WTG 28
WTG 29
WTG 30
WTG 31
WTG 32
WTG 33
WTG 34
WTG 35
OSP 1
OSP 2
0
4
km
0
2
nm
UNITED KINGDOM
NORTHERN IRELAND
Belfast
Newcastle upon Tyne
Douglas
Irish Sea
Preston
Leeds
Dublin
Liverpool
Manchester
Sheffield
Stoke-on-Trent
Nottingham
LEGEND
Morecambe Offshore Windfarm site
WTG location
OSP location
WTG (280m RD)
Unconstrained area
Constrained area
WTG and OSP 1nm and 1.5nm marine buffer zone
WTG Marine Corridor (1nm wide)
WTG and OSP 1.5nm aviation buffer zone
WTG and OSP aviation + 140m over-sail buffer zone
WTG aviation corridor (2nm x 4nm)
Wells (100m buffer zone)
Platform
Pipelines & umbilicals
Power cable
Telecoms cable
Obstructions (50m buffer zone)
TAEZ
AEZs
Data:
NSTA, © British Crown and OceanWise, 2025. All rights reserved.
License No. EMS-EK001-968030. Not to be used for Navigation.
Esri, HERE, Garmin, USGS
Esri, HERE
OceanWise, Esri, Garmin, NaturalVue
PROJECT: MORECAMBE OFFSHORE WINDFARM: GENERATION ASSETS
TITLE: Notional Layout for 35 WTGs and 2 OSPs
REV | DATE | COMMENTS | DRAWN | CHECKED
001 | 16/01/2025 | | SK | KD
002 | 17/01/2025 | | SK | KD
ARCGIS REF: FLO_MOR_GIS_PRJ001_MORConstraints_Rev001
DRAWING: FLO-MOR-GIS-MAP015-35 WTGs & 2 OSPs-Rev002
SCALE: 1:85,000
PAGE SIZE: A4
COORDINATE SYSTEM: WGS 1984 UTM Zone 30N
MORECAMBE

Appendix B: Met Office visibility frequency data

Table 2 Met Office visibility frequency data (Walney Island weather station Jan 2012 to Dec 2021)

	Month (% visibility observations)												
Visibility range (metres)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Total all observations**
< 1000	1.45	0.63	0.89	1.00	0.39	0.19	0.03	0.05	0.55	0.17	0.49	1.36	**0.61**
1000 to 1999	0.98	0.99	0.45	0.48	0.27	0.14	0.13	0.14	0.35	0.26	0.67	0.79	**0.48**
2000 to 2999	1.86	1.47	1.29	0.65	0.51	0.49	0.33	0.50	0.70	0.65	1.32	1.55	**0.96**
3000 to 3999	1.98	1.80	1.81	0.88	0.58	0.83	0.85	0.74	1.05	1.31	1.54	1.96	**1.30**
4000 to 4999	2.11	1.83	2.23	0.91	0.75	1.02	0.91	1.10	1.08	1.49	1.78	2.23	**1.47**
5000 to 5999	2.80	2.25	2.60	0.88	0.87	0.93	0.99	0.84	1.19	1.79	1.89	2.94	**1.69**
6000 to 6999	3.13	2.59	2.34	1.07	0.79	0.91	0.88	1.06	1.56	1.71	2.13	2.93	**1.79**
7000 to 7999	3.91	3.11	2.73	1.48	0.97	1.05	1.27	0.94	1.54	1.88	2.63	3.90	**2.16**
8000 to 8999	4.39	3.23	3.28	1.96	1.23	1.14	1.12	1.24	1.40	1.76	2.17	3.94	**2.27**
9000 to 9999	4.52	3.74	4.12	1.93	1.63	1.11	1.29	1.28	1.85	2.56	2.54	4.19	**2.61**
10000 to 10999	5.13	4.32	4.08	2.07	1.57	1.56	1.27	1.73	2.43	2.37	2.53	4.38	**2.83**
11000 to 11999	4.63	3.99	3.95	2.08	1.51	1.75	1.44	1.67	2.38	2.68	2.83	4.13	**2.79**

