

# MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

## Applicant's Response to Examining Authority's Written Questions (ExAQ1)

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Image of an offshore wind farm

**MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS**

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## MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

### Glossary

Term	Meaning
Applicant	Morgan Offshore Wind Limited.
Department for Energy Security and Net Zero (DESNZ)	The Department for Energy Security and Net Zero (DESNZ) is focused on the energy portfolio from the former Department for Business, Energy and Industrial Strategy (BEIS).
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Project (NSIP).
Environmental Statement	The document presenting the results of the Environmental Impact Assessment (EIA) process for the Morgan Offshore Wind Project.
Evidence Plan Process	The Evidence Plan process is a mechanism to agree upfront what information the Applicant needs to supply to the Planning Inspectorate as part of the Development Consent Order (DCO) applications for the Morgan Offshore Wind Project.
Expert Working Group (EWG)	Expert working groups set up with relevant stakeholders as part of the Evidence Plan process.
Inter-array cables	Cables which connect the wind turbines to each other and to the offshore substation platforms. Inter-array cables will carry the electrical current produced by the wind turbines to the offshore substation platforms.
Interconnector cables	Cables that may be required to interconnect the Offshore Substation Platforms in order to provide redundancy in the case of cable failure elsewhere.
Maximum Design Scenario (MDS)	The scenario within the design envelope with the potential to result in the greatest impact on a particular topic receptor, and therefore the one that should be assessed for that topic receptor.
Morgan Array Area	The area within which the wind turbines, foundations, inter-array cables, interconnector cables, offshore export cables and offshore substation platforms (OSPs) forming part of the Morgan Offshore Wind Project will be located.
Morgan Offshore Wind Project: Generation Assets	This is the name given to the Morgan Generation Assets project as a whole (includes all infrastructure and activities associated with the project construction, operations and maintenance, and decommissioning).
Morgan Offshore Wind Project: Generation Assets PEIR	The Morgan Generation Assets Preliminary Environmental Information Report (PEIR) that was submitted to The Planning Inspectorate (on behalf of the Secretary of State) for the Morgan Offshore Wind Project: Generation Assets.
Morgan Offshore Wind Project: Generation Assets Scoping Report	The Morgan Scoping Report that was submitted to The Planning Inspectorate (on behalf of the Secretary of State) for the Morgan Offshore Project: Generation Assets.
National Policy Statement (NPS)	The current national policy statements published by the Department for Energy Security & Net Zero in 2024.
Wind turbines	The wind turbine generators, including the tower, nacelle and rotor.

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### Acronyms

Acronym	Description
AEZs	Archaeological exclusion zones
AEOI	adverse effect on integrity
ADD	Acoustic Deterrent Devices
AGA	air-ground-air
AIS	Automatic Identification System
ALARP	As Low As Reasonably Practicable
ANSP	Air Navigation Service Provider
ATS	Air Traffic Services
BEIS	Department for Business, Energy and Industrial Strategy
CAA	Civil Aviation Authority
CBRA	Cable Burial Risk Assessment
CEA	Cumulative Effects Assessment
CIS	Celtic and Irish Seas
CMS	Construction Method Statement
CNP	Critical National Priority
CRM	Collision Risk Modelling
CRNRA	Cumulative Regional Navigation Risk Assessment
DCA	Director of Civil Aviation
DCO	Development Consent Order
DED	Department of Economic Development
DESNZ	Department for Energy Security and Net Zero
dML	deemed Marine Licences
DTI	Department of Trade and Industry
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EEA	European Economic Area
EEZ	Exclusive Economic Zone
EPS	European protected species
ES	Environmental Statement
EWG	Expert Working Group
ExA	Examining Authority
FLCP	fisheries liaison and co-existence plan
FLIR	Forward Looking Infrared
GHG	Greenhouse Gas

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Acronym	Description
HPAI	Highly Pathogenic Avian Influenza
HRA	Habitats Regulations Assessments
HMCG	His Majesty's Coastguard
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
ICAO	International Civil Aviation Organisation
IEMA	Institute of Environmental Management and Assessment
INNS	Invasive Non-Native Species
IoM TSC	Isle of Man Territorial Seas Committee
IP	Interested Parties
IPMP	In Principle Monitoring Plan
JNCC	Joint Nature Conservation Committee
LAT	Lowest Astronomical Tide
LSE	Likely Significant Effect
MCA	Maritime and Coastguard Agency
MDS	Maximum Design Scenario
MHWA	Mean High Water Springs
MIMA	Marine Infrastructure Management Act
MMO	Marine Management Organisation
MMMP	Marine Mammal Mitigation Protocol
MNEF	Marine Navigation Engagement Forum
MNR	Marine Nature Reserve
MSL	Mean Sea Level
MU	Management Unit
NE	Natural England
NERL	NATS En-Route plc
NPS	National Policy Statement
NPPF	National Planning Policy Framework
NRA	Navigation Risk Assessment
NRW	Natural Resources Wales
OCLG	Offshore Consents and Licensing Group
ORE	Offshore Renewable Energy
PAD	Protocol of Archaeological Discoveries
PEIR	Preliminary Environmental Information Report
PLEM	Pipeline End Manifold

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Acronym	Description
PTS	Permanent Threshold Shift
REWS	Radar Early Warning Systems
RNLI	Royal National Lifeboat Institution
SAC	Special Areas of Conservation
SAR	Search and Rescue
SLVIA	Seascape and Landscape Visual Impact Assessment
SMZ	scallop mitigation zone
SNCB	Statutory Nature Conservation Body
SOLAS	Safety of Life at Sea
SPA	Special Protection Area
SRG	Safety Regulation Group
SSC	Suspended sediment concentrations
TAEZs	Temporary Archaeological Exclusion Zones
TCE	The Crown Estate
TGN	Technical Guidance Note
TTS	Temporary Threshold Shift
UK	United Kingdom
UK IAIP	UK Integrated Aeronautical Information Package
UWSMS	Underwater sound Management Strategy
UXO	Unexploded Ordnance
VMS	Vessel Monitoring System
VOR	Valued Ornithological Receptors
VHF	Very high frequency
WCSP	West Coast Sea Products
WHPS	Wellhead Protection Structure.
WSI	written scheme of investigation

## Units

Unit	Description
GW	Gigawatt
MW	Megawatt

# **1 Applicant's response to Examining Authority's Written Questions (ExAQ1)**

## **1.1 Introduction**

- 1.1.1.1 Following Deadline 2, Morgan Offshore Wind Limited (the Applicant), has taken the opportunity to review each of the Examining Authority's Written Questions (ExAQ1).
- 1.1.1.2 Details of the Applicant's response to each of the Examining Authority's Written Questions (ExAQ1) are set out in the subsequent sections of this document and its annexes.
- 1.1.1.3 Four annexes were produced to support the Applicant's response, as follows:
- S\_D3\_4.1: Annex 4.1 to the Applicant's response to EXQ1 AR 1.3: Aviation mitigation progress report F01
  - S\_D3\_4.2: Annex to the Applicant's response to EXQ1 AR 1.7 F01
  - S\_D3\_4.3: Annex to the Applicant's response to EXQ1: INF 1.3: 2023 Array Layout Yield Study F01
  - S\_D3\_4.4: Annex to the Applicant's response to EXQ1: SLVIA F01



## 2 RESPONSES TO EXAMINING AUTHORITY'S WRITTEN QUESTIONS (EXAQ1)

### 2.1 Cross-Topic, General and Miscellaneous Questions

Table 2.1: Response to ExAQ1: Cross-Topic, General and Miscellaneous Questions.

Reference Question to	ExAQ1	Applicant's response
<b>Cross-Topic and General</b>		
GEN 1.1	<p>Applicant</p> <p><b>Errata and Additional Documents</b>            A number of errata sheets and other additional documents have been submitted into the Examination to date to correct certain discrepancies and provide clarification to Interested Parties (IPs), particularly in relation to ornithological matters. Whilst it is understood that the documents do not affect the conclusions on significance in the Environmental Statement (ES), the Examining Authority (ExA) is concerned that the deadline format of the errata sheet and range of additional submissions will make the original ES and other application documents difficult to follow as the Examination progresses and may not be adequately secured as Certified Documents. Furthermore, it may prejudice IPs ability to access the correct information so that they can make reasoned and informed comments. This has also been highlighted by Natural England [REP2-032].            The Applicant is asked to confirm its approach to errata sheets going forward in the Examination from Deadline 3 and confirm that where there are a number of amendments, updated clean versions of the relevant ES chapters and annexes, Habitats Regulations Assessment (HRA) and other documents will be provided by Deadline 6 along with tracked changed versions.</p>	<p>The Applicant submitted an errata sheet into the Examination at the Procedural Deadline (PD1-003), with a very small number of updates added at Deadline 1 (REP1-019), Deadline 2 (REP2-009) and Deadline 3 (S_D3_5 Morgan Gen_Errata Sheet F04). The errata directly address points highlighted in Relevant Representations, at ISH1, within the Examining Authority's (ExA's) written questions arising from ISH1, and within the Written Representations.</p> <p>Going forwards, the Applicant will continue to update the errata document for matters material to the assessment conclusions only.</p> <p>The Applicant also proposes to take the following approach:</p> <ul style="list-style-type: none"> <li>• The Applicant will maintain an errata sheet to be appended to the relevant application document at the end of the Examination (Deadline 6) where there are less than 10 errors</li> <li>• Where there are more than 10 errors, the Applicant will incorporate errata amends within updated application documents at the end of the Examination (Deadline 6).</li> </ul> <p>The Applicant proposes to take a proportionate approach to ensure post-consent certified documents are accurate and easy to read.</p>
GEN 1.2	<p>Applicant</p> <p><b>Inconsistencies in the naming of plans</b>            Amend inconsistencies in the naming of plans in the mitigation and monitoring schedule [REP2-015] (for example Outline in Principle Monitoring Plan and Offshore In-principle Monitoring Plan).</p>	<p>The Applicant is in the process of updating the Mitigation and monitoring schedule to reflect the requirements of a Commitments Register as outlined in the Planning Inspectorate's guidance. The Applicant can confirm that no material content from the Mitigation and monitoring schedule will be lost, rather that additions will be made to reflect the requirements of the guidance. This document will be issued at Deadline 4 and updated as required throughout the remainder of the Examination.</p>

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Reference	Question	ExAQ1	Applicant's response
			Through this updating process the Applicant will ensure that the naming of the Offshore In Principle Monitoring Plan is consistent throughout the document.
GEN 1.3	The Applicant, All Interested Parties	<p><b>Artificial Intelligence (AI)</b>            The Examining Authority (ExA) requests all parties taking part in the Examination to confirm if you have used AI to create or alter any part of your submitted documents, information or data in submissions up to Deadline 2.            All future submissions are required to clearly confirm whether AI has been used to create or alter any part of those documents, information or data in accordance with the guidance recently published by the Planning Inspectorate.</p>	The Applicant can confirm that Artificial Intelligence has not been used to create or alter any application documents either submitted at application or provided for the Examination.
GEN 1.4	Applicant	<p><b>Commitments Register</b>            On 20 September 2024 the Planning Inspectorate published guidance on the use of a Commitments Register. The Applicant is asked to review the guidance and provide a Commitments Register at Deadline 3, in addition to any necessary updates to the Mitigation and Monitoring schedule [REP2-015]. This should be a live document that is updated throughout the Examination and beyond and reflects those commitments in the Mitigation and Monitoring schedule.</p>	The Applicant has reviewed the recently published Planning Inspectorate guidance on the use of a Commitments Register. The Applicant notes that the Mitigation and monitoring schedule (REP2-015) was intended to act as the basis for a Commitments Register. Rather than submit two versions of a similar document into the Examination, the Applicant is in the process of updating the Mitigation and monitoring schedule to reflect the requirements of a Commitments Register as outlined in the Planning Inspectorate's guidance. The Applicant can confirm that no material content from the Mitigation and monitoring schedule has been lost, rather that additions have been made to reflect the requirements of the guidance. This document will be issued at Deadline 4 and updated as required throughout the remainder of the Examination.
GEN 1.5	Morecambe Offshore Windfarm: Generation Assets Moir Vannin Offshore Wind Farm	<p><b>Interrelationship report on other infrastructure projects</b>            An Interrelationship Report was submitted by the Applicant at Deadline 1 [REP1-017]. The applicants of the other named projects which are IPs in this Examination are asked to provide comments on the content of the Report.</p>	The Applicant notes GEN 1.5 is directed towards Morecambe Offshore Windfarm: Generation Assets and Moir Vannin Offshore Wind Farm and shall not be responding.

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Reference	Question	ExAQ1	Applicant's response
GEN 1.6	Natural England	<p><b>Responses within Natural England's Risk and Issues Log</b></p> <p>The ExA notes that a large number of issues identified within Natural England's Risk and Issues Log remain unchanged or are greyed out without comment by Natural England at Deadlines 1 and 2 [REP1-053 and REP2-033].</p> <p>Natural England are asked to advise the ExA whether the Applicant's responses to the matters listed below satisfy the concerns of Natural England, but if not, why not, and what further information is the Applicant required to provide to try to secure NE's agreement?</p> <ul style="list-style-type: none"> <li>• Natural England References C5/ C21/ C43; Applicant Responses [PD1-017 RR-26.C5/ C21/ C43]</li> <li>• C9 [PD1-017 RR-26.C9]</li> <li>• C16 [PD1-017 RR-26.C16]</li> <li>• C36 [PD1-017 RR-026.C36]</li> <li>• C39 [PD1-017 RR-026.C39]</li> <li>• C40 [PD1-017 RR-026.C40]</li> <li>• C41 [PD1-017 RR-026.C41]</li> <li>• D8 [PD1-017 RR-26.D10]</li> <li>• D9/ D17 [PD1-017 RR-26.D11/ D19]</li> <li>• F2/ F11 [PD1-017 RR-26.F2/F11]</li> <li>• F7 [PD1-017 RR-26.F7]</li> <li>• F10 [PD1-017 RR-26.F10]</li> <li>• G17 [PD1-017 RR-26.G21]</li> </ul> <p>In addition, while the ExA acknowledges Natural England's reason for using the greyed out method within the Risk and Issues Log, can it advise the ExA that an issue which is agreed during the Examination between NE and the Applicant will go green before grey, for the ExA will be seeking to understand at the close of the Examination how many issues NE has agreed with the Applicant throughout the Examination?</p>	<p>The Applicant notes GEN 1.6 is directed towards Natural England and shall not be responding.</p>
GEN 1.7	Applicant	<p><b>Isle of Man treated for Environmental Impact Assessment purposes as if part of England and Wales</b></p> <p>Provide a briefing note justifying the basis on which the Isle of Man may be treated in the DCO process as if it were part of the UK for Environmental Impact Assessment (EIA) purposes, rather than under the Espoo Convention (on EIA in a Transboundary Context), having regard to [APP-032 para 1.1.1.5] and [RR-015] and oral contribution</p>	<p>The key purpose of the Convention on Environmental Impact Assessment in a Transboundary Context (known as the "Espoo Convention") is to ensure that States that are Party to the Convention notify and consult each other on major development projects that are likely to have significant adverse environmental effects across boundaries.</p>

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Reference	Question	ExAQ1	Applicant's response
	to	at ISH1 from the Isle of Man Government (Territorial Sea Committee).	<p>The obligations set out within the Espoo Convention transposed into UK law within regulation 32 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (“the EIA Regulations”). Regulation 32 is engaged where the Secretary of State “<i>is of the view that the development is likely to have significant effects on the environment in an EEA State</i>” [<u>underline added</u>]. If regulation 32 is engaged, then the Secretary of State must notify and consult with the relevant EEA State. “EEA State” is defined in the Interpretation Act 1978 as (a) a state which at that time is a member of the EU or (b) any other state which at that time is a party to the European Economic Area signed at Oporto on 2 May 1992 as modified from time to time.</p> <p>The purpose of the Applicant undertaking a Transboundary impacts screening (APP-032) is to provide the Secretary of State with the necessary information to ensure that they comply with their duties under regulation 32 of the EIA Regulations and determine whether or not notification with an EEA State is required. The distinction between transboundary effects and effects within the UK is to allow compliance with the EIA regulations, rather than being a substantive difference in how the effect would be assessed.</p> <p>The Isle of Man does not fall within the definition of EEA State. Environmental impacts within the Isle of Man are therefore not considered as ‘transboundary’ for the purposes of the EIA Regulations. Regulation 32 of the EIA Regulations is therefore not engaged, and the Secretary of State does not have to go through a distinct notification and consultation process with the Isle of Man Government.</p> <p>The Applicant has engaged with the Isle of Man Government throughout the pre-application phase and provided them with notification of the application for development consent being submitted. The Applicant continues to engage with the Isle of Man Territorial Seas Committee through the Statement of Common Ground process.</p>
GEN 1.8	Applicant, MMO	<p><b>Monitoring 1</b> Paragraph 2.8.221 of National Policy Statement (NPS) EN-3 requires Applicants to 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.</p>	<p>The Applicant has updated its Offshore In Principle Monitoring Plan (IPMP) (REP2-013) at Deadline 2 in response to comments received from the MMO and Natural England. The Applicant responded to Natural England on the points raised within their written submission (REP1-054.27 within REP2-005) and an updated version of the Offshore IPMP</p>

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Reference	Question	ExAQ1	Applicant's response
	to	<p>Natural England (NE) also raise this issue in their Relevant Representations and further advise in their Written Representation at Deadline 1 [REP1-054] that the In-Principle Monitoring Plan (IPMP) should focus on what the uncertainties and evidence gaps of the EIA and /or HRA are.</p> <p>Can the Applicant:</p> <p>i) Summarise how it has met the NPS EN-3 requirement and whether it will liaise with NE to improve the IPMP, and if not why not?</p> <p>Can the MMO and NE:</p> <p>ii) Review and provide comments on the Applicant's revised outline Offshore In-Principle Monitoring Plan at Deadline 2 [REP2-014 Tracked Change Version] and the Mitigation and Monitoring Schedule [REP2-016 Tracked Change Version]?</p>	<p>was submitted at Deadline 2 (REP2-013) which included additional information on the monitoring proposed.</p> <p>The Applicant's initial approach to monitoring had been informed by the MMO (2014) review of post-consent monitoring for offshore wind farms and associated recommendations, whereby monitoring is focused on where there is the potential for a residual significant effect and ensuring the monitoring is appropriate, proportionate and achievable. Following stakeholder feedback on the DCO application, the Applicant expanded from this best practice approach set out by the MMO to include additional monitoring for the following topics (as set out in REP2-005):</p> <ul style="list-style-type: none"> <li>• Physical processes</li> <li>• Benthic ecology</li> <li>• Fish and shellfish</li> <li>• Marine mammals</li> <li>• Commercial fisheries</li> <li>• Marine archaeology and cultural heritage.</li> </ul> <p>The Applicant considers that the updated Offshore IPMP meets the requirements of paragraph 2.8.221 of National Policy Statement EN-3, for the reasons set out below.</p> <p><i>2.8.221 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.</i></p> <p>The Applicant has developed an ecological monitoring programme which is presented in the Offshore IPMP (REP2-013), as set out above. The Offshore IPMP presents the objectives of any monitoring measures contained within the deemed Marine Licences (dML) of the draft DCO (REP2-011). Monitoring has been included in the Offshore IPMP (REP2-013) where the EIA has identified potential significant effects or to reflect industry best practice.</p> <p>The scope of the Morgan Generation Assets EIA is wide, and many of the topics included in the Environmental Statement 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</p>

Reference	Question	ExAQ1	Applicant's response
	to		<p>potential effects, and there is no precedent to doing so. The MMO (2014) review of environmental data associated with post-consent monitoring of licence conditions of offshore wind farms, highlighted that offshore wind monitoring requirements are driven by consideration of:</p> <ul style="list-style-type: none"> <li>• 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</li> <li>• significance ('the extent to which the identified impact is deemed significant') (MMO, 2014).</li> </ul> <p>This guidance highlights the importance of ensuring any monitoring requirements are based on sound risk assessment principles and is 'proportionate, consistent and appropriately targeted' (MMO, 2014).</p> <p>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 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).</p> <p>Commercial wind farms have been constructed and operational in the UK for over two decades, and the Applicant considers that, in many cases, the assessment of impacts is now well understood. The Crown Estate has established the Marine Data Exchange for all offshore wind monitoring which is used to inform impact assessments, including those undertaken for the Morgan Generation Assets.</p> <p>In 2019, The Crown Estate undertook a review of cable installation, protection, mitigation and habitat recoverability (TCE, 2019). The report undertook a desk study to collate information on offshore electrical cable installation techniques and seabed recovery, in support of the Plan Level HRA for Offshore Wind Leasing Round 4. It concluded that 'a large number of survey reports were reviewed, and the evidence reviewed as part of this project indicated that Environmental Impact Assessment (EIA) predictions largely align with the monitoring data that is available on seabed impacts and recovery and historic industry evidence reviews'.</p>

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Reference	Question	ExAQ1 to	Applicant's response
			<p>Therefore, offshore wind EIAs have been shown to accurately predict the potential effects of offshore wind projects (or be highly precautionary) and the industry can thus, have confidence in the assessment outputs. Where there is confidence in non-significant assessment conclusions, monitoring is not required (in accordance with MMO (2014)). The Applicant's approach to monitoring for significant effects is therefore in line with offshore wind industry best practice with regard to monitoring and evidence regarding accuracy of offshore wind EIA prediction of effects.</p> <p>The Applicant is continuing to engage with MMO and Natural England on this plan, as appropriate and proportionate to the findings of the Environmental Statement.</p> <p>The approach to monitoring will be fully developed post-consent and secured within the final offshore monitoring plan. The Offshore IPMP will be agreed with the MMO, as required by the conditions of the dMLs within the draft DCO (REP2-011) in consultation with their statutory advisors where necessary.</p>
GEN 1.9	MMO	<p><b>Monitoring 2</b> Is the MMO satisfied with the Applicant's position that its precautionary 'Rochdale Envelope' approach to EIA means that monitoring would not be needed where no LSE has been assessed, having regard to NPS EN-3 para 2.8.221 as set out in Question GEN 1.10 above.</p>	<p>The Applicant would draw attention to its response to ExA Question GEN 1.8 above, in particular noting that offshore wind monitoring requirements are driven by consideration of uncertainty and significance, and that any monitoring requirements are 'proportionate, consistent and appropriately targeted' (MMO, 2014).</p>
GEN 1.10	Applicant	<p><b>Mitigation Schedule</b> Update the Mitigation and Monitoring Schedule [REP2-015] to include reference to the specific Requirement/Condition in the draft DCO and draft Deemed Marine Licences (DML) that secures each individual mitigation, monitoring or enhancement measure. It is insufficient to state "secured within the deemed marine licences of the Draft DCO (document reference C1)". The document should be subsequently updated and resubmitted at Deadline 6 when the final draft DCO is to be submitted to the ExA.</p>	<p>The Applicant notes that condition numbering is likely to change as the draft DCO is updated through the Examination. The Applicant proposes to incorporate the condition numbering into the updated Mitigation and monitoring schedule (now known as the Commitments Register) to be submitted at Deadline 4.</p>
GEN 1.11	Applicant	<p><b>ES Methodology: Definition of 'local'</b> ES Chapter 5 [APP-012, Tables 5.7 and 5.9] identifies 'minor' sensitivity and significance levels with reference to local scale or</p>	<p>The Applicant notes that differences between EIA topic receptors, and individual receptors within EIA topic chapters, prevent the identification of a single definition of 'local'. For example, the spatial scale of a 'local'</p>

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Reference	Question	ExAQ1	Applicant's response
		<p>local factors. Provide a definition of 'local' that applies to the ES for this Proposed Development, explaining any differences between chapter application as appropriate.</p>	<p>impact for a kittiwake would be different to a 'local' impact for an airport operator. Spatial scale is contextualised in the relevant assessment for each topic chapter, and discussed relative to regional and national or international scales. For this reason, EIA guidance does not provide a specific definition for 'local' (see for example, CIEEM, 2019 and DMRB, 2020).</p> <p>Where a definition is necessary for a specific chapter, this has been provided. For example, within Volume 2, Chapter 13: Socio-economics (APP-017), a specific definition for 'Local Area' is described, in paragraph 13.4.3.4.</p>
GEN 1.12	Applicant	<p><b>Foundation Design Selection - Environmental Criteria</b>            The ExA notes that the foundation type for the proposed wind turbines could be one of: Multi- leg pin piled jacket; Multi-leg suction bucket jacket; or Gravity base. While the ExA notes that the ES provides a description and the parameters of the different foundation types in its various maximum design scenario (MDS) assessments, could the Applicant clarify:</p> <p>i) How the final choice of foundation(s) will be determined?            ii) 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?            iii) What assumptions can be made now as to the number / type of each foundation design to be used? Explain with reasons?</p>	<p><b>i)</b>            The choice of foundation type, whether suction bucket jackets, pin piled jackets, or gravity based foundations will be informed by pre-construction site investigations. These investigations will be conducted post consent, with the output informing the Applicant on which foundation type(s) will be most suitable for each specific area. Initial site based surveys undertaken by the project have indicated that all foundation types included within the design envelope are technically viable within the Morgan Array Area. 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.</p> <p><b>ii)</b>            The Rochdale Envelope approach to assessment (see Volume 1, Chapter 5: Environmental impact assessment methodology (APP-012)) allows the EIA process to be conducted on the basis of a realistic 'worst case' scenario or maximum design scenario (MDS) (i.e. the maximum project design parameters), selected from different design and construction scenarios. The MDS assessed is therefore the scenario which would give rise to the greatest potential impact, and therefore effect for any specific receptor based interaction. As such, it is not required to assess every possible combination of design parameters, only those that represent the realistic worst case or MDS for a particular impact being assessed. In applying the Rochdale Envelope approach to</p>



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Reference	Question	ExAQ1	Applicant's response
	to		<p>the assessment, in line with the Planning Inspectorate's guidance (The Planning Inspectorate, 2018), it can therefore be concluded that the impact (and therefore the effect) will be no greater for any other design or construction scenario than that assessed for the MDS as presented in the application. This is standard industry practice, and an assessment of all elements of the envelope is unnecessary and would result in a disproportionate EIA process.</p> <p><b>iii)</b></p> <p>Based on the current geotechnical data available, there is potential that the Morgan Array Area may have insufficient suitable ground to support pin-piled jacket foundations up to the proposed maximum number of wind turbine generators (96). Given the uncertainty on ground conditions the Applicant through engineering design refinement formally reduced the number of pin pile foundations to 64. The Applicant makes clear that whilst this was an engineering driven aspect it also brought the opportunity to minimise environmental effects (the overall level of underwater sound from piling) hence the rationale for reducing the envelope on this foundation type. It was not driven by any need to limit the design to meet acceptable environmental limits on underwater noise. At this initial stage there is no indication that ground conditions will not support the maximum number of foundations for the other foundation types, and until the comprehensive site investigations have been completed it is of paramount importance that all foundation options (and their maximum numbers) are maintained in the design envelope. The Applicant would note that retaining multiple foundation options at the point of consent is standard practice for the reasons set out above (for example, Hornsea Four and Awel-y-Mor both retained seven foundation solutions).</p>

**Policy, Guidance and Legislation**

GEN 1.13	Applicant	<p><b>National Policy, Guidance and Legislation</b></p> <p>Are you aware of any updates or changes to UK, Welsh or Isle of Man Government legislation, policy or guidance relevant to the determination of this application that have been issued since its submission? If so, provide a summary of the changes and the implications, if any, for the Examination.</p>	<p>The Applicant notes that this application will be determined in accordance with section 104 of the Planning Act 2008. Subsection (2) sets out the matters that the Secretary of State must have regard to in deciding the application:</p> <p><i>“(a) any national policy statement which has effect in relation to development of the description to which the application relates,</i></p>
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Reference	Question	ExAQ1	Applicant's response
			<p>(aa)the appropriate marine policy documents (if any), determined in accordance with section 59 of the Marine and Coastal Access Act 2009;</p> <p>(b)any local impact report (within the meaning given by section 60(3)) submitted to the Secretary of State before the deadline specified in a notice under section 60(2),</p> <p>(c)any matters prescribed in relation to development of the description to which the application relates, and</p> <p>(d)any other matters which the Secretary of State thinks are both important and relevant to the Secretary of State's decision.”</p> <p>The Applicant confirms that there has been no update to the national policy statements or marine policy documents referred to in paragraphs (a) and (aa). The Applicant is not aware of any new matters prescribed under paragraph (c). The Applicant is not aware of any changes to legislation, policy or guidance to date that it considers would fall within the scope of paragraph (d) such that they would have implications for the Secretary of State's decision on this application.</p>
GEN 1.14	Marine Management Organisation	<p><b>Marine Policy Compliance tabulation</b></p> <p>Can the MMO confirm satisfaction with the new document [REP2-006] submitted by the Applicant at D2 as Annex 3.1, combining how the North West Marine Plan policies have been considered, topic by topic.</p>	<p>The Applicant notes GEN 1.14 is directed towards the Marine Management Organisation and shall not be responding.</p>
GEN 1.15	Applicant	<p><b>Good Design</b></p> <p>The Applicant is directed to the Advice on Good Design recently published by the Planning Inspectorate and is asked to:</p> <p>i) Explain how the Proposed Development achieves 'Good Design' in accordance with section 4.7 of NPS EN-1 and section 2.5 of NPS EN-3, and the Design Principles for National Infrastructure (National Infrastructure Commission, 2020).</p> <p>ii) Confirm how 'Good Design' would be carried through all stages of the development including post-decision and construction.</p>	<p><b>i)</b></p> <p><b>Policy context</b></p> <p>NPS EN-1 paragraphs 4.7.10 - 4.7.15 set out the policy basis for the Secretary of State's decision making on demonstrating 'good design' for energy infrastructure. The Secretary of State should be satisfied that the application has considered functionality and aesthetics as far as possible. Paragraph 4.7.12 recognises that the Secretary of State must take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy. It goes on to note that many of the wider impacts of a development, such as landscape and environmental impacts, will be important factors in the design process.</p>

Reference	Question	ExAQ1	Applicant's response
	to		<p>NPS EN-3 cross-refers to section 4.7 of EN-1 and states in paragraph 2.5.2:</p> <p><i>“Proposals for renewable energy infrastructure should demonstrate good design, particularly in respect of landscape and visual amenity, opportunities for co-existence/co-location with other marine and terrestrial uses, and in the design of the project to mitigate impacts such as noise and effects on ecology and heritage.”</i></p> <p>In relation to potential seascape and visual effects from offshore wind farms, NPS EN-3 goes on to state at paragraphs 2.8.263 and 2.8.264:</p> <p><i>“2.8.263 Neither the design nor scale of individual wind turbines can be changed without significantly affecting the electricity generating output of the wind turbines. Therefore, the Secretary of State should expect it to be unlikely that mitigation in the form of reduction in scale will be feasible.</i></p> <p><i>2.8.264 However, the siting layout of the turbines should be designed appropriately to minimise harm, considering other constraints such as ecological effects, safety reasons or engineering and design parameters.”</i></p> <p>The Planning Inspectorate published non-statutory guidance in October 2024 detailing advice on Good Design for NSIPs. The guidance includes a range of factors that might be included in a good design process, and lists factors that demonstrate good design outcomes. It also notes the importance of EIA in being able to influence the design process.</p> <p>The Applicant considers that it has undertaken an effective design process, which has achieved good design outcomes in accordance with the NPS and the Planning Inspectorate Guidance.</p> <p><b>Good design for the Proposed Development</b></p> <p>The infrastructure that forms part of the Proposed Development is functional in nature. Much of its design is determined by operational, safety and security requirements. As is recognised by the NPS, that places a constraint on the extent to which the design of the Proposed Development can be amended for aesthetic purposes, although the Applicant has had regard to this where possible. The key focus of the design process by the Applicant has therefore been to achieve design outcomes that avoid and mitigate potential environmental effects and that support for co-existence with other marine uses.</p>

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Reference	Question	ExAQ1 to	Applicant's response
			<p>A summary of the design process, consideration of alternatives and site selection for the Proposed Development is set out within Environmental Statement - Volume 1, Chapter 4 Site selection and consideration of alternatives (APP-011).</p> <p>Section 4.1.6 of APP-011 sets out the pre-application engagement that the Applicant undertook with stakeholders and communities that considered the project design. In line with the Planning Inspectorate Guidance, this was done in a transparent and collaborative manner. This was also a key stage in the iterative EIA process, where the Applicant could have regard to feedback and use it to inform design refinement and decisions for application.</p> <p>Section 4.1.7 of APP-011 sets out the refinement that was then undertaken for the Proposed Development before submission. This included:</p> <ul style="list-style-type: none"> <li>• a substantial reduction in the proposed Order Limits from 322 km<sup>2</sup> (as presented in the Preliminary Environmental Information Report (PEIR)) to 280 km<sup>2</sup></li> <li>• a reduction in the number of turbines from 107 as proposed within PEIR to a final maximum design of 96 turbines - a reduction of approximately 10%.</li> <li>• increasing the separation distance between infrastructure from 1000 m between rows of wind turbines and 875 m between each wind turbine in a row at PEIR, to a minimum spacing of 1400 m within and between rows</li> <li>• committing to maintaining two lines of orientation' throughout the array area.</li> </ul> <p>Table 4.4 of APP-011 sets out some of the benefits arising from these decisions.</p> <p>Other design choices have been taken that reduce impact on ecology receptors, such as having a minimum height of lowest blade tip above Lowest Astronomical Tide at 34m, which reduces impacts on seabirds, or removing monopiles from the foundation options, which will help to limit potential noise impacts.</p> <p>One of the outcomes of the design process undertaken by the Applicant is the table of layout development principles within table 3.7 of</p>

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Reference	Question	ExAQ1 to	Applicant's response
			<p>Environmental Statement - Volume 1, Chapter 3 Project description (APP-010). The draft DCO (condition 20(1)(a) of each dML) secures that the design plan for the Proposed Development will be in accordance with those layout principles. As set out within table 3.7 of APP-010, a number of the conditions are further secured in specific conditions.</p> <p>The Applicant therefore respectfully submits that the design process that it has undertaken in developing the Proposed Development has been an effective, transparent and collaborative one, where feedback received has led to meaningful design change. Whilst there are limitations on the extent to which the Applicant could change the design of functional infrastructure, whilst still achieving the overall project objectives, the design process has resulted in changes that improve co-existence with other marine industries and reduce potential environmental impacts.</p> <p>The Applicant submits that the design at the stage of Application represents a good design outcome. It allows sufficient flexibility for technical innovation balanced by sufficient detail and controls for post-consent approvals.</p> <p>The Applicant respectfully submits that the Examining Authority and the Secretary of State can conclude that the Proposed Development accords with the policy requirements within NPS EN-1 and NPS EN-3 with respect to good design.</p> <p><b>ii)</b></p> <p>Further design refinement will continue post-consent. As noted above, condition 20(1)(a) of each dML secures that the final design plan submitted to the MMO for approval must be in accordance with the layout principles detailed in table 3.7 of APP-010. Those guiding principles will therefore form an inherent part of the post-design process.</p> <p>Furthermore, condition 20 of the draft DCO requires the Applicant to submit a range of design details, construction methodologies and management plans to the MMO for approval prior to commencement of development. The condition requires the MMO to consult with Trinity House, the MCA, the UKHO and Historic England. The Applicant will in accordance with that condition continue to engage with the relevant parties post-consent to develop a final design that falls within the scope of the envelope applied for and that includes the various design and mitigation commitments that the Applicant has made.</p>

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Reference	Question	ExAQ1	Applicant's response
			<p>This will ensure that the good design outcomes that have been achieved within this application are realised through the post-consent and construction phases.</p>
GEN 1.16	Applicant	<p><b>Mitigation Hierarchy and Application of Critical National Priority</b> Section 2.4 and Appendix A (NPS tracker; Table A.2 page 114) of the Planning Statement [APP-074] reference the need for the Proposed Development in the context of the urgent need for renewable energy generation within the UK, and in doing so, it refers to the presumption specifically in relation to critical national priority (CNP) infrastructure.</p> <p>The Applicant's attention is drawn to section 4.2 of NPS EN-1 which, overall, explains that the application of CNP applies following the consideration of the need case, the impacts of the project and the application of the mitigation hierarchy which is to avoid, mitigate and compensate. The exceptions to the presumption for residual impacts are also set out. The flow diagram on page 56 sets out that it is for the Secretary of State (SoS) to apply CNP if the applicant demonstrates that the mitigation hierarchy, requirements in EN-1 and the relevant technology specific NPS have been applied, as well as any other legal and regulatory requirements. Therefore, the application of CNP is not the starting point.</p> <p>The Applicant is asked to provide a clear statement of the consideration of section 4.2 of NPS EN-1 including the potential exceptions which the SoS should have regard to when applying CNP to their decision-making.</p>	<p>The reference to CNP within section 2.4 of the Planning Statement (APP-074) is not intended to suggest that the policies on CNP are the starting point for the entire decision making by the Secretary of State on the application.</p> <p>Section 4.2 of EN-1 is clear that:</p> <ul style="list-style-type: none"> <li>• CNP policy does not create an additional need case (para. 4.2.7)</li> <li>• It applies after consideration of the impacts of the project and the mitigation hierarchy (para. 4.2.7)</li> <li>• During decision making, the CNP policy will influence how non-HRA and non-MCZ residual impacts are considered in the planning balance (para. 4.2.8)</li> <li>• It will also influence how the Secretary of State should consider certain planning policy tests that require exceptional or special circumstances to be demonstrated.</li> </ul> <p>That is how the Applicant has considered CNP within the Planning Statement (APP-074) and within other application documents.</p> <p>Section 2.4 of the Planning Statement sets out the significant policy support for the Proposed Development, both within NPS EN-1 and NPS EN-3, as well as other Government policy and legislation. The Planning Statement also details policy accordance in section 2.5 and Appendix A.</p> <p>The Environmental Statement (APP-008 – APP-063) includes a detailed assessment of the potential environmental effects of the proposed developments with conclusions on where there are potential significant residual effects once mitigation is applied. Each topic chapter within the Environmental Statement includes a description of the measures that have been taken by the Applicant to avoid, minimise and mitigate potential impacts in accordance with the mitigation hierarchy.</p> <p>The Applicant submits that, based on the information set out within the Environmental Statement and Planning Statement, the Examining Authority and Secretary of State can and should conclude that:</p>

Reference	Question	ExAQ1 to	Applicant's response
			<ul style="list-style-type: none"> <li>• The needs case for the Proposed Development is well established in national policy and should be given very significant weight in the determination of the application.</li> <li>• The Applicant has followed the mitigation hierarchy in developing the Proposed Development.</li> <li>• The application for the Proposed Development accords with the policies within NPS EN-1 and NPS EN-3.</li> </ul> <p>To the extent that there are residual impacts from the Proposed Development, these should then be considered by reference to section 4.2 of EN-1 which sets out how CNP policy is to be applied. Paragraph 4.2.15 states:</p> <p><i>“Where residual non-HRA or non-MCZ impacts remain after the mitigation hierarchy has been applied, these residual impacts are unlikely to outweigh the urgent need for this type of infrastructure. Therefore, in all but the most exceptional circumstances, it is unlikely that consent will be refused on the basis of these residual impacts.”</i></p> <p>Paragraph 4.2.15 then goes on to list a number of exceptions to this presumption, which includes where there is an:</p> <ul style="list-style-type: none"> <li>• unacceptable risk to, or unacceptable interference with, human health and public safety, defence, irreplaceable habitats;</li> <li>• unacceptable risk to the achievement of net zero;</li> <li>• unacceptable risk to, or unacceptable interference offshore to navigation, or onshore to flood and coastal erosion risk.</li> </ul> <p>The Applicant respectfully submits that none of the residual impacts of the Proposed Development would fall within the scope of those exceptions. The Applicant considers that all residual impacts have been avoided or mitigated to an acceptable level in accordance with the policies within the NPS.</p> <p>The Applicant therefore submits that the CNP policy in EN-1 will apply with respect to the limited residual impacts that have been identified within the application documents, and the CNP presumptions would apply.</p>

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Reference	Question to	ExAQ1	Applicant's response
GEN 1.17	Applicant	<p><b>Human Rights Act, Equality Act</b>            Confirm how the Human Rights Act 1998 and the Equality Act 2010 has been considered in the application process.</p>	<p><b>Human Rights Act 1998</b>            The Applicant does not consider that any of the powers sought through the draft DCO would constitute an interference with human rights so as to result in potential conflict with the Human Rights Act 1998. Some applications for development consent will engage provisions of the European Convention of Human Rights, for example where they seek powers of compulsory acquisition. No such powers are sought through this application's draft DCO.</p> <p><b>Equality Act 2010</b>            The Equality Act 2010 imposes certain duties on "public authorities" as defined by that Act. The Applicant does not come within the definition of "public authority" as set out in Schedule 19 of the Equality Act and therefore the provisions of the Equality Act 2010 do not impose any obligations on it directly.</p> <p>However, the Applicant has sought to conduct the application so as not to exclude any groups with protected characteristics from participating. For example, the Applicant has hosted virtual events and exhibitions for those that may not be able to get to events in person, offered to provide documents in different formats, and held events at accessible and convenient venues. The Applicant prepared a voluntary Statement of Community Consultation to help ensure that the pre-application consultation process was comprehensive.</p>
<b>Land and Funding</b>			
GEN 1.18	Applicant	<p><b>Book of Reference and land rights over the seabed</b>            Regulation 5(2)(d) of the Infrastructure Planning (Applications: Prescribed Form and Procedure) Regulations 2009 requires a Book of Reference (BoR), where applicable. Regulation 7 sets out the meaning of the BoR, and at (d) states that Part 4 of the BoR specifies the owner of any Crown interest in the land which is proposed to be used for the purposes of the order for which the application is being made.            The Land Plan [AS-007] indicates a single land area within the Order Limits but does not include marking/ a key that would identify any form of rights being sought or Crown Land, as requested in the Planning Inspectorate's section 51 advice dated 17 May 2024. The</p>	<p>i) The Applicant does not consider that the seabed within the order limits is Crown Land, as defined by the Planning Act 2008.</p> <p><b>Planning Act 2008</b>            Section 227 of the Planning Act 2008 defines "Crown Land" as:  <i>"Crown land" is land in which there is a Crown interest or a Duchy interest.</i></p> <p>Two criteria therefore need to be met for an area to be "Crown Land": (i) that it is land, and (ii) there is a Crown interest or a Duchy interest in it.</p> <p>"Land" is defined in section 235 of the Planning Act 2008 and states</p>



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Reference	Question	ExAQ1	Applicant's response
	to	<p>Applicant states [APP-001] that it is not considered to be required due to the lease with the Crown Estate and the purely offshore nature of this Application, which falls outside in the Inshore Zone. Following the submission of the Application, a High Court judgement was issued which, amongst other matters, relates to the definition of land within the seabed; R (Parkes) v Secretary of State for the Home Department [2024] EWHC 1253 (the 'Bibby Stockholm judgement'). The Applicant is asked to:</p> <ul style="list-style-type: none"> <li>i) Clarify that the seabed within the area of the order limits within the Exclusive Economic Zone (EEZ) is Crown Land.</li> <li>ii) Provide a revision to the Land Plan [AS-007], with a key which identifies Crown Land within the Order Limits.</li> <li>iii) Provide further comments and clarification on whether a BoR is necessary, including whether the seabed beyond 12nm is 'land' for the purposes of the 2008 Planning Act. In doing so, you should have regard to Bibby Stockholm judgement. A BoR should be provided if applicable.</li> </ul>	<p><i>"land" includes buildings and monuments, and land covered with water..."</i></p> <p><b>Meaning of "land"</b></p> <p><i>R (Parkes) v Secretary of State for the Home Department [2024] EWHC 1253 (the 'Bibby Stockholm judgement')</i> was a judicial review claim brought by a local resident of Portland, who contended that the area of the seabed above which the Bibby Stockholm barge was moored fell within the planning control of the local authority under the Town and Country Planning Act 1990 ("TCPA 1990"). The High Court considered the geographical extent of that control within England and Wales, which included <i>inter alia</i> considering whether the area of the seabed above which the barge was moored formed part of the "land" that is subject to planning control under TCPA 1990.</p> <p>The High Court rejected the argument that the seabed above which the Bibby Stockholm was moored is "land" within s336(1) TCPA 1990. Holgate J held at paragraphs 178 – 180:</p> <p><i>"178. In [R (PACCAR Inc) v Competition Appeal Tribunal [2023] 1 WLR 2594] the Supreme Court also held that the potency of the term being defined may provide some guidance as to the meaning of that term as set out in the statutory definition. In the case of a statutory definition, the defined term may itself colour the meaning of the definition. This principle is not confined to cases where there is an ambiguity in the language used in the definition section. Instead, when the definition is read as a whole, the ordinary meaning of the word or phrase being defined forms part of the material which might potentially be used to throw light on the meaning of that definition. Whether and to what extent it does so depends on the circumstances and, in particular, on the terms of the legislation and the nature of the concept referred to by the word or phrase being defined ([48]).</i></p> <p><i>179. I accept the submission of Mr. Honey KC for the SSLUHC that "land" in s.336(1) of the TCPA 1990 is such a potent term. It refers to the solid part of the earth's surface as opposed to the sea (Oxford English Dictionary). The sea must include the underlying sea bed. That was the approach adopted by the Inner House in Argyll and Bute District Council. Indeed, if land were to be treated as including the sea bed, there would be no logical stopping place before the limits of this country's territorial sovereignty are reached. That approach would be inconsistent with the</i></p>

Reference	Question	ExAQ1 to	Applicant's response
			<p><i>legislature's intention to enact a system of development control in relation to the land, not the sea. It is logical to include the foreshore within the area referred to as "land" because it is not always covered by the sea.</i></p> <p><i>180. For the reasons set out above, I reject the claimant's contention that the sea bed above which the Bibby Stockholm is moored is "land" within s.336(1) of the TCPA 1990. Those reasons are sufficient to enable me to determine that issue without needing to go any further."</i></p> <p>It is noted that the Bibby Stockholm case concerned the definition of "land" for the purposes of the TCPA 1990, which does differ in its terms from the definition within the Planning Act 2008. The definition under the TCPA 1990 does not include reference to "land covered by water".</p> <p>However, as noted by Holgate J, a similar conclusion was reached by the Inner House of the Court of Session in <i>Argyll and Bute District Council v Secretary of State for Scotland</i> (1976) S.C. 248. The Inner House in that case considered the definition of "land" under the Town and Country Planning (Scotland) Act 1972, which included "land covered by water". The Inner House concluded that "land" for the purposes of that Act did not extend beyond the mean low water mark. They reached the same conclusion as the Bibby Stockholm judgement, that the sea bed is not "land" within the relevant statutory definition.</p> <p><b>Application to Morgan Generation Assets</b></p> <p>In accordance with the Bibby Stockholm judgement and the decision in <i>Argyll and Bute Council</i>, the sea bed is not "land" for the purposes of section 235 of the Planning Act 2008.</p> <p>As the area of the order limits within the Exclusive Economic Zone (EEZ) would not be "land" for the purposes of the Planning Act 2008, it would similarly not be Crown Land.</p> <p>ii) For the reasons noted above, the Applicant does not consider that the area of the Order Limits is Crown Land and therefore not update to the Land Plan is necessary (AS-007).</p> <p>iii) As set out above, it is not considered that the area of seabed is "land". Furthermore, the application does not seek any compulsory acquisition powers, which is the trigger for a Book of Reference being required. The Applicant therefore does not consider it necessary to submit a Book of Reference.</p>

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Reference	Question to	ExAQ1	Applicant's response
GEN 1.19	Applicant	<p><b>Crown Land</b> Confirm that the Proposed Development would comply with any constraining conditions in the Agreement for Lease awarded by the Crown Estate.</p>	The Applicant confirms that it will comply with any conditions and obligations within the Agreement for Lease awarded by the Crown Estate.
GEN 1.20	Applicant	<p><b>Funding Statement</b> Further to the potential requirement for a BoR as set out in Question GEN 1.19 above, the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 regulation 5(2)(h) states that if the proposed order would authorise the compulsory acquisition of land or an interest in land or right over land, a statement of reasons and a statement to indicate how an order that contains the authorisation of compulsory acquisition is proposed to be funded.</p> <p>Whilst the ExA understands that a funding statement has not been submitted given that the proposed order would not authorise the compulsory acquisition of land, it requires assurances to establish that the Applicant has the financial capacity to discharge all relevant requirements and conditions in the draft DCO, that the Proposed Development can be completed and operated, and subsequently appropriately decommissioned. The Applicant is asked to provide a funding statement which would cover these issues.</p>	The Applicant notes this request and will submit a funding statement at Deadline 4.
<b>Decommissioning</b>			
GEN 1.21	Applicant	<p><b>Decommissioning Plan</b> [APP-010] states that a draft of a decommissioning plan "<i>will be submitted prior to construction commencing</i>".</p> <p>i) How is production and approval of a decommissioning plan secured, noting that the draft DCO Requirement 5 only secures submission of a decommissioning programme to the SoS when so required to do so by the SoS?</p> <p>ii) What would be the principal components of the decommissioning plan?</p> <p>iii) Why has an outline plan not been submitted as part of the DCO application? The ExA notes that the [PD1-017] response to NE's RR-026.G11 is unsatisfactory and incomplete?</p> <p>iv) Would it include principles of financial security for</p>	<p><b>i)</b> It is not considered necessary for the production and approval of a decommissioning plan to be secured pursuant to the consenting process under the Planning Act 2008, as the decommissioning process for offshore renewable energy installation farms is controlled by the Energy Act 2004. Section 105 of the Energy Act 2004 requires that the Secretary of State may, by notice, require a decommissioning programme for a renewable energy installation, to include the details set out in that section. That is reflected in the wording of requirement 5 of the draft DCO.</p> <p>This approach is consistent with recently made offshore wind farm DCOs, including The East Anglia ONE North Offshore Wind Farm Order</p>

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Reference	Question	ExAQ1	Applicant's response
		<p>decommissioning (see also Question GEN 1.21 above)?</p> <p>v) Provide a briefing note on current industry discussions on decommissioning, as referenced in the Statement of Common Ground (SoCG) with the MMO [REP1-035].</p>	<p>2022, The East Anglia TWO Offshore Wind Farm Order 2022 and The Awely Môr Offshore Wind Farm Order 2023. It is also consistent with the terms of NPS EN-3 (paragraphs 2.8.88 and 2.8.89).</p> <p><b>ii)</b></p> <p>Section 105(8) of the Energy Act 2004 sets out that a decommissioning programme:</p> <p><i>“(a) must set out measures to be taken for decommissioning the relevant object;</i></p> <p><i>(b) must contain an estimate of the expenditure likely to be incurred in carrying out those measures;</i></p> <p><i>(c) must make provision for the determination of the times at which, or the periods within which, those measures will have to be taken;</i></p> <p><i>(d) if it proposes that the relevant object will be wholly or partly removed from a place in waters regulated under this Chapter [of the Energy Act 2004], must include provision about restoring that place to the condition that it was in prior to the construction of the object; and</i></p> <p><i>(e) if it proposes that the relevant object will be left in position at a place in waters regulated under this Chapter [of the Energy Act 2004] or will not be wholly removed from a place in such waters, must include provision about whatever continuing monitoring and maintenance of the object will be necessary.”</i></p> <p><b>iii)</b></p> <p>As noted above, a separate legislative regime is in place under the Energy Act 2004 to control the decommissioning process for offshore renewable energy installation farms. It is not considered necessary or appropriate to duplicate this through consents issued under the Planning Act 2008 and therefore no outline decommissioning plan is considered to be necessary for inclusion with this application.</p> <p><b>iv)</b></p> <p>As noted in point ii) above, the decommissioning plan must include details of estimated expenditure.</p> <p><b>v)</b> In the Statement of Common Ground between the Applicant and the MMO (S_D3_MMO SoCG Marine Management Organisation F02), the MMO has stated that ‘the MMO is part of wider industry decommissioning</p>

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Reference	Question	ExAQ1 to	Applicant's response
			<p>discussions'. The Applicant is aware of early industry discussions on decommissioning taking place as part of the RenewableUK Offshore Consents and Licensing Group (OCLG), which it is part of. This is a developer-led forum which does not include the MMO, however RenewableUK engage with the MMO and other relevant stakeholders regularly on industry priorities. The Applicant understands that recent contact has been made between RenewableUK and the MMO on this topic, however it was agreed to progress these discussions in the new year. The Applicant is therefore not in a position to provide a briefing note that this stage.</p>
GEN 1.22	Applicant	<p><b>Waste Hierarchy</b>            Explain how the waste hierarchy would be followed at the decommissioning stage, particularly any plans on how the wind turbine materials might be reused or recycled.</p>	<p>The Applicant will follow the waste hierarchy in the preparation of the decommissioning programme, and taking into account prevailing guidance and technologies available at the time. Methods for reuse or recycling of wind turbine materials is an evolving area and the subject of active research, such as by Offshore Renewable Energy (ORE) Catapult (see for example their report 'Sustainable decommissioning: Wind turbine blade recycling, Report from Phase 1 of the Energy Transition Alliance Blade Recycling Project', 2021; and the Net Zero Technology Centre's follow up report 'Sustainable decommissioning - Wind turbine blade recycling, Phase 2, A comparative assessment of composite recycling technologies – cross industry perspectives, 2022). The Applicant expects that further innovation on this matter will take place during the lifetime of the Morgan Generation Assets, and therefore, the Applicant anticipates periodic review and where necessary, update to the decommissioning programme to capture such technological advances as well as legislative changes.</p>
GEN 1.23	Applicant	<p><b>Waste Management Plan</b>            The Applicant's Scoping Report advised that a construction Waste Management Plan would be included as a technical appendix to the ES. However, paragraph 3.10.1.2 of ES Volume 1, Chapter 3 [APP-010] states that the procedures for handling waste materials will be set out in the Offshore Environmental Management Plan submitted post consent and secured through the dDCO.            Please clarify the inconsistencies in the above statements and also advise how the Morgan Array Site Characterisation Report [APP-067] fits into the mix.</p>	<p>The Applicant acknowledges this statement in the Scoping Report. The Applicant's approach to this aspect as presented in the application was to include waste management and disposal arrangements in the Offshore EMP. The Applicant has committed to preparing an Outline Offshore EMP at Deadline 4. This will include an outline of the commitments made in the Scoping Report and within the relevant chapters of the Environmental Statement (Volume 1, Chapter 3: Project description (APP-010) and Volume 1, Chapter 5: Environmental impact assessment methodology (APP-012)) in relation to waste management. The Applicant</p>

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Reference	Question	ExAQ1	Applicant's response
			<p>therefore does not consider it necessary to have a standalone Waste Management Plan as part of the application.</p> <p>The Morgan Array Area site characterisation report (APP-067) sets out disposal options for drilled or dredged material, which is classified as a waste material. It sets out the consideration of potential alternatives to the disposal of drilled and dredged material from the Morgan Array Area in relation to the waste hierarchy, and provides a justification for disposal <i>in situ</i>. This document was prepared specifically to provide the MMO with the necessary information to permit disposal of material associated with the construction of the Morgan Generation Assets. It will be cross-referenced within the Outline Offshore EMP in relation to waste management and disposal arrangements.</p>

## 2.2 Aviation and Radar

Table 2.2: Response to ExAQ1: Aviation and Radar

Reference	Question to	ExAQ1	Applicant's response
AR 1.1	Isle of Man Government (Territorial Sea Committee)	<b>Air Traffic Safety considerations for Ronaldsway Airport</b> Please explain if and how Isle of Man (IoM) Ronaldsway Airport regulations on air traffic safety relate to UK regulations and guidance including those of the Civil Aviation Authority.	The Applicant notes that this question is directed to Isle of Man Government (Territorial Sea Committee); however the Applicant would like to state to the ExA that regulatory oversight for IoM Ronaldsway Airport is provided by the Director of Civil Aviation (DCA) within the Department of Economic Development (DED) of the Isle of Man Government (IoM Govt) who is responsible for meeting International Civil Aviation Organisation (ICAO) Standards and Recommended Practices (SARPs) which the UK Civil Aviation Authority (CAA) also meets. The IoM CAA issues the Air Traffic Services (ATS) Approval and the Aerodrome Certificate; the United Kingdom (UK) CAA Safety Regulation Group (SRG) is an advisor to the DCA for the safety guidance of IoM Ronaldsway Airport's operations as the Airport is in the UK Integrated Aeronautical Information Package (UK IAIP). The Applicant notes that IoM Ronaldsway Airport agreed in principle that the Applicant has identified and considered the plans and policies relevant to aviation and radar, within IoM Ronaldsway Airport's remit, in the Statement of Common Ground (SoCG) submitted at Deadline 1 (REP1-038).
AR 1.2	Applicant, NATS (En-Route) plc	<b>NATS Notification</b> Table 11.15 of ES Volume 2, Chapter 11 [APP-015] notes a requirement for NATS Aeronautical Information Service to be notified and provided with appropriate information about the construction of the Proposed Development and any associated lighting. Could both the Applicant and NATS: i) Clarify if this notification would form part of Requirement 4 of Schedule 2 of the draft DCO or if an amendment to its wording is necessary? ii) Confirm if there should be a timescale for such a notification like that set out for the DIO in Requirement 3?	The notification to the NATS Aeronautical Information Service is controlled by separate legislation and established procedures, and therefore does not require a specific control mechanism within the draft DCO.  Article 225A of the Air Navigation Order 2015 (S.I. 2016/765) will require the Applicant to provide notification to the Civil Aviation Authority. The CAA has standard practices to issue notification to the NATS Aeronautical Information Service Notification once it receives this information. Article 225A(3) requires the Applicant to provide the notification to the CAA prior to commencement of the Proposed Development.  Requirement 4 of schedule 2 of the draft DCO serves a different and specific function, requiring mitigation measures to be put in place for radar where NATS (En Route) plc is the operator.

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Reference	Question to	ExAQ1	Applicant's response
AR 1.3	Applicant	<p><b>Aviation and Radar Mitigation</b>            A number of IPs have referred to the need for agreement on mitigation proposals including:</p> <ul style="list-style-type: none"> <li>• BAe Systems [RR-004, REP1-029]</li> <li>• Blackpool Airport [RR-006, REP1-028]</li> <li>• DIO Safeguarding/MOD [PD1-019, REP1-032, REP1-042]</li> <li>• Isle of Man Government Territorial Seas Committee (and Ronaldsway Airport) [RR-015, REP1-038, REP1-047]</li> <li>• NATS En-Route plc [RR-025, REP1-037]</li> </ul> <p>The ExA notes that the parties are actively engaging to agree solutions, but requests that a consolidated report with checklist of progress with all the above is submitted in relation to mitigation for aviation and radar effects for each location and how it is to be secured. This should include an indication of updates to the draft DCO where such mitigation should be secured.</p>	<p>A consolidated report is provided in Annex 4.1 to the Applicant's response to EXQ1 AR 1.3: Consolidated Aviation Report (Document reference: S_D3_4.1 Annex to the Applicant's response to EXQ1 AR 1.3: Consolidated Aviation Report F01)</p>
AR 1.4	Applicant, Blackpool, Airport Ronaldsway Airport	<p><b>Very High Frequency (VHF) Communications</b>            The ExA notes that effects on VHF communications were scoped out of ES Volume 2, Chapter 11 [APP-015], but that there are ongoing discussions with Blackpool Airport and Ronaldsway Airport regarding this matter [REP1-028 and REP1-038].</p> <p>i) The Applicant is asked to explain in more detail the reasoning for scoping out VHF communications.            ii) The Applicant is asked to clarify if any other aerodromes would be affected by this issue.            iii) Blackpool Airport and Ronaldsway Airport are asked to provide justification for their request for a review of effects on VHF communications (noting that this was not raised as a matter to be addressed in pre-application consultation).</p> <p>All parties are asked to provide an update on discussions on the matter of VHF communications.</p>	<p>In response to point i), as detailed within the SoCG between the Applicant and IoM Airport (Ronaldsway) (REP1-038), potential impacts on VHF communications were not scoped into the assessment on the basis of distance from Isle of Man Airport (Ronaldsway) (15.4 nm) and pre-application stakeholder consultation. The Applicant notes that no representations were made by any party during the Scoping phase or Section 42 consultation on this matter. IoM policy and guidance for the developers and operators of renewable energy installations in the Isle of Man and its territorial airspace (<a href="https://www.gov.im/media/1381049/cp1-renewable-energy.pdf">https://www.gov.im/media/1381049/cp1-renewable-energy.pdf</a>) does not mention consideration of VHF interference from wind energy developments.</p> <p>As detailed within the SoCG between the Applicant and Blackpool Airport (REP1-028), VHF communications were not addressed in the application documents, as it was considered that there would be nil/negligible detrimental effect to Blackpool Airport radio communications at the Morgan Generation Assets range (291°/28.8 nm measured from the Airfield Reference Point (ARP) to the closest boundary of the Morgan Array Area). It was considered that Blackpool Airport are unlikely to be providing a service in that location, as aircraft would likely be operating autonomously or be in communication to the radar equipped aerodromes (Warton, RAF Valley, Isle of Man (Ronaldsway), Liverpool) or NATS.</p>



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Reference	Question to	ExAQ1	Applicant's response
			<p>The Applicant has since looked into this matter further and notes that the Air Navigation Service Provider (ANSP), the aerodrome, is responsible for assuring its service. NATS state in its Self-Assessment Maps<sup>1</sup> that for air-ground-air (AGA) communication stations (VHF transmitters) operated by NATS En-Route plc (NERL), a consultation zone of 10 km has been provided. Upon receiving notification of a turbine planning application these are the ranges within which NERL would carry out an in-depth assessment for the equipment. This has been taken as the baseline and up until recently, ANSPs have not highlighted a concern beyond 10 km.</p> <p>In response to point ii), no other aerodrome has highlighted a concern.</p> <p>In response to point iii), Blackpool Airport in particular has existing operational turbines closer to its VHF communications infrastructure than the Morgan Generation Assets and it would be expected that if there were any turbine impacts on VHF communications infrastructure, it would have been manifested already. The Applicant does not consider it to be a relevant issue but will consider any information or evidence the airports provide to substantiate their concerns.</p>
AR 1.5	Applicant	<p><b>Aviation and Radar Monitoring</b> Section 11.9.4 and 11.11.1 and Table 11.20 of ES Volume 2, Chapter 11 [APP-015] note that no aviation and radar monitoring is proposed. The Applicant is asked to further explain its position that it does not consider it necessary to test the predictions made within the impact assessment.</p>	<p>The Applicant's position is that no aviation and radar monitoring to test the predictions of the Environmental Statement 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 required.</p>
AR 1.6	Moor Vannin Offshore Wind Farm Limited	<p><b>Mitigation of cumulative impacts</b> Your Relevant Representation [RR-021] notes that it is not clear how potential mitigation methods including the use of additional MultiLAT sensors would be implemented to contribute to mitigation of cumulative impacts at Ronaldsway Airport. The Applicant's response (p.86 [PD1-017]) points to section 11.10 of ES Volume 2, Chapter 11 [APP-015], but also notes that in February 2024, the Airport's position changed to commissioning a</p>	<p>The Applicant notes AR 1.6 is directed towards Moor Vannin Offshore Wind Farm Limited and shall not be responding.</p>

<sup>1</sup> <https://www.nats.aero/services-products/services/wind-farms/n/wind-farms-self-assessment-maps/>.

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Reference	Question to	ExAQ1	Applicant's response
		<p>review of its surveillance strategy including all applicable proposed offshore and onshore wind farm projects (the results of this were expected in summer 2024) and requesting relevant projects to contribute to reach a mutually agreed mitigation solution which will reduce any impact to acceptable levels. Could Moor Vannin Offshore Wind Farm Limited clarify if it has any further comments to raise on this matter?</p>	
AR 1.7	Applicant	<p><b>Aviation and Radar Technical Report – Figure 1.3</b> Figure 1.3 of Annex 11.1 [APP-045] is unclear, making the text difficult to read. The Applicant is asked to provide a standalone copy at a higher resolution so that it is readable.</p>	<p>A higher resolution figure is provided in Annex 4.2 to the Applicant's response to EXQ1 AR 1.7: Aviation Figures (Document reference: S_D3_4.2 Annex to the Applicant's response to EXQ1 AR 1.7 F01). The Applicant notes that the updated figure is the latest version available from NATS (Services) Ltd (2024) (VFR Chart-Northern England Ed.46) (as referenced in the figure), and the resolution has also been increased. The updated figure does not change the conclusions of the assessment.</p>
AR 1.8	Applicant	<p><b>Aviation and Radar Abbreviations</b> The Applicant is advised to update their abbreviations list to include the following which appear in ES Volume 2, Chapter 11 [APP-015]:</p> <ul style="list-style-type: none"> <li>• ICS LT tool (paragraph 11.4.3.8)</li> <li>• PLEM (paragraph 11.9.2.6)</li> <li>• WHPS (paragraph 11.9.2.6)</li> </ul>	<p>The Applicant notes this comment and has provided definitions below, where applicable:</p> <ul style="list-style-type: none"> <li>• ICS LT: this is a product rather than an acronym (see for example <a href="https://atdi.com/#dropdown">https://atdi.com/#dropdown</a>)</li> <li>• PLEM: Pipeline End Manifold</li> <li>• WHPS: Wellhead Protection Structure.</li> </ul> <p>These terms will be included in the acronyms list for all future submissions.</p>
AR 1.9	Applicant	<p><b>Cumulative Radar Early Warning Systems (REWS) impact assessment update</b> Noting that potential cumulative REWS impact from the Morecambe Generation assets project was not included in the application ES but may be important and relevant [APP-063 paragraphs 1.4.4.2 and 1.4.4.3], the Applicant is requested to submit an update report including submission of the assessment of combined impact together with the Proposed Development on REWS and radio line of sight from the Morecambe Offshore Windfarm Generation Assets application now that its examination has commenced.</p>	<p>The Applicant notes that a qualitative assessment of the presence of both the Morgan Generation Assets and the Morecambe Offshore Windfarm: Generation Assets on REWS was presented in Volume 2, Chapter 9: Other sea users (APP-027), with the potential cumulative effect predicted to be of minor adverse significance.</p> <p>In the 'Review of Cumulative Effects Assessment and In-Combination Assessment' (REP2-023), the Morecambe Offshore Windfarm: Generation Assets was screened out of the CEA review for other sea users in Table A.1, on the basis that site area has reduced since the publication of the PEIR, and the number of wind turbines has reduced, therefore the magnitude of the potential cumulative impacts on other sea users is likely to decrease. The review concluded that the updated project information (submitted at application) does not result in the potential for</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>additional cumulative effects with the Morgan Generation Assets. The Applicant also highlights that potential effects on offshore microwave fixed communication links was scoped out of Volume 2, Chapter 9: Other sea users (APP-027), as justified in Table 9.6.</p> <p>The Applicant notes the following conclusions of the Morecambe Offshore Windfarm: Generation Assets cumulative assessment, which included consideration of the Morgan Generation Assets: <i>'Specific detailed assessments undertaken in relation to REWS (Appendix 17.2) to determine whether there is any impact to the system operated by the oil and gas infrastructure also included a cumulative assessment which identified no significant effects, with effects not materially elevated from the Project-alone assessment. The study concluded the impact of the Project on detection performance of nearby REWS installations is low and manageable without the need for further mitigation measures. The modelling results for the Project also indicate that the assessed REWS platforms would not experience a change in yearly alarm rates as a result of rerouted traffic and there would be no negative impact from the Project on microwave communication links'</i>.</p>

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**2.3 Climate Change**

**Table 2.3: Response to ExAQ1: Climate Change.**

Reference	Question to	ExAQ1	Applicant's response
CC 1.1	Applicant	<p><b>Greenhouse Gas Emissions</b></p> <p>The overall conclusions of ES Volume 2, Chapter 12 paragraph 12.16.1.4 [APP-016] note that the impact of greenhouse gas emissions arising from the manufacturing and installation of the generation and transmission assets during construction is considered to result in a moderate adverse effect (significant), reduced to minor adverse (not significant) when accounting for mitigation.</p> <p>Further mitigation is set out from paragraph 12.9.3.13 [APP-016], explaining that the Applicant is committed to exploring options to reduce construction-related emissions and examples are provided of potential measures and that those measures are expected to be included in the relevant final management plans.</p> <p>What does the term 'expected' mean and how can the ExA be confident that the further mitigation is secured and would result in the predicted reduced effect?</p>	<p>The assessment of emissions arising from the Morgan Generation Assets, identifies that the magnitude of calculated avoided emissions over the lifetime of the Morgan Generation Assets results in significant avoided emissions, which exceed emissions arising from the construction, operation and maintenance, and decommissioning of the Morgan Generation Assets.</p> <p>Whilst the Morgan Generation Assets will facilitate the expansion of renewable energy supply and will assist the UK Government target of achieving a fully decarbonisation power system by 2035 and aim to become net zero by 2050 (Section 2.5 of the Planning Statement (APP-074)), the Applicant aspires to reduce the construction stage GHG emissions, where feasible, and will adopt a GHG Reduction Strategy, thereby further improving the net emissions and carbon balance of the Project. The GHG Reduction Strategy would set out the approach for how the Project would explore opportunities for carbon emission reduction and would demonstrate how it is expected to do more than business as usual and align with Net Zero ambition. As is confirmed in the IEMA GHG in EIA Guidance (2022) <i>"The crux of significance therefore is not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050."</i> The Applicant submits that it is clearly demonstrated that the Project achieves this aim.</p> <p>The aim of the GHG Reduction Strategy is to ensure the Applicant maximises reasonable opportunities to reduce GHG emissions in line with best practice standards, such as PAS 2080, and aligned with a net zero trajectory balanced with viability of the Project.</p> <p>The Applicant will submit the GHG Reduction Strategy at Deadline 4.</p>

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Reference	Question to	ExAQ1	Applicant's response
CC 1.2	Applicant	<p><b>Greenhouse Gas Emissions</b> Paragraph 12.16.1.6 [APP-016] concludes that over the lifetime of the Proposed Development, it would result in 324,370 tCO<sub>2</sub>e of avoided emissions when accounting for construction, operations and maintenance and decommissioning phases. The potential generating capacity of the Morgan Generation Assets is noted as 1.5 GW / 1500 MW in Table 12.12 (Maximum Design Scenario) and Table 12.15 (Energy Flows).</p> <p>Could the Applicant:</p> <p>i) Comment on the possibility of the construction emissions being greater than the operational emissions saved if the actual generating capacity of the installed turbined was to be less than the predicted 1.5 GW.</p> <p>ii) Comment on whether the Greenhouse Gas assessment should be updated to reflect the uncertainty around the exact generating capacity and the technology to be used for the turbines, given that at this stage the specific wind turbine technology and design has not yet been confirmed.</p>	<p>When considering the potential net emissions associated with the Morgan Generation Assets, the Applicant can confirm that it has made numerous conservative assumptions including:</p> <p>i)</p> <ul style="list-style-type: none"> <li>The construction stage emissions presented are a conservative estimate for GHG emissions, as detailed in Section 12.5.3 Volume 2, Chapter 12: Climate change (APP-016). Additionally, the Project shall be seeking to reduce its construction stage carbon emissions through a GHG Reduction Strategy as far as reasonably practicable. Any reduction in construction stage emissions will result in an associated increase in net lifetime avoided emissions.</li> <li>The load factor, 34.9% (an average of the annual performance of offshore windfarms in the UK between 2004-2022), used for the assessment is lower than the targeted capacity factor of 58.4% and 63.1% through BEIS Allocation Framework for Round 3 and 4 respectively. As such, associated output capacity and operational avoided emissions are likely to be higher than that stated within Volume 2, Chapter 12: Climate change (APP-016), thereby resulting in a greater net lifetime saving of emissions.</li> <li>The net emissions figure quoted in Volume 2, Chapter 12: Climate change (APP-016) is a conservative worst-case assumption as detailed in paragraphs 12.11.1.1 - 12.11.1.4 of APP-016. The assessment assumes grid decarbonisation due to the increased percentage of renewable generation assets connected to the UK electricity Grid in line with Policy commitments. The avoided emissions associated with the higher emission scenarios (Current UK Grid average, and DESNZ 'non-renewable fuels') represent the upper thresholds for avoided emissions as detailed in Table 12.17 Volume 2, Chapter 12: Climate change (APP-016). This upper range represents much higher avoided net emissions.</li> </ul> <p>ii)</p> <p>The Applicant does not anticipate or intend to build out the Morgan Generation Assets at less than 1.5GW capacity. This is in line with the guidance provided in NPS EN-3 which encourages developers to maximise the capacity of new large-scale energy development within technological, environmental and other constraints (EN-3 paragraph 2.8.2). The Applicant concludes that an updated assessment for higher construction emissions and a different generation capacity would not alter the conclusions around significant effects presented within ES Volume 2, Chapter 12: Climate change (APP-016)</p>

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## 2.4 Commercial Fisheries

**Table 2.4: Response to ExAQ1: Commercial Fisheries.**

Reference	Question to	ExAQ1	Applicant's response
CF 1.1	Marine Management Organisation	<p><b>Medium-term monitoring of effects on commercial fisheries</b></p> <p>Please confirm whether you agree with both the IoM Government Territorial Seas Committee (TSC) [RR-015] that medium-term monitoring to validate baseline data and assumptions for Commercial Fisheries impacts is preferable to review only and the National Federation of Fishermens Organisation/ Welsh Fishermen's Association WR [REP2-031] that the outline Fisheries Liaison and Co-Existence Plan (FLCP) [APP-065] needs to clarify commitments to monitoring of fisheries activity and effects on commercial fisheries and should include a timetable for regulator review of monitoring during the operations and maintenance phase.</p>	<p>The Applicant notes CF 1.1 is directed towards the Marine Management Organisation, however, it is worth noting that in addition to the review of VMS and landings data, the Applicant has added a commitment to undertake scallop monitoring within the OFLCP (S_D3_12 Outline Fisheries Liaison Co-existence Plan F03). Specifically, this states the following as part of TM17:</p> <p><i>“Development and implementation of a monitoring programme which includes pre- and post-construction monitoring of Queen scallop in and around the Morgan Array Area for up to five years post construction”.</i></p> <p>The Offshore in-principle monitoring plan was updated at Deadline 2 (REP2-013) to include scallop monitoring.</p> <p>The final scallop monitoring plan will be detailed in the Monitoring Plan secured in the deemed Marine Licences in Schedules 3 and 4 under Condition 20(1)(c), which includes submission to the MMO.</p> <p>The Applicant can confirm that it will engage with the MMO on the outputs of any monitoring findings and the need for any adaption to the monitoring duration and or scope thereafter in response to these outputs.</p> <p>Following discussions with IoM TSC (08/11/2024) the Applicant can confirm that the proposed scallop monitoring will include consideration of king scallop in developing the monitoring programme post-consent. This has been reflected in the updated OFLCP submitted at Deadline 3 (S_D3_12 Outline Fisheries Liaison Co-existence Plan F03). The Applicant will also seek alignment in methodology with other regional monitoring programmes to ensure maximum value is achieved by the monitoring programme. These points are reflected in the Statement of Common Ground with IoM TSC, submitted at Deadline 3 (S_D3_IoM_TSC SoCG IoM SPC F02).</p>
CF 1.2	West Coast Sea Products	<p><b>Assessment of effects on the Queen Scallop Fishery</b></p>	<p>The Applicant notes CF 1.2 is directed towards West Coast Sea Products and shall not be responding.</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>In [REP1-065] West Coast Sea Products (WCSP) maintains the adverse effect of the Proposed Development on the Queen Scallop Fishery as Moderate to Major for several receptors. Please could WCSP confirm:</p> <ul style="list-style-type: none"> <li>i) Whether this magnitude of effect applies to the Proposed Development alone or to cumulative effects.</li> <li>ii) What a 5 to 10% loss of landings revenue would represent in terms of percentage loss of after-tax earnings for the fishery as a whole.</li> <li>iii) How the 2023 vessel monitoring system data for the Proposed Development's sea area compares with the equivalent data for 2018.</li> <li>iv) The number of vessels fishing simultaneously in the area of the Scallop Mitigation Zone (SMZ) of the Proposed Development during peak Queen Scallop fishing periods over the last 5 years.</li> <li>v) The proportion of Queen Scallop spawning and nursery ground in geographic Europe which is overlapped by the Morgan and Mona proposed developments individually and cumulatively.</li> <li>vi) Whether scallop dredging gear can be deployed reasonably efficiently so as to avoid intermittent cable protection (where plotted on charts made available to the fishing fleet).</li> </ul>	
CF 1.3	Scottish Fishermen's Federation	<p><b>Impact on pelagic fisheries</b> Please explain why you state in [REP1-059] that pelagic vessels cannot operate within the Proposed Development array area; and to what extent specific data on loss of earnings from precedent fisheries can be made available and calibrated to be relevant to this Proposed Development.</p>	The Applicant notes CF 1.3 is directed towards Scottish Fishermen's Federation and shall not be responding.
CF 1.4	West Coast Sea Products or Scottish Fishermen's Federation	<p><b>Context for Queen Scallop plotter data</b> West Coast Sea Products are asked to submit a figure illustrating Queen Scallop fishery plotter data giving context in relation to the whole of the Proposed Development and information on dates, period, and numbers of vessels.</p>	The Applicant notes CF 1.4 is directed towards West Coast Sea Products/ Scottish Fishermen's Federation and shall not be responding.
CF 1.5	West Coast Sea Products	<p><b>Applicant's Response to REP1-059 regarding fishing through the SMZ</b> Confirm if you are satisfied with the Applicant's Responses in</p>	The Applicant notes CF 1.5 is directed towards West Coast Sea Products/ Scottish Fishermen's Federation/ Isle of Man Government Territorial Seas Committee and shall not be responding.

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Reference	Question to	ExAQ1	Applicant's response
	Scottish Fishermen's Federation Isle of Man Government Territorial Seas Committee	[REP2-005], specifically to [REP1-059.4], [REP1-059.6], [REP1-059.11, REP1-059.14 and REP1-059.27 (and any other subsections upon which you may wish to comment) regarding Queen Scallop fishery, the SMZ and inter-array cabling; and if not, clarify why not, point-by-point and supported by evidence where possible.	
CF 1.6	Applicant	<p><b>Adaptive management actions contingent on post-construction monitoring</b></p> <p>Comment if commercial scallop fisheries would be compensated if monitoring reveals either that Queen Scallop stocks do not recover as assumed in the EIA, or that landings data is reduced by more than the assessed average adverse effect on landings for all fisheries.</p>	<p>The Applicant position is that our impact assessment does not predict significant impacts on the queen scallop resource and fishing activities and through the commitments made to infrastructure spacing and layout and the scallop mitigation zone, there will be no significant impact to continued access to the queen scallop resource by commercial fisheries, or indeed access for any commercial fisheries stakeholders, and as such has not put forward compensation.</p> <p>The Applicant has undertaken a fully comprehensive assessment of the ecological impacts on scallops within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) during the construction, operation and maintenance and decommissioning phases, and did not predict any significant effects on queen scallop populations, beyond those expected due to natural variability and therefore will not result in significant effects on landings. The conclusions of the assessment rely on a range of sources of evidence, including the Marine Evidence based Sensitivity Assessment (MarESA) and various scientific studies on scallops and scallop ecology (e.g. Schmidt et al. 2008, Laming et al., 2013, Brand et al., 1991 and Kaiser et al. 2018; see section 3.9.2.19 et seq. of APP-021), as well as historic offshore wind farm monitoring (for example, the recovery of sediments following cable installation activities; RPS, 2019). The assessment also draws upon site specific physical processes modelling (e.g. for increases in suspended sediments, changes to sediment transport processes etc.; Volume 2, Chapter 1: Physical processes APP-013) which demonstrates that any effects of construction will be temporary and reversible and will not result in significant effects on scallops. This evidence strongly indicates that both queen and king scallops will return into the impacted areas through a range of either adult migration or through larval dispersion and settlement.</p>



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Reference	Question to	ExAQ1	Applicant's response
CF 1.7	Applicant	<p><b>Outline Fisheries Liaison and Co-existence Plan - arbitration</b></p> <p>The Applicant is requested to further revise the Outline FLCP and make it clear that the MMO will not act as arbitrator regarding compensation and will not be involved in discussions on any compensation.</p>	<p>The Applicant has not indicated at any stage that it planned to ask the MMO to act as an arbitrator in any matter. However, for clarity, the Applicant has updated the Outline Fisheries Liaison and Co-existence Plan (FLCP) (S_D3_12 Outline Fisheries Liaison Co-existence Plan F03) for Deadline 3 to clearly state that the MMO will not act as an arbitrator regarding compensation matters and will not participate in any discussions related to compensation. The MMO will also be invited to review and comment on/approve the Final FLCP once it is produced, post-consent.</p>
CF 1.8	Applicant	<p><b>Cable burial in and around the Scallop Mitigation Zone</b></p> <p>Having regard to the concerns of West Coast Sea Products about gear snagging risk, can the Applicant explain:</p> <ul style="list-style-type: none"> <li>i) Why inter-array cable routing could not be constrained to the boundary only of the SMZ.</li> <li>ii) If minimum cable burial depth in and around the SMZ could be increased from 0.5m.</li> <li>iii) What extent of cable protection is considered likely in and around the SMZ.</li> </ul>	<p>i) The Applicant acknowledges West Coast Sea Products (WCSP) Ltd's preference for no cables (or cable protection, if required) within the Scallop Mitigation Zone (SMZ) and notes that this remains an ongoing discussion within the SoCG (REP2-028, ref: CF.OFLCP.P6). The Applicant also notes that this query was raised by WCSP in REP1-065.4 and REP1-065.17 of REP2-005, to which the Applicant has responded and refers to the ExA for further details.</p> <p>The Applicant requires the flexibility to run cables through the SMZ. By constraining the inter-array cable routing to the boundary of the SMZ, the project cables may need to be crossed in order to achieve the most efficient route. If project cables are crossed, then cable protection will be required. It is in the interests of the Applicant and other parties that cable protection is minimised to the extent reasonably possible.</p> <p>Constraining the inter-array cable routing to the boundary of the SMZ would also result in the inability to avoid large sandwaves resulting in higher sandwave clearance volumes than necessary. Additionally, the Applicant highlights that the absence of WTGs and OSPs within the SMZ will result in a minimal amount of cable infrastructure within the SMZ. The CBRA used to determine depth of burial considers the risk of snagging throughout the whole array area, including the SMZ.</p> <p>ii) The Applicant is not able at this stage to increase the minimum cable burial depth in and around the SMZ from 0.5 m because the Cable Burial Risk Assessment (CBRA) has not yet been completed.</p> <p>The CBRA will inform the cable burial depth, which will be dependant on ground conditions as well as external risks. The Applicant highlights that the target burial depth for the inter-connector and inter-array cable are 1m and 2m respectively. While the CBRA is</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>undertaken post-consent, the Applicant has updated the Outline FLCP at Deadline 2 (REP2-019) and specifically commitments relating to the CBRA, now state that cable protection and target cable burial depth will be determined to minimise the risk of snagging hazards and cable protection as far as possible, as well as taking account of potential seabed change where possible. It should also be noted that the Applicant has committed to monitoring of cables and their burial status to reduce snagging risk, as well as the use of guard vessels should cables become exposed, which will ensure navigational safety and minimise the potential risk of gear snagging posed by exposed cables until such risks have been mitigated.</p> <p>The Applicant acknowledges WCSP's comment regarding the potential snagging risk associated with a minimum burial depth of 0.5 m and the ExA's query on whether this depth could be increased within the SMZ. WCSP's comment regarding this arises from observed cable exposures at other offshore wind farms in the east Irish Sea and other UK projects, as raised by WCSP and addressed in detail by the Applicant in REP1-065.17 and REP1-065.18 of REP2-005, to which the Applicant refers the ExA for further details.</p> <p>iii) As set out in Table 1.2 of the Outline FLCP (S_D3_12 Outline Fisheries Liaison Co-existence Plan F03), the Applicant has committed to minimising cable installation within the SMZ where possible and in the instance that cable routing through the SMZ is required, aligning cables north-south over east-west as far as practically possible to reduce the potential for disruption of the dominant north-south orientated towing patterns followed at this location. Should cables need to be routed through the SMZ, it is highly unlikely that their entire length would need to be protected. Indeed, the maximum Design Scenario (MDS) for cable protection in Volume 2, Chapter 6: Commercial fisheries (APP-024) limits cable protection to 10% of the maximum length of inter-array cables and 20% of the maximum length of interconnector cables (including within and around the SMZ). Whilst the Applicant cannot predict the spatial requirements for cable protection prior to completion of pre-construction site investigation, based on the information above, the Applicant can be confident that the impact of any cable protection footprint on the area within or around the SMZ would not reduce the</p>

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Reference	Question to	ExAQ1	Applicant's response
CF 1.9	Applicant	<p><b>Potential reconfiguration of Scallop Mitigation Zone</b>            Comment what alternative configurations and perimeter turbine positioning for the SMZ have been considered that might satisfy the concerns of West Coast Sea Products about restrictions on fishing as articulated in [REP1-065].</p>	<p>purpose or effectiveness of the SMZ for providing continued access to the core queen scallop ground.</p> <p>With regard to alternative configurations, the Applicant can confirm that the area identified for the SMZ is based on direct input from fisheries stakeholders, including WCSP, during the pre-application consultation process, in terms of their core fishing grounds for Queen scallop. Any alternative area of equivalent size within the array area would result in a reduction in the amount of the core ground being covered by the SMZ. The Applicant is confident therefore, that the significant area proposed represents the most effective area feasible.</p> <p>With regard to the perimeter turbines, the Applicant notes that if the final array layout requires wind turbines around the perimeter of the SMZ, there would only be a single row of wind turbines along this boundary, spaced a minimum of 1,400 m apart (notwithstanding any micro-siting and in accordance with the layout principles). There is not therefore an alternative configuration that can be considered with regard to this single row of perimeter turbines that retains adherence to the layout principles. The Applicant considers there to be sufficient distance between the wind turbines to enable fishing vessels to access the SMZ area to undertake fishing activity.</p> <p>It is important to recognise that fishing will not be restricted in parts of the Morgan Array Area that do not lie within the SMZ, as the Applicant has committed to a roughly north-to-south alignment of wind turbine rows at 1,400 m apart (as set out in the Outline FLCP (S_D3_12 Outline Fisheries Liaison Co-existence Plan F03)), which is compatible with dominant tow orientations exhibited by queen scallop gear within the Morgan Array Area (such information was communicated via Project-specific consultation).</p> <p>In summary, the Applicant has made significant design-based commitments for both the fishing fleet and its primary resource, which have been developed in consultation with commercial fisheries stakeholders and provide a comprehensive approach to facilitating co-existence with commercial fishing activities. The design has been configured as far as practicable.</p> <p>The design commitments are further supported by two monitoring proposals (as discussed in response to REP1-065.14 of REP2-005).</p>

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Reference	Question to	ExAQ1	Applicant's response
CF 1.10	Applicant	<p><b>Revised outline Fisheries Liaison and Co-existence Plan</b>            Provide a tabulated summary of how the revised outline Fisheries Liaison and Co-existence Plan (FLCP) responds to specific suggestions in Scottish Fishermen's Federation WR [REP1-059] and West Coast Sea Products WR [REP1-065], if appropriate combining with any response you may be making at D2 to National Federation of Fishermen's Organisation/ Welsh Fishermen's Association WR [REP2-031].</p>	<p>The Applicant directs the ExA to the SoCG with fisheries stakeholders (REP2-028), which provides a comprehensive and tabulated summary of how the revised Outline FLCP (S_D3_12 Outline Fisheries Liaison Co-existence Plan F03) addresses specific comments on the commitments from the SFF (representing WCSP). This SoCG outlines design-based commitments and monitoring proposals captured within the revised Outline FLCP (S_D3_12 Outline Fisheries Liaison Co-existence Plan F03) and the status of ongoing engagement on particular points with commercial fisheries stakeholders.</p> <p>The majority of points related to the Outline FLCP are agreed within the SoCG (REP2-028), matters where discussion is ongoing include the SMZ, coordinates of cables and monitoring.</p> <p>There is a separate SoCG with NFFO/WFA (submitted at Deadline 2) (REP2-025), however as the NFFO/WFA were not able to attend the July 2024 meetings when the OFLCP commitments were discussed, their review of the OFLCP was ongoing at the time the SoCG was submitted.</p> <p>The Applicant has responded to NFFO's Written Representation at Deadline 3 (S_D3_3 Applicant's Response to IP submissions submitted at Deadline 2 F01), which covers the OFLCP.</p>
CF 1.11	Applicant	<p><b>Minimum spacing of infrastructure subject to micro siting and tolerance</b>            Update the following to clarify that the "minimum infrastructure spacing of 1,400m" is to be measured from plan centre points of structures subject to the micro siting principles and constructional tolerance dimension to be agreed with the MMO and the Maritime and Coastguard Agency (MCA).            i) Layout development principles Table 3.7 and paragraph 3.5.6.2 of ES Chapter 3 [APP-010].            ii) Mitigation and Monitoring Schedule items 6.4 (Commercial Fisheries) and 7.1 (Shipping and navigation) [REP2-015].            iii) The outline FLCP [REP2-019], where appropriate.</p>	<p>The Applicant confirms that the documents identified by the ExA, confirming that the measurement of the micro siting and tolerance distances will be from plan centre points of the structures, will be updated as follows:</p> <ul style="list-style-type: none"> <li>i) The Applicant will update the Layout development principles Table 3.7 and Project Description chapter at Deadline 6, to account for any final changes</li> <li>ii) The Applicant is preparing a Commitments Register in line with the Planning Inspectorate's latest advice note. This will be adapted from the Mitigation and monitoring schedule (REP2-015), and will be submitted at Deadline 4.</li> <li>iii) The Applicant has updated the OFLCP at Deadline 3.</li> </ul> <p>The Applicant would like to highlight to the ExA, that to address the concerns of the MCA raised within point MCA.SN.12 of their SoCG (S_D2 MCA SoCG MCA F01) there will be a reduction in micro siting</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>allowance from the original 100 m (plus up to 25 m for installation tolerance) to 55 m (50 m for micrositing and 5 m for tolerance) this is reflected within Part 2, Condition 20(a)(ii) of the updated Draft DCO (S_D3_7 Explanatory Memorandum F04) submitted at Deadline 3.</p>
CF 1.12	Applicant	<p><b>Cable Specification and Installation Plan</b> Submit an outline Cable Specification and Installation Plan in order to address the concerns of fisheries IPs and to clarify mitigation commitments in tabular form.</p>	<p>The Applicant confirms its agreement to submit an outline Cable Specification and Installation Plan (CSIP) to address the ExA's request. The Applicant will submit this at Deadline 4.</p> <p>Within the OFLCP (S_D3_12 Outline Fisheries Liaison Co-existence Plan F03), the Applicant has committed to the development of and adherence to a Cable Method Statement (CMS) which includes a Cable Specification and Installation Plan (CSIP). The CSIP, as part of the CMS and the OFLCP are secured as a condition of the deemed marine licences within the Draft DCO (REP2-011). These commitments are also captured in the SoCG between the Applicant and commercial fisheries stakeholders.</p> <p>The Applicant also notes that the Outline Plan will not include specific details relating to commercial fisheries Interested Parties (IPs), as it is not designed for that level of detail. Instead, it will present an overview of mitigation commitments to clarify measures related to cable specification and installation.</p>

## 2.5 Cumulative Effects

Table 2.5: Response to ExAQ1: Cumulative Effects Questions.