	Month (% visibility observations)												
12000 to 12999	4.61	4.18	3.51	2.36	1.91	1.99	1.81	1.99	2.31	2.61	2.79	4.41	**2.91**
13000 to 13999	4.70	4.17	3.08	2.49	1.97	2.21	1.87	1.64	2.57	2.79	3.02	4.07	**2.91**
14000 to 14999	3.86	4.15	3.43	2.25	2.15	2.07	1.81	2.13	2.50	2.79	3.03	3.75	**2.85**
15000 to 15999	3.74	3.71	3.00	2.33	2.39	1.90	1.65	1.99	2.44	2.62	2.93	3.97	**2.75**
16000 to 16999	3.42	3.31	2.93	2.10	2.15	2.18	1.80	1.92	2.52	2.50	2.77	3.27	**2.59**
17000 to 17999	3.00	3.20	2.93	2.42	2.36	2.30	1.86	2.02	2.30	2.13	2.61	2.80	**2.50**
18000 to 18999	2.61	2.62	3.05	2.18	1.97	2.19	1.86	2.14	2.51	2.30	2.31	2.66	**2.37**
19000 to 19999	2.38	2.75	2.31	2.36	1.99	2.10	2.02	2.61	2.24	2.33	2.35	2.82	**2.36**
20000 to 20999	2.64	2.46	2.37	2.41	1.75	1.92	1.66	2.46	2.26	2.19	2.08	2.26	**2.21**
21000 to 21999	2.02	1.94	2.16	2.22	2.21	2.01	1.81	2.02	2.33	2.14	2.39	2.12	**2.12**
22000 to 22999	2.03	1.68	1.78	2.11	2.15	2.22	1.97	2.23	1.98	1.55	1.71	1.76	**1.92**
23000 to 23999	1.59	1.44	1.84	1.87	2.14	2.46	1.93	2.08	2.09	2.09	1.76	1.73	**1.91**
24000 to 24999	1.59	1.58	1.37	1.68	2.20	2.05	1.94	2.07	1.91	1.84	1.83	1.90	**1.83**
25000 to 25999	1.26	1.43	1.75	1.73	1.94	2.18	2.14	2.37	2.02	1.75	1.70	1.25	**1.78**

	Month (% visibility observations)												
26000 to 26999	1.20	1.38	1.29	1.62	2.08	2.15	2.38	1.92	2.15	1.91	1.54	1.51	**1.75**
27000 to 27999	0.90	1.30	1.51	1.76	2.08	2.35	2.06	2.16	1.92	1.53	1.36	1.44	**1.68**
28000 to 28999	0.89	1.12	1.42	2.01	2.03	2.21	1.89	2.08	1.98	1.49	1.56	1.33	**1.65**
29000 to 29999	0.86	1.35	1.32	1.81	1.84	1.84	2.35	2.31	1.79	1.41	1.43	0.95	**1.59**
30000 to 34999	4.88	5.07	6.42	7.36	10.40	10.19	10.32	10.38	8.68	7.33	6.92	4.53	**7.64**
35000 to 39999	3.48	4.65	5.12	8.46	10.04	9.84	11.30	9.99	8.50	7.28	6.46	3.74	**7.31**
40000 to 44999	3.20	4.82	5.85	8.10	10.25	9.45	11.06	9.34	8.20	7.70	6.28	3.51	**7.23**
45000 to 49999	3.13	4.73	5.49	9.59	9.62	10.32	11.22	9.94	8.51	8.80	7.09	4.01	**7.62**
50000 to 59999	5.11	7.01	6.28	13.38	11.31	10.76	10.79	10.94	10.21	12.30	11.56	5.90	**9.57**
60000 to 69999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
>= 70000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
ALL OBS	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Appendix C: Natural England Habitats Regulations Assessment ('HRA'): Rapid Screening of a Plan or Project

Natural England Habitats Regulations Assessment ('HRA'): Rapid Screening of a Plan or Project [under regulation 24 or 63]

Version: 7.3 Last update: May 2021

Natural England Ref:

Applicant Name: [redacted] Senior Reserve Manager, Ribble Estuary NNR, Natu

Plan/Project Name: Ribble Estuary NNR Predator Fence 'Mega Fence'

Background

Both regulations 24 and 63 of the Conservation of Habitats and Species Regulations 2017 (the "Habitats Regulations") require a formal assessment to be made by Natural England (in its role as competent authority) before it decides to undertake, or to consent, permit, licence or authorise, new plans and projects which may affect European Sites. Such plans and projects may include, for example, Section 28E SSSI notices to carry out, cause or permit to be carried out an operation or operations listed by a SSSI notification, applications for a NE management agreement, applications for a NE licence or permit and/or those to be directly carried out or commissioned by NE itself. Natural England may only undertake or authorise such plans/projects where they are either unlikely to have a significant effect on European Site(s) or where an appropriate assessment can ascertain that it will have no adverse effect on the integrity of the European Site(s). This tool is intended to provide a rapid yet reasoned record of the preliminary 'screening' stage of a Habitats Regulations Assessment ('HRA') undertaken by Natural England. This stage considers the risk or possibility of significant effects that may need to be examined at the next 'appropriate assessment' stage. It can be used by NE staff as an initial check of whether plans or projects will require a fuller and more detailed screening and/or appropriate assessment using the full Natural England HRA template (see adjacent link).