Reference	Question to ExAQ1	Applicant's response
CE 1.1	<p>Applicant</p> <p><b>Cumulative Effects Summary Table</b>            Whilst the ExA notes the provision of a Cumulative Effects Screening Matrix [APP-031], and the submission of the sensitivity review [REP2-023] it would assist if a table that presents an assessment of cumulative impacts including the likely significant effects of the Proposed Development with third party developments was provided, including a summary of likely residual cumulative effects which have been assessed as significant in EIA terms after embedded and applied mitigation, and identify those without any further mitigation or monitoring proposals (and explain why).</p> <p>The ExA would point the Applicant to the recent submission to the Mona Offshore Wind Farm [REP3-063] an example.            The Applicant is also asked to update the Cumulative Effects Screening Matrix to include any additional projects and updates to/changes to timescales of existing projects.</p>	<p>The Applicant notes the request from the ExA and highlights that a summary table presenting the results of the CEA for the Morgan Generation Assets with third party developments, including a summary of likely residual cumulative effects and any relevant mitigation or monitoring, is presented within each topic chapter of the Environmental Statement. The Applicant directs the ExA to the following chapters and tables where the information requested has already been presented:</p> <ul style="list-style-type: none"> <li>• Volume 2, Chapter 1: Physical processes (APP-013). Refer to Table 1.16 and Table 1.23</li> <li>• Volume 2, Chapter 2: Benthic ecology (APP-020). Refer to Table 2.27 and Table 2.37</li> <li>• Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). Refer to Table 3.32 and Table 3.42</li> <li>• Volume 2, Chapter 4: Marine mammals (AS-010). Refer to Table 4.52 and Table 4.60</li> <li>• Volume 2, Chapter 5: Offshore ornithology (APP-023). Refer to Table 5.65 and Table 5.173</li> <li>• Volume 2, Chapter 6: Commercial fisheries (APP-024). Refer to Table 6.33 and Table 6.39</li> <li>• Volume 2, Chapter 7: Shipping and navigation (APP-025). Refer to Table 7.29 and Table 7.42</li> <li>• Volume 2, Chapter 8: Marine archaeology and cultural heritage (APP-026). Refer to Table 8.21 and Table 8.27</li> <li>• Volume 2, Chapter 9: Other sea users (APP-027). Refer to Table 9.16 and Table 9.22</li> <li>• Volume 2, Chapter 10: Seascape, landscape and visual resources (APP-014). Refer to Table 10.21 and Table 10.24</li> <li>• Volume 2, Chapter 11: Aviation and radar (APP-015). Refer to Table 11.17 and Table 11.21</li> </ul>

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Reference	Question to	ExAQ1	Applicant's response
			<ul style="list-style-type: none"> <li>Volume 2, Chapter 12: Climate change (APP-016). Refer to Section 12.2 and 12.3 and Table 12.20</li> <li>Volume 2, Chapter 13: Socio-economics (APP-017). Refer to Table 13.84 and Table 13.95, Table 13.96, Table 13.97 and Table 13.98</li> <li>Volume 2, Chapter 14: Human health (APP-018). Refer to Table 14.16 and Table 14.25.</li> </ul> <p>The Applicant's approach to recording additional projects and updates to/changes to timescales of existing projects is set out within the Review of Cumulative Effects Assessment and In-Combination Assessment note submitted at Deadline 2 (REP2-023).</p> <p>If it would assist the ExA, the Applicant can prepare a document which consolidates the information within the above tables and sections of topic chapters along with any updates to the Review of Cumulative Effects Assessment and In-Combination Assessment note (REP2-023) at Deadline 6. The Applicant can also provide an updated Cumulative effects screening matrix at Deadline 6.</p>
CE 1.2	Applicant	<p><b>Cumulative Effects Assessment - Lifetimes of other Offshore Wind Farms</b></p> <p>Natural England [RR-026] and Natural Resources Wales (NRW) [RR-027] have raised concerns about the levels of uncertainty relating to the assumptions involved in calculating estimates for the other existing offshore wind farms (OWFs) where data is unavailable. In the Procedural Deadline response to both Natural England and NRW Relevant Representations (page 234 [PD1-017]) regarding some of the OWFs nearing the end of their life, the Applicant states that there are a number of other projects that will be nearing the end of their consented lifetime at the start of Morgan's construction or operation. There appear to be several of these listed in the cumulative effects assessment (CEA) and but the timescales are unclear.</p> <p>Would the Applicant provide a list of the affected OWFs and the dates when their consents expire, indicating those which it is known are planned for decommissioning or repowering.</p>	<p>A list of offshore wind farms that are nearing the end of their lifetime (i.e. those likely to reach the end of their lifetime, according to the expiry date of their relevant licences, before or within the first 10 years of operation of the Morgan Generation Assets), along with the relevant licence expiry dates, are provided below. The licence expiry dates are based on the latest expiry date for extant Marine Licences/Foreshore Licences available in the public domain (including O&amp;M Marine Licences), or the information provided within the CEA long list which informed Volume 3, Annex 5.1 Cumulative effects screening matrix (APP-031), unless where otherwise indicated by the operator (e.g. Mona Offshore Wind Project Examination Library Reference REP4-130):</p> <ul style="list-style-type: none"> <li>Arklow Bank Phase 1 Offshore Wind Farm: 2032</li> <li>Barrow Offshore Wind Farm: 2030</li> <li>Burbo Bank Offshore Wind Farm: 2031</li> <li>Gunfleet Sands II: 2032</li> <li>Gwynt y Môr Offshore Wind Farm: 2040</li> <li>Inner Dowsing Offshore Wind Farm: 2038</li> </ul>

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Reference	Question to	ExAQ1	Applicant's response
			<ul style="list-style-type: none"> <li>• Kentish Flats Offshore Wind Farm: 2030</li> <li>• Lynn Offshore Wind Farm: 2038</li> <li>• META Phase 2 demonstration zones: 2029</li> <li>• North Hoyle Offshore Wind Farm: 2028</li> <li>• Norther Offshore Wind farm: 2039</li> <li>• Ormonde Offshore Wind Farm: 2037</li> <li>• Rampion Offshore Wind Farm: 2039</li> <li>• Rhyl Flats Offshore Wind Farm: 2029</li> <li>• Robin Rigg Offshore Wind Farm: 2035</li> <li>• Scroby Sands Offshore Wind Farm: 2029</li> <li>• Teesside Offshore Wind Farm: 2040</li> <li>• Thortonbank OEF (C-Power (Zone B)): 2034</li> <li>• Walney 1 &amp; 2 Offshore Wind Farms: 2035/2036</li> <li>• West of Duddon Sands Offshore Wind Farm: 2038.</li> </ul> <p>The Applicant is not aware of any consent or licence applications or other submissions for decommissioning or repowering of these offshore wind farms in the public domain. These would be captured in the CEA long list.</p>
CE 1.3	Applicant	<p><b>Approach to Cumulative Effects Assessment</b>            In many subject areas within the ES, it is assumed that other projects will mitigate their own impacts through secured mitigation to reach a conclusion that there would be no significant cumulative impacts, without any further consideration of the interaction with the Proposed Development. Justify this approach to cumulative effects assessment, and corresponding mitigation.</p>	<p>The offshore wind industry has developed a tool kit of standard mitigation measures which are implemented across projects. This is evident through review of offshore wind dMLs within DCOs, which often contain the same suite of conditions requiring submission of standard consents management plans, measures to prevent pollution and measures to safeguard navigation and aviation safety, for example. Due to precedent set by successive offshore wind farms, it would be highly unlikely that an offshore wind development would be consented which did not adhere to these standard mitigation approaches and/or that they would not be required by the MMO in discharging the relevant dML conditions. Examples include an Offshore Environmental management plan (EMP), Marine mammal mitigation protocol (MMMP), Aids to Navigation management plan, Construction method statement (CMS), and archaeological Written Scheme of Investigation (WSI). A large number of the same</p>



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Reference	Question to	ExAQ1	Applicant's response
			<p>stakeholders are involved in the consenting process for each project and this also ensures that similar mitigations are applied across projects.</p> <p>Therefore, where applicable, reasonable assumptions have been made that such mitigation would be in place for other projects when assessing the potential cumulative impact and that such measures would be secured by the relevant regulatory body. This is a standard approach to the assessment of cumulative effects as part of an EIA. If these standard ('embedded') mitigation measures were not taken into account, then the conclusions of the cumulative effects assessment would be unrealistic and overstate the potential significance of effects.</p>
CE 1.4	Applicant	<p><b>Morecambe Offshore Windfarm Generation Assets Morecambe and Morecambe Offshore Wind Farms Transmission Assets</b></p> <p>Morecambe Offshore Windfarm Generation Assets commenced Examination on 23 October 2024, and Morgan and Morecambe Offshore Wind Farms Transmission Assets application was received by the Planning Inspectorate on 21 October 2024, with a decision on acceptance expected by 18 November 2024.</p> <p>The Applicant is asked to provide a summary at Deadline 3 of any key cumulative issues the ExA should be aware of, with any implications for the Examination. The detail should be provided in an update to the Interrelationship Report with other Infrastructure Projects [REP1-017], the next version which is expected at Deadline 4.</p>	<p>The Applicant has carried out a Review of Cumulative Effects Assessment and In-Combination Assessment (REP2-023) (CEA Review), which was submitted at Deadline 2. This includes the updated application for the Morecambe Offshore Windfarms: Generation Assets. The CEA Review found no changes to the conclusions of the Environmental Statement or Information to Support an Appropriate Assessment from the updated information available for the Morecambe Offshore Windfarms: Generation Assets. Key cumulative issues arising from the CEA for Scenario 2 (Morgan Generation Assets plus Morgan and Morecambe Offshore Wind Farms: Transmission Assets and the Morecambe Offshore Windfarm Generation Assets) include (i.e. effects which are significant before mitigation):</p> <ul style="list-style-type: none"> <li>• Underwater sound impacting fish and shellfish receptors (minor adverse following implementation of the Underwater Sound Management Strategy (UWSMS)) (APP-021)</li> <li>• Potential impacts on commercially important fish and shellfish resources (minor adverse following implementation of the UWSMS) (APP-024)</li> <li>• Impact to adverse weather routing (moderate adverse residual effect for Isle of Man Steam Packet Company and Stena Line) (APP-025)</li> </ul>

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Reference	Question to	ExAQ1	Applicant's response
			<ul style="list-style-type: none"> <li>• Wind turbines causing interference on aviation PSR systems (minor adverse for NATS and IoM Airport (Ronaldsway) following mitigation) (APP-015)</li> <li>• The potential impact on economic receptors including employment and GVA (moderate (beneficial) during the construction phase) (APP-017)</li> <li>• Wider societal infrastructure and resources (Moderate beneficial) (APP-018).</li> </ul> <p>The Applicant will carry out a similar review for the Morgan and Morecambe Offshore Wind Farms: Transmission Assets, once the application materials are in the public domain.</p> <p>As noted in section 1.9 of the Report on Interrelationships with Other Infrastructure Projects (REP1-017), the Review of Cumulative Effects Assessment and In-Combination Assessment will be sign-posted within future submissions of the Report on Interrelationships with Other Infrastructure Projects. In order to assist the Examining Authority, the Applicant can include an additional section in the Report on Interrelationships with Other Infrastructure Projects which includes a table for Scenario 2 similar to that provided in section 1.7 for Scenario 1 (Morgan Generation Assets plus Morgan and Morecambe Offshore Wind Farms: Transmission Assets).</p>
CE 1.5	The Applicant Moir Vannin Offshore Wind Farm Limited	<p><b>Moor Vannin Offshore Wind Farm</b></p> <p>Moor Vannin Offshore Wind Farm Limited [RR-021] sets out that a Scoping Report was submitted to the Isle of Man Government in 2023 and that it is preparing to submit an application for Marine Infrastructure Consent in 2025. Concerns relate to cumulative and incombination effects, and potential mitigation. The Applicant's summary of ISH1 [REP1-004] at point 53 notes that the only information in the public domain for Moor Vannin Offshore Wind Farm is a Scoping Report and 'limited other consultation materials', which it considers to be 'insufficient information on which to base a meaningful cumulative assessment with a high degree of certainty'. Paragraph 1.2.1.5 of the Interrelationship Report [REP1-017] notes that only the Scoping Report and early stage environmental information is publicly available. Paragraph 1.3.1.3 notes that 'Moor Vannin Offshore Wind Farm is currently in early stages of the pre-</p>	<p>The Applicant has defined the level of information available to inform the CEA process in section 1.9 of the Report on Interrelationships with Other Infrastructure Projects (REP1-017), as follows:</p> <ul style="list-style-type: none"> <li>• High: full application available with detailed Environmental Statement</li> <li>• Medium: detailed draft Environmental Statement available</li> <li>• Low: Scoping report or initial (pre-EIA) consultation materials available.</li> </ul> <p>In order to carry out a robust CEA for the Morgan Generation Assets alongside other offshore wind projects, the Applicant requires at least a detailed draft Environmental Statement to be available. The Preliminary Environmental Information Reports (PEIRs) for the Morgan and Morecambe Offshore Wind Farms: Transmission Assets, Mona Offshore Wind Project and Morecambe Offshore Windfarms:</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>application process', and therefore specific coordination was not carried out due to the different project timelines.</p> <p>The Applicant is asked to clarify the publicly available 'early stage environmental information' and 'limited other consultation materials', on which it has based its CEA and Interrelationship Report.</p> <p>Moor Vannin Offshore Wind Farm Limited is asked to provide:</p> <ul style="list-style-type: none"> <li>i) A copy of the Scoping Report and Scoping Opinion.</li> <li>ii) A timeline for the project, including stages of past and future consultation, submission of an application to the Isle of Man Government, and if such an application is successful the predicted timescales for commencement of development and operation of the wind farm.</li> <li>iii) A plan of the site boundary and array area as currently proposed, shown in relation to the Morgan Offshore Wind Project: Generation Assets, and territorial boundaries.</li> <li>v) The maximum design scenario as currently proposed.</li> <li>v) Details of the proposed location(s) for landfall and the onshore electricity transmission connection.</li> <li>vi) Any other publicly available information about the project it would like to submit into the Examination.</li> <li>vii) Comments on the Interrelationship Report and the accuracy of Tables 1.1 and 1.2.</li> </ul>	<p>Generation Assets, were all detailed draft Environmental Statements, which included mitigation for any potentially significant effects identified at the time of drafting (including initial steps towards project refinements where necessary), which enabled the potential cumulative effects of the projects to be appraised in detail and quantified where possible.</p> <p>The consultation materials available to date on the Moor Vannin project do not include a detailed draft Environmental Statement or sufficient information upon which a meaningful CEA can be based, and therefore the Applicant is not able to progress the CEA with Moor Vannin further at this stage. The Applicant is aware that a PEIR is not currently required under IoM legislation.</p>
CE 1.6	The Applicant Moor Vannin Offshore Wind Farm Limited	<p><b>Spacing between Morgan and Moor Vannin Arrays</b></p> <p>While the proposed Moor Vannin offshore windfarm would be situated in Isle of Man territorial waters and is not subject to the Crown Estate Round 4 Memorandum which specifies that no offshore wind projects could be located within 7.5km of an existing offshore wind farm, it is nonetheless noted that the distance between the Morgan Array Area to the proposed Moor Vannin offshore wind farm would be as little as 4.8km. Would the Applicant and Ørsted Moor Vannin explain the implications of this for both projects and whether there would need to be an adjustment to the layout or site area of one or both arrays to increase the separation (and if so, which array requires adjustment)?</p>	<p>As described in section 4.1.4 of Volume 1, Chapter 4 Site selection and consideration of alternatives (APP-011), TCE undertook the site selection process for the Round 4 bidding areas. The analysis did not take into account any AfL for offshore wind or hydrocarbons in Isle of Man (IoM) territorial waters. At the time of the Round 4 bidding process the Applicant did however consider the possibility of developments within IoM waters. At the time of the bid submission there were no projects being actively developed in the public domain. The Moor Vannin Offshore Wind Farm project, as described below, appeared to external parties to be a dormant project at that time.</p> <p>The proposed Moor Vannin Offshore Wind Farm was identified by the Isle of Man Government in 2014, and an AfL was signed between the Isle of Man Department of Infrastructure and DONG Energy Isle of Man (UK) Limited (now Moor Vannin Offshore Wind Farm Limited) in November 2015. The legislation under which a developer proposing a project in Isle of Man territorial waters can seek consent</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>for the elements of an offshore wind farm is currently in a transitional period, because the provisions of Marine Infrastructure Management Act (MIMA) are not yet in operation, and secondary legislation under MIMA that will set out how the process will operate has not yet been made (Moor Vannin, 2023).</p> <p>The Moor Vannin Offshore Wind Farm is located to the north of Morgan Array Area in Isle of Man territorial waters. The Moor Vannin AfL identified an area of search covering an area of 253 km<sup>2</sup>. This area was originally approximately 2.5 km at its closest point to the Morgan AfL Area. However, following further analysis of the site, the Morgan Array Area has been refined and the separation distance between the project boundaries at the closet point is now approximately 4.85 km.</p> <p>It is understood that the Isle of Man Government was involved in early engagement with TCE regarding the Round 4 zone in the Irish Sea.</p> <p>The Applicant engaged with Moor Vannin Offshore Wind Farm Limited, receiving boundary information in September 2023, for the purposes of the shipping and navigation assessment. In October 2023, a Scoping Report for the Moor Vannin Offshore Wind Farm was published for consultation, to which the Applicant has responded.</p> <p>During engagement with shipping and navigation stakeholders, the need to include the Moor Vannin Offshore Wind Farm in cumulative assessments was raised. The Applicant included the Moor Vannin Offshore Wind Farm as an additional scenario in a Hazard Workshop and Cumulative Regional Navigational Risk Assessment, as described in Volume 2, Chapter 7: Shipping and Navigation (APP-025).</p> <p>As noted in the Applicant's response to Written Representations (REP1-051.21) (REP2-005), the Applicant expects the full Environmental Assessment for the Moor Vannin Offshore Wind Farm, including the finalised project design, to not be submitted until March 2025. The Applicant has already reduced the spatial extent of the Morgan Array Area to address unacceptable risks to shipping and navigation, and whilst this refinement was taken to improve navigational safety between the Morgan Array Area and Walney wind</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>farms, it incidentally increased the searoom between what would subsequently become the Scoping Boundary of the Moir Vannin Offshore Wind Project and the Morgan Array Area from 1.4 nm to 2.6 nm. Therefore, the Applicant has already taken action to increase the searoom by 1.2 nm from the Moir Vannin project and this has been taken into account in its assessment and mitigation of cumulative effects on shipping and navigation.</p> <p>Moor Vannin Offshore Wind Farm Limited have been aware of the boundary amendments committed to by the Applicant since January 2023 when they were shared with the Marine Navigation Engagement Forum (MNEF) attended by Ørsted as described in Appendix E of the Technical Engagement Plan (APP-093). The Applicant therefore expects that Moor Vannin Offshore Wind Farm Limited will take into account the mitigated boundaries of the Morgan Array Area when refining and finalising its design envelope to mitigate any impacts on navigational safety (as mentioned in their response to ExQ1 at Deadline 3 for the Mona Offshore Wind Project, Mona Offshore Wind Project Examination Library Reference REP3-101).</p>
CE 1.7	Natural England	<p><b>The Triton Knoll Offshore Wind Farm Order 2013 and stranded assets</b></p> <p>Natural England advise that it is broadly content that the approach to the different scenarios in the CEA but maintain several concerns related to the wider issue of the 'coordinated approach' and stranded assets as outlined in Annex 1 of its RR [RR-026].</p> <p>A copy of the decision documents associated with the Triton Knoll Offshore Wind Farm Order 2013 and an explanation of how the Proposed Development differs from this were provided by the Applicant at Deadline 1 [REP1-007 and REP1-008]. The Interrelationship Report [REP1-017] also refers to the approach at section 1.8.</p> <p>Could Natural England clarify if it has any further comments on this matter, and does it continue to recommend a requirement is imposed similar to that recommended for Triton Knoll?</p>	The Applicant notes CE 1.7 is directed towards Natural England and shall not be responding.
CE 1.8	Manx Utilities	<p><b>Manx Utilities Interconnector</b></p> <p>The Cumulative Effects Screening Matrix [APP-031] includes the Isle of Man-UK Interconnector 2 as a project in pre-application (page</p>	The Applicant notes CE 1.8 is directed towards Manx Utilities and shall not be responding.

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Reference	Question to	ExAQ1	Applicant's response
		173), with high data confidence, however no details are provided of its temporal overlap with the Proposed Development. Could Manx Utilities provide any details which are in the public domain regarding Interconnector Cable 2, in particular its proposed route in relation to the Proposed Development and a timeline for its application and delivery, and set out any potential interactions with the Proposed Development?	
CE 1.9	Liverpool City Region Combined Authority	<p><b>Mersey Tidal Power Project</b> Liverpool City Region Combined Authority [RR-002] refer to the Mersey Tidal Power Project and this is included in the Cumulative Effects Screening Matrix [APP-031] (page 175), however no details are provided of its temporal overlap with the Proposed Development. Please provide a summary of this project including its location, a timeline for its application and delivery, and summarise any potential interactions with the Proposed Development.</p>	The Applicant notes CE 1.9 is directed towards Liverpool City Region Combined Authority and shall not be responding.
CE 1.10	Meath County Council	<p><b>Irish Offshore Windfarms</b> Meath County Council are invited to review the Applicant's response [REP1-006] and the review of the CEA [REP2-023], further to its response to the second transboundary screening [OD-006], and provide comments to the ExA.</p>	The Applicant notes CE 1.10 is directed towards Meath County Council and shall not be responding.

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## 2.6 Draft Development Consent Order (DCO)

Table 2.6: Response to ExAQ1: Draft Development Consent Order (DCO) Questions.

Reference	Question to ExAQ1	Applicant's response
<b>Parts 1 and 2</b>		
DCO 1.1	Applicant	<p><b>Part 1 Article 2: Interpretation</b> Further to your response to the MMO [PD-017, RR-020.17 and RR-020.18] and looking more closely at precedent from Norfolk Boreas and Hornsea Four made DCOs, the Applicant is asked to reconsider and respond further on the strong request from the MMO in its [RR-020 section 3.5] and its further comments in [REP2-029] that "wording should be updated to 'do not give rise to any new or different environmental effects to those assessed in the environmental information'. This also applies to the definition of 'maintain". Also review and comment on the Norfolk Boreas made DCO cited as precedent which is worded such that permitted amendments or variations are limited to those that are "minor or immaterial", and consider whether new wording that conditions "different adverse environmental effects" would provide useful control for the MMO.</p>
		<p>The Applicant has updated the definition of "maintain" within the draft DCO and dMLs as follows: <i>"maintain" includes inspect, upkeep, repair, adjust or alter the authorised development, and remove, reconstruct or replace any part of the authorised development, <del>provided that such works do not give rise to any materially new or materially different environmental effects to those identified in the environmental statement</del> to the extent assessed in the environmental statement; and any derivative of "maintain" is to be construed accordingly;</i></p> <p>This drafting is aligned with the Norfolk Boreas and Hornsea Four made DCOs. Paragraph 9 of each dML within the draft DCO relating to amendments or variations has been agreed with the MMO. No further amendment to that paragraph is considered necessary.</p>
DCO 1.2	Applicant	<p><b>Part 2 Article 7: Benefit of the Order</b> i) Precedent made DCOs quoted in the Explanatory Memorandum (EM) [REP1-023] include a paragraph in articles regarding benefit of the order: "The undertaker must consult the Secretary of State before making an application for consent under this article by giving notice in writing of the proposed application." Explain whether this paragraph has been omitted in error and as appropriate amend the drafting in paragraphs (2) and (3) "Subject to paragraph (x)..." or "Subject to paragraphs (x) and (y)..." ii) Article 7(4): Precedent made DCOs use the words "The Secretary of State must consult ..." not "...shall consult" and there is no note in the EM [REP1-023] on this change. Justify which usage is appropriate in this</p>
		<p>i) The Applicant notes that Hornsea Project Four, Norfolk Boreas, Norfolk Vanguard and Awel y Mor include the wording - "<i>The undertaker must consult the Secretary of State before making an application for consent under this article by giving notice in writing of the proposed application.</i>" However, East Anglia One North and East Anglia Two which are also referenced in the EM with regards to drafting in Article 7, do not include that wording. The Applicant did not include the additional wording as it is not considered to be strictly necessary. The process provided for by the current wording in the draft DCO [S_D3_6 Draft DCO F05] means that whether or not the Secretary of State's consent is required for a transfer to take effect, the undertaker must give prior notice in writing of a proposed transfer under Articles 5(10) and 5(11). ii)The Applicant has no objection to using 'must' instead of 'shall' and has updated the draft DCO [S_D3_6 Draft DCO F05] at Article 7(4) in this regard. It is accepted that this aligns with The Planning Inspectorate's Advice Note Fifteen:</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>draft DCO.</p> <p>iii) Article 7(11): Consider and attempt to agree with the MMO whether Article 7(11) should incorporate extended wording based on that used in the Hornsea Project Four made order: "...save that the MMO may amend any deemed marine licence granted under Schedule 3 or Schedule 4 of the Order to correct the name of the undertaker to the name of a transferee or lessee under this article 7 (Benefit of the Order)."</p> <p>iv) If the Applicant considers that the Sheringham and Dudgeon made order recommendation and decision adds or differs from the made order precedent cited in the EM [REP1-023], justify why that may be important and relevant.</p>	<p>Drafting Development Consent Orders and agrees that the term 'must' avoids any ambiguity over what is required.</p> <p>iii) The Applicant has no objection to including this wording in Article 7(11). This wording acknowledges and reflects an administrative practice that happens in practice where a transfer of benefit has taken place. It is usually the case that a variation application will be made to the MMO which includes a request to amend the name of the undertaker on the relevant marine licence(s) for clarity following a transfer to ensure there is a clear record on the MMO's case management system of the person who has the benefit of a licence. The draft DCO [S_D3_6 Draft DCO F05] has been updated in this regard.</p> <p>iv)The Applicant does not consider that there are substantive differences to the process for transfer of the benefit set out in the Sheringham and Dudgeon made Order and the precedents cited in the Explanatory Memorandum [S_D3_7 Explanatory Memorandum F04]. The drafting differences between them are:</p> <ul style="list-style-type: none"> <li>• the Sheringham and Dudgeon made Order only allows for the transfer of the whole of a deemed marine licence. It does not allow for a deemed marine licence to be leased. The Sheringham and Dudgeon recommendation notes that this amendment was included by the Applicant during Examination and it is understood that this was on the basis of a project-specific decision.</li> <li>• The Secretary of State made an amendment to Article 5(7)(b) of the Sheringham and Dudgeon DCO which is described in the decision letter as an <i>'amendment to exclude the transfer of deemed marine licence from the provision which states that where the benefit of the DCO is transferred to a transferee or lessee, then the transferred benefit shall not be liable against the undertaker'</i>. The rationale for this addition is not included in the decision letter. The Applicant does not consider it is necessary. In practice, the transferor and transferee will deal with any liabilities and responsibility for them as part of the transfer agreement or lease as part of the commercial terms.</li> <li>• The Article also includes some drafting which is specific to the interaction between National Highways A47 Tuddenham to Easton improvement project and the Sheringham and Dudgeon extension projects to allow the benefit of some specific works to be transferred to National Highways. This wording is not relevant to or necessary for this draft DCO [S_D3_6 Draft DCO F05].</li> </ul>



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Reference	Question to	ExAQ1	Applicant's response
<b>Schedule 1 – Authorised Development</b>			
DCO 1.3	Applicant Marine Management Organisation	<p><b>Piling Hammer Energy</b></p> <p>An upper limit on hammer pile energy is not referred to in the draft DCO. Should the maximum hammer energy assessed in the ES for single and concurrent piling be specified within the design parameters in the draft DCO and both draft DML's given that this is the best available means to ensure and secure that the sound generated from piling does not exceed that assessed within the ES? If not, why not?</p>	<p>The Applicant has updated the draft DCO (including the dMLs) at Deadline 3 (S_D3_6 Draft DCO F05) to include the maximum hammer pile energy within the parameters tables.</p>
<b>Schedule 2 – Requirements</b>			
DCO 1.4	Applicant	<p><b>Requirement 1(1): Time Limits - Commencement</b></p> <p>Schedule 2 Requirement 1 seeks a seven-year commencement period. The Applicant's additional explanation in the EM [REP1-023] is noted. It is not unusual in comparison to many NSIPs which are also of significant scale and complexity, to experience long lead times for equipment and services, and have the need to secure a Contract for Difference. Whilst it is recognised that some offshore wind DCOs have been subject to a seven-year time limit as set out in paragraph 5.9 of the EM, many others have been able to commence within the standard time period of five years. There have been recent examples of DCOs where the requested seven-year period has been rejected by the Secretary of State (Drax Carbon Capture Order 2024, Awel y Mor Offshore Wind Farm 2023), with the urgent need for low carbon energy being cited as reason for rejecting the seven-year period sought. Furthermore, the ExA is aware that the separate DCO for the Morgan and Morecambe Offshore Wind Farms Transmission Assets has now been submitted to the Planning Inspectorate, providing a greater level of certainty regarding timescales. With the above in mind, the Applicant is asked to:</p> <p>i) Provide additional justification for the seven-year period</p>	<p>i)</p> <p>The Applicant does not have any further to add beyond the explanation set out within the Explanatory Memorandum. The Applicant considers that the justification set out within the Explanatory Memorandum justifies a seven-year period being included for commencement of development.</p> <p>The construction timeline for the Morgan Generation Assets would not change if the latest authorised commencement date was five years or seven years after the DCO was granted. The timeline for construction following that commencement would remain the same.</p> <p>ii)</p> <p>The Applicant does not consider that a seven-year commencement period would change the accuracy of the information presented in the Environmental Statement. The potential for changes in the environmental baseline over time is one of the reasons that pre-commencement surveys are a standard requirement secured through conditions within a deemed marine licence for an offshore wind farm project. This is included within condition 27 of each deemed marine licence in schedules 3 and 4 of the draft DCO [REP1-021]. There is not considered to be a material difference between 5 years and 7 years with regards to the need for additional surveys.</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>sought, to include a timeline of events post-consent that could potentially result in a delay to commencement and a chart of the alternative construction timelines so that a five-year and seven-year commencement can be compared.</p> <p>ii) Clarify what a seven-year commencement period would mean for the assessments in the ES and HRA in terms of validity of the survey data sets, and the cumulative/incombination assessments.</p>	
DCO 1.5	Applicant	<p><b>Requirement 1(2): Time Limits - Challenge Period</b>            Clarify if there are any other examples than Yorkshire Green as a precedent (paragraph 5.10 of the EM [REP1-023]) for extending the period to one year for commencement if a legal challenge is submitted, and provide further explanation to justify your request for this extended period.</p>	<p>The Applicant's drafting is based on the drafting in the National Grid (Yorkshire Green Energy Enablement Project) Development Consent Order 2024, but has been simplified.</p> <p>If an action for judicial review is raised in respect of the decision of the Secretary of State to grant the DCO, then until those proceedings are determined there will be a degree of uncertainty for the Applicant in progressing with the Proposed Development. A reasonable developer would not be expected to undertake activities authorised by the DCO, or progress the discharge of requirements and conditions, until such proceedings were determined.</p> <p>Even if a judicial review is ultimately rejected by the Courts, it can cause a delay in the progression of activities related to the DCO. For that reason, the Applicant considers that it is reasonable to include Requirement 1(2).</p> <p>There is of course no certainty as to how long proceedings for a judicial review will take to reach final determination. For example, the judicial review of the East Anglia One North and East Anglia Two offshore wind farms took approximately 22 months until the final decision was issued by the Court of Appeal. The Applicant considers that a one-year period is reasonable.</p>
DCO 1.6	Applicant	<p><b>Requirement 2(1): Design parameters</b>            For the avoidance of ambiguity, consider amending this Requirement to clarify that the entirety of all turbine generators (including rotor swept area) must be contained within the order limits.</p>	<p>The Applicant has added a new sub-paragraph (2) to this requirement which states:</p> <p><i>"(2) No part of any wind turbine generators to be constructed as part of the authorised development shall extend beyond the Order limits."</i></p>
DCO 1.7	Applicant	<p><b>Requirement 2(2): Table 1 and Schedule 3 part 2 paragraph 10</b>            With regard to sub-scenarios for different proportions of piled and gravity base foundations, clarify ambiguity between the MDS as assessed in the ES and the drafting</p>	<p>The Applicant has updated the parameters tables within R2(2) Table 1 and Schedule 3 Part 2 Para 10 Parameters to add further design parameters for clarity.</p>

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Reference	Question to	ExAQ1	Applicant's response
		of [REP2-011] R2(2) Table 1 and Schedule 3 Part 2 Para 10 Parameters]: "The authorised development must be constructed in accordance with the parameters assessed in the environmental statement and set out in Table 1" .	
DCO 1.8	Applicant	<p><b>Requirement 2(2): Table 1 Parameters and Schedules 3 &amp; 4 Condition 10 Table 2 Parameters</b></p> <p>There are a number of parameters which are included in the maximum design parameter tables of the ES, but which are not reflected in Table 1 of the draft DCO. The Applicant should ensure any parameters which should be included within the dDCO/DML are included within the draft DCO and DMLs as appropriate and that the parameters used are consistent between the them and the ES. Specifically, consider if the following should be included in the draft DCO, and if not, explain why not:</p> <p>i) The maximum number of pin piles.  ii) The maximum area of cable protection (as well as volume).  iii) The maximum height above LAT of towers, masts and cranes on Offshore Substation Platforms (OSP)? (Project Description Table 3.8 of [APP-010] refers).</p>	<p>The Applicant has updated the draft DCO (S_D3_6 Draft DCO F05) to include:</p> <p>i) The maximum number of pin piles  ii) The maximum area of cable protection  iii) The maximum volume of cable protection</p> <p>The Applicant has also added other parameters e.g. maximum volume of seabed material that could be used as ballast in gravity based foundations.</p> <p>iv) The Applicant has not updated the draft DCO to include the height above LAT of towers, masts and cranes on the Offshore Substation Platform. As set out in Table 3.8 of [APP-010], the values used in the project description <u>exclude</u> those elements from the maximum height values. This is a standard approach taken in other offshore wind farm DCOs, including The Norfolk Boreas Offshore Wind Farm Order 2021, The East Anglia ONE North Offshore Wind Farm Order 2022 and The Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024.</p>
DCO 1.9	Defence Infrastructure Organisation, Marine Management Organisation, NATS Safeguarding	<p><b>Requirement 3: Aviation Safety</b></p> <p>The DIO, MMO and NATS are asked whether they seek conditions controlling lighting of turbines be included within DML conditions as well as in DCO Requirement 3 [REP2-011] regarding both aviation safety and marine navigational safety.</p>	<p>The Applicant notes DCO 1.9 is directed towards Defence Infrastructure Organisation/Marine Management Organisation/NATS Safeguarding and shall not be responding.</p>
DCO 1.10	Applicant	<p><b>Requirement 7 (and Schedules 3 &amp; 4 paragraph 9): Amendments to approved details</b></p> <p>The Applicant quotes the Norfolk Boreas made DCO as precedent [REP1-023], but that DCO has a substantially more comprehensive drafting, including a sub-paragraph (2). The Applicant is asked to add further detail to this</p>	<p>The Applicant does not consider it necessary to update the wording in requirement 7 of the draft DCO [S_D3_6 Draft DCO F05], but notes that it updated the draft DCO [REP2-011] at Deadline 2 to align paragraph 9 of each deemed marine licence with the wording requested by the MMO. The Applicant considers that it has addressed the MMO's concern on this point.</p>

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Reference	Question to	ExAQ1	Applicant's response
		draft requirement and attempt to secure MMO agreement, having regard to the MMO's WR [REP1-048].	The reason that the Applicant does not consider it necessary to include similar wording to the Norfolk Boreas DCO in requirement 7 is that there are no requirements of the draft DCO [S_D3_6 Draft DCO F05] requiring detailed design or management plans to be submitted for approval post-consent. That is different from the Norfolk Boreas Offshore Wind Farm Order, where various design details and plans were to be submitted to the relevant planning authority for approval.

**Schedules 3 & 4 – draft Deemed Marine Licences**

DCO 1.11	Applicant	<b>Schedules 3 and 4 – general</b> Check the draft DMLs for any potential ambiguity as to which “statement” is referred to in each condition.	The Applicant has reviewed references to “statement” in each condition of the dMLs. The Applicant has updated condition 29(5) in each dML to remove ambiguity.
DCO 1.12	Applicant	<b>Schedules 3 and 4 – Paragraph 2(e) Licencing of Unexploded Ordnance clearance</b> Justify further the inclusion of unexploded ordnance (UXO) clearance within the DMLs rather than under separate licencing, having regard to the MMO's D2 submission and any ongoing discussions.	<p>One of the Applicant's objectives for the Proposed Development is to construction of the Morgan Generation Assets in 2026, with the project fully operational by 2030 in order to contribute to the UK Government's renewable energy targets.</p> <p>The consenting process under the Planning Act 2008 facilitates the inclusion of a range of different consents within the same order, with a view to streamlining the process for Nationally Significant Infrastructure Projects. That is a key aim of the regime.</p> <p>The inclusion of UXO activities within the dMLs removes the need to obtain a separate marine licence. Removing the need to obtain separate consents, and the potential delay that could cause, ultimately supports the Applicant's objective of commencing construction in 2026 and contribution to the UK Government's renewable energy targets.</p> <p>The Applicant does not consider there should be any in-principle reason why UXO clearance would not be authorised through a dML. The Applicant has undertaken a robust assessment of potential impacts that would arise from UXO clearance and has proposed mitigation measures through the Outline Marine Mammal Mitigation Protocol (APP-072) and the Underwater Sound Management Strategy (APP-068). Both management plans are secured through conditions in the dMLs (conditions 20(1)(h), 22 and 23). The Applicant considers that these conditions adequately control the UXO clearance activities that would be authorised.</p>
DCO 1.13	Marine Management Organisation	<b>Schedules 3 and 4 – Paragraph 6 decommissioning</b> The Applicant's response to Natural England RR-026.D26 and RR-026.F16 [PD1-017], states that “It is the	The Applicant notes DCO 1.13 is directed towards Marine Management Organisation and shall not be responding.

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Reference	Question to	ExAQ1	Applicant's response
		<p>Applicant's intention to secure decommissioning activities through separate standalone marine licences at the relevant time."</p> <p>The MMO is asked:</p> <p>i) If it satisfied with that procedure and with draft DCO Schedules 3 &amp; 4 paragraph 6.</p> <p>ii) If the production of an outline Offshore Decommissioning Plan should be secured by condition in the draft DMLs.</p>	
DCO 1.14	Applicant Marine Management Organisation	<p><b>Schedules 3 and 4, Paragraph 9</b></p> <p>i) The Applicant is asked to correct the revised wording in the draft DCO [REP2-011] which has a proofreading error missing out the word "or" before the new words "will not".</p> <p>ii) The MMO is asked to clarify if it would like any further action taken with regard to the drafting of the DMLs Paragraph 9.</p>	The Applicant has corrected this typographical error within the draft DCO [S_D3_6 Draft DCO F05].
DCO 1.15	Marine Management Organisation	<p><b>Schedules 3 and 4 Condition 13 (3) Activities in the Outline Offshore Operations and Maintenance Plan (OOMP)</b></p> <p>Is the MMO satisfied with the range of activities identified in the Outline OOMP [APP-079 Table 1.2] and does it accept the qualification presented by [APP-079 paragraph 1.3.1.3]:</p> <p>"Maintenance due to unexpected occurrences cannot be anticipated and therefore cannot be included within the application for Development Consent or within this plan."</p>	The Applicant notes DCO 1.15 is directed towards Marine Management Organisation and shall not be responding.
DCO 1.16	Applicant	<p><b>Schedules 3 and 4 Condition 13 (3)</b></p> <p>Further to the MMO's justification in [REP1-048], reconsider the MMO's request that the word 'substantially' is removed from this condition and justify why the draft DCO should not be so amended; [PD1-017] does not provide sufficient justification.</p>	The Applicant updated the draft DCO [REP2-011] at Deadline 2 to remove the word 'substantially', as requested by the MMO.
DCO 1.17	Applicant	<p><b>Schedule 3 Condition 13 (4)</b></p> <p>i) Why is Schedule 4 differently subdivided compared with Schedule 3, and 13(4) is missing from Schedule 4?</p> <p>ii) Comment in detail on Natural England's request for an</p>	<p>i) The Applicant has reviewed Schedules 3 and 4 of the draft DCO [S_D3_6 Draft DCO F05] and cannot identify any difference in their subdivision.</p> <p>Condition 13 in Schedule 4 has been amended for consistency with Schedule 3.</p>

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Reference	Question to	ExAQ1	Applicant's response
		additional condition that no cable protection may be deployed later than 10 years post-construction.	ii) The Applicant does not consider there to be any reasonable basis on which to impose a time-limit on the activities authorised by the deemed marine licences in the manner suggested by Natural England. The Applicant has included all reasonably predictable operations and maintenance activities within the Morgan Generation Assets application and undertaken a robust and precautionary assessment of the potential impacts of those within the Environmental Statement. The Applicant has now updated the dMLs within the draft DCO to include maximum cable protection areas and volumes that could be deployed across the lifetime of the project. That is what the Applicant has applied for and what has been assessed in the Environmental Statement.
DCO 1.18	Marine Management Organisation	<b>Schedules 3 and 4 Condition 15 (11)</b> Which does the MMO consider would be the most appropriate Plan to secure “periodic validation surveys of cable burial and protection” post-construction, as proposed by the Applicant in the mitigation and monitoring schedule (item 7.27 [REP2-015]).	The Applicant notes DCO 1.18 is directed towards Marine Management Organisation and shall not be responding.
DCO 1.19	Applicant	<b>Schedules 3 and 4 Part 2 Condition 20(a)(ii)</b> Further to the concern of the MCA [REP1-051] about potential impacts of micro-siting structures on maintaining adequate search and rescue (SAR) access and operations, the Applicant is asked to: i) Confirm how lines of orientation and SAR lanes would be controlled through the agreement of final layout and secured through the DMLs, amending the definitional interpretation as necessary in the draft DCO. ii) Reconsider how two SAR lanes of 500m each could be maintained between turbine rotor blade diameter/swept area. iii) Amend the dimension in Condition 20(a)(ii) micro-siting of structures as appropriate. iv) Amend the dimensions in Project Description Table 3.7 Layout development principles 5 and 6 as appropriate.	i) Condition 20(1)(a) specifies that the design plan must be in accordance with the layout principles contained within the environmental statement project description [APP-010, Table 3.7]. The project description will be a certified document under Schedule 5. Layout principles 3 and 4 set out the commitments to two lines of orientation and to SAR access lanes 500m wide. ii) The Applicant has reduced the micro-siting tolerances stated within condition 20(1)(a)(ii) to 55m. In the unlikely scenario that two turbine locations are needed to relocate 55m towards each other, from a vessel perspective this would result in a 1,290m spacing, allowing enough room for two 500m SAR lanes. From a helicopter perspective, based on a rotor diameter of 320m (or two 160m radius) would result in a 1,040m spacing, allowing enough room for two 500m SAR lanes, if required. iii) The Applicant notes that the micro-siting tolerances stated within condition 20(1)(a)(ii) has been reduced to 55m. iv) The Applicant will submit an updated version of the Project Description chapter with an update to Table 3.7 at Deadline 6.

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Reference	Question to	ExAQ1	Applicant's response
DCO 1.20	Applicant	<p><b>Schedules 3 and 4 Condition 20 (1)(d) Construction Method Statement</b></p> <p>The Mitigation and Monitoring Schedule [REP2-015] identifies how relevant mitigation measures will be secured through the DCO and it notes that an Offshore Construction Method Statement (CMS) is secured in each Marine Licence in Schedules 3 and 4 (condition 20(d)). The Applicant is asked why an outline CMS has not been submitted with the Application, especially as a number of mitigation measures that would feature within the document (for example scour protection management and minimising sandwave clearance) have been included in the modelled scenarios to reduce the significance of effect, and as the wording in the dDCO is as follows: "an offshore construction method statement in accordance with the construction methods assessed in the environmental statement"?</p>	<p>The Applicant did not submit an outline construction method statement with the application, as the measures that it would include are considered standard industry practice and are well understood by the MMO, which would be the discharging authority. The Applicant considered that the draft DCO and application documents contained sufficient detail.</p> <p>However, the Applicant will submit an outline construction method statement at Deadline 4.</p>
DCO 1.21	Marine Management Organisation	<p><b>Schedules 3 &amp; 4 Part 2 Condition 20(1)(d)(i): cable installation plan</b></p> <p>Historic England (paragraph 2.7 [REP1-046]) advises that pre-commencement surveys should be analysed to actively inform cable route selection in relation to features of known or potential archaeological interest. Paragraph 7.4 also refers to this. The outline written scheme of investigation (WSI) (paragraph 1.6.2.10 [APP-069]) commits to archaeologist input to acquisition of survey data as the project progresses. Paragraph 1.6.3.1] requires archaeologist input to preparation of cable route clearance. However, Historic England recommends (paragraphs 10.3 and 10.4 [REP1-046]) that all such post-consent survey and data analysis "must occur in a timely way to inform any pre-construction finalisation."</p> <p>The MMO is asked what additional security it would like to see provided by amendment to the outline WSI and the draft DMLs to enable the MMO advised by Historic England to be satisfied before construction commences that layout, cable routing and engineering design</p>	<p>The Applicant notes DCO 1.21 is directed towards Marine Management Organisation and shall not be responding.</p>

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Reference	Question to	ExAQ1	Applicant's response
		finalisation has been adequately informed in a timely way by archaeological survey data and analysis. Condition 20(1)(f) and/or Condition 20(2) and/or Condition 27 are also potentially affected.	
DCO 1.22	Marine Management Organisation	<b>Schedules 3 and 4 Part 2 Condition 20(1)(d)(i)(cc): cable monitoring burial surveys postconstruction</b> The MMO is asked if the CMS is an appropriate and adequate means to secure "periodic validation surveys of cable burial and protection" in the Operations and Maintenance phase, as proposed by the Applicant in the mitigation and monitoring schedule (item 7.27 [REP2-015]), considering that it is essentially a plan for the construction phase.	The Applicant notes DCO 1.22 is directed towards Marine Management Organisation and shall not be responding.
DCO 1.23	Applicant	<b>Schedules 3 and 4 Part 2 Condition 20(1)(e): Environmental Management Plan contents</b> Confirm the expected contents of the proposed Offshore Environmental Management Plan and the Marine Pollution Contingency Plan.	The Applicant will submit an outline Environmental Management Plan at Deadline 4.  The Applicant considers that the measures that would be included within an Environmental Management Plan and Marine Pollution Contingency Plan are industry standard measures, which are well understood by the MMO as the discharging authority. The Applicant notes that neither an Environmental Management Plan nor a Marine Pollution Contingency Plan were provided during application or examination by Awel y Mor or Hornsea Four (Secretary of State awarded the consents in 2023). In addition, a Marine Pollution Contingency Plan was not submitted into Examination by Sheringham and Dudgeon Extensions Projects (consented 2024). These post-consent documents are best drafted once design has been refined and contractors are able to provide specific details to inform the content of the plans.
DCO 1.24	Marine Management Organisation	<b>Schedules 3 and 4 Part 2 Condition 20(1)(e): Environmental Management Plan</b> Having regard to the Applicant's explanation in its written hearing summaries (item 41 [REP1-004]), would the MMO confirm the following: i) When it would expect final versions of these plans to be submitted for consultation with the MMO and other stakeholders. ii) Whether these plans should include reporting obligations to the Isle of Man authorities.	The Applicant notes DCO 1.24 is directed towards Marine Management Organisation and shall not be responding.



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Reference	Question to	ExAQ1	Applicant's response
		iii) If a separate EMP for the decommissioning phase should be secured by the DCO if made.	
DCO 1.25	Marine Management Organisation	<p><b>Schedules 3 and 4 Part 2 Condition 20(1)(e)(v)</b>            The MMO is asked to clarify:</p> <p>i) Whether it sufficient that the proposed Scallop Mitigation Zone (SMZ) is secured only through the outline FLCP, such that it would only effectively be secured under the condition to develop an offshore EMP.</p> <p>ii) The proposed SMZ is not referenced on the Works Plan [APP-082] whereas the outline fisheries liaison and co-existence plan (FLCP) [REP2-019] illustrates an "indicative SMZ". Should the Works Plan be amended to show the "indicative" SMZ and should co-ordinates for the SMZ be included in the draft DCO/DMLs?</p>	<p>The Applicant's position is that it would not be appropriate for the scallop mitigation zone (SMZ) to be shown on the Works Plan (APP-082). The Works Plan is a control document, referred to in requirement 2(2) of the draft DCO [S_D3_6 Draft DCO F05]:</p> <p><i>"2.—(1) The wind turbine generators to be constructed as part of the authorised development must be located within the area shown on the works plan."</i></p> <p>The works plan will be a certified document under schedule 5 of the draft DCO. It is not appropriate to include an 'indicative' area on a document that controls how the Proposed Development could be constructed, as until the area is fixed it could be changed.</p> <p>The Applicant considers that the inclusion of the SMZ within the fisheries liaison and co-existence plan (FLCP) is appropriate. That plan will be approved by the MMO in accordance with condition 20(1)(e)(v) of each dML Condition 21(3) of the dML provides:</p> <p><i>"The licensed activities must be carried out in accordance with the plans, protocols, statements, schemes and details approved under condition 20, unless otherwise agreed in writing by MMO."</i></p> <p>The final SMZ included in the FLCP will therefore require to be adhered to by the Applicant, and the SMZ can be enforced by the MMO.</p>
DCO 1.26	Applicant	<p><b>Schedule 4 Condition 20(g): Aids to navigation management plan</b>            Correct the reference to condition 18 in Schedule 4 to read condition 16 (Schedule 3 is correctly drafted in this regard).</p>	<p>This typographical error has been corrected in the draft DCO [S_D3_6 Draft DCO F05].</p>
DCO 1.27	Applicant Marine Management Organisation	<p><b>Schedules 3 &amp; 4 Condition 20(h)</b>            i) The ExA notes that Condition 20(h) of the draft DMLs [REP2-011] requires submission of a final Marine Mammal Mitigation Protocol (MMMP) for approval for piling operations and Unexploded Ordnance (UXO) clearance. Can the Applicant clarify if Condition 23(b) of the draft DMLs is therefore necessary and if so, why?            ii) In the event that there would be more than one final MMMP, can the Applicant comment if there is a need for</p>	<p>i) The Applicant considers that separate conditions are necessary. The intention of having a standalone condition 23 is to allow mitigation measures for UXO clearance to be approved, and that activity to be undertaken, before all of the statements, plans and schemes set out in condition 20(1) have been approved. The Applicant considers it standard industry practice to have bespoke MMMPs for the separate activities.</p> <p>ii) The Applicant does not consider there needs to be specific provision made within the dML for this purpose. The conditions that refer to the need to submit and have approved a MMMP all state that it must be <i>'in accordance with the</i></p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>coordination of their provisions to ensure consistency?</p> <p>iii) Can the Applicant clarify why Condition 20(h) does not contain a requirement for the MMO to consult the relevant statutory conservation nature body.</p> <p>iv) Can the Applicant and the MMO clarify if they would have any objection to including a provision that requires the MMO to consult the Isle of Man Government before approval of any MMMP?</p> <p>v) Can the Applicant clarify if Condition 28(3) of the draft DMLs should be incorporated into Condition 20(h).</p>	<p><i>outline marine mammal mitigation protocol'</i>. That wording ensures a degree of consistency from the outset. Furthermore, it is in the Applicant's interest to ensure there is a consistent approach. It is also considered that such consistency, to the extent necessary, can be suitably managed by the MMO. For the avoidance of any doubt the outline MMMP adopts a holistic approach (covering all relevant activity that will require a MMMP). When it comes to developing activity specific MMMPs for approval the information contained within the outline MMMP will be drawn upon, as necessary for the relevant activity in question. The Applicant does not consider it necessary at this stage to have separate outline MMMPs.</p> <p>iii) and iv) The Applicant does not consider this necessary to be included in a condition within the dML. The MMO is an experienced regulator in dealing with conditions of this nature. If the MMO considered it was necessary to consult the statutory nature conservation body or the Isle of Man Government, then they could do so. The Applicant does not consider it necessary to direct them to do so through the terms of the condition.</p> <p>v) No, the Applicant does not consider that this should be incorporated into condition 20. Condition 28 specifically relates to construction monitoring. It is linked to condition 20(1)(c) which requires certain monitoring to be undertaken and reports submitted to the MMO at various stages of the construction programme.</p>
DCO 1.28	Maritime and Coastguard Agency	<p><b>Schedules 3 and 4 Condition 25: Offshore safety management</b></p> <p>Can the MCA clarify if there is any MCA guidance regarding safety related to offshore renewable energy installations, other than MGN654 that should be expressly included in this condition.</p>	<p>The Applicant notes DCO 1.28 is directed towards Maritime and Coastguard Agency and shall not be responding.</p>
DCO 1.29	Applicant	<p><b>Schedules 3 and 4 Condition 27: Pre-construction monitoring</b></p> <p>Natural England (section 3.2, [REP1-054]) advises that geophysical survey design and analysis should be conducted in such a way as to enable adequate data collection for long term comparisons of change effects. Do you agree and if yes, how would that be secured through the IPMP?</p>	<p>Table 1.3 of the Offshore in-principle Monitoring Plan [REP2-013] sets out the Applicant's monitoring commitments for physical processes. This notes that the duration of any such surveys will be informed by the results of the first post construction monitoring in discussions with the regulatory authority and its statutory advisors.</p> <p>As the purpose of the monitoring is to monitor changes to, and recovery of, sandwaves, this will necessitate surveys to be undertaken periodically to be able to analyse sandwave recovery. If the sandwaves recovered in a short timescale,</p>

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Reference	Question to	ExAQ1	Applicant's response
			then the monitoring would be stopped. If comparison of data sets suggested that change was still occurring, then it is more likely that the monitoring would be continued.
DCO 1.30	Applicant	<p><b>Schedules 3 and 4 Condition 29(6): Post-construction monitoring</b>            Review if a new condition 29(6) requested by the MMO should be worded 'shall' or 'must' instead of "will"?</p>	<p>As set out by the Applicant in its response to the MMO's relevant representation (reference RR-020.31) within [PD1-017], the Applicant does not consider that the new sub-paragraphs (6) and (7) of condition 29 are necessary for inclusion in the dMLs.</p> <p>If the Secretary of State disagreed with the Applicant's position, then the Applicant would agree that the word "shall" should be used instead of "will" in paragraph (6).</p>
DCO 1.31	Applicant	<p><b>Schedules 3 and 4 Condition 29 Post-construction monitoring</b>            Provide further justification for the Applicant's position in [PD1-017] resisting any monitoring on the basis that the EIA shows no significant effects in EIA terms, having regard to the potential need for adaptive mitigation and management and that the MMO's [RR-020] and NE's [RR026] as well as the IoM Government's [RR-015] express concerns that conditions included within the draft DMLs do not secure any ecological monitoring post-construction. NE recommends that Monitoring of benthic, offshore ornithology and marine mammals should be conditioned, and the IoM Government and MMO seek monitoring of fisheries and cable burial.</p>	<p>The Applicant also refers to its response to question GEN1.8.</p> <p>The Applicant's determination of whether or not to commit to monitoring measures has not been determined solely on the basis of whether or not a significant effect (in EIA terms) was predicted to occur. Such a conclusion would be one reason that monitoring might be considered, but other factors were taken into account. Where a stakeholder has a particular concern about a specific impact on a defined receptor and/or the Applicant considers there is a genuine uncertainty where monitoring would be beneficial, then that has been taken into account.</p> <p>There are several examples (as set out in the Offshore in-principle Monitoring Plan [REP2-013]) where the Applicant has proposed monitoring despite no significant effect being predicted:</p> <ul style="list-style-type: none"> <li>- Monitoring of physical processes in respect of sandwave recovery</li> <li>- Monitoring for invasive non-native species. The Applicant recognised that this is a key concern for the Isle of Man Government and considered monitoring to be justified</li> <li>- Scallop monitoring commitments. The Applicant recognised that this is a key concern for fisheries stakeholders and considered monitoring to be justified.</li> <li>- Monitoring of colonisation of novel hard structures (i.e., gravity base foundations). This was not proposed by any stakeholder, but the Applicant recognised that it could increase an evidence base where there is an existing knowledge gap.</li> </ul>

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Reference	Question to	ExAQ1	Applicant's response
			<p>The Applicant has considered each monitoring request on a case-by-case basis. The Applicant considers that the requests for ecological monitoring beyond that already committed to is not justified by the predicted level of impact, or that project level monitoring is limited in its ability to deliver any robust outputs (as is the case for ornithology and marine mammals). Indeed, Natural Resources Wales have confirmed for the Mona Offshore Wind Farm that marine mammal monitoring is not necessary in view of the commitment to an Underwater sound management strategy (see 180. in Deadline 1 Submission - Written Representation (REP1-056)). The Applicant has provided a more detailed justification on the rationale for this position in its response to requests for ornithology and or marine mammal monitoring (see REP1-054.27 in S_D2_3 Applicant's Response to Written Representations (REP2-005), Issue Specific Hearing Summary notes 6.a) (S_D1_3 Hearing Summaries Prelim Meeting and ISH1 (REP1-004)) and RR-026.A.6. in 2.26 of Pre-Exam Procedural Deadline Submission - S_PD_3 Applicant's Response to Relevant Representations (PD1-017)).</p>
<b>Other</b>			
DCO 1.32	Applicant	<p><b>Schedule 5: Certified Documents</b> The Applicant is asked to check the documents contained within the certified documents and in particular the referencing for the Environmental Statements, considering the additional clarification notes and errata submitted to date.</p>	<p>The Applicant has updated Schedule 5 of the draft DCO [S_D3_6 Draft DCO F05].</p>
DCO 1.33	Applicant	<p><b>Made Development Consent Orders</b> Paragraph 4.4 of the EM [REP1-023] refers to comparable precedent orders. Triton Knoll Offshore Wind Farm Order 2013 and the National Grid (Yorkshire Green Energy Enablement Project) Order 2024 have been deleted from the previous version [AS-005] but both of these Orders are referred to within the EM. Could the Applicant include both of these projects within the table at paragraph 4.4 of the EM, or clarify why they have been deleted?</p>	<p>This deletion was in error and the Applicant has updated the Explanatory Memorandum [S_D3_7 Explanatory Memorandum F04] to correct this.</p>

## 2.7 Habitats Regulations Assessment

**Table 2.7: Response to ExAQ1: Habitats Regulations Assessment Questions.**

Reference	Question to	ExAQ1	Applicant's response
HRA 1.1	Applicant Natural Resources Wales	<p>Habitats Regulations Assessment Derogation NPS EN-1 paragraph 5.4.27 states that a derogation case should be provided by an Applicant as soon as is reasonably possible and before the close of the examination if a Statutory Nature Conservation Body (SNCB) gives an indication in Examination that the Proposed Development is likely to adversely impact the integrity of habitat sites.</p> <p>NE [RR-026 and REP1-053] have stated it is not satisfied that it can be excluded beyond reasonable scientific doubt that the Proposed Development would have an adverse effect alone or in-combination on the integrity of the following sites:</p> <ul style="list-style-type: none"> <li>• Liverpool Bay Special Protection Area (SPA);</li> <li>• Morecambe Bay and Duddon Estuary SPA and Ramsar;</li> <li>• Ribble and Alt Estuaries SPA and Ramsar;</li> <li>• Bowland Fells SPA;</li> <li>• Isles of Scilly SPA; and</li> <li>• Flamborough and Filey Coast SPA.</li> </ul> <p>The ExA notes that in recent decisions on offshore windfarms, the Secretary of State has agreed that derogations cases are required in relation to effects on the Flamborough and Filey Coast SPA.</p> <p>The Applicant is requested to provide an in principle derogations case in view of the SNCB position. The ExA is mindful of the Secretary of State's duties under the Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species</p>	<p>The Applicant notes that there has been no request from Natural England for a derogation case throughout the Evidence Plan Process, during discussions in the regular meetings held with Natural England including since submission of the application and during Examination. There has been no indication pre-application or post-application from any SNCB that they consider the Morgan Generation Assets is likely to have an adverse effect on integrity (AEOI) of any Special Areas of Conservation (SAC), SPAs or Ramsar sites. Paragraphs 5.4.26 and 5.4.27 of NPS EN-1 and 2.8.267 and 2.8.268 of NPS EN-3 set out that a derogation case should be submitted if such an indication is given. As no advice to that effect has been received, and for the reasons set out further below, the Applicant does not consider it necessary to submit a without prejudice derogation case at this time.</p> <p>The Applicant notes that whilst derogation may have become a common theme for many east coast offshore wind farm projects given their proximity to a relatively small number of designated sites on the east coast, it does not mean that all offshore wind farm projects are likely to require or should submit an in principle derogation case. In the case of the Morgan Generation Assets, the project has recorded relatively low numbers of birds and lies outwith what might be considered to be any particular area of sensitivity (with regard to designated features and their key foraging grounds). This was also demonstrated in The Crown Estate's Plan-Level HRA for the Offshore Wind Leasing Round 4 which concluded for the Morgan Generation Assets no adverse effects alone or in-combination on the integrity of any SACs, SPAs or Ramsar sites (TCE, 2022). The Applicant considers that from an ornithological perspective the Morgan Generation Assets represents low risk, an opinion also held by Natural England and communicated as part of EWG meetings (see below). The Applicant notes that it is common for Natural England to identify, as part of their Relevant Representations and Written Representations, a list of SPAs for which adverse effect cannot be ruled out beyond reasonable scientific doubt at the start of an Examination, particularly as a result of outstanding queries with methodological aspects of the assessments presented. The Applicant considers that during the Examination, it is likely that these methodological issues will be resolved and therefore an adverse effect ruled out for these SPAs. This is highlighted in Natural England's Relevant Representation (RR-026 comment B55) which states:</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>Regulations 2017, and of the impact of this submission on the smooth running of the Examination.</p>	<p><i>“While we are in general agreement with the Applicant that their project-alone impacts are low, Natural England do not currently consider it appropriate to comment on the assessment conclusions. This is due to a number of methodological issues. We would particularly highlight the issues arising from deviations from SNCB advice in the assessment of displacement and collision, and especially the consideration of historic impacts in the cumulative and in-combination assessments.”</i></p> <p>The Applicant has responded to specific points in relation to the issues raised and has submitted a number of clarification notes. A derogations case is not required for any of the SPAs included in Natural England’s Relevant Representation, and it is considered that the additional clarification notes provided should provide sufficient comfort to Natural England, and in turn satisfy the Secretary of State on this matter.</p> <p>Volume 2, Chapter 5: Offshore ornithology (APP-023), HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) and subsequent clarification notes provide detailed, robust, evidence-based assessments that in some cases have gone beyond the scope of evidence required for previous offshore wind farms that have been granted development consent.</p> <p>The assessments presented include considerable precaution which has led to impacts being over-estimated. For example, whilst it is possible to establish a conceptual overlap between the Flamborough and Filey Coast SPA, which is located in the North Sea, and the Morgan Generation Assets using generic approaches (e.g. the application of generic foraging areas and broad geographic boundaries), the likelihood of a kittiwake from this SPA interacting with the Morgan Generation Assets is extremely low. The identification of LSE for this SPA is a function of the precautionary assumptions incorporated into the assessments. In reality the impact to the kittiwake feature of the Flamborough and Filey Coast SPA is highly likely to be zero.</p> <p>The Applicant also notes that there is no connectivity between the Morgan Generation Assets and a number of other SPAs included in Natural England’s Relevant Representation. For example, for those features of the quoted SPAs, tracking data for the herring gull feature of the Morecambe Bay and Duddon Estuary SPA/Morecambe Bay Ramsar (Thaxter <i>et al.</i>, 2017), the lesser black-backed gull feature of the Bowland Fells SPA (Clewley <i>et al.</i>, 2017) and Ribble and Alt Estuaries (Scragg <i>et al.</i>, 2016) and the great black-backed gull feature of the Isles of Scilly SPA (Wernham <i>et al.</i>, 2002) have proven no connectivity with</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>the Morgan Generation Assets. Therefore, the impact from the Morgan Generation Assets on these features is zero, with the impact predicted in HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) again being a function of the considerable precaution incorporated into the assessments. Even if it were assumed that connectivity did exist between these and other SPAs, the impacts predicted for the Morgan Generation Assets are extremely low, representing an impact magnitude of less than one bird in many cases and not exceeding an increase in baseline mortality of 0.05% in many others.</p> <p>The Applicant also notes NRW's conclusion of no adverse effect on the Liverpool Bay SPA in their Relevant Representation (RR-027).</p> <p>At the EWG held in December 2023, Natural England stated (see Technical engagement plan appendices Part 4 (Appendix D) (APP-092)):</p> <p><i>"Natural England would not be able to agree that on this call without seeing the full application. It looks promising and I would be amazed if either Mona or Morgan Generation has adverse effects alone. I am also not concerned regarding in combination, but we would need to see the full application assessments. However, it looks good, the numbers look good."</i></p> <p>There has been no request nor suggestion of a need for a derogation case, nor advice that an adverse effect is likely from Natural England, and therefore a derogation case has not been produced and is not considered necessary. It is therefore considered that Natural England believe it is unlikely that a derogation case is required for the Morgan Generation Assets and that their concern in relation to the SPAs mentioned is purely due to methodological queries which can be resolved during the Examination, and are being progressed through the submission of clarification notes where required. Throughout all of the submitted clarification notes, the conclusions of the assessments have not changed even with the use of more precautionary parameters or the additional quantification of cumulative impacts (as in REP1-010), some of which have not been required for previous projects that were granted consent. This has therefore led the Applicant to maintain the position that there is no AEOL and to expect that at Deadline 4, there would also be confirmation from Natural England that an adverse effect can be ruled out for the Morgan Generation Assets.</p> <p>The Applicant notes that NE have not yet (due to prioritisation of resource elsewhere) managed to review all the submission material (NE have stated the expected response for Deadline 1 and 2 submissions is at Deadline 3) and, given time we expect that agreement can be reached on a conclusion of no AEOL. At</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>this stage in the Examination the Applicant believes there is ample opportunity to build on existing evidence, alleviate concerns, and reach an agreement with SNCBs that an AEOI can be ruled out for all SPAs and associated qualifying features. The Applicant discussed the ExA's question with NE during a regular meeting (held 06/11/2024) and it remains the Applicant's understanding that the need for a derogation case is unlikely. A further meeting to discuss methodological clarification points is arranged with NE (to be held 13/11/2024).</p>
HRA 1.2	Natural Resources Wales	<p>Welsh Designated Sites NRW [RR-027, point 25] has stated that it cannot yet reach conclusions on the level and significance of impacts to Welsh designated site features from the project alone, based on the information currently provided.</p> <p>NRW is requested to confirm its position whether an adverse effect beyond reasonable scientific doubt cannot be ruled out for any European site.</p>	<p>There has been no suggestion nor advice that an adverse effect is likely from Natural Resources Wales (NRW).</p> <p>As noted in HRA 1.1 above, the Applicant believes that the methodological issues raised by NRW can be resolved based on the submissions made to the Examination to date. The Applicant believes that an agreement that an AEOI can be ruled out for all designated sites and associated qualifying features can be reached before the end of the Examination.</p>
HRA 1.3	Applicant	<p>Design Envelope</p> <p>The HRA has assessed a worst-case scenario of up to 96 turbines with a maximum rotor diameter of 250m and maximum blade tip above LAT of 293m. Schedule 2 of the draft DCO [REP2-011] allows up to 96 turbines with a maximum rotor diameter of 320m and maximum blade tip above Lowest Astronomical Tide (LAT) of 364m.</p> <p>Can the Applicant explain why it considers the HRA has assessed the worst-case scenario and provide assurances that impacts of greater magnitude than have been assessed would not occur?</p>	<p>The maximum design scenario is characterised by the turbine scenario with the greatest number of turbines (collision risk), occupying the largest physical footprint (displacement). This is consistent with the maximum design scenarios identified for numerous previous offshore wind farm applications.</p> <p>In order to ensure that the maximum number of wind turbines (96) cannot be built with the maximum rotor diameter (320 m), the maximum rotor swept area was included in the draft DCO at Deadline 1 (Schedule 2, Requirements 2(2), Table 1) (REP2-011).</p>



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Reference	Question to	ExAQ1	Applicant's response
HRA 1.4	Natural England Natural Resources Wales	<p>Barrier Effects</p> <p>The Applicant states that “The likelihood of the Morgan Array Area resulting in barrier effects for qualifying features of SPAs are low...” (paragraph 1.4.5.16 of [APP-099]. The screening matrices [APP-099] further explain that this is due to the large foraging ranges used by seabirds and the large distances from the Morgan Array Area at which the SPAs are located.</p> <p>Do NE and NRW agree with the Applicant's statements and that barrier effects can be screened out for all phases?</p>	<p>The Applicant notes HRA 1.4 is directed towards NE/NRW and shall not be responding.</p>
HRA 1.5	Applicant Natural England Natural Resources Wales	<p>In-combination Effects at Screening</p> <p>Section 1.4 of the HRA Stage 1 Screening Report [APP-099] details the Applicant's overarching approach to assessing in-combination effects. For screening LSE in combination, it states that it is not necessary to consider in-combination effects for sites/features for which an LSE 'alone' has been identified – rather, it is for those where no LSE was concluded.</p> <p>However, this is contradicted in numerous screening matrices which state that (ExA emphasis): “Where the additional mortality associated with the Morgan Generation Assets is zero birds or it has been concluded for the project alone that there is no LSE it is considered that the Morgan Generation Assets will not act in-combination with other plans and projects and therefore no LSE is concluded” (eg. Table 1.67 note g [APP-099]).</p> <p>The ExA notes the Applicant's commitment to assessing in-combination effects where no LSE from the project alone has been</p>	<p>The HRA Stage 1 Screening Report (APP-099) identifies all SPAs and associated features for which there may be an LSE either from the project alone or in-combination based on defined criteria. In relation to the text presented in paragraph 1.4.5.23, stated in the first paragraph of the question (HRA 1.5), this is presenting a possible approach which is subsequently clarified in respect of the Morgan Generation Assets in paragraph 1.4.5.25:</p> <p><i>“Given the highly precautionary method for site selection applied during this Screening assessment, it is considered that the consolidation of information regarding external plans and projects would not likely result in additional LSEs being identified for the Screening assessment.”</i></p> <p>The screening exercise undertaken in the HRA Stage 1 Screening Report (APP-099) concludes LSE for all SPAs for which the impact from the Morgan Generation Assets represents more than zero. This approach is consistent with the principles outlined in paragraph 1.4.5.23. All in-combination assessments that would therefore be required based on the approach described in paragraph 1.4.5.23 are already provided in the HRA Stage 1 Screening Report (APP-099) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098).</p> <p>The principles in paragraph 1.4.5.23 are also applied in the Step 1 integrity test provided in HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098). The Step 1 integrity test, at paragraph 1.4.5.23, undertakes in-combination assessments for SPAs and associated qualifying features for which the impact from the Morgan Generation Assets, whilst not representing an adverse effect for</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>concluded, as set out in section 1.4 of the HRA Stage 1 Screening Report [APP-099].</p> <p>i) Can the Applicant provide such an assessment, where this has not been done within the HRA and identify the projects or plans considered?</p> <p>ii) Do NE or NRW consider that there is the potential for an in-combination LSE for any site/ feature where the Applicant has excluded a LSE from the project alone?</p>	<p>the project alone (impact represents less than a 1% increase in baseline mortality of the SPA population) may represent an adverse effect when considered in-combination with other plans and projects. If the potential for adverse effect is identified (in-combination represents more than a 1% increase in baseline mortality of the SPA population), the SPA is progressed to the Step 2 integrity test within which potential in-combination impacts are considered in more detail.</p>
HRA 1.6	<p>NatureScot Northern Ireland Department of Agriculture, Environment and Rural Affairs JNCC</p>	<p>HRA Stage 1 and Stage 2 Assessments The sites for which LSE could not be excluded include those in Wales, Northern Ireland and Scotland.</p> <p>NE's RR [RR-026] highlights need for Applicant to consult the relevant SNCBs on impacts to non-English sites. NRW's RR [RR-027] highlights concerns with the assessment.</p> <p>The SNCBs for Scotland and Northern Ireland (NatureScot, and the Department of Agriculture, Environment and Rural Affairs (DAERA)) have been invited to participate in the Examination as Other Persons in Appendix B of the ExA's Rule 6 letter [PD-001].</p> <p>The Applicant's response to NE [RR-026] [PD1-017, p142] confirms that it has consulted with all relevant stakeholders, including NatureScot, and refers to the Consultation Report [APP088], the Technical Engagement Plan [APP-094] and appendix D Part 4 [APP-092].</p> <p>Can NatureScot, DAERA and the JNCC confirm whether they are in agreement with the outcomes of the Applicant's HRA [APP-</p>	<p>The Applicant notes that consultation has been conducted with JNCC as part of the EWG process throughout the pre-application phase of the project (see - Technical engagement plan appendices Part 4 (Appendix D) (APP-092)).</p> <p>The Applicant has contacted NatureScot to discuss the application but is yet to receive a response.</p>

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Reference	Question to	ExAQ1	Applicant's response
HRA 1.7	Applicant	<p>096, 097, 098, 099 and APP-100] for the relevant nonEnglish sites?</p> <p>HRA Stage 2 Assessment – SPA/ Ramsars Table 1.46 (Summary of integrity test: Step 1) [APP-098] states that the breeding seabird assemblage feature of Rathlin Island SPA has been carried forward to Integrity Test: Step 2. Table 1.47 (SPAs and Ramsar sites and relevant offshore ornithological features for which the potential for adverse effects on integrity (AEol) could not be discounted in the integrity test: Step 1) [APP-098] does not include Rathlin Island SPA. Section 1.6.2 (Rathin Island SPA – feature accounts) lists guillemot of the Rathlin Island SPA, but not the breeding seabird assemblage feature.</p> <p>Can the Applicant confirm the outcome of the Step 1 integrity test for all features of the Rathlin Island SPA and if necessary, provide the feature account information for the breeding seabird assemblage feature omitted from Section 1.6.2?</p>	<p>The breeding assemblage of the Rathlin Island SPA does not require consideration in the Step 2 integrity test as the impact from the Morgan Generation Assets alone on all features that constitute the assemblage represents less than a 0.05% increase in the baseline mortality of the SPA population. This has been included in the Errata sheet (S_D3_6 Errata Sheet F04).</p>
HRA 1.8	Applicant	<p>HRA Stage 2 assessment – Special Area of Conservation (SAC) – Construction Method Statement</p> <p>The Applicant's Stage 2 SAC Report [APP-097] appears to rely upon measures in an Offshore Construction Method Statement (CMS) to avoid adverse effects on the qualifying features of the River Eden SAC from EMF associated with subsea electric cables. Table 1.20 [APP-097] makes the commitment to bury cables "where possible".</p> <p>Whilst submission and approval of an Offshore CMS is secured as condition 20(1)(d) of the deemed marine licence(s) within the draft DCO [REP2-011], an outline Offshore</p>	<p>Following receipt of the Interested Party submissions at Deadline 2 and the ExA Questions, the Applicant has committed to preparing an Outline Construction Method Statement (CMS), which will be submitted at Deadline 4.</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>CMS has not been submitted. The ExA therefore lacks confidence that the relevant commitment(s) would be secured.</p> <p>Can the Applicant provide an outline Offshore CMS, which encapsulates all relevant measures, can be referred to within relevant conditions and be certified within the DCO?</p>	
HRA 1.9	Applicant Natural England Natural Resources Wales	<p>HRA Stage 2 Assessment – SAC Condition Assessments</p> <p>The Stage 2 SAC Report [APP-097] notes that condition assessments are not available for a number of SACs. Can the Applicant and NE/ NRW confirm whether condition assessments have since become available or are likely to become available during the course of the examination for any of the following:</p> <ul style="list-style-type: none"> <li>• River Derwent and Bassenthwaite Lake SAC;</li> <li>• Solway Firth SAC;</li> <li>• North Anglesey Marine/ Gogledd Môn Forol SAC;</li> <li>• North Channel SAC;</li> <li>• Murlough SAC;</li> <li>• The Maidens SAC;</li> <li>• Bristol Channel Approaches/ Dynesfeydd Môr Hafren SAC;</li> <li>• Lundy SAC; and</li> <li>• Isles of Scilly Complex SAC</li> </ul>	<p>The Applicant is not aware that condition assessments for any of the Annex II marine mammal or diadromous fish features of the SACs listed in the ExA's question have become available since the submission of the development consent order application for the Morgan Generation Assets.</p>
HRA 1.10	Applicant	<p>Conservation Objectives</p> <p>Conservation Objectives are provided only for the SPAs/ Ramsars which reached Integrity Test: Step 2. The ExA will be considering the potential for adverse effects on all European sites that have reached Stage 2 in light of their conservation objectives.</p> <p>The Applicant is requested to:</p>	<p>Detailed assessments against the conservation objectives have been conducted for those SPAs where a likely significant effect has been identified and has progressed to the Step 2 integrity test.</p> <p>The Applicant will provide Conservation Objectives for all SPAs progressed to the ISAA for Deadline 4 and also identify those that are currently in unfavourable condition or have a restore objective.</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>i) Provide conservation objectives for all European sites for which a Likely Significant Effect has been identified.</p> <p>ii) Confirm whether any qualifying features of the European sites assessed in the Stage 2 SPA/ Ramsar Report [APP-098] are in unfavourable condition and/ or have a restore Conservation Objective target?</p>	
HRA 1.11	Applicant Natural England	<p>Environmental Management Plan and Liverpool Bay SPA</p> <p>NRW in its RR [RR-027] raises concerns around impacts to red-throated diver and common scoter of Liverpool Bay SPA from vessel movements, noting that the offshore EMP would include measures to minimise disturbance to rafting birds from transiting vessels. The Stage 2 SAC Report [APP-097] and Stage 2 SPA/Ramsar Report [APP-098] rely upon measures in an Offshore EMP to avoid adverse effects on marine mammal and offshore ornithological qualifying features.</p> <p>The Applicant has responded to concerns raised by NE and NRW [RR-026; RR-027] regarding potential disturbance and displacement impacts from vessel movements on qualifying features of Liverpool Bay SPA (page 144 [PD1-017]). NRW [REP1-056] has subsequently stated that "... based on the adoption of best practice vessel operations to minimise disturbance it is likely that an AEOI from operation and maintenance vessel movements can be ruled out...".</p> <p>Can the Applicant provide an outline Offshore EMP to provide assurance that all measures relied upon to avoid AEOI are secured? This should include any proposed measures to minimise disturbance to rafting birds from</p>	<p>The Applicant submitted measures to minimise disturbance to marine mammals and rafting birds from transiting vessels with the Morgan Generation Assets application (APP-070). Whilst the measures will form part of the Offshore EMP (as set out in the relationship of plans (APP-077)), the measures have already been set out in the document noted above, and are as follows (section 1.3):</p> <p><i>"...measures applicable to rafting birds (specifically common scoter and red-throated diver as features of the Liverpool Bay SPA) will be applied during transit through Liverpool Bay SPA to and from port and works areas.</i></p> <p><i>The following measure options will be discussed with the MMO through finalisation of the Offshore EMP:</i></p> <ul style="list-style-type: none"> <li><i>It is proposed that key vessels will use indicative vessel transit corridors, as detailed in the Outline vessel traffic management plan (Document Reference J16). Increased vessel traffic during construction, operations and maintenance, and decommissioning may potentially lead to disturbance and displacement of common scoter and red-throated diver species within Liverpool Bay SPA as assessed and stated in Volume 2, Chapter 5: Offshore ornithology of the Environmental Statement (Document Reference F2.5). However, no significant effects are predicted due to this disturbance, as noted in section 1.1. Use of regular vessel transit routes which follow, where possible, established shipping routes within Liverpool Bay or chartered approaches to ports and harbours will nonetheless act to restrict the spatial distribution of such disturbance and minimise any potential disturbance as far as possible</i></li> <li><i>All vessels associated with the Morgan Generation Assets will use an Automatic Identification System (AIS) which broadcasts the location of the vessel and is monitored by the Projects' Marine Co-ordination Centre".</i></li> </ul> <p>The measures also state that the Morgan Generation Assets will incorporate the principles of the Wise Scheme (or other similar scheme) which is endorsed in</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>transiting vessels, noting this is a specific concern of NE [RR-026] and NRW [RR-027] in relation to qualifying features of Liverpool Bay SPA. Can Natural England subsequently confirm whether the Applicant's response addresses their concerns and what mitigation, if any, would allow them to agree that an AEol could be excluded?</p>	<p>other relevant codes of conduct for water users, including those produced by both Defra (Defra, 2023) and NatureScot (NatureScot, 2023). The Applicant has committed to providing an Outline Offshore EMP at Deadline 4.</p>

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**2.8 Historic Environment**

**Table 2.8: Response to ExAQ1: Historic Environment Questions.**

Reference	Question to	ExAQ1	Applicant's response
HE 1.1	Historic England	Dimensional Parameters for Archaeological Exclusion Zones Historic England is asked to confirm whether the dimensional parameters for Archaeological Exclusion Zones proposed in the Outline Written Scheme of Investigation (WSI) [APP-069] are acceptable.	The Applicant notes HE 1.1 is directed towards Historic England and shall not be responding.
HE 1.2	Historic England	Assessment of Residual Risk of Harm to Archaeology In paragraph 4.11 Historic England's WR [REP1-046] HE does not agree the conclusion of no significant effects after mitigation in the ES [APP-026], on the basis that the assessment does not accurately reflect the residual risk of harm to archaeological assets despite embedded mitigation proposed. Historic England is asked to comment further on whether it is satisfied with the response given by the Applicant at section 2.4 [REP2-005] and if not, what it would need to be satisfied that effects after mitigation would not be significant in EIA terms.	The Applicant notes HE 1.2 is directed towards Historic England and shall not be responding.
HE 1.3	Historic England	Revised Mitigation and Means of Securing the Commitments Please review and confirm your acceptance or otherwise of the amended mitigation and means of securing the commitments in the revised Mitigation and Monitoring Plan [REP2-016 with tracked changes].	The Applicant notes HE 1.3 is directed towards Historic England and shall not be responding.
HE 1.4	Applicant	Additional Security for Effective Pre-Construction Response to Archaeological	The Applicant does not consider that alternative wording is needed within the draft DCO to secure this.

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Reference	Question to	ExAQ1	Applicant's response
		<p>Survey</p> <p>With regard to Historic England's concerns [REP1-046] that the DMLs should secure that any archaeological investigation in the pre-construction phase would "adequately inform the planning and engineering design", can it propose alternative wording of a DML condition to give comfort by clearly specifying that a post-consent WSI must address that point.</p>	<p>The Applicant has already undertaken a range of pre-construction surveys to inform its understanding of the potential for the Proposed Development to impact archaeology, all as reported on within Environmental Statement - Volume 2, Chapter 8 Marine archaeology and cultural heritage [APP-026]. That has informed the mitigation measures included in the project design and proposed further mitigation measures as set out in table 8.17 of APP-026.</p> <p>Those mitigations are secured within condition 20(1)(f) of each dML within the draft DCO, which requires a written scheme of investigation (WSI) to be submitted to and approved by the MMO, in consultation with Historic England, prior to commencement of development. Amongst other things, that WSI must include details of:</p> <ul style="list-style-type: none"> <li>• a methodology for further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations</li> <li>• archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO within four months of any survey being completed;</li> <li>• a timetable for all further site investigations, which must allow sufficient opportunity to establish a full understanding of the historic environment within the Order limits and the approval of any necessary mitigation required as a result of the further site investigations prior to commencement of licensed activities;</li> <li>• details for mitigation and monitoring.</li> </ul> <p>An outline offshore written scheme of investigation for archaeology has been submitted with the application [APP-069]. As noted in paragraph 8.7.2.2 of APP-26, the Applicant will agree archaeological exclusion zones with Historic England and the MMO, which will then be marked on the design plan (as approved by the MMO under condition 20(1)(a)).</p> <p>The Applicant considers that, based on the surveys undertaken to date, it has a good understanding of the potential for the Proposed Development to impact marine archaeology and has proposed suitable mitigation accordingly. The Applicant will be undertaking further geotechnical and geophysical surveys to inform the final design of the Proposed Development. If those surveys identified further potential anomalies, then those would be included within the scope of the WSI.</p> <p>The Applicant would not design the Proposed Development in a manner that is likely to cause a significant impact on marine archaeology, as that will result in restrictions on construction work through archaeological exclusion zones or temporary archaeological exclusion zones. Any surveys and archaeological investigation during the pre-construction phase would by its nature inform the final design, including mitigations such as archaeology exclusion zones that would be in place.</p>



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Reference	Question to	ExAQ1	Applicant's response
			The Applicant considers that suitable, industry standard, mitigations are secured through the proposed WSI.
HE 1.5	Applicant	<p>Improvements to the Outline Offshore WSI</p> <p>In section 7 of Historic England's WR [REP1-046] HE makes a number of requests for editing and improvement of the outline offshore WSI for archaeology, particularly regarding survey methodology. To capture your responses to Historic England's WR, the ExA requests that you produce an amended outline WSI by Deadline 4 to enable further review by Historic England and to assist the final SoCG at Deadline 6.</p>	The Applicant agrees to make amendments to the WSI and produce an amended outline Written Scheme of Investigation (WSI) which shall be submitted to Historic England for review and approval ahead of Deadline 4.
HE 1.6	Applicant	<p>Cable Survey Requirements During Operations and Maintenance</p> <p>In paragraph 2.8 Historic England's WR [REP1-046] HE advises that cable survey requirements during operations and maintenance need to be adequately informed by an understanding of dynamic seabed conditions (to manage risk of adverse effects to archaeology).</p> <p>Advise what commitment is proposed to ensure this and how it would be secured.</p>	<p>Within the Mitigation and Monitoring Schedule (REP2-015) and the Outline Fisheries Liaison and Co-existence plan (S_D3_12 Outline Fisheries Liaison Co-existence Plan F03) the Applicant has committed to the development of and adherence to a Cable Method Statement, including a Cable Specification and Installation Plan that details cable protection management and scour protection management, to outline cable burial depth, which includes consideration of seabed level change, cable protection and monitoring of inter array and interconnector cables. Due consideration is therefore given to dynamic seabed conditions within the application.</p> <p>The Outline WSI (APP-069) sets out the Applicant's commitment to avoid adverse effects on as yet unknown archaeological assets that may be exposed during the lifetime of the project including cable survey requirements during operations and maintenance. Details of operations and maintenance activities are set out in 3.7 of Section Volume 1, Chapter 3: Project Description (APP-010) and Section 1.4 of the Outline offshore operations and maintenance plan (APP-079).</p> <p>The Protocol of Archaeological Discoveries (PAD) discussed in Section 1.6.5 of the Outline WSI (APP-069) covers the reporting and investigating of unexpected archaeological discoveries encountered not only during construction but also during operations and maintenance and decommissioning. The PAD makes provision for the implementation of Temporary Archaeological Exclusion Zones (TAEZs) around areas of possible archaeological interest, to allow for archaeological input and, if necessary,</p>

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Reference	Question to	ExAQ1	Applicant's response
			inspection of important features prior to further construction, maintenance or decommissioning activities in the vicinity. The response to reported finds may include further surveys or establishment of new Archaeological Exclusion Zone (AEZs) if appropriate. Add in covered during operation
HE 1.7	Applicant	Micrositing Allowance Related to Archaeological Mitigation Review with Historic England and report on any consequential effects to archaeological impact mitigation of changing the micrositing allowance in response to MCA's SAR requirements from 125m to the 50m dimension predated in previous made orders for OWFs, and update the Layout principles 5 and 6 accordingly.	<p>The Applicant confirms they will discuss this with Historic England as part of the SoCG. The Applicant considers that there will be no change in the significance of effect on archaeology. Through the use of AEZs and TAEZs, known and as yet unknown archaeological assets identified during future pre-construction surveys will be avoided.</p> <p>There is also a benefit that by reducing the limit of micrositing to 50m this reduces the risk of impacting known or as yet unknown archaeological assets that may lie beyond the 50m limit. Where avoidance is not possible (and depending on the significance of the archaeological resource) the disturbance of archaeological sites or material can be mitigated by preservation by record following a strategy agreed in consultation with Historic England.</p>
HE 1.8	Applicant	SoCG with Historic England Submit a SoCG with Historic England at Deadline 3.	The Applicant and Historic England have made significant progress in advancing a draft SoCG, but have not managed to agree an approved draft for submission at this deadline. It is anticipated that a SoCG will be submitted for Deadline 4.
HE 1.9	Applicant	Paragraph Numbering of page 37 of the ES Volume 2, Chapter 8 The paragraph numbering of page 37 of the ES Chapter 8 [APP-026] is incorrect, therefore the Applicant should submit a corrected version.	<p>The paragraph numbering on page 37 of APP-026 is correct. The paragraph numbering on page 38 has a formatting issue. The correct paragraph references are as follows:</p> <ul style="list-style-type: none"> <li>• 8.1.1.4 should be 8.5.2.14</li> <li>• 8.1.1.5 should be 8.5.2.15</li> <li>• 8.1.1.6 should be 8.5.2.16</li> <li>• 8.1.1.7 should be 8.5.2.17</li> <li>• 8.1.1.8 should be 8.5.2.18</li> <li>• 8.5.2.14 should be 8.5.2.19.</li> </ul> <p>This is considered a non-material matter, and therefore no further updates are considered to be required.</p>
HE 1.10	Isle of Man Government Territorial Seas Committee	Setting of Isle of Man Heritage Assets Table 1.2 (and Figures 1.6 and 1.7) of the Cultural Heritage Assessment in ES Volume 4, Annex 8.2 [APP-062] indicates that there are 44 Ancient Monuments, 195 Registered Buildings and 18 Conservation Areas on the	The Applicant notes HE 1.10 is directed towards Isle of Man Government Territorial Seas Committee and shall not be responding.

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Reference	Question to	ExAQ1	Applicant's response
		<p>IoM within the settings study area and ZTV for the Proposed Development. Similarly, Figure 1.9 and Table A.2 set out the heritage assets on the Isle of Man taken forward for assessment.</p> <p>The IoM Government's LIR [REP1-047] does not include any commentary on effects on setting of terrestrial heritage assets on the IoM. Whilst noting that the Applicant has submitted a 'letter of comfort' from Manx National Heritage [REP1-036], it is not an IP in this Examination.</p> <p>Could the Isle of Man Government:</p> <ul style="list-style-type: none"> <li>i) Explain whether Manx National Heritage forms part of the Isle of Man Government, and if it has any comments to make on the 'letter of comfort' from Manx National Heritage.</li> <li>ii) Provide details of any policies and/or legislation which apply to consideration of the settings of heritage assets.</li> <li>iii) Confirm whether it is in agreement with the Applicant's approach to assessment in section 8.5.2 of ES Volume 2, Chapter 8 [APP-026] which notes that in the absence of a formal definition of the setting of a historic asset on the IoM, the definition used for this assessment is the one defined in the UK's National Planning Policy Framework, an approach that has previously been used with the approval of Manx National Heritage on other projects on the IoM.</li> <li>iv) Provide details of the status of the IoM's heritage assets taken forward for assessment including any descriptions or assessments of their significance that are available.</li> </ul>	

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Reference	Question to	ExAQ1	Applicant's response
		<p>v) Confirm whether it is satisfied with the selection of viewpoints within the vicinity of a range of the Isle of Man's heritage assets as included in ES Volume 4, Annex 10.6 [APP-039, 40, 41, 42, 43 and APP-044].</p> <p>vi) Provide comment on whether it is satisfied with the content of ES Volume 2, Chapter 8 [APP-026] and ES Volume 4, Annex 8.2, the Cultural Heritage Assessment [APP-062], relating to:</p> <ul style="list-style-type: none"> <li>o The list of heritage assets taken through to assessment (Table A.2 [APP-062]), and the Applicant's reasons for scoping out other heritage assets set out in the Gazetteer (pages 120 to 145 [APP-062]).</li> <li>o The conclusions of [APP-026] relating to effects on setting of Isle of Man heritage assets both project-alone (section 8.8.7) and cumulatively (section 8.10.6). In particular, the ExA seeks your comments on cumulative Scenario 3, which concludes moderate adverse effects (significant in EIA terms) for: the Point of Ayre lighthouse (147); the Point of Ayre fog horn (297); the small lighthouse on the Point of Ayre Beach known as Winkie (298); and the Maughold lighthouse (300).</li> </ul>	
HE 1.11	Historic England Natural England	<p>World Heritage Sites</p> <p>The ExA notes from Historic England's WR [REP1-046] that it is "prepared to agree with the assessment presented that effects during construction, operations and maintenance, and decommissioning of the Morgan Generation project on the assessed designated historic assets within the English study area are not significant in EIA terms" (para 4.9) and that it has "no further comment or other advice to offer regarding the conclusions drawn by the Applicant, as</p>	The Applicant notes HE 1.11 is directed towards Historic England and Natural England and shall not be responding.

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Reference	Question to	ExAQ1	Applicant's response
		<p>relevant to any cumulative impact on the setting of heritage assets in the English coastal zone” (para 6.3).</p> <p>However, no specific comments are made by Historic England or Natural England regarding the Applicant's assessment of World Heritage Sites (WHS), of which both Hadrian's Wall and the English Lake District were scoped out of assessment for the reasons given in Appendix B of the Cultural Heritage Assessment [APP-062].</p> <p>Nonetheless, the Seascape Landscape and Visual Impact Assessment (SLVIA) includes at Annex 10.5 [APP-038] an assessment of effects of the Proposed Development on the English Lake District WHS, and there are a number of viewpoints taken from within the WHS (Figures A.1 to A.3 [APP-038] and Annex 10.6 [[APP-039, 40, 41, 42, 43 and APP-044]]).</p> <p>Historic England and Natural England are asked:</p> <ul style="list-style-type: none"> <li>i) Whether they agree with the Applicant's reasons for scoping the WHS out of the Heritage Impact Assessment.</li> <li>ii) Provide comment on the above-mentioned SLVIA documents which relate to the WHS.</li> </ul>	

## 2.9 Marine Fish & Shellfish Ecology

Table 2.9: Response to ExAQ1: Marine Fish & Shellfish Ecology Questions.

Reference	Question to	ExAQ1	Applicant's response
MFS 1.1	Applicant	References for mitigation proposed in ES Volume 2, Chapter 3 References to "section 3.7.1.2" throughout ES Volume 2, Chapter 3 [APP-021] for mitigation proposed appear to be incorrect. Confirm if these references intend to refer to section (paragraph) 3.8.1.2 of [APP-021]. If so, this should be reflected in an errata document.	The Applicant confirms the mitigation measures are in section (paragraph) 3.8.1.2 and will reflect this change in S_D3_5 Errata Sheet F04.
MFS 1.2	Marine Management Organisation Natural England Natural Resources Wales	Seasonal Exclusion Period for Piling A seasonal piling restriction has been suggested by Natural England [RR-026] and the MMO [RR-020] to mitigate underwater sound and vibration effects on herring and cod during installation of the offshore substation. The Applicant's Deadline 1 submission in response to Issue Specific Hearing 1 Action Point 14 [REP1-009] states that the application of blanket seasonal restrictions at this stage could be disproportionate to the ecological risk.  i) What is the MMO and Natural England's view on the proportionality point?  ii) Is any further evidence available to help define an appropriate and informed 'sensitive' exclusion period for the area of the Proposed Development?  iii) Could a refined spatial piling	The Applicant is continuing to engage with the MMO (including a meeting with the MMO and Natural England on 24/10/2024) on measures to mitigate effects of underwater sound on herring and cod and would welcome further clarification on these points so the UWSMS can be refined further during and post examination.  In regard to point iv, the Applicant has discussed this with the MMO and Natural England and has agreed wording on this point to be included in the Statement of Common Grounds. The Applicant, Natural England and the MMO have agreed that soft starts and ramp ups will only be of benefit to reduce potential for injury effects on fish species and not for behavioural effects. It should be noted that these will only be effective for some fish species and that this measure is not necessary to rule out significant injury effects on fish, as discussed in the meeting on 24/10/2024.  The Applicant looks forward to continued engagement on these matters with the MMO and other relevant statutory nature conservation bodies to develop appropriate mitigation through the UWSMS. The Applicant continues to maintain that no further changes are necessary to the deemed Marine Licences to mitigate potential underwater sound impacts on fish and shellfish receptors.