Click here to view guidance and form templates

Project Details: Briefly describe plan/project details. (Links to original documents on which this HRA is based can be added below)	The project is a partnership project with RSPB to construct a 9km long predator fence to reduce the number of foxes accessing the Ribble Estuary NNR which are having a significant effect on the success of the breeding bird features of the Ribble Estuary SPA/Ramsar. The fence is designed by RSPB to prevent foxes passing over or under it. The fence is not being situated on the SPA but along its boundary (either side of the flood embankment) and the fence on much of its length will be used to replace existing livestock fencing. Works would take place over autumn/winter therefore would not affect breeding bird features and would have negligible impact on overwintering bird features as the birds are generally not located this close to the site boundary and the activity would not be significantly different to everyday management on site and from users of the coastal path.

Hyperlinks to original documents:			

Section A - Initial Assessment of Risk to European Sites

A1. Is the plan/project capable of having *any* effect, either positive or negative, on a European Site?	**YES**	**Give brief reasons:**	**Positive - the installation of the predator fence is necessary for conservation to protect the SPA/Ramsar breeding bird features from the impacts of predators (foxes). The fence is to be installed along the flood embankment just outside the boundary of the SPA and will be 9km in length and of an RSPB recommended design of fine mesh folded outwards along the ground and with a 'floppy top' to prevent foxes climbing over it. Provision for access (English Coastal Path, site staff, wildfowlers) will be provided by gates. The fence will allow the effective control of predation by foxes which is have a severe impact on the breeding bird features of the site, these include a Large Gull colony, Redshank, Eider, Avocet, Artic and Common Tern and Black-headed gull. Works would take place over autumn/winter therefore would not affect breeding bird features and would have negligible impact on overwintering bird features as the birds are generally not located this close to the site boundary and the activity would not be significantly different to everyday management on site and from users of the coastal path.**

Select (up to 6 sites) from the dropdown lists below

A2. Which European Sites are, or may be, capable of being affected by the plan/project?			**Summary of decisions based on data entered in the tables below**	
Note: If selecting either Morecambe Bay & Duddon Estuary SPA or Ribble & Alt Estuaries SPA, please select them as **Site 1** as only the Site 1 table can display all features.	1	Ribble & Alt Estuaries SPA	**Decision for Site 1:**	**NO LIKELY SIGNIFICANT EFFECT - NO FURTHER ASSESSMENT**
	2	Ribble & Alt Estuaries Ramsar	**Decision for Site 2:**	**NO LIKELY SIGNIFICANT EFFECT - NO FURTHER ASSESSMENT**
	3		**Decision for Site 3:**	
	4		**Decision for Site 4:**	
Click the small '+' symbol to the left of the row number in Section B to display the designated features	5		**Decision for Site 5:**	
	6		**Decision for Site 6:**	

A3. Are all of the proposed operations within the plan/project directly connected with or necessary to the conservation management of all of the qualifying features of all of the European Sites listed above?	**NO**

Please complete the screening assessment tables below for the selected sites

Section B - Site-based Screening Assessments

Site 1: **Ribble & Alt Estuaries SPA**

Based on the submitted plan/project details (including any method statements), and in view of the European Site's Conservation Objectives (including any supplementary advice);

SAC/SPA/Ramsar Qualifying Feature	Are the proposed operations directly connected with or necessary to the conservation management (including restoration/recovery) of the feature?	Give brief reasons why.	If not, is there a risk or a possibility that the operations, as proposed, could have a negative effect(s) on the feature?	Give brief reasons why	Excluding any specific measures being proposed to avoid any negative effects on the site, is the potential negative effect(s) likely to be Significant alone?	Give brief reasons why	If not, is the potential negative effect(s) likely to be Significant In-combination with the potential effects of other live plans/projects?	Give brief reasons why
Waterbird assemblage	YES	The installation of the predator fence is necessary for conservation to protect the SPA/Ramsar breeding bird features from the impacts of predators (foxes)						
A144(NB) Sanderling	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
A130(NB) Eurasian oystercatcher	YES	The installation of the predator fence is necessary for conservation to protect the SPA/Ramsar breeding bird features from the impacts of predators (foxes). Although a NB feature, oystercatcher do breed at this site						