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Reference	Question to	ExAQ1	Applicant's response
		<p>exclusion area be defined instead of an exclusion period over the whole array area?</p> <p>iv) Noting that soft-start ramp ups has been explicitly rejected by the MMO, Natural England and NRW as a primary mitigation measure to reduce the risk of injury/mortality to fish, what type of measures are feasible and specific to fish that could prevent the need for a seasonal piling restriction?</p> <p>v) Are any changes necessary to the draft DCO/DMLs to reflect seasonal piling restrictions as a fallback position in the event that appropriate post consent controls/measures are not able to be agreed in the final Underwater Sound Management Strategy?</p>	
MFS 1.3	Applicant Marine Management Organisation Natural England	<p>Scoped Out Impacts</p> <p>In its Scoping Opinion the Planning Inspectorate advised that it was not content to scope out the possible impacts of underwater wind turbine sound and it reserved its position on scoping out underwater sound from vessels. There does not appear to be any information on wind turbine sound impacts on fish and shellfish receptors during the operational phase submitted. The ExA notes the justification provided in Table 3.8 of ES Volume 2, Chapter 3 [APP-021] but is unclear if the evidence referenced can be applied to turbines of the size and number proposed.</p> <p>i) Can the Applicant provide project</p>	<p>The Applicant refers to Table 3.8 in Volume 2, Chapter 3 [APP-021], which sets out the evidence base for scoping out operational wind turbine sound as an impact on fish and shellfish receptors. Scoping out this impact was agreed in the scoping phase and reaffirmed during the Expert Working Groups [EWG Agreement Log F02, 29/11/2022].</p> <p>In terms of specific modelling, Volume 3, Annex 3.1 [APP-028] modelled the impact of operational wind turbine sound on sensitive Group 3 and 4 fish receptors, with the conclusions presented in Section 1.9.3, Paragraph 1.9.3.4 and Table 1.55 which demonstrate that the recoverable injury threshold will not be exceeded if a fish were to remain near the turbine for 48 hours of operation, and the TTS threshold was only exceeded within 5 m of the turbine (if a fish remained in the area for 12 hours of operation). The Applicant maintains that these low impact ranges justify scoping out this impact as the noise levels are too low to have any potential effects on fish and shellfish receptors. As set out above, the approach to scoping of impacts was discussed during the pre-application phase and this has also been agreed with the MMO as set out in the SoCG [REP1-035] in MMO.FSF.3. No objection has been raised on this point by Natural England in their Risk and Issues Log [REP2-033, Tab E Fish and Shellfish Ecology].</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>specific information on underwater sound from wind turbines during the operational phase?</p> <p>ii) Can the MMO and NE advise of any specific concerns regarding potential underwater sound from turbines and/ or vessels during the operational phase impacting fish and shellfish receptors?</p>	
MFS 1.4	Applicant	<p>Maximum Design Scenario Discrepancies in Table 3.18</p> <p>The MDS for long term habitat loss during Construction, Operations and Maintenance Phases in Table 3.18 of ES Volume 2, Chapter 3 [APP-021] states up to 1,309,252m<sup>2</sup> of long term habitat loss in total, with 735,488m<sup>2</sup> from the presence of up to 68 wind turbine foundations and 24,964m<sup>2</sup> from the presence of four OSPs on suction bucket four legged jacket foundations with scour protection; and 510,000m<sup>2</sup> of habitat loss from cable protection for interarray and inter-connector cables, and 38,000m<sup>2</sup> of habitat loss for cable crossing protection.</p> <p>However, the MDS for introduction and colonisation of hard structures states up to 1,791,198m<sup>2</sup> of artificial structures comprising of up to 68 turbines and four OSPs on suction bucket foundations with scour protection, and the same amount of cable protection as that stated in the MDS for 'long term habitat loss'.</p> <p>i) Can the Applicant explain why the</p>	<p>The Applicant refers to the marine physical processes and benthic ecology response to this comment in MP 1.8 as the response is applicable to fish and shellfish receptors.</p>



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Reference	Question to	ExAQ1	Applicant's response
		<p>MDS figures for long term habitat loss and the introduction and colonisation of hard structures are not the same m<sup>2</sup> areas when the same number and type of turbines/OSPs and length/width/percentage of scour and cable protection parameters are used for the MDS in both impacts?</p> <p>In addition, the justification column for the MDS for long term habitat loss and the introduction and colonisation of hard structures states the MDS for both impacts is based on the maximum number of wind turbine and OSP foundation types. Given that the maximum number of wind turbines proposed in the Application is 96, it is unclear why the MDS for both impacts refers to 68 turbines only.</p> <p>ii) The Applicant is required to review the discrepancy in the MDS and justification columns in Table 3.18 and submit an updated ES Chapter if revisions are required.</p>	
MFS 1.5	Applicant	<p>Possible Correction to Paragraph 3.9.2.11 Paragraph 3.9.2.11 of ES Volume 2, Chapter 3 [APP-021] refers to the magnitude of impact on “most subtidal IEFs”. The ExA assumes that this is this meant to say, “most fish and shellfish ecology IEFs”.</p> <p>Can the Applicant clarify and include any revision in the errata sheet.</p>	<p>The Applicant agrees and thanks the ExA. The Applicant clarifies that ‘most subtidal IEFs’ is meant to say ‘most fish and shellfish ecology IEFs’ will reflect this change in S_D3_5 Errata Sheet F04.</p>

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Reference	Question to	ExAQ1	Applicant's response
MFS 1.6	Applicant, Marine Management Organisation Natural England	<p>Recovery Period for Temporary Habitat Loss/Disturbance</p> <p>Paragraph 3.9.2.18 of ES Volume 2, Chapter 3 [APP-021] states that the recoverability and rate of recovery of an area after large scale seabed disturbance is linked largely to substrate type, but that gravelly and sandy habitats, similar to those found in the Morgan fish and shellfish ecology study area, have been shown to return to baseline species abundance in 5-10 years.</p> <p>Paragraph 3.9.2.61 states that the MDS for the decommissioning phase assumes that all foundations and cables will be removed and that the decommissioning sequence will generally be a reverse of the construction sequence.</p> <p>Assuming that it would take another 5-10 years post decommissioning to return to the baseline species abundance, can the Applicant, the MMO and Natural England advise why the impact of construction and decommissioning on large scale seabed disturbance should not be reconsidered as a long-term habitat loss impact.</p>	<p>The Applicant acknowledges the potential 5-10 year recovery period following large scale seabed disturbance, as detailed in Volume 2, Chapter 3 [APP-021] paragraphs 3.9.2.17-18, although this is only in relation to gravelly and sandy habitats and would be dependent upon local sediment transport processes which would influence recovery rates of sediments and benthic communities. For many fish and shellfish species, recovery will occur over a much shorter time scale as these are mobile species (to varying degrees) and individuals will start to recolonise affected areas quickly following installation of infrastructure. Further, evidence from monitoring programmes at other offshore wind farms (as set out in Volume 2, Chapter 3 [APP-021]) have shown a recovery trend towards pre-construction baseline communities within 3 years for fish and shellfish communities, which is not considered to be a long-term impact. This is corroborated by The Crown Estate Cables Project, which monitored sediment recovery from the monitoring reports of 20 UK offshore wind farms following cable installation [APP-021, paragraph 3.9.2.9], with this review reporting that coarse and mixed sediment habitats that experienced seabed disturbance tended to return to baseline conditions within a few years, with little or no evidence of further disturbance in the years following cessation of construction activity.</p> <p>Therefore, while some sediments have the potential to take up to 5-10 years to fully recover to a baseline condition, in most cases recovery of fish and shellfish will occur much faster and therefore not predicted to be long term. For those areas where full recovery of sediment and associated communities may take a longer period of time (e.g. up to 5-10 years), these will be limited in scale, representing a very small proportion of the total temporary habitat loss footprint (noting that some recovery of mobile species will still occur in these areas). For these reasons, the significance of effect will be, at worst, minor adverse significance and therefore not significant in EIA terms.</p>
MFS 1.7	Applicant	<p>Inter-related Effects</p> <p>Paragraph 3.9.3.6 of ES Volume 2, Chapter 3 [APP-021] states that sound sources such as cable installation are non-percussive and will result in much lower sound levels and therefore smaller injury ranges than those</p>	<p>Other sources of sound including cable installation and drilling are known to be non-percussive with low ranges of impacts. Specific detail on modelling parameters and assumptions for these activities is provided in Table 1.19 (for drilling) and Table 1.20 (for cable installation) in Volume 3, Annex 3.1 [APP-028]. Modelling was also undertaken to calculate TTS and recoverable injury ranges for a wide range of other potential sound sources.</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>predicted for piling, and so are not considered further for effect on fish and shellfish receptors. While the effect of two or more pressures acting together may not necessarily be additive this does not rule out such a possibility occurring.</p> <p>Can the Applicant advise whether there would be any inter-related effects on fish and shellfish receptors from these non-percussive operations occurring at the same time as piling, and if not, why not.</p>	<p>Specifically, Table 1.51 presented ranges for drilling, Table 1.55 presented ranges for operational wind turbines, and Table 1.57 presented ranges for construction activities other than piling.</p> <p>In all cases, the conclusions from the modelling demonstrated that these activities will produce sounds with negligible overall impact on fish and shellfish receptors, with a maximum TTS range of 27 m if fish remain around sandwave clearance, installation vessels, or rock placement activities for 12 hours continuously (noting these ranges are likely to be conservative). The construction activities will have minimal to no temporal overlap with the piling activities, further reducing the potential for inter-related effects, and there will be no overlap between piling and the operation and maintenance phase.</p> <p>As all of these activities represented only negligible increases to overall impacts on fish and shellfish receptors, the Applicant maintains that these non-percussive sound sources would not contribute materially to any inter-related effects overall, which is reaffirmed through the response to MFS 1.3 in relation to these sound sources being scoped out. This is particularly in the context of the range of effects of piling operations, which will occur at a scale of orders of magnitude greater than these non-percussive sound sources.</p>
MFS 1.8	Applicant	<p>Piling MDS Clarification Paragraph 3.9.3.8 of ES Volume 2, Chapter 3 [APP-021] states that the pin piling activities are represented by the installation of up to 64 pin piled four legged jacket foundations with one pile per leg (up to 256 piles total). Paragraph 3.9.3.9 then states that up to 96 gravity base foundations will be installed but 10 might need ground strengthening using pin piles at 15 per foundation (up to 150 piles total).</p> <p>The MDS for piling in ES Volume 2, Chapter 4 (see Table 4.16 [AS-010]) states that up to 32 gravity base foundations will be installed, with up to 10 possibly needing strengthening.</p> <p>Please clarify which is the correct number of gravity base foundations in the MDS for piling sound given the</p>	<p>The overall maximum number of gravity base foundations presented in the project design envelope is 96. The maximum design scenario in terms of underwater sound is set out for marine mammals in Table 4.16 of Volume 2, Chapter 4 (AS-010), and also for fish and shellfish receptors in Table 3.18 of Volume 2, Chapter 3 [APP-021] is up to 64 four-legged jacket foundations (as concluded by underwater sound modelling). The remaining foundations could be up to 32 gravity base foundations, with 10 possibly needing ground strengthening using 15 pin piles per foundation. This represents the maximum design scenario for underwater sound impacts on fish and shellfish receptors and marine mammal receptors. The Applicant clarifies that the maximum number of foundations is 96, and therefore it is possible that all 96 will use gravity base foundations if no four-legged jacket foundations were installed, although this would not represent the maximum design scenario for underwater sound impacts.</p>

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Reference	Question to	ExAQ1	Applicant's response
MFS 1.9	Applicant	<p>discrepancy in the aforementioned ES Chapters?</p> <p>Cumulative Effect Underwater Sound Discrepancies Paragraph 3.11.3.7 of ES Volume 2, Chapter 3 [APP-021] relating to cumulative impacts from underwater sound, states that in cumulative effects Scenario 3 (Tier 1) the effects to cod from the addition of the Mona Offshore Wind Farm in construction phase are considered not significant. In addition, cod is not mentioned at all for cumulative impacts with Awel y Mor in Paragraph 3.11.3.7. However, in supporting Table 3.35 for Scenario 3, Tier 1, the cumulative significance of effect for cod is reported as moderate adverse, which is significant in EIA terms.</p> <p>The Applicant is requested to review these discrepancies and provide an updated assessment.</p>	<p>The Applicant has concluded the cumulative impact to cod from underwater sound for Tier 1 projects is moderate adverse (with the project alone assessment of underwater sound impacts on cod being concluded as minor adverse and therefore not significant). The text referenced in the ExA question is describing the conclusion of the Mona Offshore Wind Project impact assessment for that project alone, which concluded that the effect would not be significant. As described in Volume 2, Chapter 3 [APP-021] paragraph 3.11.3.9, the summary cumulative effects assessment, including a conclusion of moderate adverse impact to cod and herring, has been presented in Table 3.35 and the cumulative impact summary in Table 3.42.</p>

## 2.10 Marine Mammals

Table 2.10: Response to ExAQ1: Marine Mammals Questions.

Reference	Question to	ExAQ1	Applicant's response
MM 1.1	Applicant	<p><b>Concurrent Piling</b> Can the Applicant:</p> <p>i) Clarify what is meant by concurrent piling, i.e. two rigs at one turbine site, or one rig only at two turbine sites.</p> <p>ii) Provide evidence of the measures that would be put in place to ensure that no more than two concurrent piling events would take place and set out how this would be secured in the DCO.</p>	<p>The Applicant confirms that concurrent piling refers to two vessels piling at the same time with one piling rig onboard each vessel at two different locations. For the impact of injury as a result of piling, the Maximum Design Scenario (MDS) assumed concurrent piling would occur at adjacent locations (see Table 4.16 in Volume 2, Chapter 4: Marine Mammals (AS-010)) whereas for behavioural effects the assumption was that the piling vessels would be located at the furthest distance apart (see Table 4.16 in Volume 2, Chapter 4: Marine Mammals (AS-010)).</p> <p>A scenario whereby there are more than two vessels installing piles is not realistic, hence why it was not assessed in the ES. The rationale for this is due to vessel and equipment availability as well as due to cost. The Applicant does not consider it necessary nor pragmatic to have controls for unrealistic development scenarios that will not come to pass, as has been the norm for the sector to date.</p>
MM 1.2	Applicant, Marine Management Organisation, Natural England, Natural Resources Wales	<p><b>Concurrent Piling and Unexploded Ordnance (UXO) Clearance</b> Can the Applicant:</p> <p>i) Advise if it is feasible that piling and UXO clearance activities may be undertaken concurrently? If so what are the implications for potential injury/disturbance to marine mammals (and fish).</p> <p>Can the IPs:</p> <p>ii) Advise whether there is a necessity to restrict or control the possibility of concurrent piling and UXO clearance activities?</p>	<p>The Applicant notes that concurrent UXO clearance and piling activities are not proposed, as these activities are planned to be managed in separate project phases. UXO clearance will be undertaken in the pre-construction phase, prior to construction activities commencing. Piling activities will take place in the construction phase, once all UXO has been cleared and seabed preparation works completed. Therefore, there is not a realistic scenario whereby these activities take place at the same time.</p> <p>The Applicant considers that there is no requirement for further controls or restrictions to be added to the draft DCO.</p>
MM 1.3	Applicant	<p><b>Marine Mammal Mitigation Protocol (MMMP): Points of Clarification</b> At Issue Specific Hearing 1 the Applicant explained that a separate Marine Licence will need to be sought prior to construction for pre-construction geophysical and geotechnical surveys. The MMMP is intended to reduce or eliminate the risk of injurious effects of underwater sound due to piling, UXO</p>	<p>i)</p> <p>The Applicant has reviewed the marine licencing requirements for surveys, and how mitigation measures proposed through the MMMP (where relevant) would be secured and applied.</p> <p><b>Geotechnical surveys</b> – these surveys would not produce sound impacts that would require mitigation measures to be in place through the MMMP.</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>clearance and geophysical surveys on marine mammals, yet if preconstruction geophysical and geotechnical surveys are to be controlled by separate marine licence, the mitigation measures in the MMMP will not be triggered for those operations.</p> <p>This seems at odds with paragraph 1.5.1.2 of the outline MMMP [APP-072] which states that the specific measures to mitigate the injurious effects of UXO clearance, piling and geophysical surveys during the pre-construction and construction phases of the Morgan Generation Assets will be determined post-consent in consultation with the licensing authority (MMO) and SNCBs.</p> <p>i) Can the Applicant therefore confirm for the avoidance of doubt that the MMMP will specifically apply to pre-construction geophysical surveys if they involve sound generating activities such as multibeam echosounders and sub-bottom profilers, and if so which condition(s) in the dDMLs would trigger the submission and approval of a final MMMP before pre-construction geophysical surveys could be conducted?</p> <p>ii) Would the definition of 'commence' (which currently excludes pre-construction surveys) need to be amended? If not, how would pre-construction geophysical surveys currently excluded in the definition of commence be controlled, monitored and mitigated?</p>	<p>For that reason, geotechnical surveys are not referred to in the outline MMMP [APP-072].</p> <p><b>Geophysical surveys</b> – geophysical surveys are not a licensable activity under the Marine and Coastal Access Act 2009. Guidance from the MMO requires that the MMO be notified prior to seismic or geophysical surveys being undertaken. Whilst geophysical surveys are not a licensable activity, this would not remove the need for the Applicant to obtain a European protected species (EPS) licence if the surveys may affect a EPS. The conditions of the EPS licence would require necessary mitigation to be put in place, which in this instance would be through a MMMP.</p> <p>The Applicant has included the proposed mitigation for geophysical surveys within the outline MMMP [APP-072] for completeness and to inform the Environmental Impact Assessment. However, as geophysical surveys are not a licensable activity and the necessary mitigation would be secured through the EPS licensing process, the Applicant does not consider it necessary to include provision in the draft DCO to secure this mitigation.</p> <p>ii) The Applicant does not consider that any amendment to the definition of “commence” is necessary. As noted above, the mitigation measures would be secured through another licensing regime and therefore have not been included in the draft DCO. This is considered to be the standard approach for consenting of offshore wind generating stations.</p>
MM 1.4	Applicant	<p><b>Acoustic Deterrent Devices (ADDs)</b></p> <p>Table 4.17 of ES Volume 2, Chapter 4 [AS-010] sets out the possible mitigation measures that may be employed for marine mammals. For piling operations ADDs are noted in the outline MMMP [APP-072] as one such possible mitigation measure. Paragraph 4.9.3.15 explains that the Lofitech ADD is one of the loudest devices available. While it is acknowledged that the choice of ADD has not yet been confirmed, can the Applicant explain whether the sound impacts associated with ADDs has been assessed? If not, why not?</p>	<p>The Applicant highlights that the impacts scoped in were presented at scoping stage and at PEIR, and there was no suggestion from Natural England or NRW at these stages or during the Expert Working Group process to include ADD as a separate impact for assessment, particularly as it is deployed as a mitigation tool to reduce the risk of auditory injury during piling and UXO. The ADD encourages the animal to leave by generating a sound that causes disturbance response but at a much lower level than piling or UXO activities. The Applicant has included an indicative ADD activation of 30 minutes in the assessment for piling and UXO, as a suitable mitigation tool for auditory injury alongside other mitigation measures such as soft start, visual and acoustic monitoring.</p> <p>The Applicant provided a detailed response in the Applicant's Response to Relevant Representations (PD1-017) to Natural England's key concern in</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>their Relevant Representation (RR-026) which agreed that the balance between allowing an animal time to move away from the injury zone (i.e. prevention of injury) and reducing unnecessary additional noise with potential negative effects must be carefully balanced, and the final ADD type and duration will be agreed post-consent in the final in consultation with relevant stakeholders including NE and NRW. The assessment used an indicative 30 minutes of ADD activation, and the Applicant has provided detailed justification for this in their response to NE's Relevant Representation (RR-026.C.3) and NRW's Relevant Representation (RR-027.51) in the Applicant's Response to Relevant Representations (PD1-017). The ADD contributes an indicative additional 30 minutes of underwater sound to the sound from piling, however, the magnitude of effects from the ADD (i.e. range over which disturbance could occur) is considerably lower compared to piling and whilst not assessed separately, they were factored into the assessment for auditory injury. As highlighted in the Applicants response to NE's Relevant Representation (RR-026.C.3) in the Applicant's Response to Relevant Representations (PD1-017) and NRW's Relevant Representation (RR-027.51), the population modelling for the assessment of disturbance effects due to elevated underwater sound assumes that for days on which there is piling (and therefore the same days on which the ADD is activated) marine mammals would be disturbed for the entire day plus the subsequent day over the ranges predicted for piling (rather than specific hours of the day plus ADD of 30 minutes). Given that the ranges of disturbance during ADD activation are considerably less than those predicted for piling and that ADD activation forms part of the piling construction sequence, it is not considered necessary to consider this as a separate impact as essentially it is captured in the assessment of disturbance from piling. The Applicant also highlighted that it is not a standard approach to assess ADDs separately, and the approach taken is typical for other OWF assessments including consented projects.</p> <p>The Applicant therefore maintains that the assessment is precautionary and conclusions of significance are valid with respect to disturbance from ADDs and there is no requirement to include ADD as a separate impact assessment, as it is very unlikely that any noisy activities will be carried out without the use of ADDs. The Applicant is aware of forthcoming policy on underwater sound and will follow the policy requirements. The type and final duration of ADD will be agreed with relevant stakeholders for the final MMMP, and therefore the Applicant considers that NRW and NE have adequate controls in place to be confident that the final mitigation agreed</p>

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Reference	Question to	ExAQ1	Applicant's response
MM 1.5	Marine Management Organisation, Natural England, Natural Resources Wales	<p><b>Masking</b>            In relation to the assessment of effects from underwater sound on marine mammals the Applicant states at Paragraph 4.9.1.2 of ES Volume 2, Chapter 4 [AS-010] that there is insufficient evidence to properly evaluate masking and no relevant threshold criteria to enable a qualitative assessment.            Can the MMO, Natural England and NRW advise if they agree with this statement? If not can they suggest whether the Applicant needs to address the masking scenario?</p>	<p>post consent will be suitable and proportionate to ensure animals can move away from the injury zone but avoid any additional noise.</p> <p>The Applicant is aware that the question was not posed directly to them, however, confirm they are not aware of any published / accepted threshold criteria relating to masking effects.</p>
MM 1.6	Applicant	<p><b>Hammer Energies</b>            Paragraph 4.9.1.20 of ES Volume 2, Chapter 4 [AS-010] states that the harbour porpoise dose response curve was derived from measurements taken at Beatrice Offshore Wind Farm and was based on piling at much smaller hammer energies (average of ~ 1,000 kJ). Paragraph 4.9.2.5 goes on to say that the scenarios modelled for Morgan were based on the absolute maximum hammer energies of 4,400 kJ or 3,000 kJ ... The piling campaign was developed with the lowest achievable hammer energy...            Noting that the hammer energies proposed for Morgan (3,000 kJ and 4,400 kJ) are significantly larger than those used in Beatrice, which installed jacket foundations, can the Applicant explain:            i) The basis for determining the hammer energies proposed for Morgan.            ii) Why lower hammer energies (such as in Beatrice) are not considered suitable.</p>	<p>The Applicant can confirm that the maximum hammer energies proposed in the ES are informed by the current knowledge of the ground conditions and the required penetration depth of the piles. The Applicant has considered the maximum hammer energy needed to ensure any given pile reaches its required penetration depth, as well as site-specific environmental information to ensure safe and effective installation</p> <p>For the avoidance of any doubt, the Applicant can confirm that it is not the case that there will be a single hammer energy used. Rather, the hammer energy will gradually increase through the installation process. The maximum hammer energy actually required at any given location will be influenced by the ease at which the pile can be installed.</p> <p>The Applicant highlights that the hammer energies quoted in Graham <i>et al.</i> (2019) (average of ~ 1,000 kJ) are based on measured received sound levels, in the field. However, the Beatrice Offshore Wind Farm ES marine mammal chapter (section 12.2.71 and Table 12.3) identified a maximum hammer energy at the Beatrice Offshore Wind Farm as 2,300 kJ, for 2.4 m pin piles (which is also quoted in Graham <i>et al.</i>, 2019).</p> <p>For pin piles at the Morgan Offshore Wind Project: Generation Assets, whilst it is unlikely that the maximum hammer energy (4,400 kJ / 3,000 kJ) would be required for all piles, it is necessary to ensure that the hammer employed has sufficient capacity to install the pile to full penetration depth, particularly at locations that may prove challenging. Based on the project design lower hammer energies would therefore not be sufficient to safely install the piles at this site. A key parameter driving the hammer energy requirement is the pile diameter is presented in Table 4.16 of Volume 2,</p>



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Reference	Question to	ExAQ1	Applicant's response
			Chapter 4: Marine Mammals (AS-010), which sets out the maximum design scenario for the marine mammal assessment, identifying a pile diameter of 3.8 m (compared to the Beatrice Offshore Wind Farm marine mammal MDS pile diameter of 2.4 m).
MM 1.7	Applicant	<p><b>Minor corrections of paragraph numbers</b> On page 121 of 479 in ES Volume 2, Chapter 4 [AS-010] the first paragraph of the Minke Whale section starts with A.1.1.1.1 but should start with 4.9.2.88 with the subsequent paragraphs renumbered accordingly. Provide an updated Chapter 4 by Deadline 6 with the numbering corrected to aid the ExA's referencing during reporting.</p>	The Applicant confirms that the identified discrepancy is correct (due to a formatting issue) and the Applicant's approach is set out in response GEN 1.1 and the Applicant intends to follow this accordingly.
MM 1.8	Marine Management Organisation Natural England	<p><b>UXO High Order Clearance Sound Modelling</b> Paragraph 4.9.3.2 ES Volume 2, Chapter 4 [AS-010] relating to UXO clearance states that sound modelling for high order detonation, acoustic modelling was undertaken following the methodology described in Soloway and Dahl (2014). Given the 2014 date of the Soloway and Dahl publication, can the MMO and NE advise if this is the most up to date/ best practice method?</p>	The Applicant is aware that the question was not posed directly to them, however, confirm they are not aware of a more suitable accepted approach to modelling UXO clearance.
MM 1.9	Applicant	<p><b>UXO Clearance Rates</b> Paragraph 4.9.3.6 of ES Volume 2, Chapter 4 [AS-010] and Paragraph 1.4.3.9 of the Outline MMMP [APP-072] regarding the magnitude of UXO clearance during construction, state that the aim is to enable clearance of "at least" one UXO per tide cycle. Can the Applicant advise on how many clearances could take place per tide cycle and if more than one whether an accumulated impact been assessed in the ES and HRA? If only one UXO clearance will be undertaken per tidal cycle then the words "at least one" need to be replaced with "only one" and revised documents submitted with that change enacted.</p>	<p>Volume 1, Annex 3.1: Underwater sound technical report (APP-028) sets out the approach to modelling that was undertaken for UXO clearance, which feeds into the assessment of the impact of injury and disturbance from elevated underwater sound during UXO clearance (see section 4.9.3 of Volume 2, Chapter 4: Marine Mammals (AS-010). Paragraph 1.8.5.4 of APP-028 states that "because there is potential for more than one UXO clearance event per day (a maximum of two per day is assumed) then it is also necessary to take this into account in the exposure calculation". Therefore the ranges presented in the Volume 1, Annex 3.1: Underwater sound technical report (APP-028) presents UXO clearance ranges as outputs of exposure calculations which take into account the accumulated sound of two UXO clearance events per day.</p> <p>For the purposes of the marine mammal assessment (as set out in section 4.9.3 of Volume 2, Chapter 4: Marine Mammals (AS-010) and section 1.6.4 of E1.2 - HRA Stage 2 Information to support an appropriate assessment Part 2: Special areas of conservation assessments (APP-097)), the approach aligned with Volume 1, Annex 3.1: Underwater sound technical report (APP-028) and assumed a realistic worst case scenario of</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>two high order UXO clearance events per day, and is therefore considered to be precautionary. The Applicant confirms that whilst the identified wording of "at least one UXO per tide" does not contradict the assumption of two high order UXO clearance events per day, the wording has been updated (noting that this does not make a material difference to the assessment).</p>
MM 1.10	Applicant	<p><b>Behavioural Responses to Underwater Sound</b>            The ES [AS-010] suggests that the behavioural response effects on marine mammals from elevated underwater sound is reversible and receptors are expected to recover within hours/days following the cessation of the sound producing activity.            The ExA acknowledges that there may be breaks between construction activity to enable a receptor to recover from the impact, however, NRW has noted in its WR [REP1-056] that the potential effects of aggregate exposures to one or multiple pressures has not been discussed. Natural England also made reference to a study by Yang <i>et al</i> (2021) in [RR-026] (Ref C12) which stated if cortisol levels persist elevated for extended period of time (exposure to high or cumulative sound levels for days to months), the high hormone level can have negative effects on immune response, growth and reproduction.            Can the Applicant advise:            i) If it has considered the Yang <i>et al</i> study.            ii) Whether the magnitude should be upgraded to medium as suggested by NE in light of the Yang <i>et al</i> study.            iii) Why it has not carried out an assessment of the potential effects of aggregate exposure.</p>	<p>In response to point i), the Applicant confirms that in response to Natural England's Relevant Representation (RR-026.C.40), the highlighted paper (Yang <i>et al.</i>, 2021) was reviewed and a response was provided in light of this (see RR-026.C.40 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017)).</p> <p>In response to point ii), the Applicant provided a response (see RR-026.C.12 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017)) at Deadline 1 to Natural England's comment RR-026.C.12 of RR-026. As set out in this response, Natural England mistakenly identified that the assigned magnitude for disturbance was negligible (the Applicant confirmed in their response that the assigned magnitude for disturbance was low). Additionally, Natural England's discussion on Yang <i>et al.</i>, (2021) (set out in RR-026.C.12) referred to the impact of injury, not behavioural disturbance, and Natural England's statement (set out in RR-026.C.12) that "the more appropriate score would medium" was in relation to Permanent Threshold Shift (PTS) and not to behavioural effects/disturbance. The Applicant therefore confirms that the focus of the response provided (RR-026.C.12 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017)) was the impact of injury, not disturbance. However, the Applicant confirms that the assigned magnitude score of low for the impact of disturbance from piling activity is appropriate and should not be upgraded to medium.</p> <p>In response to point iii), the Applicant highlights that the potential effects of 'aggregate exposure' were assessed under section 4.13 (Inter-related Effects) of Volume 2, Chapter 4: Marine Mammals (AS-010) and in Volume 2, Chapter 15: Inter-related effects of the Environmental Statement. This assessment reviews the potential for project lifetime effects and receptor led effects ("Assessment of the scope for all effects to interact, spatially and temporally, to create inter-related effects on a receptor"). The conclusions of this assessment identified that there was no potential for inter-related effects to occur. Furthermore, the Applicant presented additional information on inter-related effects in Annex 3.4 of the</p>

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Reference	Question to	ExAQ1	Applicant's response
MM 1.11	Applicant	<p><b>Interpretation of significance levels</b></p> <p>The ExA notes numerous instances in Marine Mammals ES Volume 2, Chapter 4 [AS-010] where significance of effect could be one of two options (eg minor or moderate). Natural England also raised this issue in [RR-026] and believes that a precautionary principle should be applied, especially where a Rochdale envelope has been used.</p> <p>The ExA notes the Applicant's response [PD-017] (RR-026.C1/C11/C17/C35) but would like the Applicant to provide justification for why it has used the lower value of two options for PTS injury to harbour porpoise from UXO clearance (moderate instead of major)? The lower value has been reported in the project only and cumulative effects conclusions and lacks justification.</p> <p>Please note that it will be insufficient of the Applicant to respond to the ExA by simply stating that the final significance is based upon the topic expert's professional judgement as to which outcome delineates the most likely effect. The ExA will require a more detailed response to this question.</p>	<p>Applicant's Response to Relevant Representation from Natural England and Natural Resources Wales: Interrelated Effects (PD1-009).</p> <p>The Applicant is confident that the conclusion of significance is robust and precautionary as the assessment has been developed based on conservative assumptions throughout (e.g. maximum size and number of UXOs, conservative densities of key species, conservative assumptions in subsea modelling approach). The matrix set out in Table 4.15 of Volume 2, Chapter 4: Marine Mammals (AS-010)) provides the flexibility to allow a conclusion to be drawn based on the evidence compiled during the assessment such that any 'expert-judgement' is underpinned by robust evidence, and years of relevant experience.</p> <p>The Applicant highlights that the Guidelines for Ecological Impact Assessment In The UK and Ireland (CIEEM, 2018) advise that Environmental Impact Assessments "should be undertaken by qualified professionals with an appropriate level of experience in... impact assessment". In addition, these guidelines identify that "<i>Results are often presented in the form of a matrix in which ecological value/importance and magnitude of impact are combined into a significance score</i>" and where a matrix approach is applied ("<i>In many cases, its use is required to provide consistency across all the topics of an Environmental Statement</i>") that "<i>it is very important to make a clear distinction between evidence-based and value-based judgements so that decision makers and other stakeholders are aware of the level of subjective evaluation that has been used</i>". The Applicant is confident that the information presented clearly demonstrates that the conclusions drawn are evidence-based judgements by qualified professionals with an appropriate level of experience (the statement of expertise for the lead author of the marine mammals topic is set out in paragraph 1.2.1.5 in the Statement of Expertise (AS-009)).</p> <p>The key point made in the methodology for assessment (paragraph 4.6.2.7 of Volume 2, Chapter 4: Marine Mammals (AS-010)) is that the assessment of potential significant effects is quantified with reference to the appropriate geographic frame of reference. In the case of harbour porpoise, the assessment suggests that for high order clearance of the absolute maximum UXO size (907kg), up to 195 harbour porpoise (up to 0.31% of the Celtic and Irish Seas (CIS) Management Unit (MU)) (without mitigation) could experience PTS. The Zone of Influence would be largely within the boundary of the array and when the assessment was considered against the Celtic and Irish Seas Management Unit population of 62,517</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>harbour porpoise it was anticipated that there would be some measurable changes at an individual level but that this would not manifest to population-level effects due to the small proportion of the CIS MU potentially affected. It was therefore concluded that any effects, if they did occur, would be of moderate rather than major significance for the harbour porpoise CIS MU. Furthermore, the Applicant highlights that whilst the conclusion of moderate (adverse) significance was based on the absolute maximum number of harbour porpoise that could be affected (195 animals) there are multiple factors which mean that it is unlikely that this maximum number would in reality be affected if a high order clearance occurred (such as the identified precautionary nature of Volume 1, Annex 3.1: Underwater sound technical report (APP-028) report, the precautionary harbour porpoise density estimate of 0.262 animals per km<sup>2</sup> (see Table 4.10 in Volume 2, Chapter 4: Marine Mammals (AS-010)) and the likelihood that the presence of vessels would disturb some individuals from the Zone of Influence prior to any UXO clearance occurring).</p> <p>Finally, the Applicant highlights that with mitigation applied and secured in the draft DCO via the final UWSMS and associated final MMMP, the potential for injury to harbour porpoise would be reduced to a level that would not be significant.</p>
MM 1.12	Marine Management Organisation Natural England Natural Resources Wales	<p><b>Cumulative Underwater Sound: Residual Effects</b> The cumulative effects assessment in ES Volume 2, Chapter 4 Marine Mammals [AS-010] identifies potentially significant adverse residual effects in terms of cumulative piling sound impacts on Bottlenose Dolphin and cumulative UXO clearance sound on harbour porpoise. The Applicant proposes that mitigation measures will be developed in consultation with the licensing authority and SNCBs post-consent to reduce any potential residual effects for Bottlenose Dolphin and Harbour Porpoise. Can the MMO, Natural England and NRW confirm if they are confident that mitigation options exist to reduce the residual effects.</p>	The Applicant notes MM 1.12 is directed towards MMO/NE/NRW and shall not be responding.
MM 1.13	Applicant Marine Management Organisation	<p><b>Cumulative Assessment – Injury due to Collision with Vessels</b> Table 4.57 in ES Volume 2, Chapter 4 [AS-010] relating to the cumulative increased likelihood of injury due to collision</p>	To the Applicant's knowledge there is no evidence to suggest that an animal moving away from a vessel within a project array would be at greater risk of collision from vessels associated with a nearby project. The Applicant highlights this question is speculative, and it is important not to

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Reference	Question to	ExAQ1	Applicant's response
	<p>Natural England Natural Resources Wales</p>	<p>with vessels suggests that sound emissions from vessels will likely deter animals from the potential zone of impact. Given that this part of the Irish Sea is well-trafficked with vessels, and given the potential temporal and spatial overlap with other projects, can the Applicant, the MMO, NE and NRW clarify if there a possibility that an animal fleeing the sound of construction/maintenance vessels (or indeed piling/ UXO clearance) from one project might find themselves within the zone of influence of another project?</p>	<p>draw assumptions based upon lack of evidence. As discussed in detail below, it is considered highly unlikely that marine mammals would be at greater risk of collision from moving from the zone of influence of one project into the zone of influence of another project; marine mammals are highly developed animals that have evolved in an underwater environment with ambient noise, and it is highly unlikely that exposure to a sound source excludes the animal from hearing other sources of sound (see point 3 below). The Applicant has assessed in detail cumulative scenarios of multiple projects constructing at the same time, and has also assessed the potential for inter-related effects (Volume 2, Chapter 15: Inter-related effects) with further information presented in Annex 3.4 to the Applicant's Response to Relevant Representation from Natural England and Natural Resources Wales: Interrelated Effects (PD1-009). However, the Applicant can offer the following additional information to address this question:</p> <ol style="list-style-type: none"> <li>1. A conservative maximum range of disturbance was determined to be 7 km from a moving vessel derived from literature, with the modelled range being 3.6 km. Only Moir Vannin Offshore Wind Farm and Morgan and Morecambe Offshore Wind Farms Transmission Assets lie within this maximum distance from Morgan Generation Assets. Construction at Moir Vannin Offshore Wind Farm would not overlap with the construction phase at Morgan Generation Asset and therefore only vessels associated with the construction of Morgan and Morecambe Offshore Wind Farms Transmission Assets could coincide. There is no piling at the Transmission Assets and therefore if animals move away from the Morgan Array during piling or UXO clearance, it is only vessel disturbance they may encounter rather than further piling activities (as UXO clearance would be carefully co-ordinated with other projects for safety reasons).</li> <li>2. Disturbance from vessels is likely to occur as short term, intermittent events with likely rapid recovery following disturbance (as evidenced in Hao et al., 2024; Lemon et al., 2006; Ribeiro et al., 2005; Wisniewska et al., 2018). Disturbance ranges as a result of sound from vessels are small, and the risk of collision is even smaller. Vessels tend to be large, spaced apart, and vessel sound works antigenically with collision risk (i.e. the presence of vessel sound reduces the likelihood of collision, given marine mammals' high sensitivity to noise). It is highly unlikely a marine mammal with such developed hearing would</li> </ol>

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Reference	Question to	ExAQ1	Applicant's response
			<p>not hear a construction vessel before being in such proximity for collision.</p> <p>3. Hearing is the primary sense of marine mammals underwater and therefore an animal can perceive multiple sounds within its environment and respond accordingly, moving away from threats. This is evidenced in Wisniewska et al. (2018) which demonstrated that harbour porpoise dove away from the surface while fluking vigorously in response to vessels and Benhemma-Le Gall et al. (2021) which demonstrated harbour porpoise displacement from pile-driving activities. Marine mammals evolved in a marine environment which contains a vast variety of naturally occurring sounds and have evolved ears that function well under ambient noise, and thus they show a variety of strategies to reduce noise masking and move away from threats. Whilst the Applicant acknowledges anthropogenic noise such as piling and UXO is relatively recent to the environment, there is no suggestion that animals cannot also perceive these sounds also and respond accordingly, with scientific evidence of marine mammals responding to anthropogenic sounds vast.</p> <p>4. Often a response of an animal to a vessel has been recorded as deep diving (Frankish et al., 2023, Wisniewska et al., 2018) and therefore would not necessarily flee in a horizontal plane (towards another vessel) as a flee response. The Applicant highlights it is not possible to determine how each individual animal will respond to its perceived threat level from different sound sources, and therefore what population level impacts this may have. Furthermore, marine mammals are highly mobile and there is evidence of vast movement across the Irish and Celtic Seas, and therefore it is not possible to determine if an animal will move towards nearby projects or further to the south or west of the region.</p> <p>5. Applicant highlights they have committed to the development of and adherence to an Offshore EMP, including Measures to minimise disturbance to marine mammals and rafting birds from transiting vessels (APP-203). These measures require vessels to not deliberately approach marine mammals as a minimum and avoid abrupt changes in course or speed should marine mammals approach the vessel to bow-ride, where appropriate and possible considering all technical considerations.</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>6. Vessel movements to and from any port will be incorporated within existing vessel routes and therefore there would be no increased collision risk outside of these vessel routes/array, which animals may already experience levels of tolerance or habituation to vessel sound and have adapted to existing shipping routes, given they are regularly seen in the marine mammal study area. Factors such as route predictability (steady vs. erratic paths) or speed may be important drivers of negative reactions (Frankish et al., 2023).</p> <p>Therefore the Applicant considers a robust cumulative assessment of impacts on marine mammals has been presented and it is considered highly unlikely that marine mammals would be at greater risk of collision from moving from the zone of influence of one project into the zone of influence of another project.</p>
MM 1.14	Applicant	<p><b>Cumulative Effects, Cross Referencing Corrections</b>            In Appendix A1 of ES Volume 2, Chapter 4 [AS-010] the Applicant should correct discrepancy at Paragraph A.1.1.1.63 which states “maximum number of animals predicted to be disturbed is up to 2,112 (Table A.8)...” The ExA believes that the table that should be referenced is Table A.2 and not Table A.8.            The Applicant should also:</p> <ul style="list-style-type: none"> <li>• Include reference to Table A.1 alongside Table A.2 in paragraph A.1.1.1.7.</li> <li>• Include reference to Table A.2 alongside Table A.1 in paragraph A.1.1.1.62.</li> <li>• Include reference to Table A.2 alongside Table A.1 in paragraph A.1.1.6.64.</li> <li>• Review all cross references to Tables within Appendices A &amp; B of ES Volume 2, Chapter 4 to ensure that the correct tables are cited in the text.</li> <li>• Submit a revised version of ES Volume 2, Chapter 4 (not simply an update to the Errata Sheet) with these changes made.</li> </ul>	<p>The Applicant confirms that the following identified discrepancy has been amended (see S_D3_6 Errata Sheet F04):</p> <ul style="list-style-type: none"> <li>• The cross reference in Paragraph A.1.1.1.63 should be to Table A.2, rather than Table A.8.</li> </ul> <p>The Applicant understands that whilst the Examining Authority would prefer to see additional cross references to Table A.2 in paragraphs A.1.1.1.7, A.1.1.1.62 and A.1.1.1.64 of Appendix A, these additions are not considered to make a material difference to the assessment and these have therefore not been added to the errata.</p> <p>The Applicant confirms they have reviewed all cross references to Tables within Appendices A &amp; B of Volume 2, Chapter 4: Marine Mammals (AS-010) and no further discrepancies have been identified.</p>
MM 1.15	Applicant	<p><b>Cumulative Effects Clarifications 1</b>            Paragraph A.1.1.2.32 of ES Volume 2, Chapter 4 [AS-010] states that the maximum cumulative number of harbour porpoises potentially affected by PTS from Morgan</p>	<p>The Applicant has provided a clarification in (S_D3_6 Errata Sheet F04) to correct the value presented in paragraph A.1.1.2.32 of Volume 2, Chapter 4: Marine Mammals (AS-010) was incorrect. The sum of the relevant values presented in Table A.7 of Volume 2, Chapter 4: Marine Mammals</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>Generation Assets, Morgan and Morecambe Transmission Assets and Tier 1 projects is 650 animals, yet the figures supplied in Table A.7 for harbour porpoise whether summed or not, do not reflect the 650 number. Can the Applicant review and advise how the 650 number was arrived at.</p>	<p>(AS-010) is 1,194 animals (in line with the individual numbers presented in Table A.7). The Applicant highlights the values in Table A.7 are correct and the error occurred in summing these values.</p>
MM 1.16	Applicant	<p><b>Cumulative Effects Clarifications 2</b>            Section B.4.2.1 of Appendix B of ES Volume 2, Chapter 4 [AS-010], which relates to the results of the Marine Mammal Population Modelling for Bottlenose Dolphin, outlines the modelling population trajectory based on the Morgan Generation Assets project alone using two fertility rates (0.22 and 0.3) for both maximum temporal and spatial scenarios. However, Section B.4.2.2, which outlines the modelling population trajectory for cumulative projects, uses only the 0.22 fertility rate. Can the Applicant advise why the 0.3 fertility rate has been excluded for cumulative projects.</p>	<p>The Applicant highlights the narrative in paragraph B.3.2.1.3 of Volume 2, Chapter 4: Marine Mammals (AS-010) which explains that changes in fertility rates or stage-specific survival rates can alter the modelled population trajectories for both unimpacted and impacted populations. In the case of the bottlenose dolphin population modelled for the Morgan Generation Assets alone, applying a fertility rate of 0.22 (from Arso Civil et al., 2017) to the population modelling led to more precautionary modelling of the future population trajectory (as per paragraph B.3.2.1.3) (i.e., resulted in a greater decline in population size) compared to the 0.3 fertility rate (from Sinclair <i>et al.</i>, 2020). Therefore, whilst both fertility rates are based on scientific evidence and recommendations and equally valid, the Applicant decided to carry forward the more precautionary lower fertility rate of 0.22 to the cumulative assessment as the worst case scenario, particularly given the context of a the small bottlenose dolphin management unit (MU) population (n=293 for the Irish Sea MU). Practically, this approach also avoided presenting excessive numbers of cumulative models which could obstruct the key messages of the CEA. This conservative approach of applying the most precautionary fertility rate is in line with EIA guidance to apply the precautionary principle (Guidelines for Ecological Impact Assessment In The UK and Ireland (CIEEM, 2018)).</p>
MM 1.17	Applicant	<p><b>Injury and Disturbance to Marine Mammals from Vessels</b>            Natural Resources Wales in its WR [REP1-056] reiterated its concerns regarding the Applicant's inadequate justification for an overall conclusion of low magnitude for injury and disturbance to marine mammals from vessels. Notwithstanding the submission of Annex 3.5 [PD1-010] which aimed to address NRW's concerns, the ExA requires the Applicant to submit a revised assessment (project only and cumulative) in accordance with the NRW suggestion of adapting the approach taken for the Wylfa Newydd project to gauge the number of animals affected by this impact</p>	<p>The Applicant presented a detailed overview of the approach to the assessment of disturbance from underwater sound from vessel use, and further justification, in Annex 3.5 (PD1-010) and further responded in REP2-005 (see REP1-056.59) to NRW's Written Representation (REP1-056), and considers that a strong justification for the assessment of disturbance from underwater sound from vessel use has been provided and that the assessment approach is robust.</p> <p>The Applicant maintains that assessing the footprint of disturbance for a moving vessel as a continuous area from point A to B along a potential shipping route (leading to an elongated buffer) based upon a precautionary effect range would lead to an overestimate of the effect, as it assumes that a disturbance effect would continue even after a vessel has passed and</p>



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Reference	Question to	ExAQ1	Applicant's response
		<p>pathway, or provide a comprehensive response as to why such an assessment does not need to be carried out.</p>	<p>does not consider any rapid recovery of animals following a potential disturbance event. It is well evidenced that disturbance from vessels is likely to occur as short term, intermittent events with rapid recovery following disturbance (as evidenced in Hao et al., 2024, Lemon et al., 2006, Ribeiro et al., 2005, Wisniewska et al., 2018) and animals would not necessarily flee in a horizontal plane (towards another vessel) as a flee response (such as deep diving (Frankish et al., 2023, Wisniewska et al., 2018)). Therefore the Applicant considers their assessment provides more realism than applying a simplified elongated buffer approach.</p> <p>The Applicant has highlighted that the Wylfa Newydd study had a maximum impact range of 60 m and highlights this was assessed using a different threshold for a “minor” behavioural effect of 145 dB re 1 <math>\mu</math>Pa<sub>2s</sub> (SELs) (derived from TTS thresholds after exposure to seismic airgun pulses (Lucke et al., 2009)). Whereas a substantially more precautionary 7 km buffer was applied in Volume 2 Chapter 4: marine mammals, alongside a continuous threshold of 120 dB (NMFS, 2005) (therefore lower than the Wylfa Newydd threshold). The Applicant maintains that they have used the most appropriate accepted threshold suited to the impact of vessel disturbance, which is more precautionary than the approach used in the Wylfa Newydd study.</p> <p>The Applicant also acknowledges that a dose-response approach from Benhemma le Gall <i>et al.</i> (2021) could be derived as an alternative approach (noting this has not been used or accepted on other OWFs previously), but given that no apparent response was observed at 4 km in this study (which is similar to the maximum modelled disturbance range of 3.627 km, as presented in Volume 2 Chapter 4: marine mammals (AS-010)) using this dose-response would assume no animals are impacted at 4 km. Given that 41 harbour porpoise were predicted to be impacted under the 7 km radius approach (as presented in Volume 2 Chapter 4: marine mammals (AS-010)) the Applicant maintains the most precautionary approach has been applied.</p> <p>The Applicant is therefore confident that further assessment to align with the approach taken in Wylfa Newydd does not need to be carried out on the basis that this would result in a less conservative assessment than has been presented in Volume 2, Chapter 4: marine mammals (AS-010).</p> <p>The Applicant also reiterates the inclusion of the Offshore Environmental Management Plan (EMP) which includes measures to minimise disturbance to marine mammals (and rafting birds) from transiting vessels</p>

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			<p>(APP-070), including reduction in speeds where an animal is in the vicinity of a moving vessel.</p> <p>The Applicant also draws attention to the same discussion on Mona Offshore Wind Project, in which NRW stated at Deadline 3 "We also note that this methodological discussion does not materially impact our agreement with the overall conclusions that there will be no significant effect / adverse effect on marine mammal populations due to the mitigation methods that will be employed. Essentially, this is a divergence of opinion on how best to calculate the numbers of animals disturbed" and NRW also confirmed "that we continue to agree on an overall conclusion of "low magnitude". Therefore, the Applicant considers that given the same methodology has been used on Morgan Generation Assets, the methodological discussion does not affect agreement on the overall conclusion of low magnitude.</p>
MM 1.18	Applicant	<p><b>Noise Abatement Systems (NAS)</b>            Both Natural England and the MMO reiterate in their WRs [REP1-048 and REP1-053] the need for the Applicant to commit to NAS and not just consider it. NRW also state that NAS should be given more serious consideration [REP1-056]. Can the Applicant advise why it is reluctant to commit to the deployment of NAS.</p>	<p>Please see response, RR-020.57 in the Applicant's response to the Relevant Representations (PD1-017). The Applicant has put forward a number of mitigation measure options in the Underwater sound management strategy (UWSMS) and Marine Mammal Mitigation Protocol (MMMP) and therefore the impact assessments are not reliant solely on NAS to conclude no significant effects. The UWSMS (as secured as a condition in the deemed Marine Licences in Schedule 3 and 4 of the draft Development Consent Order (S_D3_6 Draft DCO F05) will be developed in consultation with relevant stakeholders, including Natural England and approved by the MMO prior to construction.</p> <p>The deployment of NAS is not standard industry practice within the UK and at present there is no statutory requirement for NAS to be deployed. The Morgan Array Area is not within an area that is more sensitive for marine mammals in comparison to many previous offshore wind projects (especially the Round 3 projects in the North Sea that were cited within a marine mammal SAC). In addition, the Applicant is not proposing construction techniques that result in significantly higher underwater sound levels than other projects (indeed the maximum hammer energy is lower than many recent consents).</p> <p>The Applicant is aware that there is forthcoming Defra policy regarding the mitigation of underwater sound. The Applicant has been informed that this policy will likely be published prior to Deadline 4 and therefore consider it prudent to wait for the release of the policy to have a full understanding of</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>the requirements for all developers, so that a commitment can be carefully considered. The deployment of NAS has significant cost, implementation, supply chain and programme implications and therefore the decision cannot be made lightly. The Underwater Sound Management Strategy (UWSMS) includes NAS as one of a number of mitigation options if required, enabling the application of the mitigation hierarchy, and consideration of the latest and most effective technology available and is therefore considered by the Applicant to be the best approach to address the potential impacts (the MMO supports the commitment to develop the UWSMS in principle (see REP2-029)). The final project design and programme will be refined for the Morgan Generation Assets, and programmes for other projects will also be refined, and therefore refinement of the approach to mitigating potential impacts of underwater sound for the Morgan Generation Assets will also be required. The Applicant requires flexibility in the design and construction methods at this stage, due to ongoing design refinement and uncertainties. It would not be considered appropriate to apply a blanket requirement, when the final design parameters and construction programme may not require the implementation of additional mitigation measures. The Applicant notes in the decision letter from the Secretary of State (SoS) for Sheringham Shoal and Dudgeon Extensions Projects the ExA and SoS made a similar judgement agreeing that a commitment specifically to NAS was not required (see paragraphs 4.24-4.26 (DESNZ, 2024)). To ensure proportionate, appropriate and effective mitigation is employed, the Applicant's position is that finalisation of the mitigation required is best decided following this design and programme refinement through the UWSMS and in light of the forthcoming policy, an approach which follows standard industry best practice.</p>
MM 1.19	Applicant	<p><b>Update to Outline Marine Mammal Mitigation Protocol (MMMP)</b>            In its RR [RR-026] Natural England noted that there was no requirement to use ADDs during the geophysical surveys and requested an update to the MMMP [APP-072]. The Applicant noted the representation [PD1-017] (RR-026.C30) but made no amendment to the MMMP. The Applicant is requested to submit a revised version of the outline MMMP with removal of ADD reference in Paragraph 1.9.2.2 for the</p>	<p>The Applicant confirms that a revised version of the Outline MMMP will be submitted at Deadline 4, which removes ADDs as a mitigation measure for geophysical surveys (see also the Applicant's response to comment REP1-054.13 in REP2-005). The Applicant highlights that the final MMMP (and the final geophysical and geotechnical survey-specific MMMP) will be developed post-consent with relevant stakeholders and will consider all feedback provided during the Examination process.</p>

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Reference	Question to	ExAQ1	Applicant's response
		avoidance of doubt that ADD is not under consideration as mitigation for geophysical surveys.	
MM 1.20	Natural England	<p><b>Joint Nature Conservation Committee (JNCC) Guidance on UXO Clearance</b></p> <p>In the Applicant's response to Relevant Representations [PD1-017] it makes reference to new guidance being published soon by the JNCC on UXO clearance. As the consultee authorised to exercise the JNCC's functions in English Waters, can Natural England advise when publication of this guidance is expected, and if not, can it advise what guidance is currently in place and submit it into the Examination.</p>	The Applicant notes MM 1.20 is directed towards Natural England and shall not be responding.
MM 1.21	Natural England	<p><b>Scare Chargers for UXO Clearance</b></p> <p>In its RR [RR-026] Natural England raised concern (C4) that it does not support the use of scare charges for UXO clearance and request this measure is removed from the final MMMP. Can NE explain if it is seeking inclusion of an alternative mitigation measure for impacts to marine mammals, or just removal of scare charges for UXO clearance?</p>	The Applicant notes MM 1.21 is directed towards Natural England and shall not be responding.
MM 1.22	Natural England	<p><b>Marine Mammal Sensitivity and Prey Availability</b></p> <p>In its RR [RR-026] Natural England raised concern (C18) that the Applicant had been inconsistent in its approach to assigning the sensitivity score for effects on marine mammals due to changes in prey availability. The Applicant's response [PD1-017] (RR-026.C18) stated that Minke whale are considered to have reliance on herring, whereas harbour porpoise and seal have ability to switch prey, and hence have different sensitivity. Can Natural England advise if Minke whale sensitivity should be upgraded to high based on single prey reliance? The ExA notes that Natural England has greyed out the C18 field in its Deadline 1 submission [REP1-053], which suggests NE does not think it will make a material difference, but clarity on this matter is required.</p>	The Applicant notes MM 1.22 is directed towards Natural England and shall not be responding.

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Reference	Question to	ExAQ1	Applicant's response
MM 1.23	Applicant Natural England	<p><b>Sub-Bottom Profiler Surveys</b></p> <p>Natural England maintains that mitigation for displacement of harbour porpoises caused by SBP surveys should be identified (NE Risk and Issues Log C37, REP2-033). Can the Applicant identify appropriate mitigation measures that could be included in a future iteration of the outline MMMP? NE are then invited to provide a subsequent response.</p>	<p>The Applicant highlights that for SBP surveys, the only appropriate mitigation measures which are currently available are Marine Mammal Observers (MMO) and Passive Acoustic Monitoring. These mitigation measures align with JNCC guidelines for minimising the risk of injury to marine mammals from geophysical surveys (JNCC, 2017). The Applicant highlights the Final MMMP will be developed post-consent with relevant stakeholders and will consider all feedback provided during the examination process, and therefore welcomes any further guidance from Natural England on what they would consider suitable mitigation measures in addition to MMO and PAM.</p>
<b>European Protected Species Licences</b>			
MM 1.24	Marine Management Organisation	<p><b>European Protected Species (EPS) licences</b></p> <p>The MMO is responsible for wildlife licensing of activity in English waters.</p>	<p>The Applicant notes MM 1.24 is directed towards MMO and shall not be responding.</p>

## 2.11 Marine Physical Processes and Benthic Ecology

Table 2.11: Response to ExAQ1: Marine Physical Processes and Benthic Ecology Questions.

Reference	Question to	ExAQ1	Applicant's response
MP 1.1	Applicant	<p><b>Foundation Choice</b>            Within MDS Tables 1.13 and 2.16 of ES Volume 2, Chapters 1 and 2 respectively [APP-013 and APP-020] in relation to potential impact 'increased suspended sediment concentrations and associated deposition', the Applicant has stated that the MDS for foundation installation comprises 45 three legged jacket piles and 23 conical gravity base foundations. The justification column of these tables states that "the maximum number of three legged jacket pile foundations to be installed for the largest wind turbine generators is 45 out of the 68 generators. Therefore the remaining 23 foundations are identified as conical gravity based foundations for the purpose of assessing suspended sediment concentrations."</p> <p>Can the Applicant explain why these foundation types (three-legged jacket piles/ conical gravity bases and no suction bucket foundations) and the particular split of 45/23 are suggested as having the worst case impact.</p>	<p><b>Context</b>            There are two key design factors considered when assessing the MDS for this potential impact:</p> <ul style="list-style-type: none"> <li>• Which design scenario in terms of turbine numbers would be the 'worst case', taking account of the size of foundation for different turbine sizes.</li> <li>• What foundation type (and in what ratio) would be considered the 'worst case'.</li> </ul> <p>Potential increases in suspended sediment concentrations (SSC) are dependent on the type of activity being undertaken, the rate at which it occurs and the volume of material mobilised into the water column. For example, dredging of material using ploughing techniques may involve large volumes of material, but this is undertaken near the bed where current speeds are reduced and, where material is mobilised, it readily settles falling the short distance to the bed. Conversely, auguring activities (if piles are augured) releases the drilling spoil through the water column with greater increases in SSC and largest plumes.</p> <p><b>Number of turbines</b>            In general terms, the more powerful the turbine, the greater the foundation size. A larger foundation size produces a greater volume of SSC. The MDS for this potential impact is the 68 largest foundations, which would have the largest overall foundation size (compared to 96 smaller foundations).</p> <p><b>Type of foundations and ratios</b>            The largest piled foundations would (if augured) release the greatest unrestrained volume of material through the water column. The project description presented in Volume 1, Chapter 3: Project description (APP-010) defines that up to two thirds of the wind turbine generators may be installed using piled foundations, i.e. in the case of the largest foundations a maximum of 45 of the 68 units.</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>The MDS for this impact would therefore have 45 piled foundations (using auguring techniques). It then needs to be considered what foundation type would make up the balance (23 wind turbine generator foundations) and to identify the MDS; this would be the foundation type with the second greatest impact on SSC, which in this instance is gravity base foundations. This is because the installation of conical gravity base foundations requires dredging of a maximum area of 32,761 m<sup>2</sup> to a maximum depth of 10 m which is a maximum of 327,610 m<sup>3</sup> at each site. This is a larger volume than the 247,548 m<sup>3</sup> per location associated with the largest suction bucket foundations.</p> <p><b>Conclusion</b></p> <p>The MDS for SSC is therefore the 45 largest piled foundations, with the greatest impact on SSC, coupled with the remaining 23 gravity base foundations, with the second greatest impact on SSC, for the 68-unit array of the largest generators.</p>
MP 1.2	Applicant	<p><b>Gravity Base Ballast Amounts</b></p> <p>Paragraph 1.9.2.5 of ES Volume 2, Chapter 1 [APP-013] and paragraph 2.9.3.13 of Chapter 2 [APP-020], which relate to increase in suspended sediments during construction, states that it is proposed that a small proportion of the dredged material from site preparation, 7,000m<sup>3</sup> per foundation, may be sequestered as ballast within the gravity base foundation with a maximum total volume of 490,000m<sup>3</sup>.</p> <p>The MDS for 'increase in suspended sediments' in Tables 1.13 and 2.16 of Chapters 1 and 2 respectively states that there will be 23 conical gravity base foundations. In this scenario the ballast required would be substantially less than 490,000m<sup>3</sup> based on 7,000m<sup>3</sup> for 23 foundations.</p> <p>The Applicant is required to review this and provide some clarification to the ExA on the misalignment of the figures.</p>	<p>The Applicant considers that the ExA has confused two separate issues here; volume of on-site material used for ballast (effects on sediment budget), and volume of material potentially released into suspension from foundation installation (increase in suspended sediments).</p> <p>The Applicant wishes to clarify that for the use of conical gravity base foundations, the maximum total volume of sequestered material (from the seabed preparation works) will be 490,000 m<sup>3</sup> for the project as a whole. The maximum volume of material taken from any one foundation location is 7,000 m<sup>3</sup>. It is unlikely that there would be 7,000 m<sup>3</sup> of suitable material at every location hence why 490,000m<sup>3</sup> is less than 7,000m<sup>3</sup> * 96 (the maximum number of GBS foundations). The consideration of maximum ballast volume (490,000m<sup>3</sup>) relates to the assessment of impacts on sediment budget (i.e., how much material could the project effectively make unavailable for transport from its construction). The MDS for this impact and activity as outlined in Volume 2, Chapter 1: Physical processes (APP-013 Table 1.13).</p> <p>With regard to the consideration of "increase in suspended sediments" the justification for the worst case scenario is as described in the Applicants response to Question MP1.1, but ballast volumes have no bearing on this</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>effect (as ballast material will not be released into the marine environment).</p> <p>The Rochdale envelope approach was employed in the EIA process. This approach requires that an MDS is defined for each impact and activity to ensure the assessment captures the envelope of potential impacts.</p> <p>There are two MDSs which include the use of conical gravity base foundations. The design scenario relating to suspended sediment is unrelated to the design scenario that relates to the maximum amount of material that could be dredged and used for ballast. The Applicant therefore, considers there is no misalignment of figures.</p>
MP 1.3	Applicant Natural England	<p><b>Ballast Material Disposal</b> Paragraph 1.9.2.34 of ES Volume 2, Chapter 1 [APP-013] which relates to increase in suspended sediments, states that during decommissioning of gravity bases the ballast material will be disposed of 'off-site'. The ExA notes the Applicant's response to Natural England's Relevant Representation on the fate of ballast material [PD1-017] (RR-026.D20) but the ExA still remains unclear by what is meant by off-site disposal given the Applicant's reliance on a post consent decommissioning plan.</p> <p>i) Can the Applicant provide more information on the likely possible disposal options for ballast material at decommissioning?</p> <p>ii) Can Natural England advise if it is satisfied with the Applicant's response in [PD1-017](RR-026.D20) that any potential changes to sediment budgets or sediment transport regimes as a result of the Morgan Generation Assets will not cumulatively impact with the Mona Offshore Wind Project.</p>	<p>The Applicant will undertake decommissioning of gravity bases by the removal of ballast, including sand sequestered during construction. It is anticipated that the ballast material will be reused or disposed of offsite and not released back into the local system. The specific approach will be set out in a decommissioning programme as secured within Requirement 5 under Schedule 2 of the draft DCO (REP2-011, S_D2_7). A draft decommissioning programme will be submitted prior to construction commencing (APP-010, paragraph 3.11.1.1).</p>
MP 1.4	Applicant	<p><b>Sandwave Recharge and Subtidal Habitat IEF Recovery</b> Paragraph 1.9.5.14 of ES Volume 2, Chapter 1 [APP-013] which relates to sediment transport, states that the material which will be removed from the sandwaves to allow passage of the cable burial tool will not be removed from the site but will be relocated in close proximity to the sandwave such that it is readily available for sandwave recharge. Similarly it is stated in Paragraph 2.9.2.8 of ES Volume 2, Chapter 2 [APP-020] which relates to temporary</p>	<p>The rate at which sandwaves and subtidal habitats recovery takes place will be dependent on the location and extent of seabed preparation activities. Evidence presented in section 2.9.2 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) indicates that most communities will recover from temporary habitat disturbance/loss within the short to medium term, i.e. months to a couple of years, depending on the pressure they are exposed to.</p>



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Reference	Question to	ExAQ1	Applicant's response
		<p>subtidal habitat disturbance, that disturbed habitats are likely to recover from sandwave/boulder/UXO clearance as any mounds of cleared material will erode over time and displaced material will rejoin the natural sedimentary environment.</p> <p>Can the Applicant advise:</p> <p>i) The timeframe for subtidal habitat IEF recovery, noting that paragraph 2.9.2.11 [APP-020] simply states that the impact is predicted to be short to medium term duration. Does the Applicant also intend to monitor the process and if not, why not.</p> <p>ii) The timeframe for sandwave recovery, and whether and how often it intends to monitor the process. If not, why not.</p> <p>iii) Clarify what effects cable removal at decommissioning stage may have on said sandwaves.</p>	<p>The Applicant can confirm that it will be monitoring sandwave recovery, and the duration of this monitoring will be informed by the results of the monitoring. The updated Offshore In-Principle Monitoring Plan (REP2-013, S_D2_9) submitted at Deadline 2 outlines that pre-construction and post-construction surveys will be undertaken to examine the potential effect on sandwave features from the installation of inter array / interconnector cables.</p> <p>The objective for monitoring relating to physical processes is to observe changes to, and recovery of, sandwaves following the installation of inter array / interconnector cables. This will be achieved by using data from the pre-construction hydrographic and side scan sonar surveys to establish a baseline on the presence and nature of sandwaves within the Morgan Array Area. The equivalent post construction hydrographic and side scan sonar surveys will establish the change to / recovery of a representative sample of these features following sandwave clearance and cable installation activity.</p> <p>The interval and duration of surveys will be informed by the results of the first post construction monitoring in discussion with the regulatory authority and its statutory advisors. This monitoring is secured as conditions in the dML within the draft DCO (see conditions 27(4) and 29(3)(a) of the dML in Schedules 3 and 4 of the draft DCO (REP2-011, S_D2_7)).</p> <p>As outlined in Volume 1, Chapter 3: Project description (APP-010) the methods for decommissioning have not yet been determined. This is typical for offshore wind sector, and is to enable projects will consider the best environmental option at the time of decommissioning. This is for a range of reasons, including suitability of decommissioning methods, environmental considerations such as colonisation of infrastructure and potential changes in best practice guidance.</p> <p>The effect of cable removal on sandwaves will depend on the method used to undertake decommissioning. The preferred method for cable removal is to cut cables and pull from the seabed which is also the least invasive in terms of seabed and sandwave disturbance. However, the MDS applied within the EIA assessments for physical processes (APP-013) and benthic subtidal ecology (APP-020) assumes for a worst case that this may not be possible, and that cables are removed using similar techniques to those employed during installation defining a realistic 'worst case' scenario. Therefore, the potential impacts on sandwaves with the associated</p>

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Reference	Question to	ExAQ1	Applicant's response
			recovery period would be in-line with the construction phase as presented in Volume 2, Chapter 1: Physical processes paragraph 1.9.5.15 (APP-013).
MP 1.5	Applicant Marine Management Organisation Natural England	<p><b>Secondary Scour</b> Both the MMO and Natural England have raised concerns that secondary scour has been scoped out of the ES. The Applicant's response [PD1-017] stated that "secondary scour has been assessed within the context of impacts to sediment transport and sediment transport pathways due to presence of infrastructure in section 1.9.5 of Volume 2, Chapter 1: Physical processes (APP-013) for the operations and maintenance phase. Where scour protection measures are to be furnished, they will be subject to engineering design to ensure they minimise as much as practical the occurrence of scour. Therefore, any residual/secondary scour would be very localised and of negligible magnitude."</p> <p>i) Can the Applicant advise how it has arrived at the conclusion of negligible magnitude given that final design of scour protection is not yet determined, whether secondary scour will be monitored over time, and what provisions will be in place to deal with scour in the event that the protection measures fail.</p> <p>ii) Can the MMO and Natural England comment on the likelihood of scour occurring if best practice scour protection methods are employed, and provide examples of where secondary scour has occurred on other operational windfarms and what the implications were.</p>	<p>The Applicant can confirm that engineering design will ensure that provision of scour protection will minimise the occurrence of scour such that any residual scour would be very localised and of negligible magnitude.</p> <p>The need and potential extent of scour protection measures will be dependent on the foundation type, geometry and location (i.e. seabed and hydrographic conditions). The exact parameters will be site specific and related to both the infrastructure type and scour protection approach, e.g. separate filter and armour layers, provision of a falling apron, or a composite solution. At the detailed design stage the magnitude of potential scour in relation to the proposed measures will be balanced. Where scour protection measures are to be furnished, they will be subject to engineering design to ensure they minimise as much as practical the occurrence of scour. The Applicant can confirm that the detail of design and construction will be outlined within the Offshore Construction Method Statement (CMS) developed in consultation with MMO. This will include an assessment of the magnitude of scour in comparison to the volumes of scour protection at the locations where it is proposed and demonstrate that any measures proposed minimise the occurrence of secondary scour. This is secured within the DCO dMLs (REP2-011, S_D2_7) under Schedules 3 and 4, Part 2, condition 20(1)(d)(ii) and construction cannot commence until the CMS is submitted and approved by the MMO.</p> <p>The Offshore In-Principle Monitoring Plan (REP2-013, S_D2_9) outlines that during the operations and maintenance phase of the project both engineering monitoring for asset security and environmental monitoring will be undertaken. As such, routine inspections will be made of cable and scour protection and, if secondary scour is identified, remedial works may be undertaken to both mitigate environmental impacts and to provide asset security. Mitigating measures may be developed in discussions with the regulatory authority and its statutory advisors. The monitoring plan is secured within the DCO dMLs (REP2-011, S_D2_7) under Schedules 3 and 4, Part 2, condition 20(1)(c).</p>

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Reference	Question to	ExAQ1	Applicant's response
MP 1.6	Marine Management Organisation	<p><b>Drilling Arisings</b>            The Planning Inspectorate advised the Applicant at Scoping stage that the ES should identify the likely site for disposal of drilling arisings and include an assessment of effects from these activities. Schedule 1, Part 1, 1(f) of the draft DCO [REP2-011] seeks to consent 'the removal of material from the seabed and the disposal of inert material of natural origin within the Order Limits produced during construction drilling...'. The Morgan Array Area Site Characterisation Report [APP-067] also states that drill arisings may consist of large, granular materials that are too large to be moved by tidal currents and may remain in situ for long periods of time.</p> <p>Can the MMO advise if it is satisfied with the proposed disposal arrangement without knowing the exact scope for this potential impact and without further conditions.</p>	<p>The Applicant notes MP 1.6 is directed towards the Marine Management Organisation and shall not be responding.</p>
MP 1.7	Applicant	<p><b>Monitoring – Invasive Non-Native Species (INNS)</b>            Section 2.9.7 of ES Volume 2, Chapter 2 [APP-020] relating to the increased risk of introduction and spread of INNS states that the removal of encrusted growth from turbines may occur during the operations and maintenance phase and that it may have the potential to introduce INNS. The ExA notes the Applicant's intention to submit a Biosecurity Risk Assessment and INNS Management Plan post consent, but what specific INNS monitoring commitments are proposed during operations and maintenance phases? If none, provide justification particularly (but not exclusively) in light of the concerns expressed by the IoM Government in its LIR [REP1-047] and the comments made in relation to sampling by the MMO [REP2-029, RR-020.47].</p>	<p>The Applicant highlights that as no significant effect was identified for the increased risk of introduction and spread of INNS impact in section 2.9.7 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) no monitoring is considered to be required.</p> <p>The Applicant can confirm, however, that in the updated Offshore In-Principle Monitoring Plan submitted at Deadline 2 (REP2-013, S_D2_9, section 1.7.2), there is a commitment to using pre and post construction survey data from drop down video to for the identification of INNS to establish presence / absence of INNS around seabed infrastructure.</p> <p>The Applicant will commit to considering the feasibility of collecting samples of the communities colonising the seabed infrastructure for further analysis of INNS. The Applicant would note, however, that the feasibility of the collection of such samples would be dependent on the technical specifications of the equipment available at the time to undertake the surveys as well as health and safety considerations.</p>
MP 1.8	Applicant	<p><b>Maximum Design Scenario Discrepancies</b>            The MDS for long term habitat loss during Construction, Operations and Maintenance Phases in Table 2.16 of ES Volume 2, Chapter 2 [APP-020] states up to 1,309,252m<sup>2</sup> of long term</p>	<p>The Morgan Generation Assets EIA process employed an MDS approach, also known as the 'Rochdale Envelope' approach (Volume 1, Chapter 5: Environmental impact assessment methodology (APP-012)), consistent with the Planning Inspectorate's Advice Note Nine: Rochdale Envelope</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>habitat loss in total, with 735,488m<sup>2</sup> from the presence of up to 68 wind turbine foundations and 24,964m<sup>2</sup> from the presence of four OSPs on suction bucket four legged jacket foundations with scour protection; and 510,000m<sup>2</sup> of habitat loss from cable protection for inter-array and inter-connector cables and 38,000m<sup>2</sup> of habitat loss for cable crossing protection.</p> <p>However, the MDS for introduction of artificial structures states up to 1,791,198m<sup>2</sup> of artificial structures comprising of up to 68 turbines and four OSPs on suction bucket foundations with scour protection, and the same amount of cable protection as that stated in the MDS for 'long term habitat loss'.</p> <p>i) Can the Applicant explain why the MDS figures for long term habitat loss and the introduction of artificial structures are not the same m<sup>2</sup> areas when the same number and type of turbines/OSP and length/width/percentage of scour and cable protection parameters are used for the MDS in both impacts?</p> <p>In addition, the justification column for the MDS for long term habitat loss states that the MDS is based on the largest wind turbine and OSP foundation types, while the justification for the MDS for introduction of artificial structures states that the MDS is based on the maximum number of wind turbine and OSP foundation types. Given that the maximum number of wind turbines proposed in the Application is 96, it is unclear why the MDS for the introduction of artificial structures refers to 68 turbines only.</p> <p>ii) The Applicant is required to review the discrepancies in the MDS and justification columns in Table 2.16 and submit an updated ES Chapter if revisions are required.</p>	<p>(2018). For each of the impacts assessed within the topic chapters, the MDS has been identified as the realistic 'worst case' from the range of potential options for each parameter provided within Volume 1, Chapter 3: Project description (APP-010). The MDS assessed therefore varies between impacts.</p> <p>The MDSs for the impacts long term habitat loss and the introduction of artificial structures, as presented in Table 2.16 in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020), are different as they consider different elements of the installed infrastructure. The MDS for long term habitat loss considers the footprint of the infrastructure on the seabed only, whereas the MDS for the introduction of artificial structures considers the 3D structure in the water column and the full surface area of the infrastructure which could be colonised, including the parts of the infrastructure (i.e. wind turbines and OSP foundations) which span the water column. Therefore, the MDS for the extent of introduction of artificial structures is greater than the extent of long term habitat loss under the infrastructure footprint alone, although both impacts consider the same infrastructure.</p> <p>The MDS for introduction of artificial structures considers the maximum number of turbines which will produce the greatest surface area for colonisation. The full range of potential options for each parameter provided within Volume 1, Chapter 3: Project description (APP-010) have been considered including the option for a 96 turbine design. However, the MDS is represented by the 68 suction bucket jacket foundation option as this would result in the greatest surface area for colonisation, as presented in Table 2.16 in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020). Therefore, the figures presented in Table 2.16 in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) are correct and there is no requirement for any revisions.</p>
MP 1.9	Applicant	<p><b>Assessment of Significant Effects</b> Paragraph 2.9.3.14 of ES Volume 2, Chapter 2 [APP-020] which relates to increased suspended sediment concentrations, states that "as outlined in Table 2.16, the MDS for foundation installation assumes all wind turbine and OSP foundations will be installed by</p>	<p>The Applicant would like to clarify that the scenario described in paragraph 2.9.3.14 of ES Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) is the scenario upon which the physical processes modelling is based. This differs from the MDS, as presented in Table 2.16 in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020), as it is based on the MDS values from</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>drilling a 16m diameter monopile to a depth of 60m at a rate of 0.73 m/h.” However, Table 2.16 outlines 45 three-legged jacket piles and 23 conical gravity base foundations.</p> <p>Review Section 2.9.3 of ES Volume 2, Chapter 2 and confirm that it is based on the MDS parameters in Table 2.16 and not on monopile foundations.</p>	<p>the Preliminary Environmental Information Report (PEIR) (the detail of the assessment is provided in Volume 4, Annex 1.1: Physical processes technical report (APP-033)). These values were refined between the submission of the PEIR and the submission of the Environmental Statement along with the proposed design envelope as a result of further engineering, environmental and technical work. These changes included the removal of monopile foundations from the project design. The modelled parameters however represent a worse scenario for increases in suspended sediment concentrations and associated deposition than is presented as the MDS in Table 2.16 in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) (i.e. a precautionary approach has been adopted), therefore the Applicant is confident that the MDS has been accurately assessed.</p>
MP 1.10	Applicant Natural England Marine Management Organisation	<p><b>Inter-related Effects: monitoring and surveying</b> Several ES chapters have referred to the possible biodiversity benefits from the introduction of artificial structures and the potential for increased foraging opportunities for fish and thus increased prey opportunities for marine mammals, as well as potential benefits to the fisheries from colonisation of the structures and reef effects allowing species like crab and lobster for example to expand their habitats.</p> <p>The ExA notes that the evidence presented for such benefits is limited and not conclusive, to the extent that it is not possible for the Applicant to quantify the biodiversity benefit that artificial structures may have over time and thus also not possible to appraise the future impact of the subsequent loss of that biodiversity benefit during the decommissioning stage when the artificial structures are removed.</p> <p>i) The Applicant is asked to justify as to why it does not intend to undertake any operational phase monitoring to verify and supplement the findings of the ES in this regard.</p> <p>ii) The Applicant is requested to suggest wording for a condition being added to the DMLs requiring that a survey of any species, habitats and reef structures present on the foundation structures is</p>	<p>The Applicant highlights the updated Offshore In-Principle Monitoring Plan (REP2-013, S_D2_9) which now contains a commitment to monitoring the colonisation of novel hard structures. This monitoring will use drop down video data collected from scheduled pre and post-construction surveys for the identification of colonisation. The Offshore In-Principle Monitoring Plan also states that this commitment to monitoring will be included and secured through relevant conditions in the dMLs within the DCO, the wording for which has been suggested in document S_D2_7 (REP2-011).</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>undertaken prior to decommissioning.</p> <p>Natural England and the MMO are invited to respond to the Applicant's suggested wording at the subsequent deadline.</p>	
MP 1.11	Applicant	<p><b>Cable Burial Depth</b>            The Scottish Fishermen's Federation (SFF) [REP1-059] have expressed notable concern with a 0.5m minimum cable burial depth, suggesting that this is not deep enough and that they would become exposed quickly following construction, leaving it unsafe to fish/tow over. The SFF requests that the developer should be committing to a deeper cable burial depth of say 1.5 - 3m. It is noted that within ES Volume 2, Chapters 1 and 2 [APP-013 and APP-020] that there is repeated mention of a commitment to bury cables where possible, however a target depth is not mentioned, rather the chapters simply refer to "a sufficient target depth".</p> <p>While it is acknowledged that a Cable Burial Risk Assessment and Burial Assessment Study, to be prepared post consent would establish the burial depth and method, can the Applicant advise whether the implications of a cable burial depth of up to 3m has been appraised within the MDS in the physical processes and benthic subtidal ecology assessments. If not, please account for the repeated references in Table 6.4 in ES Volume 2, Chapter 6 (Commercial Fisheries) [APP-024] of a maximum burial depth of 3m and why this has not been assessed in ES Volume 2, Chapters 1 and 2.</p>	<p>The Applicant can confirm that the maximum burial depth for both inter-array and interconnector cables of 3 m formed the MDS for the assessment of physical processes as presented in Volume 2, Chapter 1: Physical processes (APP-013, Table 1.13). Impacts relating to increase in suspended sediment and associated deposition for depths shallower than 3 m will have lesser impacts and are therefore encapsulated within the assessment.</p> <p>Additionally, the Applicant can confirm that the full range of burial depths, from 0.5 m to 3 m, has been included and considered in the benthic subtidal ecology MDS (Table 2.16) for the increase in suspended sediment and associated deposition and changes in physical processes impacts as presented in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020).</p> <p>The Applicant responded to the SFF in REP2-005 (REP1-059.2, REP1-059.6, REP1-059.11, REP1-509.27). Further, in response to ExA Question CF 1.8, the Applicant highlights that the target burial depths for the inter-connector and inter-array cables are 1 m and 2 m respectively. The Applicant has a Statement of Common Ground with the SFF (REP2-028), which aligns with the commitments made in the updated Outline Fisheries Liaison and Coexistence Plan (REP2-019) both of which were submitted at Deadline 2. Specifically, tertiary measure 10 has been updated at Deadline 2 to include consideration of likely seabed level change where possible establishing target cable burial depth to reduce the potential for cable exposure.</p> <p>The Offshore Construction Method Statement which includes a Cable Specification and Installation Plan and Cable Burial Risk Assessment is secured under Condition 20(1)(d) of Schedules 3 and 4 of the draft DCO submitted at Deadline 3 (S_D3_6 Draft DCO F05).</p>
MP 1.12	Applicant Marine Management Organisation	<p><b>Unexploded Ordnance Clearance Impacts</b>            The ExA notes that UXO clearance has not been considered for impacts on physical processes and benthic habitats. While the ExA acknowledges the Applicant's response on this matter to</p>	<p>The physical processes assessment presented in Volume 2, Chapter 1: Physical processes (APP-013) has been undertaken in line with the impacts agreed through the Scoping, PEIR and EWG processes, as documented in the Consultation Report - Consultation Report Appendices</p>

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Reference	Question to	ExAQ1	Applicant's response
	<p>Natural England</p>	<p>Natural England [PD1-017] (RR-26.D17 and RR-26.F15), the ExA notes that paragraph 2.9.2.9 of ES Volume 2, Chapter 2 [APP-020] seems to base the impacts of UXO clearance on the most likely (common) UXO clearance of 130kg. However, the absolute maximum UXO clearance could be a 907kg high order explosion.</p> <p>The Applicant is asked to direct the ExA to the details of the worst case (907kg) assessment for physical processes and benthic subtidal ecology receptors. If such an assessment has not been undertaken, one is required to be carried out and Chapters 1 and 2 updated by no later than Deadline 4.</p> <p>The MMO and NE are requested to submit a response to the Applicant's response at Deadline 5.</p>	<p>(APP-102, APP-103, APP-104) and Technical engagement plan appendices Part 2 (APP-90). Through this process, UXO clearance was not scoped into the physical processes assessment.</p> <p>The Applicant provided further justification for the scoping out of UXO clearance from the physical processes assessment, including the scale and extent of any potential craters and highlighted the recoverability of the seabed in the Applicant's Response to Relevant Representations (PD1-017, RR-026.D.17).</p> <p>Regarding benthic subtidal ecology, the detonation of UXO was scoped in for temporary habitat disturbance/loss and was therefore assessed in section 2.9.2 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020). The MDS for temporary habitat loss/disturbance outlined in in Table 2.16 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) considers the full range of potential UXO sizes, ranging from 25 kg to 907 kg, highlighting the most likely (common) maximum is 130 kg.</p> <p>Data in the public domain was used to determine likely crater size for the most likely (common) maximum UXO size of 130 kg (a diameter of 12.61 m (Ordtek, 2018)). Further data was also available for larger UXO up to 700 kg which have been found to produce craters with a diameter of 21 m (Equinor, 2022). The temporary habitat loss/disturbance assessment assumes that UXO clearance will occur within the sandwave clearance corridor (80 m for inter-array cables and interconnector cables). Therefore, whilst the crater size associated with a 907 kg UXO would potentially be larger than for a 700 kg UXO, it would still be within the 80 m corridor of disturbance and would therefore be within the MDS assessed for temporary habitat loss/disturbance from sandwave clearance.</p> <p>Data relating to the larger UXO indicates that crater sizes for 700 kg ordinance may be up to 5 m in depth (21 m in diameter), although observations of UXO in areas of sandy gravel, similar to those found in the Morgan array, were typically half of this predicted diameter and less than 1.5 m in depth (Ordtek, 2018). Therefore, for a maximum 907kg UXO in an area characterised by active seabed features would not give rise to significant impacts on physical processes.</p> <p>The Applicant has committed to using low order detonation techniques where possible as a primary mitigation measure (commitment reference number 3.5 in Table 1.3 of the Mitigation and Monitoring Schedule (REP2-</p>

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			<p>015, S_D2_10), which would result in much smaller areas of disturbance for all UXOs it is applied to. Low order deflagration is a new technique which has been successfully applied at the Moray West Offshore Windfarm, where 81 UXO ranging from 14 kg to 879 kg were all cleared using this technique (Ocean Winds, 2024). This example demonstrates the success of low order detonation techniques such as deflagration and demonstrates that it is highly likely the majority, if not all, of the UXO identified could be cleared using low-order deflagration methods with resulting crater sizes significantly smaller than those assessed for the MDS. The requirement for the implementation of a mitigation hierarchy with regard to UXO clearance will also be included in the Marine Mammal Mitigation Protocol (MMMP) which is secured by the UXO Clearance Condition 23 of the dMLs of the draft DCO (S EP2-011, S_D2_7). The MMMP will be discussed with stakeholders and agreed with the MMO prior to commencement of construction.</p> <p>It is noted that the principle of the EIA Directive is to determine and understand likely significant effects on the environment. The high levels of activity in eastern Irish Sea coupled with the commitment by the Applicant to apply low order/low yield techniques where safe and logistically viable to do so means there is a high level of confidence in the definition of the most likely scenario examined. In addition, the absolute maximum UXO clearance of a 907 kg ordinance with a high order explosion is unlikely and yet has been included in the assessment for benthic ecology and legitimately scoped out for physical processes. The Applicant hopes that the above clarification provides appropriate comfort on this matter, and that it can be agreed that an update to the assessment would not be a proportionate course of action.</p>
MP 1.13	Applicant	<p><b>Cumulative Effects Assessment ES Volume 2, Chapter 2: Significance of Effect</b>            Paragraph 2.6.2.8 of ES Volume 2, Chapter 2 [APP-020] which relates to impact assessment methodology, states that any effects with a significance level of minor or less have been concluded to be not significant in terms of the EIA Regulations. However, there are discrepancies in some of the cumulative effects assessment conclusions for reported minor adverse effects. For example, in Table 2.28, cumulative temporary habitat disturbance/loss during construction is reported in all three scenarios as “minor adverse</p>	<p>The Applicant confirms that, as stated in section 5.3.6 of Volume 1, Chapter 5: Environmental impact assessment methodology (APP-012), significance levels of minor or less have been concluded to be not significant in terms of the EIA Regulations. This discrepancy has been identified in Table 2.28 and Table 2.30 in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020), this has been addressed in the errata (S_D3_5_Errata Sheet F04).</p>



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		<p>significance, which is not significant in EIA terms”, yet during operations and maintenance and decommissioning phases, the minor adverse significance of effect is reported as “significant in EIA terms”. Similarly in Table 2.30, minor adverse effects are reported as significant in EIA terms in all three scenarios, yet in Table 2.31 minor adverse effects are reported as not significant in EIA terms.</p> <p>The Applicant is required to revisit the methodology and to correct any errors. However, if minor adverse significance of effects are considered significant in EIA terms for some sub topics and not for others then the rationale for this should be clearly explained in the Cumulative Effects Assessment tables (in light of the statement in paragraph 2.6.2.8 of the Chapter), and the rationale for not including any further mitigation or monitoring should also be clearly explained.</p>	

## 2.12 Marine Ornithology

Table 2.12: Response to ExAQ1: Marine Ornithology Questions.

Reference	Question to ExAQ1	Applicant's response
MO 1.1	<p>Applicant</p> <p><b>SNCB Advice Note</b> In August 2024 the 'Joint advice note from the Statutory Nature Conservation Bodies (SNCBs) regarding bird collision risk modelling for offshore wind developments' was published, subsequent to the acceptance of the DCO application for Examination. Can the Applicant provide comment as to whether there are any implications for the ES and HRA for the Proposed Development resulting from this recent guidance?</p>	<p>The Applicant has identified a few minor differences between recommended values in the joint guidance (JNCC <i>et al.</i>, 2024) and those applied by the Applicant in the Morgan Generation Assets application. These include:</p> <ul style="list-style-type: none"> <li>• The standard deviation associated with bird length for great black-backed gull. In the application a value of <math>\pm 0.0375</math>, with a value of <math>\pm 0.035</math> in JNCC <i>et al.</i> (2024). If used this would mainly affect the uncertainty metrics associated with collision risk estimates, reducing the associated uncertainty with narrower confidence intervals, having a negligible impact on collision risk estimates.</li> <li>• Nocturnal activity factor for kittiwake. A value of 0.375 (<math>\pm 0.0637</math>) was used in the application, with a value of 0.40 (<math>\pm 0.12</math>) recommended in JNCC <i>et al.</i> (2024). If applied this would result in a minor increase in collision risk estimates for kittiwake</li> <li>• Nocturnal activity factor for gannet. A value of 0.08 (<math>\pm 0.10</math>) was used in the application, with a value of 0.14 (<math>\pm 0.10</math>) recommended in JNCC <i>et al.</i> (2024). If applied this would result in a minor increase in collision risk estimates for gannet</li> <li>• Avoidance rates for kittiwake and gannet. A value of 0.9928 (<math>\pm 0.0003</math>) was used in the application, to reflect the SNCB position, with a value of 0.9929 (<math>\pm 0.0003</math>) recommended in JNCC <i>et al.</i> (2024). If applied this would reduce collision risk estimates for both species</li> <li>• Avoidance rates for great black-backed gull, herring gull and lesser black-backed gull. A value of 0.9939 (<math>\pm 0.0004</math>) was used in the application, to reflect the SNCB position, with a value of 0.9940 (<math>\pm 0.0004</math>) recommended in JNCC <i>et al.</i> (2024). If applied this would reduce collision risk estimates for all species.</li> </ul> <p>Overall, collision risk estimates for great black-backed gull, herring gull and lesser black-backed gull calculated representing the most recent SNCB guidance (JNCC <i>et al.</i>, 2024) would decrease. For gannet and kittiwake, the changes to nocturnal activity factor and avoidance rate would largely cancel each other out and therefore there would be little to no change in</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>collision risk estimates for these species and no material change to the impacts predicted in Volume 2, Chapter 5: Offshore ornithology (APP-023) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) and associated documents.</p> <p>The Applicant notes that Natural England raised changes to certain parameters used in collision risk modelling (CRM) in their Relevant Representation (RR-026.B.58 (PD1-017)) and stated that they were content with the parameters used for the assessment.</p>
MO 1.2	Applicant	<p><b>Birds of Conservation Concern – Breeding Seabirds</b>            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. Can the Applicant provide comment as to whether there are any implications for the ES and HRA for the Proposed Development resulting from this recent publication?</p>	<p>As part of Stanbury <i>et al.</i> (2024), five seabird species were added to the UK Red List. These species were Arctic tern, Leach’s petrel, common gull, great black-backed gull and great skua. The UK Birds of Conservation Concern is used as part of the identification of a species conservation value in Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053), which in turn informs the identification of a species sensitivity in Volume 2, Chapter 5: Offshore ornithology (APP-023). The UK Red List is one of the criteria for a Regional conservation value in Table 1.12 of Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053). Of the species moved to the Red List in Stanbury <i>et al.</i> (2024), Arctic tern, Leach’s petrel, great black-backed gull and great skua are already identified as Valued Ornithological Receptors (VORs) in Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053). Of these species, great skua is a VOR of International conservation value, Arctic tern and Leach’s petrel as species of National conservation value and great black-backed gull as a species of Regional conservation value. The inclusion on the UK Red List for all of these species would therefore not change the conservation value assigned in Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053).</p> <p>Common gull is not identified as a VOR in in Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053). This decision is driven by the abundance of the species at the Morgan Generation Assets not surpassing importance thresholds. The inclusion of the species on the UK Red List would not change this conclusion.</p> <p>The metrics in Stanbury <i>et al.</i> (2024) are not used to inform the assessments undertaken in HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>Site assessments (APP-098). The HRA is instead driven by consideration of SPAs and associated qualifying features.</p> <p>For the reasons set out above, the application of Stanbury <i>et al.</i> (2024) would make no difference to the assessments in the EIA or the HRA.</p>
MO 1.3	Natural England Natural Resources Wales	<p><b>Deadline 2 submissions for SNCBs review</b></p> <p>The ExA notes Natural England has confirmed it will provide at Deadline 3 a response to documentation submitted by the Applicant at Deadline 1, relevant to the SNCB's key concerns on offshore ornithology. Additional relevant documentation has been submitted by the Applicant at Deadline 2 [REP2-005, REP2-021, REP2-022, REP2-023].</p> <p>Natural England and NRW are requested to respond to documentation relevant to the SNCB's key concerns on offshore ornithology which has been submitted by the Applicant at Deadlines 1 and 2 and to confirm which elements of the Applicant's responses have addressed their concerns.</p>	<p>The Applicant notes MO 1.3 is directed towards NE/NRW and shall not be responding.</p>
MO 1.4	Applicant	<p><b>Cumulative Effects Assessment Methodology 1</b></p> <p>The Applicant's response to Natural England's comments that it does not consider the CEA to be sufficiently robust [PD1-017 p.110-111] states that it has presented an approach that "goes beyond that presented for any previous offshore wind farm application, quantifying the impacts for projects where quantitative project-specific information is available and, where such data are not available, considering any available qualitative project-specific information". Can the Applicant explain this statement and summarise what sets its approach apart from other OWF applications, giving specific examples specifically in relation to ornithology. Note: The ExA acknowledges the 'gap filling' note submitted at D1 [REP1-010] and will await comments from the SNCBs on this before asking any further questions on this matter.</p>	<p>Whilst previous applications have included available quantified impact estimates, the assessments provided by the Applicant have provided detailed qualitative information for all projects where quantified impact estimates are not available. This has not been undertaken in any other previous offshore wind application (with the exception of the Mona Offshore Wind Project which was submitted shortly before the Morgan Generation Assets application and included collaboration between the two project teams to present a consistent approach). Instead, previous offshore wind applications have simply omitted projects where quantified impact estimates are not available, on the assumption that any contribution from these projects would make no difference to the assessment conclusions. The approach taken by the Applicant has taken the standard approach of presenting quantified impacts for projects for which collision and displacement outputs are available and also included qualitative information for projects for which quantified impact estimates are not available. It is this final step (i.e. the inclusion of qualitative information), that is not usually undertaken.</p> <p>It should be noted that the lack of quantified impact estimates for use in cumulative and in-combination assessments is not unique to the Morgan Generation Assets. The Secretary of State recently granted consent for the</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>Awel y Môr offshore wind farm, which is located to the south of the Morgan Generation Assets, with this project not required to provide quantified cumulative effects assessment (CEA) data for all historic projects, nor provide assessments that incorporated the qualitative discussion included in the assessments for the Morgan Generation Assets. This is also applicable to every other offshore wind farm project in UK waters, with the Secretary of State having granted consent despite impacts for some projects not having been quantified within cumulative and in-combination assessments.</p> <p>Therefore, by undertaking the additional qualitative assessment the Applicant has presented an approach that goes beyond that presented for any previous offshore wind farm application.</p>
MO 1.5	Natural Resources Wales	<p><b>Cumulative Effects Assessment Methodology 2</b>            NRW [RR-027] refer to ongoing internal discussions regarding the development of an approach which may help address the issue of uncertainty with (qualitative) assessments of projects for which data is unavailable. Can NRW provide an update on this, including timescales, and any other relevant information which may assist in the ExA's consideration of this matter.</p>	<p>The Applicant notes MO 1.5 is directed towards NRW and shall not be responding.</p>
MO 1.6	Applicant Natural England	<p><b>“Air Gap” (Blade Clearance)</b>            ES Volume 1, Chapter 3 [APP-010] Table 3.5 and Volume 2, Chapter 5 [APP-023] Tables 5.25 and 5.26 set out a minimum lower blade tip height of 34m above Lowest Astronomical Tide (LAT). Table 1.4 of ES Volume 4, Annex 5.3 [APP-055], in setting out the wind turbine parameters in the MDS, states an air gap of 30m above mean sea level (MSL). The glossary refers to Air Gap as “The gap between the sea and the lowest point of a wind turbine rotor blade. Expressed in relation to sea level (e.g. MSL, LAT or HAT)”.</p> <p>Natural England's RR [RR-026] (Appendix B B3/B18/B52) requests presentation of the air gap above Highest Astronomical Tide (HAT) to facilitate comparison with other projects, and sets out a required minimum air gap of 22m relative to HAT. The Applicant [PD1-017] confirms that the minimum air gap at HAT would be 26m, and confirms that the model has been parameterised to ensure the model uses MSL. Whilst the minimum lower blade tip above LAT is stated in draft DCO</p>	<p>In Table 5.25 (Maximum design scenario (MDS) considered for the assessment of potential impacts on offshore ornithology) in Volume 2, Chapter 5: Offshore ornithology (APP-023), the minimum lower blade tip height is stated as 34 m above Lowest Astronomical Tide (LAT). In Table 3.5 (Maximum design parameters: wind turbines) of Volume 1, Chapter 3: Project description (APP-010) the minimum lower blade tip height is also stated as 34 m above LAT. In Table 1.4 (Wind turbine parameters in the MDS for CRM) in Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report (APP-055), the minimum lower blade tip height is also stated as 34 m above LAT (whilst also including reference to the air gap at Mean Sea Level (MSL) and a tidal offset (i.e. the difference between LAT and MSL) of -4 m). The air gap is therefore presented consistently in the tables referenced.</p> <p>Differences in the presentation of the MDS for the air gap between various documents is sometimes necessary to reflect the different requirements of the assessment methodology. For example, the requirements for offshore ornithology specify the use of MSL for collision risk modelling as noted above. For shipping and navigation, Mean High Water Springs (MHWS) is</p>

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		<p>Requirement 2 (table 1) and DML condition 10 (tables 2 and 3) as 34m above LAT, the distance above HAT is not.</p> <p>The ExA also notes that there appears to be an inconsistent approach to presentation of the MDS for the air gap between various documents. The Applicant is asked to:</p> <p>i) Provide an update to the relevant Tables in the above-mentioned documents and consistently present the air gap, expressed above LAT, HAT and MDS.</p> <p>ii) Express the air gap within the draft DCO (Requirement 2 and DML condition 10) as a minimum above HAT as well as LAT, clearly stating the differential between LAT and HAT in metres. Natural England are asked to confirm if it is satisfied with the Applicant's response to their comments in relation to the minimum air gap [PD1-017] or whether it requires any further information on this point.</p>	<p>also referenced, in compliance with the datum used in MGN654 (see Volume 2, Chapter 7 Shipping and navigation (APP-025)). The Applicant therefore considers that the air gap has been referenced accordingly for each relevant assessment.</p> <p>The Applicant is content for the draft DCO to be updated to include the air gap referenced to HAT as well as LAT and clearly stating the tidal offset values. This will be reflected in the updated draft DCO submitted at Deadline 3.</p>
MO 1.7	Natural England	<p><b>Baseline Characterisation</b></p> <p>ES Volume 4, Annex 5.1 [REP1-026] has been updated at D1. The Applicant states that these are minor amendments which have no material effect and there is no change to the conclusions of no significant effect in terms of EIA and no adverse effect on integrity in regards of HRA. These amendments follow the Errata Sheet issued at the Procedural Deadline [PD1-003]. Could Natural England confirm if the update reflects their comments made in Table 2 of (B4 to B12) [RR-026] or whether it requires any additional information.</p>	<p>The Applicant notes MO 1.7 is directed towards Natural England and shall not be responding.</p>
MO 1.8	The Applicant Natural England Royal Society for the Protection of Birds	<p><b>Highly Pathogenic Avian Influenza (HPAI)</b></p> <p>Paragraph 5.5.6.3 [APP-023] of ES Volume 2, Chapter 5 refers to 61 bird species being affected by HPAI, in particular gannet and great skua. Paragraph 5.6.2.4 states that the overall recoverability defined for the purposes of assessment is based on the longer-term population trends and not the impacts caused by HPAI which are as yet unknown.</p> <p>Natural England [RR-026 and REP1-053] refer to a lack of consideration of HPAI and at Annex 2 provides its September 2022 advice on impact assessment.</p> <p>The Royal Society for the Protection of Birds (RSPB) [RR-035] acknowledge that it is currently unclear what the population</p>	<p>The effect of Highly Pathogenic Avian Influenza (HPAI) has been considered within the assessments presented in line with Natural England's guidance. The affect HPAI may have on the assessments for the Morgan Generation Assets was discussed during the EWG process as recommended in Natural England's guidance. In the immediate vicinity of the Morgan Generation Assets (i.e. the north east Irish Sea), there are no large breeding seabird colonies and it is therefore unlikely that HPAI will have affected the populations recorded during site-specific surveys.</p> <p>HPAI is considered in Volume 2, Chapter 5: Offshore ornithology (APP-023) as follows:</p>