A144(NB) Sanderling	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
A038(NB) Whooper swan	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
A193(B) Common tern	YES	The installation of the predator fence is necessary for conservation to protect the SPA/Ramsar breeding bird features from the impacts of predators (foxes)						
A143(NB) Red knot	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
A137(NB) Ringed plover	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
A048(NB) Common shelduck	YES	The installation of the predator fence is necessary for conservation to protect the SPA/Ramsar breeding bird features from the impacts of predators (foxes)						

A157(NB) Bar-tailed godwit	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
A050(NB) Wigeon	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
A156(NB) Black-tailed godwit	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
A040(NB) Pink-footed goose	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
A037(NB) Bewick's swan	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				

A151(B) Ruff	YES	Possible breeding - The installation of the predator fence is necessary for conservation to protect the SPA/Ramsar breeding bird features from the impacts of predators (foxes)						
Seabird assemblage	YES	The installation of the predator fence is necessary for conservation to protect the SPA/Ramsar breeding bird features from the impacts of predators (foxes)						
A141(NB) Grey plover	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
A054(NB) Pintail	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
A140(NB) Golden plover	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				

A183(B) Lesser Black-backed gull	YES	The installation of the predator fence is necessary for conservation to protect the SPA/Ramsar breeding bird features from the impacts of predators (foxes)						
A162(NB) Common redshank	YES	The installation of the predator fence is necessary for conservation to protect the SPA/Ramsar breeding bird features from the impacts of predators (foxes)						
A149(NB) Dunlin	YES	Possible breeding - The installation of the predator fence is necessary for conservation to protect the SPA/Ramsar breeding bird features from the impacts of predators (foxes)						
A052(NB) Eurasian teal	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				

Site 2: **Ribble & Alt Estuaries Ramsar**

Based on the submitted plan/project details (including any method statements), and in view of the European Site's Conservation Objectives (including any supplementary advice);

SAC/SPA Qualifying Feature	Are the proposed operations directly connected with or necessary to the conservation management (including restoration/recovery) of the feature?	Give brief reasons why.	If not, is there a risk or a possibility that the operations, as proposed, could have a negative effect(s) on the feature?	Give brief reasons why	Excluding any specific measures being proposed to avoid any negative effects on the site, is the potential negative effect(s) likely to be Significant alone?	Give brief reasons why	If not, is the potential negative effect(s) likely to be Significant In-combination with the potential effects of other live plans/projects?	Give brief reasons why
Bar-tailed godwit (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
Bewick's swan (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
Black-tailed godwit (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
Dunlin (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				

Grey plover (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
Knot (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
Lesser black-backed gull (B)	YES	The installation of the predator fence is necessary for conservation to protect the SPA/Ramsar breeding bird features from the impacts of predators (foxes)						
Natterjack toad	NO	This species is not present on this part of the Ramsar	NO	This species is not present on this part of the Ramsar				
Oystercatcher (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
Pink-footed goose (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				

Pintail (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
Redshank (NB passage)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
Redshank (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
Ringed plover (NB passage)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
Sanderling (NB passage)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				

Sanderling (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
Shelduck (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
Teal (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
Wetland bird assemblage (B)	YES	The installation of the predator fence is necessary for conservation to protect the SPA/Ramsar breeding bird features from the impacts of predators (foxes)						
Water bird assemblage (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				

Whooper swan (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				
Wigeon (NB)	NO	Non-breeding - the predator fence is primarily to protect breeding bird features	NO	The predator fence is primarily to protect the breeding bird features however, it will also add a degree of protection for non-breeding features by reducing predator access.				

Site 3:	
Site 4:	
Site 5:	
Site 6:	

Section C - Overall Screening Decision for the Plan/Project

Is the proposed Plan/Project Likely to have a Significant Effect (either alone or in combination with other plans/projects) on any qualifying features of a European Site(s)?	**NO**
Full Screening for Likely Significant Effects and/or Appropriate assessment is NOT required	

Habitat Regulations Assessment Preliminary Screening completed by:	[redacted]	**Date:**	29/10/2024
Checked by:	[redacted]	**Date:**	01/11/2024