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	<p>scale impacts of the HPAI will be, but note that it is likely that they will be severe, meaning that “seabird populations will be much less robust to any additional mortality arising from offshore wind farm developments”, and therefore advises a high level of precaution to be included in examination of impacts arising from the Proposed Development. It also does not consider that such concerns have been adequately considered in the Assessment.</p> <p>The Applicant in its responses to both NE and the RSPB [PD1-017] states that the effect of HPAI has been considered in line with Natural England’s guidance, and refers to ES Volume 2, Chapter 5 [APP-023] paragraph 5.6.2.4 of and assessments for individual species in section 5.9. The Applicant considers it has incorporated HPAI into the assessments as best as possible, based on the available information.</p> <p>Can the Applicant:</p> <p>i) Signpost the ExA to the individual species assessments which are of relevance in terms of potential HPAI effects in section 5.9 of ES Volume 2, Chapter 5 [APP-023] or elsewhere in the submission, and provide any additional or updated information on HPAI which would assist the Examination.</p> <p>ii) ‘HPAI’ is not listed in the acronyms list for ES Volume 2, Chapter 5 [APP-023]. Ensure it is added to any future version. Can Natural England:</p> <p>iii) Provide clarification on whether Annex 2 [RR-026] is up-to-date, in particular point 11 which refers to advice to Defra underpinning an English Seabird Conservation and Recovery Plan.</p> <p>iv) Provide details of the most up-to-date version of this document and point to its contents which the ExA should be aware of.</p> <p>Can the RSPB:</p>	<ul style="list-style-type: none"> <li>• Paragraph 5.6.2.4, which details that the overall recoverability of the species included has not incorporated information on HPAI as this metric is based on longer term population trends</li> <li>• Paragraph 5.5.6.3, which discusses data limitations in relation to HPAI.</li> </ul> <p>Within the individual species assessments, in section 5.9 of Volume 2, Chapter 5: Offshore ornithology (APP-023), HPAI has been considered for relevant species (e.g. paragraph 5.9.1.70, 5.9.1.123, 5.9.4.56 for gannet and paragraph 5.9.4.63 for great skua).</p> <p>In addition, in HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098), the assessments utilise the most recent population size for each SPA. Where a colony count exists, post any effects of HPAI, this has been used to inform the assessments (e.g. for gannet at the Grassholm SPA). The Applicant notes that the population at Grassholm has increased in 2024, and therefore the assessment presented in HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) can be considered precautionary.</p> <p>The Applicant notes that there have been very few cases of HPAI in breeding seabirds so far this current year (up to week 43 of 2024)<sup>2</sup>, with ten cases for fulmar, 14 for great black-backed gull, seven for great skua, 17 for herring gull and four cases for gannet. The Applicant also notes that there have been reports from many seabird colonies of improved numbers of breeding birds being present including the highest number of breeding gannet ever recorded at Fair Isle<sup>3</sup> and signs of recovery for gannet at Bass Rock<sup>4</sup>.</p> <p>Therefore, the latest evidence (as noted above) indicates that the populations of birds, at least in the short term, appear to be unaffected at some colonies. However, for metrics such as breeding productivity, longer datasets will be required to determine if HPAI has affected breeding populations. The assessments presented provide information in line with</p>

<sup>2</sup> <https://www.gov.uk/government/publications/avian-influenza-in-wild-birds>

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Reference	Question to	ExAQ1	Applicant's response
		v) Provide a response to the Applicant's response to RRs [PD1-017] (in particular references RR-035.10, 35 and 37) and confirm if you consider any additional information or assessment is required from the Applicant, and why, regarding HPAI effects.	<p>Natural England's guidance both as part of the guidance document and through discussions during the EWG process.</p> <p>The Applicant will ensure that HPAI is included in the acronyms list for all future submissions, where relevant.</p>
MO 1.9	Applicant Natural England	<p><b>Sabbatical Birds</b></p> <p>Natural England in its Risk &amp; Issues Log (B28 to B30 [REP1-053]) acknowledge that sabbatical birds represent a knowledge gap for ecologically realistic impact assessments, but advise that integrity judgements should be based on assessments that do not remove sabbatical birds at the apportioning phase, and that the Applicant should ensure assessments that do not apportion sabbatical birds are clearly presented, and that those mortality assessments are considered in relation to baseline mortality and taken through to population viability analysis where required. NE assumes that impact assessments that have removed sabbaticals are not actually progressed through all stages of assessment; the Applicant should confirm that this is the case and edit text for clarity as necessary. The Applicant's response to RR-026 (B.69, B.70 [PD1-017]) confirms that the proportion of any impact that may be attributable to sabbatical birds has only been considered qualitatively and has not been incorporated into any apportioning calculations, stating that this is in alignment with NE's recommendations and that it has applied the best available evidence in a qualitative fashion within the assessments. Natural England is asked to explain if the Applicant's responses at Deadlines 1 and 2 are sufficient or if any additional information is required. The Applicant is asked to provide any further clarification sought by Natural England.</p>	<p>The Applicant notes this question and will respond to any future clarifications requested by Natural England.</p>
MO 1.10	Natural England Natural Resources Wales The Applicant	<p><b>Kittiwake Age Apportioning</b></p> <p>Natural England (Appendix B B35 [RR-026] and Appendix I1 B27, B35, B50 [REP1-053] and NRW (paragraph 21 [RR-027] and paragraph 50 [REP1-056]) have not reviewed the displacement assessment for Kittiwake because it is not considered to be an accurate reflection of SNCB advice. The use of the kittiwake adult proportion that was calculated for Hornsea 2 is considered by both Natural England and NRW to be inappropriate to apply to Morgan Generation Assets.</p>	<p>The Applicant has submitted a kittiwake apportioning clarification note at Deadline 3 (S_D3_11) which provides assessments incorporating Natural England and NRW's preferred approach to calculating the proportion of immature kittiwake present (i.e. a 84.11% adult proportion).</p> <p>The conclusions of this note show that the exclusion of older immatures from the apportioning value applied for kittiwake at relevant SPAs makes no difference to the conclusions reached in HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098), namely no adverse effect for</p>



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Reference	Question to	ExAQ1	Applicant's response
		<p>The Applicant's response (RR-026.B.68 and RR-027.27 [PD1-017] maintains, as discussed in ES Volume 4, Annex 5.5: Offshore ornithology apportioning technical report [APP-057], the approach applied is ecological valid whilst remaining precautionary and is still highly likely to return an immature proportion that is an under-estimate (and therefore over-estimate the adult proportion). NRW are also directed to section 1.3.3 of the 'Orme Head SSSI Clarification Note' [REP1-013] regarding apportioning of kittiwake in the breeding season.</p> <p>Natural England and NRW are asked to confirm if they are satisfied with the Applicant's response or whether any additional information or assessment is required.</p> <p>Can the Applicant confirm whether using 84.11% of adults for the breeding season (in line with the advice from the SNCBs) would result in a material change to its ES and HRA assessments.</p>	<p>any SPA at which kittiwake is a qualifying feature, and other associated documents submitted to the Examination.</p>
MO 1.11	Natural Resources Wales	<p><b>Pen y Gogarth / Great Orme Head Site of Special Scientific Interest (SSSI)</b></p> <p>The Applicant's response [REP1-013] to NRW's RR [RR-027] provides further clarification and updated assessments regarding species that are features of the Pen y Gogarth / Great Orme Head SSSI (kittiwake, guillemot and razorbill). NRW are asked to confirm if it is satisfied with this response or whether any additional information is required.</p>	<p>The Applicant notes MO 1.11 is directed towards NRW and shall not be responding.</p>
MO 1.12	Isle of Man Government	<p><b>Manx Shearwater</b></p> <p>Section 2.4 of the Isle of Man Government's Local Impact Report [REP1-047] notes particular concerns regarding impacts on Manx shearwaters and great black backed gulls. The RSPB also raise key concerns regarding effect on Manx shearwater [RR-035]. Can the Isle of Man Government clarify: i) The conservation status of these species on the Isle of Man. ii) Whether they agree with the methodology and impacts in ES Volume 2, Chapter 5 [APP-023] having regard to the RSPB comments on this species. iii) Any further comments to substantiate its concerns.</p>	<p>The Applicant highlights that this point has been agreed with the Isle of Man Government as part of the SoCG submitted at Deadline 3 (S_D3_IoM_TSC Initial SoCG Isle of Man Government (Territorial Sea Committee) F02).</p>

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Reference	Question to	ExAQ1	Applicant's response
MO 1.13	Applicant	<p><b>Ornithological Monitoring</b></p> <p>Natural England highlights the importance of the In-Principle Monitoring Plan (IPMP) and the emphasis being placed by projects currently in the post-consent phase on it when setting monitoring requirements and parameters. Establishing and agreeing the uncertainties and evidence gaps of the EIA and/or the HRA is necessary to inform what monitoring should be undertaken, and advice is provided within NE's submission which should be addressed by the Applicant in the next version of their IPMP.</p> <p>Paragraphs 2.8.83 to 2.8.87 and 2.8.295 of NPS EN-3 set out the importance of monitoring specifically in relation to offshore wind. Where requested by the Secretary of State, applicants are required to undertake environmental monitoring (e.g. ornithological surveys) prior to and during construction and operation. This will enable an assessment of the accuracy of the original predictions and improve the evidence base for future mitigation and compensation measures, enabling better decision-making in future EIAs and HRAs.</p> <p>In respect of ornithology, no post-consent monitoring is proposed for bird species in the submitted IPMP [REP2-013]. The ExA notes the Applicant's position (pages 106 and 150 [PD1-017] that very small predicted impacts are not considered to justify monitoring and it would be difficult to define options that would achieve statistical robustness. It is also noted that monitoring may not be undertaken on other recent OWFs (for example Walney Extension). The reasoning given is not adequate justification in this case given the presence of knowledge and evidence gaps which NE highlights that "Data acquired during post-consent monitoring could be used to validate predictions and assumptions made within the application and also help to detect unforeseen effects and address uncertainty. This is particularly valuable for receptors not usually the subject of post-construction monitoring e.g. manx shearwater" (paragraph 16 [REP1-054]).</p>	<p>The impact magnitudes predicted for the Morgan Generation Assets are much lower than those predicted for other offshore wind farms in UK waters, especially when compared with other projects in the Irish Sea (e.g. Walney Extension, which was not required to undertake post-consent monitoring) and those in the North Sea (e.g. projects in the Hornsea Zone and the Firth of Forth region). Whilst there is a degree of uncertainty associated with all impacts predicted for offshore wind farms, the extent to which this has to be considered within the assessments is relative to the magnitude of impacts predicted.</p> <p>Post-consent monitoring for previous offshore wind farms has been undertaken to address this uncertainty and validate the conclusions of associated assessments undertaken pre-consent. Whilst this uncertainty exists in the assessments undertaken for the Morgan Generation Assets, the value of conducting post-consent monitoring to address these areas of uncertainty at a project which has limited impacts on offshore ornithological receptors and therefore low abundances of focal species is of little value. The presence of relatively low numbers of birds, make it highly probable that any monitoring programme would be unable to provide conclusions that were statistically robust. It is therefore considered that areas of uncertainty relevant to the Morgan Generation Assets are more effectively addressed at projects where seabird abundances are higher or through strategic monitoring programmes.</p> <p>The Applicant is a contributor to a number of these strategic monitoring programmes, as described in the Applicant's response to Written Representations submitted at Deadline 2 (comment reference REP1-054.27 (REP2-005)), which address uncertainties associated with the key species in the Morgan Generation Assets assessments. The Applicant plans to continue this involvement during the operation of the Morgan Generation Assets. The Applicant maintains that focus on this type of monitoring is of much greater value than could be achieved by project-specific monitoring of predicted impacts that are not significant in EIA terms.</p> <p>The Applicant is cognisant of the wording of the NPS, but considers that it does not preclude the merit in case by case judgement, and given the rationale set out above opines that there is solid justification for not undertaking project specific ornithological monitoring in this instance.</p>

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Reference	Question to ExAQ1	Applicant's response
		The Applicant is asked to include ornithological monitoring of key ornithology receptors within the IPMP and appropriately secure it within the draft DCO, drawing on SNCB advice.
MO 1.14	<p>Applicant Morecambe Offshore Windfarm Ltd</p> <p><b>Morecambe Offshore Windfarm: Generation Assets, Collaborative Monitoring</b> Paragraph 2.8.87 of NPS EN-3 states that “Where appropriate, applicants are also encouraged to consider monitoring collaboratively with other developers and sea users. Work is ongoing between government and industry to support effective collaboration and the development of monitoring at a strategic level”. The ExA is aware that the submitted IPMP for Morecambe Offshore Windfarm: Generation Assets (EN010121 [APP-148]) includes provision for ornithological monitoring. The Applicant and Morecambe Offshore Windfarm Ltd are both asked to:</p> <p>i) Explain what are the differences in effects to ornithological receptors that have triggered monitoring in the case of Morecambe OWF but not for the Proposed Development? ii) Comment on whether collaborative ornithological monitoring is being considered between Morgan and Morecambe, and if so, the form which this is likely to take. iii) Include collaborative monitoring in the next version of the Interrelationship Report [REP1-017] (for ornithology and any other topics as applicable).</p>	<p>The Applicant understands that the Morecambe Offshore Windfarm: Generation Assets have included options for potential offshore ornithology monitoring in their IPMP as a basis for discussion with SNCBs, but with no direct commitment to monitoring. Since the submission of the IPMP, concerns in relation to potential effects on red-throated diver (Natural England, Morecambe Offshore Windfarm: Generation Assets Examination Library Reference RR-061) have been raised, and the Applicant understands from discussions with Morecambe Offshore Windfarm Ltd that this is intended to be the focus of their proposed ornithological monitoring (see RR-061-40 in 8.3 The Applicant's Response to Relevant Representations (PD1-011)).</p> <p>The Morgan Generation Assets is located beyond 10 km from the Liverpool Bay SPA and no red-throated diver were recorded in the baseline surveys (see Table 5.12 of Volume 2, Chapter 5 Offshore ornithology (APP-023)). The Applicant therefore maintains that post-consent monitoring for ornithological receptors is not required for the Morgan Generation Assets, and this includes collaborative monitoring.</p>
MO 1.15	<p>Ørsted IPs</p> <p><b>Ørsted IPs Environmental Concerns</b> The Ørsted IPs refer to environmental concerns which relate to ornithology and the CEA, questioning the robustness of the assessments [PD1-024, REP1-060, REP1-061, REP1-062, REP1-063, REP1-064 and REP1-066]. The responses state that Natural England have raised similar concerns and that it will be best placed to further address the issues raised. Can the Ørsted IPs clarify whether they will be making further submissions regarding ornithology which may specifically related to the OWFs which it operates, or if they are content to defer the matter to Natural England.</p>	<p>The Applicant notes MO 1.15 is directed towards Ørsted IPs and shall not be responding.</p>
MO 1.16	<p>The Applicant</p> <p><b>Outstanding Ornithological Matters</b> Based on the current outstanding ornithological matters</p>	<p>The Applicant confirms that there is no additional survey work planned. Information requested by the SNCBs has been provided to the</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>between the Applicant and the SNCBs, is there any information or additional survey work being requested by them that is likely to be delayed or submitted later in the Examination, or post-consent? If yes, provide the likely timescales for submission.</p>	<p>Examination in those clarification notes submitted at the Procedural Deadline, Deadline 1 and Deadline 2, with a clarification note addressing comments on the approach to apportioning for kittiwake submitted at Deadline 3 (S_D3_11). The Applicant will continue to review submissions made by the SNCBs and update the Examining Authority on the submission or otherwise of further clarification notes.</p>
MO 1.17	The Applicant	<p><b>Isle of Man Ramsar sites</b>            The Isle of Man is not an EEA State and thus is not signed up to the Habitats/Birds Directives and do not designate SPAs and SACs. However, they are signatories to the Ramsar Convention.</p> <p>Can the Applicant confirm whether any consideration has been given to the potential for effects on the following Isle of Man Ramsar sites (potential and listed) and if so, confirm the conclusions in this regard?</p> <ul style="list-style-type: none"> <li>• Ballaugh Curragh Ramsar site;</li> <li>• Central Valley Curragh proposed Ramsar site;</li> <li>• Dalby Peatlands proposed Ramsar site;</li> <li>• Gob ny Rona, Maughold Head and Port Cornaa proposed Ramsar site;</li> <li>• Southern Coasts and Calf of Man proposed Ramsar site; and</li> <li>• The Ayres proposed Ramsar site.</li> </ul>	<p>The process for identifying relevant European sites for consideration in the HRA Stage 1 Screening Report (APP-099) involved a review of the sites listed on the JNCC's data hub, in addition to Natural England, NatureScot and NRW open data sites. With regards to protected sites on the Isle of Man, the Applicant used the maps data provided on the official Isle of Man Government website (<a href="https://www.gov.im/maps/">https://www.gov.im/maps/</a>).</p> <p>The Applicant consulted on the scope of the HRA throughout the pre-application phase via the Evidence Plan Steering Group and Expert Working Groups (EWGs) which resulted in updates to features, sites or impacts being included in the HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098). The Applicant also consulted on the scope of the HRA during the Section 42 consultation. The results of this consultation are detailed in the Consultation Report (APP-088) and the Technical engagement plan appendices Part 4 (Appendix D) (APP-092), and as a result of feedback received from NRW, several Welsh onshore ornithological sites were added and considered within the HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098).</p> <p>The Applicant can confirm that consideration has been given to the Ballaugh Curragh Ramsar site. This site is not designated for any seabird species but is designated for corncrake (<i>Crex crex</i>) and hen harrier (<i>Circus cyaneus</i>). The screening for these species is initially undertaken at the species level without reference to specific designated sites. If an LSE is identified for a species, then all designated sites for that species would be progressed to the ISAA. For both species no LSE was identified and therefore there is no potential for LSE on the Ballaugh Curragh Ramsar site.</p> <p>With regards to the five proposed Ramsar sites listed by the ExA on the Isle of Man, the Applicant notes that these sites are not included in the maps data provided on the official Isle of Man Government website</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>(<a href="https://www.gov.im/maps/">https://www.gov.im/maps/</a>). The only reference that the Applicant is aware of relating to these sites is in the UK Overseas Territories Conservation Forum (UKOTCF) (2005a) review of existing and potential Ramsar sites in UK Overseas Territories and Crown Dependencies and associated Annex 2 of draft Ramsar Information Sheets (UKOTCF, 2005b).</p> <p>As explained in the Consultation Report (APP-088) and the SoCG between the Applicant and the Isle of Man Government (Territorial Sea Committee) submitted at Deadline 1 (REP1-034), the Isle of Man Government was consulted throughout the pre-application phase of the Morgan Generation Assets and were active participants in the Offshore Ornithology EWG. Throughout the pre-application consultation, including the Section 42 consultation responses, the Isle of Man Government requested consideration of the Isle of Man Government Marine Nature Reserves (MNRs) in the Environmental Impact Assessment (EIA). At no point during pre-application consultation, or in its Relevant Representation (RR-015), did the Isle of Man Government raise the five proposed Ramsar sites to the Applicant, nor request consideration of these in the HRA Stage 1 Screening Report (APP-099). The Applicant has, therefore, focused on the Isle of Man MNRs in the EIA.</p> <p>With regards to the Central Valley Curragh proposed Ramsar, the Applicant notes that there is no potential for a receptor-impact pathway for any of the features (i.e. shrub-dominated riverside curraghs) and so this site would have been screened out from further consideration. For the Dalby Peatlands proposed Ramsar site, there is a potential receptor-impact pathway for the hen harrier feature, with this species being included within the migratory waterbird category within the screening exercise (HRA Stage 1 Screening Report (APP-099)). As mentioned above for the hen harrier feature of the Ballaugh Curragh Ramsar site, screening for the migratory waterbird category is initially undertaken at the species level instead of individual designated sites. If no LSE is identified for a species, then no LSE is identified for all designated sites at which that species is a qualifying feature. As no LSE was identified for hen harrier then no LSE is identified for all designated sites at which hen harrier is a qualifying feature, including the Dalby Peatlands proposed Ramsar site. 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).</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>The Applicant notes that the Isle of Man MNRs, which were designated in 2018, provide coverage of most of the coastline of the Isle of Man, including the areas proposed to be covered by the Gob ny Rona, Maughold Head and Port Cornaa proposed Ramsar, the Southern Coasts and Calf of Man proposed Ramsar and The Ayres proposed Ramsar. The Applicant also notes that the proposed features of these three proposed Ramsar sites are now designated under the Isle of Man MNRs. The Applicant has given due consideration to the potential for impacts to features of the Isle of Man MNRs, as identified as priorities by the Isle of Man Government, in the EIA, including them in the review of designated sites in Volume 4, Annex 5.1: Offshore ornithology baseline characterization (APP-053) which informed the identification of Valued Ornithological Receptors.</p>

## 2.13 Other Offshore Infrastructure and Activities

Table 2.13: Response to ExAQ1: Other Offshore Infrastructure and Activities Questions.

Reference	Question to ExAQ1	Applicant's response
INF 1.1	<p>Applicant</p> <p><b>Co-operation or co-existence agreements with other infrastructure operators</b> Further to submissions regarding potential agreements, including (but not limited to) Morecambe Offshore Windfarm Ltd [RR-022], Moir Vannin Offshore Wind Farm Limited [RR021] and Harbour Energy/ Chrysaor Resources [REP1-044], can the Application provide:</p> <p>i) A table which can be updated throughout the Examination on discussions regarding progress towards any co-operation and co-existence agreements (if necessary; or an alternative type of agreement) between both existing and proposed offshore infrastructure. This should include expected timescales for completion of such agreements.</p> <p>ii) Clarify how such agreements could be secured in the draft DCO, including triggers for provision and how they could be discharged.</p>	<p>The Applicant does not consider it necessary to enter into a co-operation agreement or co-existence agreement with any of the named parties and therefore does not propose any mechanism is included within the draft DCO that would require this.</p> <p>In respect of the Morecambe Generation Assets (“Morecambe”), there are no activities planned which are joint activities between the Applicant and Morecambe and no anticipated overlap in activities that would require co-ordination to be secured in a contractual form. As noted in paragraph 1.4.1.1 of the Report on Interrelationships with Other Infrastructure Projects [REP1-017], there might be opportunities for co-operation between various projects in their construction and their mitigation measures, and it is in the interest of the Applicant to explore such co-ordination for efficiency reasons, but ultimately the timescales for delivery of the different projects could vary.</p> <p>In respect of Moir Vannin Offshore Wind Farm Limited (“Moor Vannin”), there are no activities planned which are joint activities between the Applicant and Moir Vannin. Whilst the Moir Vannin project is at an earlier stage in the consenting process, based on the information currently available there is no anticipated overlap between the project construction activities that would need to be managed through a co-operation agreement.</p> <p>In respect of Harbour Energy, the assessment within the Environmental Statement (Volume 2, Chapter 9: Other sea users (APP-027)) concluded that there would be no significant effects on Harbour Energy’s infrastructure or operations. It is considered that there is no need for further mitigation through a co-operation agreement or otherwise.</p> <p>On that basis, the Applicant does not consider it necessary for any co-operation or co-existence agreements to be secured through the DCO.</p> <p>The Applicant will have a proximity agreement with Manx Utilities and this arrangement is reflected in the Commercial Side Agreements Tracker, submitted at Deadline 3 (Document reference S_D3_13 Commercial Side Agreements Tracker F01).</p>

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Reference	Question to ExAQ1	Applicant's response
INF 1.2	Harbour Energy/ Chrysaor Resources	<p><b>Response to Harbour Energy Written Representations</b></p> <p>The Applicant's response to Harbour Energy (Table 2.3 [REP2-005]) regards the range of potential effects cited including restriction of helicopter access, safety issues, potential disruption of decommissioning activities and associated economic loss and the need for the DCO to secure a Co-operation and Co-existence Agreement. The Applicant states "the Order Limits do not overlap with the marine corridors requested by Harbour Energy, and that the draft DCO and dMLs (REP1-021) do not allow for the Applicant to conduct works, including siting of temporary navigational aids or markers, outside of the Order Limits. This is noted in the Applicant's position in the SoCG with Harbour Energy submitted at Deadline 1 (REP1-031). As such, the Applicant would have no ability to adversely impact Harbour Energy's activities in the manner envisaged, and such a condition is unnecessary" (ref. REP1.044-17 Table 2.3 [REP2-005]). The Applicant maintains that the coordination of marine activities and process for communication is considered to be a logistical matter that can be co-ordinated post-consent between the parties using industry standard practices, and that such a Co-operation and Co-existence Agreement is not required. The ExA requests Harbour Energy to provide comment on the Applicant's response.</p>
INF 1.3	Applicant	<p><b>Potential wake effects 1</b></p> <p>Paragraph 1.2.3.7 of [REP1-016] refers to key tests for the SoS to consider, including risk to other industries, avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries, and their future viability and safety. The Ørsted IPs [PD1-024, REP1-060, REP1-061, REP1-062, REP1-063, REP1-064 and REP1-066 and REP2-027] consider that the potential effect on the energy yield of other operational offshore wind farms is not just in relation to economic loss or viability and safety. They maintain that a wake assessment is also tool for evaluating the benefits of the Project in terms of net emissions reductions and climate change, and also one of good design. The Ørsted IPs also contend that the Applicant's reliance on compliance with the boundary requirements in TCE's Round 4 Leasing Information</p>
		<p>The Applicant notes that INF 1.2 is directed towards Harbour Energy/ Chrysaor Resources and is not responding.</p> <p>In response to point i), the Applicant considers that these are two separate matters, as follows:</p> <p>i)a) Net effects on emission reductions: The Applicant responded to Ørsted's Written Representation on this matter at Deadline 2 (REP2-005). In summary, the Applicant considers that it has met the requirements within the NPS and the EIA Regulations, and that no further information is required to be provided as part of the DCO application for the Morgan Generation Assets. The Applicant has carried out a greenhouse gas emissions assessment in line with the latest IEMA guidance in an EIA context (Volume 2, Chapter 12 Climate change (APP-016)). The Applicant considers that it has satisfied all necessary EIA guidance and/or policy in this regard. Further, the Applicant is not aware of any other offshore wind project in the UK carrying out an assessment of net effects on emissions reduction in the context suggested.</p>



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Reference	Question to ExAQ1	Applicant's response
	<p>Memorandum to justify not carrying out an assessment is insufficient, given that the TCE memorandum relied on was not prepared for the purposes of providing guidance on this matter, or for generally regulating effects between sea users in the consenting process.</p> <p>The Applicant is asked to:</p> <ul style="list-style-type: none"> <li>i) Provide a response regarding net effects on emission reductions and good design.</li> <li>ii) Provide details of TCE's Round 4 leasing criteria in respect of the minimum imposed distances.</li> <li>iii) Submit a copy of the 2023 Frazer-Nash study referred to in paragraph 1.2.4.1 of [REP1-016].</li> </ul>	<p>ii)b) Good design: EN-3 paragraph 2.5.2 sets out that proposals for renewable energy infrastructure should demonstrate good design. Paragraph 2.8.2 directs all offshore wind developments to maximise their capacity within the technological, environmental, and other constraints of the development. The Applicant has provided a detailed response on how the Morgan Generation Assets achieves 'Good Design' in response to ExA Q GEN 1.15.</p> <p>In response to point ii), the leasing criteria is set out within the Applicant's response to the Hearing Action Point on wake loss (REP1-016). TCE required a minimum separation distance of 7.5 km between Round 4 developments and existing offshore wind farm infrastructure. TCE took account of minimising impacts on other licensed activities in identifying this distance and specified that no Round 4 offshore wind project could be located within 7.5 km of an existing offshore wind farm, unless the owner of the existing offshore wind farm had given its written consent (TCE, 2019). As the Morgan Generation project is outside this 7.5 km spacing, no consent from any existing operational wind farm was required.</p> <p>The Applicant further responded to Ørsted's Written Representation on this matter at Deadline 2 (REP2-005). In summary, the Applicant noted that the siting of the project was undertaken in accordance with TCE's Round 4 leasing requirements, with reference to the response provided in REP1-016 and the separation distance of 7.5 km. As TCE 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 existing operators is required. There is no existing guidance or policy for undertaking a detailed assessment or for regulating wake effects between sea users in the consenting process.</p> <p>In response to point iii), the Applicant has provided a copy of the study in Annex 4.4 to the Applicant's response to EXQ1: INF 1.3_2023 Array Layout Yield Study (Document reference S_D3_4.4 Annex to the Applicant's response to EXQ1 SLV 1.3 and 1.5: SLVIA F01).</p>
INF 1.4	<p><b>Barrow Offshore Wind Limited Burbo Extension</b></p> <p><b>Potential wake effects 2</b></p> <p>Further to the responses submitted by the Ørsted IPs [PD1-024, REP1-060, REP1-061, REP1-062, REP1-063, REP1-064, REP1-066] and the not agreed matter in the SoCG [REP2- 027], the Ørsted IPs are asked to submit to the Examination any available</p>	<p>i) The Applicant notes that the distances between the Morgan Generation Assets and the Ørsted IP assets are confirmed as agreed in the Statement of Common Ground between the Applicant and the Ørsted's IPs (OIP.OWF.1) (REP2-027).</p>

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Reference	Question to ExAQ1	Applicant's response
	<p>Limited Walney Extension Limited Morecambe Wind Limited Walney (UK) Offshore Windfarms Limited Ørsted Burbo (UK) Limited (collectively "the Ørsted IPs")</p> <p>evidence and data that you wish to rely on to support your contention of potential for loss of yield due to wake effects, including evidence base on their existing portfolio of OWFs, and answer the following:</p> <p>i) Agreement that Table 9.8 of [APP-027] accurately reflects the approximate distances between the proposed Morgan array area and the operational wind farms that you represent.</p> <p>ii) Provide a plan/map which marks on the distances from each of Ørsted IP's OWFs to the Morgan order limits.</p> <p>iii) Noting that the distance and orientation/wind direction of each of the Ørsted IP's OWFs varies, do the Ørsted IPs have concerns about all of the operational projects that you represent, or would effects be more pronounced for particular operational projects.</p> <p>iv) Are you able to specify if there is a distance at which wake effects are substantially reduced, and the factors which affect loss of yield?</p> <p>v) The likelihood of loss due to both direct and indirect effects.</p> <p>vi) Comments on any other matters which form the basis for the Crown Estate's stipulation of a 7.5km separation distance between OWF arrays.</p> <p>vii) Whether lack of prescription in EIA regulations or precedent for wake assessment are obstacles to making estimation or quantification of likely effects.</p> <p>viii) What level of information might reasonably be considered as an 'assessment' having been carried out in accordance with NPS EN-3 paragraphs 2.8.197 and 2.8.198].</p>	<p>The Applicant notes that Question INF 1.4 iv) is directed to the Ørsted IPs, however it has responded below to highlight the factors that are relevant to wake effects and loss of yield. The two relevant factors are:</p> <ol style="list-style-type: none"> <li>1. Turbine spacing</li> <li>2. The location of projects relative to each other.</li> </ol> <p><u>Turbine spacing</u></p> <p>The cumulative energy loss due to wake effects within a wind farm is referred to as "internal" wake. All projects experience internal wake effects (caused by their own wind turbine generators). The closer the turbines are to each other, the higher the turbine density within a wind farm. Higher turbine density creates greater internal wakes, which reduce the output of the wind farm and will increase wear and tear on the turbines which increases maintenance and could ultimately reduce operational life.</p> <p><u>Location of projects</u></p> <p>In addition to internal wakes, a wind farm may be affected by other wind farms in the area ("external" wakes). Moreover, the wakes from different wind farms also overlap and interact meaning it is difficult to identify the source and extent of the impact of one scheme on another (or others).</p> <p>Wake effects are influenced by the on-site wind distribution (both wind speed and direction), wind turbine layout, turbine make and model, and operational issues such as technical availability. Wake interactions (within a wind farm, as well as between wind farms) also depend on and vary with atmospheric conditions such as stability and turbulence levels. As a result, wake effects are a very complex phenomenon and are difficult to accurately quantify.</p> <p>The distance between wind turbines is the key factor for wake effects (both internal and external). The greater the distance between turbines, the less interaction there will be between them as the wakes-affected airflow has more space to recover (i.e. regain the velocity) from the energy of ambient flow around it.</p> <p>In terms of the ability to increase the distance between the Morgan Generation Assets and the Ørsted IPs' projects, the Applicant would highlight the following:</p> <ul style="list-style-type: none"> <li>• Wakes are, and will be, experienced across the Irish Sea. Noting that the Morgan Generation Assets' location is restricted to The Crown Estate's Agreement for Lease Area, increasing the distance to the</li> </ul>

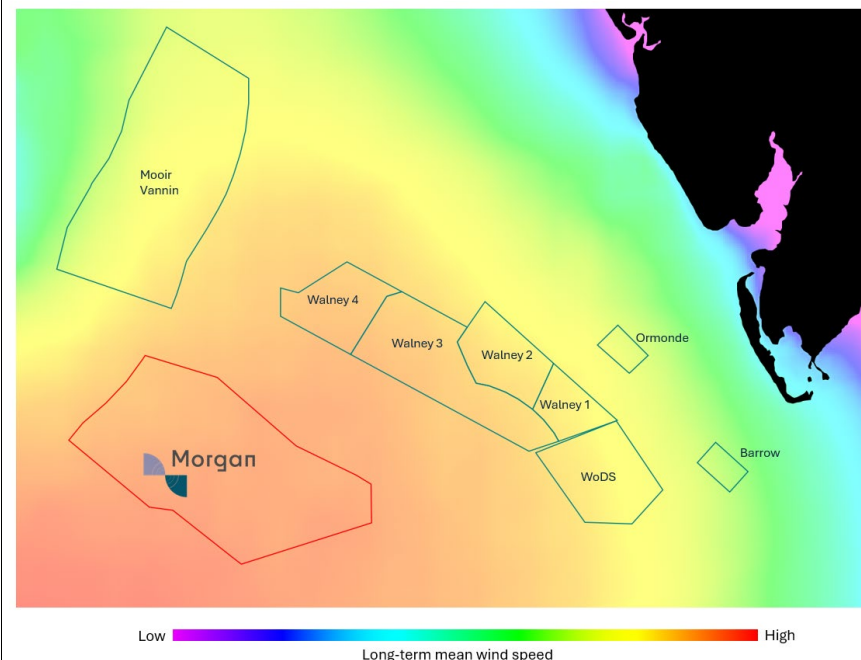
**MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS**

Reference	Question to	ExAQ1	Applicant's response
			<p>Ørsted IPs' projects can only be achieved by decreasing the Morgan Generation Assets site area. This will have a disproportionately greater effect on the new clean energy generation and associated carbon savings from the Morgan Generation Assets, due to the increase in the layout density, compared with the lesser effect any greater distance would have on mitigating wake effects on the existing projects.</p> <ul style="list-style-type: none"> <li>• The Morgan Generation Assets are located in a higher wind speed area compared with the Ørsted IP projects (see Figure 1 below). In addition, the Morgan Generation Assets will have a materially higher hub height than the operational projects.</li> <li>• As taller hub heights allow access to higher wind speeds, the gross capacity factors will be considerably higher for the Morgan Generation Assets, making the Morgan Generation Assets more efficient (i.e. producing more energy per MW of installed capacity) than the Ørsted IPs' projects.</li> </ul>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Reference Question to ExAQ1 Applicant's response

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**Figure 1: Spatial mean wind speed distribution in the Irish Sea (Source UL SiteWind mesoscale wind speed map).**

INF 1.5	The Applicant	<p><b>Potential wake effects 3</b></p> <p>The ExA notes that the Applicant does not consider that there is a basis in legislation or policy for a wake effects assessment to be required as part of the consideration of the Application, and even if such an assessment were required, the data needed is not available and there is no robust and recognised approach for such an assessment [REP1-016]. However, the Ørsted IPs [REP1-060, REP1-061, REP1-062, REP1-063, REP1-064 and REP1-066] maintain that NPS EN-3 provides a policy basis and that the necessary data and modelling tools to undertake such an analysis can be made available to the Applicant.</p>
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The Applicant notes the ExA's request for an assessment of potential wake effects on other operational and consented offshore wind farms in the vicinity of the Morgan Generation Assets.

The Applicant maintains that the submission of a wake assessment is not appropriate or necessary according to the EIA Regulations and associated guidance in NPS policy.

The information within the Environmental Statement and application documents is considered more than adequate to demonstrate that the NPS policy tests have been met and therefore as such, there is no requirement to submit a further assessment.

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Reference	Question to ExAQ1	Applicant's response
	<p>Having regard to the provisions of section 2.8 of NPS EN-3 and the particular circumstances of this case, and in order to provide reassurance the ExA requests that the Applicant undertakes a reasonable best efforts assessment of potential wake effects on other operational and consented offshore wind farms in the vicinity of the Proposed Development.</p> <p>At Deadline 3, the Applicant should set out a timeframe for the completion and submission of such an assessment into the Examination of this assessment, which must be by Deadline 5 at the latest (and earlier if possible) in order to allow an opportunity for other IPs to comment on the findings.</p>	<p><b>Policy and legislative context</b></p> <p>Applications for development consent under the Planning Act 2008 must be submitted with an Environmental Statement that accords with the requirements of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ("EIA Regulations") to ensure that the application meets the legal requirements of those regulations. The Application should also contain sufficient information to allow the Examining Authority and Secretary of State to assess the application against the relevant policy in the NPS.</p> <p>The core purpose of the EIA process and the reporting within an Environmental Statement is to set out the likely significant effects on the environment from a proposed development. This allows Interested Parties to participate in the consent process and enables the Secretary of State to make an informed decision on the application. An Environmental Statement is required to assess and report on the various factors set out in reg.14 and sch.4 of the EIA Regulations. The content of an Environmental Statement will also be informed by guidance published by relevant industry and professional bodies, and policy requirements set out in the NPS.</p> <p>The Applicant does not consider that potential energy loss of existing operational wind farms to be a matter that requires to be assessed and reported on within an Environmental Statement. The Applicant does not consider this to be within the scope or requirements of the EIA Regulations. Paragraph 2.8.198 of NPS EN-3 states that any assessment should be "in accordance with appropriate policy and guidance for offshore wind farm EIAs". There is no published guidance by industry or professional bodies that suggests such an assessment is required, or how such an assessment would be undertaken in the context of an EIA, which requires a transparent process based on recognised assessment principles.</p> <p>In respect of the NPS, the Applicant considers that on a proper reading of the NPS as a whole, it is clear that a 'wake assessment' is not required either for existing operational projects or for new proposals.</p> <p>The purpose of the proposed development is to generate clean green energy to help the UK reach its net zero target by 2050. The Round 4 portfolio across the UK is the equivalent of an additional c.8 GW of new offshore wind projects by the end of the decade, which is enough to power</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>more than seven million homes and deliver the step-change in the UK's journey to net zero by 2050.</p> <p>NPS EN-1 recognises that this target necessitates a dramatic increase in the volume of new large-scale energy development. NPS EN-3 encourages developers to maximise the capacity of new large-scale energy development within technological, environmental and other constraints (EN-3 para 2.8.2).</p> <p>The Applicant has sought to minimise impacts on existing operational wind farms initially by adhering to the TCE siting criteria and then through the further refinements that have been made to the Morgan Array Area which have increased this distance.</p> <p>EN-3 paragraph 2.5.2 sets out that proposals for renewable energy infrastructure should demonstrate good design, particularly in respect of landscape and visual amenity, opportunities for co-existence/co-location with other marine and terrestrial uses, and in the design of the project to mitigate impacts such as noise and effects on ecology and heritage. EN-3 goes on to set out what applications for specific technology types should consider.</p> <p>Paragraph 2.8.2 directs all offshore wind developments to maximise their capacity within the technological, environmental, and other constraints of the development. EN-3 recognises that offshore wind development will occur in or close to areas where there is other offshore infrastructure (para 2.8.196 and 2.8.197) and that there is potential for adverse impacts on those activities as a result.</p> <p>The key tests for the Secretary of State to consider are:</p> <ul style="list-style-type: none"> <li>• Whether they can be satisfied that the risk to other industries has been reduced to as low as reasonably practicable (para 2.8.344); and</li> <li>• That site selection and site design has been undertaken with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries (para 2.8.345).</li> <li>• Where a proposed development is likely to affect the future viability or safety of an existing or approved/licensed offshore infrastructure or activity, the Secretary of State should give these adverse effects substantial weight in its decision-making (paragraph 2.8.347).</li> </ul> <p>The Secretary of State is directed to take a pragmatic approach when considering such impacts (para 2.8.343).</p>

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Reference	Question to ExAQ1	ExAQ1	Applicant's response
			<p>The Applicant post-consent will go through the final design process, which may include refinement of number of wind turbines, refinement of wind turbine spacing and refinement of wind turbine position within the Morgan Array Area (in accordance with the layout principles set out in Table 3.7 of the Project description chapter APP-010), following the completion of detailed site investigation campaigns and selection of wind turbine model through a competitive procurement process.</p> <p>The need to balance competing interests, whilst achieving the overarching policy aims for offshore wind development in the UK was recognised by TCE in setting the parameters for the Round 4 Lease Areas. This is set out in the study prepared for TCE by Frazer-Nash Consultancy Limited (2023), which states: 'TCE wishes to designate offshore wind project development areas (PDAs) to maximise the energy production from the portfolio of existing and future wind farms, whilst balancing environmental and other requirements.'</p> <p>Within their leasing process, TCE determined that a separation distance of 7.5 km between Round 4 developments and existing offshore wind farm infrastructure was appropriate. TCE took account of minimising impacts on other licensed activities in reaching that conclusion. TCE specified that no Round 4 offshore wind project could be located within 7.5 km of an existing offshore wind farm, unless the owner of the existing offshore wind farm has given its written consent (TCE, 2019).</p> <p>Further to meeting TCEs spacing criterion, the Applicant during the pre-application phase has taken the steps required by the relevant NPS policy to further minimise potential impacts. The Morgan Array Area was reduced following receipt of statutory pre-application consultation responses on the Preliminary Environmental Information Report (PEIR), as described in Volume 1, Chapter 4: Site selection and consideration of alternatives (APP-011).</p> <p>The Applicant considers that the application contains sufficient information to allow the Examining Authority and the Secretary of state to reach a reasoned conclusion on the matters set out in paragraphs 2.8.344 – 2.8.347. The Applicant does not consider that paragraphs 2.8.197 – 2.8.198 require any further assessment to be undertaken.</p>
INF 1.6	The Ørsted IPs The Applicant	<p><b>Potential wake effects 4</b> In the event that no wake assessment was undertaken during the Examination, would both the Applicant and the Ørsted IPs</p>	<p>The Applicant considers that imposing a requirement would be unnecessary and would not meet the relevant policy tests.</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>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.</p>	<p>A fundamental principle of planning law and policy is that conditions/requirements should be kept to a minimum and only used where they satisfy the policy tests set out in national planning policy (see EN-1 paragraphs 4.1.16 – 4.1.18; NPPF paragraph 55). These tests require that any requirement/condition is: 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.</p> <p>The Applicant has set out in response to INF 1.5 above that there is no legal or policy basis for a wake effects assessment and why this is not a planning matter. Imposing such a requirement would fail tests 1) and 2). Furthermore, the Applicant has set out in INF 1.5 that it is not possible to undertake a meaningful or compliant assessment of wake effects. The Applicant does not consider that a requirement of the nature suggested would be sufficiently precise in what it seeks to control, failing test 3).</p> <p>Since the consenting of the Awel y Môr project and inclusion of a requirement relating to wake effects within that DCO, this issue is being raised (by a discrete number of developers, but pre-dominantly, Ørsted) across several Round 4 consent applications. The Applicant notes that, to its knowledge, prior to and including the Awel y Môr decision the consideration of wake effects had not been considered within the assessments of an offshore wind farm consent application within the UK, including Ørsted's development projects and the proposed Moir Vannin scheme.</p> <p>The Applicant considers that it has met the requirements within the NPS and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the "EIA Regulations"), and that no further information is required to be provided as part of the DCO application for the Morgan Generation Assets.</p> <p>The Applicant maintains that the need for a requirement does not meet the tests set out within the NPS and NPPF, would be unreasonable and unnecessary and would create further uncertainty in the offshore wind development industry, leading to significant project risk and ultimately could affect the net-zero strategy of the UK leading to longer term negative impacts on the cost of energy (and security).</p>
INF 1.7	The Ørsted IPs The Applicant	<p><b>The Ørsted IPs</b> To seek greater efficiency and coherence of tracking issues in the Examination, could further representations from two or more</p>	<p>The Applicant's preference is also that these responses are consolidated for greater efficiency.</p>



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Reference	Question to	ExAQ1	Applicant's response
		<p>Ørsted IPs be combined and responded to without multiple copy-paste of near identical representations and responses than exemplified in [REP2-005]?</p>	

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**2.14 Shipping and Navigation**

**Table 2.14: Response to ExAQ1: Shipping and Navigation Questions.**

Reference	Question to	ExAQ1	Applicant's response
SN 1.1	Maritime and Coastguard Agency	<p><b>Navigational safety authority in Isle of Man Territorial Waters</b></p> <p>Please confirm whether the MCA (on behalf of the UK Government Department of Transport) is the navigation authority for Isle of Man Territorial Waters (outside harbour limits) as well as for the territorial waters and EEZ waters of Great Britain and Northern Ireland; and if not, who exercises in those waters the equivalent role or roles to those of the MCA.</p>	The Applicant notes SN 1.1 is directed towards Maritime and Coastguard Agency and shall not be responding.
SN 1.2	Maritime and Coastguard Agency	<p><b>Sea lanes essential to international navigation within the UK EEZ</b></p> <p>Please confirm the following:</p> <p>i) If any of the navigational routes passing to east, south or west of the Proposed Development are considered by the MCA to be recognised 'sea lanes essential to international navigation' in terms of UNCLOS Article 60(7).</p> <p>ii) Whether any of the routes in (i) above might be considered to be designated and charted as a Traffic Separation Scheme (TSS) in the foreseeable future.</p> <p>iii) The minimum width between obstructions to navigation that a TSS would require.</p>	The Applicant notes SN 1.2 is directed towards Maritime and Coastguard Agency and shall not be responding.
SN 1.3	Maritime and Coastguard Agency	<p><b>Sea lanes essential to international navigation within Isle of Man territorial sea</b></p> <p>Further to the MCA's Written Representation at Deadline 1 [REP1-051, item 9] regarding a residual separation distance of only 2.6nm of sea space between the boundary of the proposed Mooir Vannin offshore wind development and the proposed northern boundary of the Morgan Generation Assets Proposed Development about 50metres inside UK EEZ waters, could the MCA clarify:</p> <p>i) Does that sea space between the two proposed</p>	The Applicant notes SN 1.3 is directed towards Maritime and Coastguard Agency and shall not be responding.

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Reference	Question to	ExAQ1	Applicant's response
		<p>developments constitute a 'sea lane essential to international navigation' in terms of UNCLOS Article 60(7).</p> <p>ii) What alternative separation distance might be sufficient to ensure that interference to international navigation through that sea space by would be unlikely in adverse metocean conditions, whether approaching Douglas Harbour or on international passage to the east of the Isle of Man.</p> <p>iii) Whether any part of that sea space between the two proposed offshore wind developments referred to above might be considered for designation and charting as a TSS in the foreseeable future, summarising considerations that would be taken into account in that regard.</p>	
SN 1.4	Maritime and Coastguard Agency	<p><b>Stakeholder engagement post-consent</b></p> <p>i) In addition to monitoring and reporting, can the MCA confirm if continued stakeholder engagement post-construction is required to achieve compliance with the recommendations of Marine Guidance Note MGN654, in addition to monitoring and reporting other as noted in paragraph 6.6(c), or by any other MGN.</p> <p>ii) Does the MCA have guidance to offer on the minimum appropriate frequency of stakeholder engagement throughout the operation/maintenance phase and should it be secured explicitly by condition in the DMLs.</p>	The Applicant notes SN 1.4 is directed towards Maritime and Coastguard Agency and shall not be responding.
SN 1.5	Maritime and Coastguard Agency	<p><b>Marine Guidance notes other than MGN654</b></p> <p>Would the MCA please confirm if there are any MGNs other than MGN654 that should be required to be followed in mitigation plans secured by the draft DCO/DMLs including the Outline Fisheries Liaison and Coexistence Plan [APP-065], the Outline Vessel Traffic Management Plan [APP-071] and the Outline Offshore Operations and Management Plan [APP-079]?</p>	The Applicant notes SN 1.5 is directed towards Maritime and Coastguard Agency and shall not be responding.

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Reference	Question to	ExAQ1	Applicant's response
SN 1.6	Maritime and Coastguard Agency	<p><b>Minimum infrastructure spacing</b></p> <p>i) Please confirm that you accept the Applicant's proposal (as confirmed at ISH1) that the layout development principle "minimum infrastructure spacing of 1,400m" is to be measured from centre points of structures and is subject to reduction by the micrositing allowance and constructional tolerance dimension.</p> <p>ii) Please clarify what constructional tolerance dimension you would consider normal and acceptable in addition to the micrositing allowance that you have yet to agree with the Applicant and the MMO.</p>	<p>The Applicant notes this question is directed to the Maritime and Coastguard Agency, however following concerns raised by the MCA and engagement on the SoCG, the Applicant has reduced the size of the micrositing allowance from 100m for micrositing plus 25m for tolerance to 55m (50m for micrositing and 5m for tolerance) and this change has been made to the dDCO submitted at Deadline 3.</p> <p>The Applicant confirmed this change to the MCA on 31 October 2024, and the MCA welcomed the update.</p>
SN 1.7	Isle of Man Government (Territorial Sea Committee)	<p><b>Moor Vannin navigational risk and safety assessment</b></p> <p>Please confirm the assumptions of the Applicant for the Morgan Generation Assets Proposed Development in its ES Volume 2, Chapter 7 [APP-025] and restated in [PD1-017, RR-021.7] that:</p> <p>i) Potential navigational safety effects, including any arising from cumulative and/or interactive impacts together with the Morgan Generation Assets Proposed Development, will be addressed through the development consent process for the Moor Vannin OWF project, as assumed by the Applicant.</p> <p>ii) Navigational Risk Assessment for the Moor Vannin OWF project consent application will be required by the relevant authority in the Isle of Man to follow the guidance of UK MCA Marine Guidance Note MGN654 and its Annex 1 'Methodology for Assessing Marine Navigational Safety and Emergency Response Risks'.</p>	<p>The Applicant notes SN 1.7 is directed towards Isle of Man Government (Territorial Sea Committee) and shall not be responding.</p>
SN 1.8	Moor Vannin Offshore Wind Farm Limited	<p><b>Cumulative and inter-related navigational risk assessment between Moor Vannin and Morgan OWF developers</b></p> <p>i) Provide an update report on contact between the Moor Vannin OWF project developer and the</p>	<p>The Applicant notes SN 1.8 is directed to Moor Vannin Offshore Wind Farm Limited and shall not be responding.</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>Applicant for the Morgan Generation Assets project, specifically having regard to navigational safety concerns expressed by the MCA in [REP1-051].</p> <p>ii) Advise if a Cumulative Regional Navigational Risk Assessment (NRA) will be carried out to take account of existing infrastructure in the east Irish Sea plus the proposed Morgan Generation Assets and Morecambe Generation Assets and Mona offshore wind projects.</p> <p>iii) Summarise the policy considerations related to navigational safety and coexistence with other sea users which are being taken into account by Moir Vannin Offshore Wind Farm Limited.</p>	
SN 1.9	Moor Vannin Offshore Wind Farm Limited	<p><b>Finalising design envelope and NRA for the Moor Vannin OWF application</b></p> <p>Could Moor Vannin Offshore Wind Farm Limited confirm when it anticipates finalising its design envelope and NRA for application to the relevant consenting authority(ies), and will it be collaborating with the developer of the Morgan Generation Assets project in updating the Cumulative Regional NRA such that it might helpfully inform the ExA before the close of Examination.</p>	The Applicant notes SN 1.9 is directed to Moor Vannin Offshore Wind Farm Limited and shall not be responding.
SN 1.10	IoM Steam Packet Company	<p><b>Analysis of effect of route deviations</b></p> <p>Further to its Written Representation, IoM Steam Packet Company (IoMSPC) is invited to submit an analysis of deviations required by the effect of the Proposed Development alone and the cumulative effect of proposed development of Morgan, Morecambe and Ørsted wind farms on the IoMSPC Liverpool-Douglas and Heysham-Douglas services and consequent effects including fuel consumption and in-port operations.</p>	The Applicant notes SN 1.10 is directed to the Isle of Man Steam Packet Company and shall not be responding.

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Reference	Question to	ExAQ1	Applicant's response
SN 1.11	Stena Line	<p><b>Analysis of effect of route deviations</b>            Further to its Relevant Representation [RR-039] Stena Line is invited to submit its own analysis of deviations required by the effect of the Proposed Development alone and the potential cumulative effect of proposed development of the proposed Morgan, Mona, Morecambe and Mooir Vannin OWFs on the Stena Line Liverpool-Belfast services and consequent effects including fuel consumption and in-port operations.</p>	<p>The Applicant notes SN 1.11 is directed to Stena Line and shall not be responding.</p>
SN 1.12	Stena Line	<p><b>Sea lanes and strategic shipping routes</b>            Stena Line contends in its current SoCG with the Applicant [REP1-040, Stena.SN.21] that its Liverpool-Belfast route “current passage is a recognised sea lane”. Having regard to the Applicant’s case stated in its ES [APP-025, para 7.9.2.3] please provide further evidence substantiating that contention with regard to UNCLOS Article 60(7) and if you wish, specifically citing any case law or other relevant precedent distinguishing ‘recognised sea lanes’ from “strategic routes essential to regional, national and international trade, lifeline ferries ...” and “major commercial navigation routes” in terms of [NPS EN-3, paragraphs 2.8.328 and 2.8.329 respectively].</p>	<p>The Applicant notes SN 1.12 is directed to Stena Line and shall not be responding.</p>
SN 1.13	Stena Line	<p><b>Adverse weather routing north-east of the Isle of Man</b>            With regard to [APP-025 para 7.9.4.30] please provide further information about your adverse weather passage planning for the Heysham-Belfast (or reverse) routing that passes north-east of the Isle of Man, noting:            i) In what conditions passage east of the Isle of Man would be preferred to passage south of the Isle of Man.            ii) Approximately how many times in the last five years that passage plan has been used.</p>	<p>The Applicant notes SN 1.13 is directed to Stena Line and shall not be responding.</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>iii) Navigational constraints (e.g. under-keel clearance, exclusion zones, etc.) that bear on your contention that the presence of either the Proposed Development (Morgan) either alone or cumulatively with the proposed Mooir Vannin project might make that adverse weather routing unusable.</p> <p>iv) What the likely adverse effects of not being able to take that route would be.</p>	
SN 1.14	Applicant and other IPs	<p><b>Degree of interference to Navigation and Shipping</b></p> <p>The Applicant and other IPs are invited to suggest how the SoS could consider the strictures of NPS EN-1 paragraph 4.1.7 and NPS EN-3 paragraph 2.8.329 concerning 'unacceptable interference to Navigation and Shipping', with specific consideration of who should determine whether interference is acceptable or unacceptable with regard to potential impacts to Isle of Man interests.</p>	<p>The Applicant notes the provision of NPS EN-1 paragraph 4.1.7 and NPS EN-3 paragraph 2.8.329 and has considered them within its assessment. The Applicant's position is that, whilst moderate adverse effects are concluded on strategic routes and lifeline ferry services (Volume 2, Chapter 7: Shipping and navigation APP-025), they do not amount to unacceptable interference as per NPS EN-1 paragraph 4.1.7. The Applicant believes that such interference should be considered on the basis of NPS EN-3 Paragraph's 2.8.326 to 2.8.330. Ultimately, whether or not a level of interference was considered "unacceptable" is a matter for the Secretary of State when considering development in UK waters. The Applicant considers it has provided a clear, evidence-based explanation as to how the Applicant has reached its conclusions, which the Secretary of State can rely on.</p> <p><u>Sea Lanes Essential to International Navigation:</u></p> <p>The Applicant would consider that unacceptable interference would exist if a proposed development interfered with the use of a recognised sea lane essential to international navigation as per NPS EN-3 Paragraph 2.8.326/2.8.327. As concluded in Section 7.9.2 and Section 7.11.2 of Volume 2, Chapter 7: Shipping and navigation (APP-059), the Morgan Generation Assets would, both in isolation and cumulatively with other Tier 1 and Tier 2 developments, not interfere with recognised sea lanes essential to international navigation as per NPS EN-3 Paragraph 2.8.326/2.8.327. This was agreed with the MCA in the draft Statement of Common Ground submitted at Deadline 2 (REP2-024).</p> <p><u>Strategic Routes and Lifeline Ferries</u></p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>The Applicant notes that NPS EN-3 Paragraph 2.8.329 states that “<i>where after carrying out a site selection, a proposed development is likely <b>adversely</b> to affect major commercial navigation routes, for instance by causing appreciably longer transit times, the Secretary of State should give these adverse effects substantial weight in its decision making.</i>”</p> <p>The Applicant is not aware of any precedent by which “appreciably longer transit times” as per Paragraph 2.8.329 of NPS EN-3 has been quantified and has therefore sought to assess this on a precautionary basis which takes into account the relative increase in transit duration and compares this to existing fluctuations in transit duration and port turnaround times experienced by operators. The Written Representation of the MCA (REP1-051) notes concerns of “<i>whether these services will remain commercially viable with the necessary deviations</i>”. The Applicant agrees with the MCA that an unacceptable impact on navigation would be one where it would no longer be possible to operate a route due to the physical impedance of that route or where it would no longer be economically viable to do so. The Applicant considers that this threshold has not been reached for the following reasons:</p> <ol style="list-style-type: none"> <li>1. The deviated routes in typical and adverse weather conditions are both safe and feasible but would incur longer steaming time as demonstrated in the navigation simulations with the affected operators (Volume 4, Annex 7.1: Navigational Risk Assessment APP-060)</li> <li>2. The delays anticipated in typical conditions are minimal. For example, the delay to the Heysham to Douglas route would be +1.6 minutes per crossing which is less than 1% of the total journey time</li> <li>3. In the case of adverse weather routeing, where greater deviations would be required, only a minority of sailings would be affected and therefore it is not considered a threat to the viability of the entirety of the service. Volume 2, Chapter 7: Shipping and navigation (APP-025) assessed that approximately 20 of 1,300 sailings (1.5%) between Heysham and Douglas would be affected by significant weather routeing</li> <li>4. The Applicant believes that some of the delays caused by the Morgan Generation Assets could be absorbed into the existing schedules, as is the case with existing delays caused by adverse weather. For example, the Heysham-Douglas timetable contains an additional hour of turnaround time at night compared to the day within which some delays may be absorbed</li> </ol>



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Reference	Question to	ExAQ1	Applicant's response
			<p>5. It is noted that there are examples from offshore wind farm development for wind farms to be consented where there is an impact on major commercial routes and ferry services. For example, Isle of Man Steam Packet Company advised within their S42 response that the West of Duddon Sands offshore wind farm resulted in a delay of five minutes per sailing to their Heysham to Douglas route. In addition, the Application for the consented Hornsea Two Offshore Wind Farm noted within their Environmental Assessment an impact of 7.5 minutes per crossing for the DFDS ferry route between Newcastle and Amsterdam (EN010053)</p> <p>6. Through discussions with commercial operators, the Applicant understands that the majority of existing cancellations to Irish Sea services are caused by mechanical issues or wind limits in Douglas and Heysham which make it unsafe to berth, rather than being caused by schedule delays which have accumulated during periods of adverse weather. For example, no vessel can enter Heysham with winds greater than 45 knots and berth number 3 is limited to 25 knots for the Manxman or Ben-my-Cree which is understood to be the principal driver for the decision to cancel sailings in adverse weather. Therefore, whilst there is the potential for delays caused by the Morgan Generation Assets to increase cancellations, the Applicant does not consider this to be likely.</p> <p>The Applicant has sought to avoid or minimise disruption or economic loss to ferry operators in the Irish Sea as per NPS EN-3 Paragraph 2.8.328 as far as possible. However, as demonstrated in Figure 1.30 of Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060), typical and adverse weather tracks utilise the entirety of the sea space in the Irish Sea and it would not be possible for a project of this scale to entirely avoid an impact on those operators. The Applicant notes that NPS EN-3 recognises that “<i>it is inevitable that there will an impact on navigation in and around the area of the site</i>” (Paragraph 2.8.178). The Applicant also notes NPS EN-3 Paragraph 2.8.183 which reflects that there may be “<i>some situations where reorganisation of shipping traffic activity might be both possible and desirable when considered against the benefits of the wind farm</i>”. The Planning Statement (APP-074) clearly sets out the significant benefits the Morgan Generation Assets would bring.</p> <p>Therefore, whilst the Applicant concludes that moderate adverse effects would be caused by the Morgan Generation Assets on strategic routes and lifeline ferries, they do not constitute unacceptable impacts, and the</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>Secretary of State could still grant development consent when weighed against the significant benefits of the project. However, the Applicant is seeking to mitigate these commercial impacts on their services and engagement is ongoing.</p> <p><u>Less Strategically Important Routes</u></p> <p>With regards to “less strategically important shipping routes” as per NPS EN-3 Paragraph, the Applicant notes that the NRA demonstrates there is sufficient searoom for such routes to deviate around the Morgan Array Area, and between other proposed Tier 1 and Tier 2 projects, and that such deviations would be minor when considered against the duration of the voyage and affect a relatively small number of vessels and routes. Therefore, the Applicant considers that this would not amount to unacceptable interference.</p>
SN 1.15	Applicant and Stena Line	<p><b>Risk assessment with regard to the Mooir Vannin proposal</b> To clarify the SoCG [REP1-040, pages 8 and 9] please confirm (either jointly or separately) whether there is a disagreement about the level and nature of risk assessed with regard to the navigational risk between the Proposed Development and the Mooir Vannin proposal as it is currently known, and if so the substance of that disagreement, and whether Stena Line had the opportunity to scrutinise and comment in detail on navigation simulation in that sea space carried out with IoMSPC masters.</p>	<p>The Applicant and Stena Line have prepared an updated Statement of Common Ground for submission at Deadline 3 (S_D3_STENA SoCG Stena Line F02). STENA.SN.25 notes agreement between the two parties that allision and collision risk hazards between the Morgan Array Area and Mooir Vannin Scoping Boundary could be unacceptable (as described within the CRNRA within Volume 4, Annex 7.1: Navigational Risk Assessment APP-060).</p> <p>As noted within the Statement of Common Ground submitted at Deadline 1 (REP1-040), Stena Line raised concerns on how the assessment was conducted with regards to Mooir Vannin (as per STENA/SN/5(b) and STENA/SN/7(b)). At Deadline 3, both parties agreed that these items could be changed to “Position Agreed (but with concerns outstanding)” noting that whilst Stena Line questioned the methodology (and specifically the absence of Mooir Vannin in the navigation simulations) they did not disagree with the conclusions reached by the Applicant.</p> <p>The Applicant notes that the findings of the navigation simulation undertaken with the IoMSPC including Mooir Vannin were presented at the hazard workshop attended by Stena Line and all stakeholders have had the opportunity to review the simulation report contained within Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060).</p>
SN 1.16	Applicant	<p><b>Commitments to post-construction monitoring of shipping and navigation effects</b></p>	<p>The Offshore In-Principle Monitoring Plan (REP2-013) includes a number of monitoring commitments identified within Volume 2, Chapter 7: Shipping</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>Provide clarification of the commitments in the IPMP to post-construction monitoring of shipping and navigation effects, how those commitments would accord with the guidance in MGN654 in this regard, and for how long after construction is completed that monitoring would be continued and how it would be reported to the relevant authorities.</p>	<p>and Navigation (APP-025), including developing a Navigation Monitoring Strategy to ensure navigational safety is maintained during construction and immediately post construction. The monitoring approach for this within the Offshore In-Principle Monitoring Plan is described as “monitoring of marine traffic (by automatic identification system (AIS)) with a report submitted annually to MMO, MCA and Trinity House. The report will assess the extent to which the impacts predicted in the NRA are accurate to ensure adopted risk controls are fit for purpose”.</p> <p>The underlying principles of that monitoring are set out in MGN654 Section 6.6. Based on this guidance and experience on previous projects, the monitoring approach will be as follows:</p> <ol style="list-style-type: none"> <li>7. The Applicant will prepare a Navigation Monitoring Strategy in consultation with the Maritime and Coastguard Agency (MCA) and Trinity House</li> <li>8. For each year during construction, the Applicant will collect Automatic Identification System (AIS) data for a period to be determined (likely in excess of 28 days and seasonally representative)</li> <li>9. Analysis will be undertaken to compare the routes, traffic densities and incidents occurring during that period against the predictions of the Navigational Risk Assessment (NRA)</li> <li>10. Where possible, engagement with operators through the Marine Navigation Engagement Forum will be used to validate these findings</li> <li>11. A report will be submitted to the MCA and Trinity House to confirm consistency with the NRA and that mitigation measures are effective and remain fit for purpose. If necessary, discussions with the MCA will take place as set out in MGN654 Section 6.6</li> </ol> <p>The reports will also be submitted for each year post-construction for a period to be determined (this is anticipated to be up to three years based on MCA requirements placed on previous offshore wind projects).</p>
SN 1.17	Applicant	<p><b>Cumulative Safety Risks with the Moir Vannin proposed OWF</b>            In [REP1-051] the MCA notes that allision and collision risk between the Morgan Array Area and Moir Vannin OWF Scoping Boundary are assessed as unacceptable in the findings of the Cumulative Regional NRA and the MCA expects the two</p>	<p>The Applicant's response to REP1-051.21 (REP2-005) describes the process by which the Applicant considered the Moir Vannin Offshore Wind Farm (further explanation is provided in the CRNRA included in Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060)).</p> <p>The revisions to the extent of the Morgan Array Area (Agreement for Lease area) were developed following the completion of navigation simulations and the hazard workshop in October 2022 where unacceptable risks of</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>developers to “reach agreement for increasing the sea space between the two sites to ensure the navigation risks are tolerable”.</p> <p>Further to [APP-011, sections 4.1.7 and 4.2.2], explain to what extent the Moir Vannin OWF proposed order limits were considered at the time the proposed order limits for Morgan Generation assets were reduced in area and suggest how EN-3 paragraph 2.8.331 should be considered in this regard, specifically considering that the Moir Vannin OWF application may not be subject to the consent of the UK SoS or other UK Government department.</p>	<p>collision and allision were concluded for Morgan Generation Assets individually and cumulatively. A refined boundary was then developed and announced to stakeholders at the MNEF in January 2023 as part of the ongoing NRA process to investigate whether the potential array area would significantly reduce potential impacts.</p> <p>The Applicant was aware of an agreement for lease for an offshore wind farm in Isle of Man waters awarded in 2015, but no further information was available for any proposed project, including a scoping report setting out details of the proposal, likely significant effects and the approach to EIA. The scoping opinion from the Isle of Man Government (APP-030) in August 2022 notes this but provides no further information. Therefore, the Applicant considered the Moir Vannin Offshore Wind Farm as a Tier 3 project in its cumulative effects assessment. Noting this uncertainty, the Applicant could not meaningfully take the proposed Moir Vannin project into account when addressing unacceptable risks to navigation identified at PEIR and designing amendments to the extent of the Morgan Array Area in Q4 2022.</p> <p>The Applicant notes that it was not until October 2023 that a Scoping Report was publicly issued for the Moir Vannin Offshore Wind Farm, following completion of the Applicant’s bridge simulations, hazard workshop and NRA whereby the risks posed by the Morgan Generation Assets was assessed as Tolerable and ALARP. The most recent updates provided by Moir Vannin Offshore Wind Project to the Examination of the Mona Offshore Wind Project (EN010137 REP3-101) note that they are refining their project design. Therefore, it has been almost two years since the Morgan Generation Assets boundaries were revised to successfully mitigate unacceptable risks to navigation and there remains to this day uncertainty as to the final design of the Moir Vannin Offshore Wind Farm and its siting within the existing Scoping Boundary. The Applicant will update the Examining Authority on any pertinent findings following the Moir Vannin Offshore Wind Farm hazard workshop scheduled for December 2024.</p> <p>The Applicant also notes that whilst the Morgan Generation Assets and Moir Vannin Offshore Wind Farm are in different jurisdictions, the assessment methodologies are consistent based on the UK’s MGN654 (as undertaken by the Applicant in Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060) and by Moir Vannin Offshore Wind Project in its Scoping Report). Therefore, the process of identifying, assessing and</p>

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Reference	Question to	ExAQ1	Applicant's response
SN 1.18	Applicant	<p><b>Adaptive management of effects on vessel routing and safety</b> In the event that monitoring of impacts on vessel routeing and safety found that the effects were greater than those predicted in the NRA, what additional adaptive management and mitigation measures could be adopted, and how do the DMLs as drafted provide security that they would be adopted?</p>	<p>mitigating the risks to navigational safety are consistent and the Applicant would therefore expect Moir Vannin Offshore Wind Project to mitigate any unacceptable risks to navigation which they identify.</p> <p>The Applicant considers it has conducted a robust Navigational Risk Assessment (APP-060) in full compliance with the guidance and in consultation with stakeholders, as is confirmed in the Statements of Common Ground with the MCA (REP2-024), Trinity House (S_D3_TH SoCG_Trinity House F02) and UK Chamber of Shipping (S_D3_CoS SoCG The UK Chamber of Shipping F02). Therefore, the Applicant believes that it is unlikely that the monitoring described within the Offshore In-Principle Monitoring Plan (REP2-013) would identify any significant deviation to the findings of the NRA which was undertaken on the Maximum Design Scenario and is therefore precautionary in nature.</p> <p>However, if such effects were identified, the Applicant would engage with the MCA to determine the significance of these changes and the likely requirement for adaptive management. This follows the guidance set out within paragraph d. of MGN654 Section 6.6 which states that <i>“the MCA would expect the opportunity to discuss any changes identified as part of this monitoring, since the submission of the NRA.”</i></p> <p>The Applicant would address any further operational matters raised at this stage through appropriate amendments to the Vessel Traffic Management Plan (REP2-017).</p> <p>A number of further mitigation measures were identified, but not adopted, within the NRA (see Table 1.42 of the NRA APP-060) including amendments to ship routeing measures. As the MCA is the navigational authority for the eastern Irish Sea, such measures would need to be implemented and managed by the MCA if they were deemed necessary for addressing an identified impact upon navigational safety in response to monitoring.</p> <p>The Applicant has committed to ongoing engagement with operators to address residual moderate adverse effects on vessel routeing in adverse weather and this will continue through construction and operations and maintenance.</p>
SN 1.19	Applicant	<p><b>Update to Cumulative Regional Navigational Risk Assessment with further information on new projects</b></p>	<p>As noted in the Applicant's response to Hearing Action Point 17 at ISH 1 (REP1-005), the Applicant has carefully reviewed the information issued by Moir Vannin Offshore Wind Farm Limited and Morecambe Generation</p>

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Reference	Question to	ExAQ1	Applicant's response
		<p>Reconsider and respond whether (in addition to and to inform a sensitivity analysis of the CEA) an update or addendum to the Cumulative Regional NRA should be submitted subsequent to additional information having become available (whether through published proposals or through the activities of the Marine Navigation Engagement Forum or through direct contact with the developers) on the Morecambe OWF Generation Assets and Mooir Vannin OWF projects.</p>	<p>Assets and included this within the assessment. The Applicant notes that the Cumulative Regional NRA was undertaken collaboratively with the Morecambe Generation Assets, both in terms of assessment and development of boundary changes post-PEIR to mitigate impacts on shipping and navigation. As the Morecambe Generation Assets have not proposed further amendments since submission, the results of the Cumulative Regional NRA remain valid. No changes have yet been proposed to amend the Scoping Boundary of the Mooir Vannin Offshore Wind Farm and therefore no further update of the cumulative effects assessment is possible at this time.</p> <p>Should further information come forward during this Examination, this information will be reviewed and assessed as part of the Applicant's broader cumulative effects assessment review. The Applicant notes that as Mooir Vannin Offshore Wind Farm Limited have committed to following MGN654 (as set out in their Scoping Report), the Applicant expects that they will undertake their own cumulative NRA once they have refined their project design.</p> <p>Post-consent, the MCA will be the navigational authority for the eastern Irish Sea and the responsibility for assessing and managing navigational safety in the region will fall to the MCA and not the Applicant. Therefore, it would not be appropriate for the Applicant to maintain an iterative CRNRA post consent and there is no requirement in guidance or precedent for this elsewhere in the UK.</p>
SN 1.20	Applicant	<p><b>Maritime SAR and Emergency Response Co-operation measures</b>            With regard to the IoMSPC SoCG comments [REP1-033, SAR.1 and SAR.2] can you provide further assurance about what Search and Rescue (SAR) and Emergency Response Co-operation Plan mitigation for increased navigational safety risks might be during the construction period and before the Millom West decommissioning is complete (including any effects on VHF communications and shipborne radar during SAR)?</p>	<p>The NRA (APP-060) has concluded that the likelihood of an incident occurring during the construction period (before the Millom West decommissioning is complete) and therefore the need for SAR, is low and that the risks are Tolerable and As Low As Reasonably Practicable (ALARP). An updated Statement of Common Ground between the Applicant and IoMSPC was submitted at Deadline 3 which now notes agreement that in typical conditions, safe routes for shipping are possible around the Morgan Generation Assets (S_D3_IoM_SPC SoCG_IoM SPC F02).</p> <p>The Applicant notes that an Emergency Response and Cooperation Plan (ERCoP) will be developed between the Applicant and the MCA to facilitate information sharing for SAR as secured in Schedule 3 and 4 condition 25 of the draft dML (REP2-011). This would consist of:</p> <ul style="list-style-type: none"> <li>• Organisational information</li> </ul>

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Reference	Question to	ExAQ1	Applicant's response
			<ul style="list-style-type: none"> <li>• SAR facilities and response capability information</li> <li>• Support arrangements</li> <li>• Morgan Generation Assets layout and information</li> <li>• Lighting and marking arrangements</li> <li>• Construction activities (including vessels and risk controls)</li> <li>• Emergency response plans/procedures (including emergency shutdown)</li> </ul> <p>As described in Section 1.8.12 of Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060), previous studies into the effects of offshore wind farms on radar, VHF and other sensor systems show that with the exception of radar, such effects are negligible at the distances at which the IoMSPC ferries would be expected to pass. The effects on radar are also limited and are currently managed by the IoMSPC on their existing routes passing offshore wind farms which have a greater turbine density, and therefore a greater impact on radar systems, than that anticipated for the Morgan Generation Assets. The Applicant notes that there are multiple means of detecting casualty vessels during SAR including highly specialised equipment carried by conventional assets such as emergency beacons or Forward Looking Infrared (FLIR) which can be used by specialist SAR assets.</p> <p>The Applicant also notes that offshore wind farms can improve search and rescue in the region:</p> <ul style="list-style-type: none"> <li>• The Morgan Generation Assets construction and operations and maintenance vessels will be well equipped and include trained personnel who can provide immediate response to incidents in compliance with the International Convention for the Safety of Life at Sea (SOLAS) obligations well before conventional RNLi or HMCG assets could reach the array area</li> <li>• There are numerous examples of offshore wind assets responding to vessels in distress which were unconnected to the offshore wind farm. For example, in 2015 two Crew Transfer Vessels from Lincs were first responders to a yacht's mayday, finding the casualty and offering assistance before the RNLi lifeboats and SAR helicopters could reach it. Similar examples have occurred at Neart na Gaoithe windfarm and Gwynt y Mor. In December 2020, a Service Operations Vessel rescued seven</li> </ul>

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Reference	Question to	ExAQ1	Applicant's response
			<p>injured fishermen near Dudgeon following explosions on board, evacuating the fishing boat, providing first aid and then transferring them to a helicopter</p> <ul style="list-style-type: none"> <li>Project vessels and equipment will enhance monitoring of the sea-space around the Morgan Generation Assets, improving detection of any emergency broadcasts or vessels experiencing difficulty. This includes greater coverage such that a vessel in difficulty can be more quickly identified and the appropriate SAR response initiated. A Marine Coordination Centre will be manned and monitoring the site 24/7 and will have the ability to respond to a request for assistance.</li> </ul>
SN 1.21	Applicant	<p><b>Assessment of port effects of amendments to adverse weather passage plans</b></p> <p>Signpost and summarise to what extent likely consequential effects on road traffic and transport and port operations resulting from amendments to adverse weather passage plans have been assessed and quantified for scheduled ferry services, in relation to services between Heysham and Douglas and Heysham and Belfast affected by the Proposed Development alone.</p>	<p>Within Volume 2, Chapter 7: Shipping and navigation (APP-025), Section 7.9.3 and 7.9.4 consider the impact of the Morgan Generation Assets on lifeline ferry services in typical and adverse weather conditions respectively, and the operational impact that might be caused by any delays or cancellations. Similarly, Volume 2, Chapter 13: Socio-economics (APP-017) has considered both the direct and indirect impacts to the North West, Isle of Man and Northern Ireland as a result of possible delays or cancellations to affected ferry services.</p> <p>As described in its response to SN 1.14, the Applicant does not believe that unacceptable interference to navigation would result from this project. The assessment demonstrates negligible increases in journey times in typical weather conditions which are far less than day to day variation in crossing times and turnaround times in ports which the operators successfully manage. Furthermore, through consultation with operators and the assessments undertaken, the Applicant does not consider it credible that there would be significant consequential impacts on road traffic and transport and port operations as a result of the Morgan Generation Assets and amendments that may be needed to adverse weather passage plans:</p> <ol style="list-style-type: none"> <li>The impacts on adverse weather routes would not alter the departure point and destination of the affected ferry routes and the impacts relate to duration of transit and therefore possible delays to arrival times as described in section 7.9.4/section 7.11.4 of the Shipping and navigation assessment (Volume 2, Chapter 7 APP-025)</li> <li>Adverse weather impacts by their nature are short term. Where weather conditions deteriorate, this would lead to cancellations caused by imposed wind limits that make berthing or departure unsafe. These</li> </ol>



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Reference	Question to	ExAQ1	Applicant's response
			<p>measures would be undertaken irrespective of the Morgan Generation Assets. For example, as highlighted on the IoMSPC website, no vessel can enter Heysham with winds greater than 45 knots and berth number 3 is limited to 25 knots for the Manxman or Ben-my-Cree. Where weather conditions improve then vessels would no longer be required to weather route</p> <ol style="list-style-type: none"> <li>3. The duration of passage (up to eight hours) and infrequency of movements means that it would be highly unlikely that a delay to one sailing would cause a knock-on delay to another vessel arrival or departure on that route. Furthermore, some routes are operated only by one vessel, such as IoMSPC routes and/or with dedicated berths to that service, so knock-on impacts are not possible</li> <li>4. The Applicant is not aware that existing delays caused by weather routeing (as opposed to cancellations) have resulted in significant port congestion or road traffic impacts and therefore this is being managed successfully by the affected operators, harbours and hauliers</li> <li>5. The Applicant notes that the IoMSPC provide regular service updates to passengers on their website and within the media about upcoming delays, enabling passengers and freight to plan their arrival appropriately and avoid congestion. Similar alerts are issued by Stena Line.</li> <li>6. The Applicant believes that adverse weather conditions are more common during winter months when the volume of freight carriage and passenger numbers are typically lower. In some circumstances, this would allow for operators to reduce their loading time within their schedule to "catch-up" any lost time</li> <li>7. The Applicant notes that in the Isle of Man Territorial Seas Committee's Local Impact Report (REP1-047), it is noted that the impact of routeing changes is not considered to be significant in general and that there are no concerns on potential socio-economic impacts of the proposed development except through cancellations. This implies that the IoM TSC consider impacts to port operations and road traffic as a result of delays to not be a concern.</li> </ol> <p>Volume 2, Chapter 13: Socio-economics (APP-017) concludes that the potential socio-economic impacts on the Isle of Man associated with potential adverse effects on lifeline ferry services is minor adverse due to intermittency, high tolerance and high recoverability.</p>

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Reference	Question to	ExAQ1	Applicant's response
SN 1.22	Applicant	<p><b>Potential for electromagnetic deviation effects on ships' compasses</b></p> <p>In [REP1-051] the MCA sets out its expectation for a pre-construction compass deviation study and post-construction monitoring; submit a revised draft condition or conditions in the draft DMLs to secure these actions.</p>	<p>The Applicant's response to REP1-051.14 (REP2-005) noted that the cables associated with the Morgan Generation Assets would be High Voltage Alternating Current (HVAC) rather than High Voltage Direct Current (HVDC). The Applicant understood that the MCA's comment in REP1-051 only implies that a compass deviation study would be required if HVDC were installed which is not the case. Given the low potential impact of HVAC on compasses, 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 dML.</p>

## 2.15 Seascape, Landscape and Visual

Table 2.15: Response to ExAQ1: Seascape, Landscape and Visual Questions.

Reference	Question to ExAQ1	Applicant's response
SLV 1.1	<p>Applicant</p> <p><b>SLVIA Viewpoint Selection</b>            ES Volume 2, Chapter 10 [APP-014] section 10.3 sets out the stakeholders from which feedback was requested on the candidate representative viewpoints. Section 10.4.5 indicates that representative viewpoints were agreed with statutory consultees. Table 10.7 summarises the key matters raised during pre-application consultation and paragraph 10.3.1.2 states that further detail is presented in Annex 10.2, however there is no detail relating to consultation responses contained within this Annex. Whilst the responses from a limited range of stakeholders are included in Table 10.7, it is unclear whether there was any engagement from the other authorities listed at paragraph 10.3.1.1.            Could the Applicant confirm if any of the stakeholders listed provided specific comments on any of the representative viewpoints at pre-application, and details of those comments as applicable.</p>	<p>As noted in paragraph 10.3.1.1 of Volume 2, Chapter 10: Seascape, landscape and visual resources (APP-014), feedback on the candidate representative viewpoints was requested from a number of stakeholders. The Applicant confirms that, following Section 42 consultation, Natural England provided specific comments on the viewpoints. Natural England recommended '<i>Industry standard photomontages, as well single frame images, for viewpoints located at Black Combe, Whit Fell, Muncaster Fell, and Whin Rigg, all of which are within the boundary of the Lake District National Park</i>'. This is outlined in Table 10.7 of Volume 2, Chapter 10: Seascape, landscape and visual resources (APP-014). The Applicant confirms that Natural England requested these additional viewpoints to be included in the SLVIA as detailed in the Consultation Report Appendices - Part 3 (D1 - E1) (APP-104) along with updated photomontages and wirelines for all representative viewpoints as single frame images with a HFOV of 39.6 degrees and better quality photography for specific viewpoints affected by the sun's glare. These were submitted at the Procedural Deadline (PD1-013 and PD1-014) and Natural England has since confirmed that their comments have been resolved (REP2-033).</p> <p>In relation to point i) of ExA Question SLV 1.4, feedback on the candidate representative viewpoints was also requested from the Isle of Man Government. The Isle of Man Department of Infrastructure responded to consultation on the PEIR stating that they agree that the SLVIA presented in the PEIR has been undertaken in accordance with accepted industry guidance, the findings are concurred with, and they are all based on worst case scenarios (see Table 10.7). No further viewpoints were requested from Isle of Man Government following consultation on the PEIR.</p> <p>The Applicant confirms that there were no comments on representative viewpoints from any of the other stakeholders (other than Natural England referenced above) listed in section 10.3 of Volume 2, Chapter 10 (APP-014).</p>

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Reference	Question to	ExAQ1	Applicant's response
			<p>Statutory consultation responses for the SLVIA are documented in Table D.24.16 (APP-104). The Applicant confirms that there is no further detail relating to consultation responses contained within Annex 10.2: Seascape and landscape character baseline technical report (APP-035) and therefore this cross reference is incorrect.</p>
SLV 1.2	Applicant	<p><b>SLVIA Methodology and Guidance</b>            Section 1.4.1 of ES Volume 4, Annex 10.4 [APP-037] sets out the guidance used for the SLVIA. There is particular emphasis on the DTI Guidance (2005). The ExA is aware of the recent publication of the Technical Guidance Note: Note and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment 3 (Landscape Institute, August 2024) (TGN).            i) Given the age of some of the guidance and the scale of wind turbines at the time of the DTI Guidance, could the Applicant clarify if there is any more up-to-date guidance or study papers that the ExA should be aware of which is specific to OWF proposals and/or assessment of seascape?            ii) The Applicant is asked to confirm whether the August 2024 TGN Note has any implications for the SLVIA.</p>	<p>As detailed within Volume 4, Annex 10.4: Seascape, landscape and visual resources impact assessment methodology (APP-037), the SLVIA was undertaken based on the guidance on landscape and visual impact assessment within the Guidelines for Landscape and Visual Impact Assessment: Third Edition, 2013, Landscape Institute and Institute of Environmental Management and Assessment (GLVIA3). In addition, the SLVIA was informed by relevant best practice guidance including:</p> <ul style="list-style-type: none"> <li>• Technical Guidance Note 06/19: Visual Representation of Development Proposals (Landscape Institute, 2019)</li> <li>• Guidance on the Assessment of the Impact of Offshore Wind Farms: Seascape and Visual Impact Report (Department of Trade and Industry, 2005).</li> </ul> <p>The DTI Guidance, although dated 2005, continues to be relevant and is referenced in more recent guidance documents including Natural Resources Wales (2019), Seascape and visual sensitivity to offshore wind farms in Wales and Offshore Energy SEA 4: Environmental Report.</p> <p>Other guidance used to inform the assessment includes NatureScot Visual Representation of Wind Farms, Guidance, Version 2.2, February 2017, which covers both onshore and offshore wind, as referenced within Volume 4, Annex 10.4: Seascape, landscape and visual resources impact assessment methodology (APP-037).</p> <p>The August 2024 TGN from the Landscape Institute was published after the application for the Morgan Generation Assets was submitted. This technical guidance note provides further clarification on aspects of GLVIA 3 which accord with the assessment approach for the Morgan Generation Assets. For example:</p> <ul style="list-style-type: none"> <li>• Section 3.5 relates to significance: how to assess significance, where to set thresholds and how to achieve consistency. This cross references GLVIA3 paragraph 3.33: <i>'it is not necessary to establish</i></li> </ul>

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Reference	Question to	ExAQ1	Applicant's response
			<p><i>thresholds for levels of significance, provided that it is made clear whether effects are, or are not, significant'. The TGN adds to this by stating: 'However, typically, effects falling below the middle of the range of overall effect are assessed as not significant'.</i></p> <ul style="list-style-type: none"> <li>• Section 3.6 of the TGN relates to use of matrices and states '<i>Diagrams or matrices can be useful as a means of illustrating to the reader how judgements are combined and can support and summarise narrative descriptive text (GLVIA3 paragraph 8.10), but they should not dictate judgements. LVIA is a means of documenting professional judgement, rather than a formulaic process. All judgements need to be supported by clear description'.</i></li> </ul>
SLV 1.3	Applicant	<p><b>Cumulative Visual Effects: Raad ny Foillan Coast Path, Douglas and Laxey</b>            ES Volume 2, Chapter 10 [APP-014] paragraphs 10.9.4.58 to 10.9.4.59 and paragraphs 10.9.4.116 to 10.9.4.117 set out the significance of the cumulative visual effects during operation on users of the Raad ny Foillan Coast Path and individuals at the coastal settlements of Douglas and Laxey as moderate to major adverse and not significant. Paragraph 10.13.2.3, in summarising cumulative effects, notes "potential" significant cumulative effects. Table 10.24 sets out the cumulative effects on the Coast Path and Douglas/Laxey seafronts as moderate to major adverse (not significant). Whilst the ExA notes that GLVIA3 explains that there are 'no hard or fast rules about what effects should be deemed to be significant', it also notes that ES Volume 4, Annex 10.4 [APP037] section 1.4 sets out that Table 6 of the Guidance on the Assessment of the Impact of Offshore Wind Farms: Seascape and Visual Impact Report (Department of Trade and Industry, 2005) (DTI Guidance) is utilised in the SLVIA. The approach to moderate seascape and visual effects is explained in paragraph 1.4.1.6 of ES Volume 4, Annex 10.4 [APP-037], and whilst the Applicant recognises that Table 6 sets out moderate effects as "potentially significant", the ExA notes that major/moderate effects are identified as significant.</p> <p>i) Could the Applicant clarify this inconsistency, and the meaning of 'potentially significant', having regard to the methodology used for the significance of effect.</p> <p>ii) The Applicant is asked to review the significance of effects for each relevant receptor to ensure a consistent approach.</p>	<p>The Applicant has prepared a clarification note to respond to this question with document reference S_D3_4.4: Annex 4.4 to the Applicant's response to EXQ1: SLVIA Clarification note.</p>

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Reference	Question to ExAQ1		Applicant's response
SLV 1.4	Isle of Man Government	<p><b>SLVIA Methodology and Viewpoints – Isle of Man</b></p> <p>i) The IoM Government is asked to confirm if it is satisfied with the range, location, accuracy and quality of viewpoints on the Isle of Man as listed at Table 10.19 [APP-014] and shown within ES Volume 4, Annex 10.6 [APP-039, 40, 41, 42, 43 and APP-044], and if not, provide suggestions for additional/alternative viewpoints.</p> <p>ii) Does the IoM Government agree with the Applicant's assessment of effects on users of the Raad ny Foillan Coast Path and individuals at the coastal settlements of Douglas and Laxey as moderate to major adverse and not significant? (refer to previous question for the references).</p>	<p>In relation to point i), the Applicant refers the ExA to response SLV 1.1 above regarding consultation on the candidate representative viewpoints.</p> <p>In relation to point ii), the Applicant has prepared a clarification note to respond to the ExA's Q SLV 1.3 with document reference S_D3_4.4: Annex 4.4 to the Applicant's response to EXQ1: SLVIA Clarification note.</p>
SLV 1.5	Applicant	<p><b>Visual effects on people using the main ferry routes</b></p> <p>A "moderate to major" adverse effect during operation is identified in ES Volume 2, Chapter 10 [APP-014] for visual effects on people using the main ferry routes, but it is unclear in paragraph 10.13.1.4 and Table 10.23 whether this effect is assessed as significant. Paragraph 10.5.2.7 notes that 'For the purposes of this assessment, any effects with a significance level of substantial or major have been deemed significant in terms of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017' and 'An accumulation of individual moderate effects, for instance those experienced during a journey undertaken by the same visual receptor, may also be judged as significant in some circumstances'. Table 10.24, in summarising potential cumulative effects, sets out operational visual effects on the main ferry routes as "minor to moderate adverse" (scenario 2) and "moderate adverse" (scenario 3), both classified as not significant.</p> <p>The Applicant is asked to:</p> <p>i) Provide an overall summary of significance of the effect for people using main ferry routes, including at viewpoints 22 and 23.</p> <p>ii) Explain why the cumulative effect is summarised as a lesser effect during operation than the project alone.</p>	<p>The Applicant has prepared a clarification note in response to this question, with document reference S_D3_4.4: Annex 4.4 to the Applicant's response to EXQ1: SLVIA Clarification note.</p>
SLV 1.6	Applicant	<p><b>Marine Character Area 38</b></p> <p>Can the Applicant explain why the assessments of effects for Marine Character Area 38, are inconsistently rated "moderate to major adverse" are reported as "not significant" [APP-014 paras 10.8.2.15 and 10.8.2.22] and "(significant)" in [APP-014, Table 10.23].</p>	<p>The Applicant has prepared a clarification note in response to this question, with document reference S_D3_4.4: Annex 4.4 to the Applicant's response to EXQ1: SLVIA Clarification note.</p>

## MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Reference	Question to ExAQ1	Applicant's response
SLV 1.7	<p>Historic England, Natural England, Natural Resources Wales</p> <p><b>National and International Designations</b>            The SLVIA study area includes the following designated sites:            • Isle of Anglesey National Landscape            • The Lake District National Park            • The English Lake District World Heritage Site            Historic England, Natural England and NRW are asked whether they have any specific comments to make on ES Volume 4, Annex 10.5: International and nationally designated landscape study [APP-038], as this is not referenced in responses received to date. The IPs are also directed to Question [HE 1.11] and may wish to combine answers.</p>	<p>The Applicant notes SLV 1.7 is directed towards Historic England/Natural England/Natural Resources Wales and shall not be responding.</p>
SLV 1.8	<p>Applicant</p> <p><b>Existing Offshore Wind Turbines – height difference</b>            Appendix B (B.1) of ES Volume 2, Chapter 10 [APP-014] sets out the heights of the turbines within the existing OWFs within the Irish Sea. The Applicant is asked to provide a visual representation to show the differing heights of each relevant OWF and the MDS for the wind turbines within the Proposed Development.</p>	<p>The Applicant refers to Volume 4, Annex 10.6: Seascape visualisations, Parts 3 and 4 (APP-041 and APP-042) where cumulative wirelines have been prepared for representative viewpoints 15, 17, 18, 19, 20, 42, 43 and 49. These illustrate the Morgan Generation Assets and existing offshore wind farms, taking into account the heights and the locations of these existing projects, as presented for each project in Appendix B (section B.1) of Volume 2, Chapter 10: Seascape, landscape and visual resources (APP-014).</p>
SLV 1.9	<p>Newton with Clifton Parish Council</p> <p><b>Effects on Coastal Character</b>            Your Relevant Representation [RR-003] and Procedural Deadline submission [PD1-022] refers to concerns about effects on landscape and coastal character, amongst other issues.             Can the Parish Council clarify whether your concerns relate to the onshore works only (which do not form part of this Application), or if you have concerns about the proposed wind turbines and other offshore infrastructure in terms of its landscape and visual effects?</p>	<p>The Applicant notes SLV 1.9 is directed towards Newton with Clifton Parish Council and shall not be responding.</p>

## 2.16 Socio-Economic

Table 2.16: Response to ExAQ1: Socio-Economic Questions.

Reference	Question to	ExAQ1	Applicant's response
SE 1.1	Applicant	<p><b>Use of term “medium (adverse) significance”</b></p> <p>Explain the CEA of “medium (adverse) significance” in ES Volume 2, Chapter 13 (Table 13.89 pages 170 and 171 [APP-017]) and why, if this is an erroneous reference to moderate significance, it is not considered significant in EIA terms.</p>	<p>The use of the term ‘medium (adverse) significance’ in ES Volume 2, Chapter 13 (Table 13.89 pages 170 and 171 [APP-017]) is a typographical error, which should read ‘<b>minor (adverse) significance</b>’. This typographical error does not affect the conclusions of the assessment.</p> <p>The conclusions of the cumulative assessment under Scenario 3, incorporating Tier 2 projects, states that the magnitude of the cumulative impact is deemed to be <b>medium (adverse)</b> and the sensitivity of the receptor is considered to be <b>low</b>. The cumulative effect will, therefore, be of <b>minor (adverse)</b> significance, which is not significant in EIA terms. No further mitigation is proposed and therefore the residual effect is of <b>minor (adverse) significance</b>, which is not significant in EIA terms.</p> <p>The error has been added to the errata sheet submitted at Deadline 3 (S_D3_6 Errata Sheet F04).</p>



### **3 REFERENCES**

Department for Energy Security & Net Zero (DESNZ) 2024, Application for development consent for the Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Project. Available at: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010109/EN010109-002340-SADEPS%20SOS%20LETTER%20DESNZ%20170424.pdf>. Accessed November 2024

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