Partners in UK offshore wind

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Applicant's Response to Written Representations

Deadline: 2

Application Reference: EN010136

Document Number: MRCNS-J3303-RPS-10171

Document Reference: S_D2_3

22 October 2024

F01

Image of an offshore wind farm

www.morganandmona.com/morgan

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
F01	Deadline 2	RPS	Morgan Offshore Wind Limited	Morgan Offshore Wind Limited	October 2024

Prepared by:

RPS

Prepared for:

Morgan Offshore Wind Ltd.

Contents

Tables

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.
Marine licence	The Marine and Coastal Access Act 2009 requires a marine licence to be obtained for licensable marine activities. Section 149A of the Planning Act 2008 allows an applicant for a DCO to apply for a 'deemed' marine licence as part of the DCO process.
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.
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	The transmission assets for the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm. This includes the Offshore Substation Platforms (OSPs), interconnector cables, Morgan offshore booster station, offshore export cables, landfall site, onshore export cables,

Term	Meaning
	onshore substations, 400kV grid connection cables and associated grid connection infrastructure such as circuit breaker infrastructure (as defined in the Morgan and Morecambe Offshore Wind Farms: Transmission Assets PEIR).
National Policy Statement (NPS)	The current national policy statements published by the Department for Energy Security & Net Zero in 2024.
Offshore Substation Platform (OSP)	The offshore substation platforms located within the Morgan Array Area will transform the electricity generated by the wind turbines to a higher voltage allowing the power to be efficiently transmitted to shore.
Scour protection	Protective materials to avoid sediment being eroded away from the base of the foundations as a result of the flow of water.
Statutory consultee	Organisations that are required to be consulted by an applicant pursuant to the Planning Act 2008 in relation to an application for development consent. Not all consultees will be statutory consultees (see non-statutory consultee definition).
Wind turbines	The wind turbine generators, including the tower, nacelle and rotor.
The Planning Inspectorate	The agency responsible for operating the planning process for NSIPs.

Acronyms

Acronym	Description
AEZ	Archaeological exclusion zones
ADD	Acoustic Deterrent Devices
AHEF	Archaeology and Heritage Engagement Forum
AIS	Automatic Identification System
ALARP	As Low As Reasonably Practicable
ANIFPO	Anglo Northern Irish Fish Producers Organisation
BEL	Burbo Extension Limited
CAA	Civil Aviation Authority
CAP	Civil Aviation Publication
CAT	Commercial Air Transport
CBRA	Cable Burial Risk Assessment
CEA	Cumulative Effects Assessment
CFLO	Company Fisheries Liaison Officer
CRM	Collision Risk Modelling
CRNRA	Cumulative Regional Navigation Risk Assessment
DCO	Development Consent Order
DDV	Drop Down Video
DESNZ	Department for Energy Security and Net Zero
DIO	Defence Infrastructure Organisation

Acronym	Description
dMLs	deemed Marine Licences
EIA	Environmental Impact Assessment
ERCoP	Emergency Response Co-operation Plan
ES	Environmental Statement
EWG	Expert Working Group
FIR	Fishing Industry Representative
HOFO	Helicopter Offshore Operations
HRA	Habitats Regulations Assessments
HSE	Health and Safety Executive
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
ICES	International Council for Exploration of the Sea
IMC	Instrument Meteorological Conditions
IMCA	International Marine Contractors Association Guidance on Simultaneous Operations
INNS	Invasive Non-Native Species
IPMP	In Principle Monitoring Plan
ISAA	Information to Support Appropriate Assessment
ISH	Issue Specific Hearing
JNCC	Joint Nature Conservation Committee
MCA	MCA Maritime and Coastguard Agency
MDS	Maximum Design Scenario
MMO	Marine Management Organisation
MMMP	Marine Mammal Mitigation Protocol
MNEF	Marine Navigation Engagement Forum
MNR	Marine Noise Registry
NAS	Noise Abatement Systems
NE	Natural England
NFFO	National Federation of Fishermen's Organisations
NPI	Non-Production Installation
NPS	National Policy Statement
NRA	Navigation Risk Assessment
NRW	Natural Resources Wales
NSIP	Nationally Significant Infrastructure Project
NWWT	North West Wildlife Trusts

Acronym	Description
Offshore EMP	Offshore Environmental Management Plan
OEUK	Offshore Energies UK
OFLCP	Outline Fisheries Liaison and Co-existence Plan
OFLOs	Offshore Fisheries Liaison Officers
OSP	Offshore Substation Platform
OWEC	Offshore Wind Evidence and Change
OWEER	Offshore Wind Environment and Evidence Register
OWF	Offshore Wind Farm
PEIR	Preliminary Environmental Information Report
PFEER	Prevention of Fire and Explosion, and Emergency Response Regulations
RSPB	Royal Society for the Protection of Birds
RYA	Royal Yachting Association
SACs	Special Areas of Conservation
SAR	Search and Rescue
SFF	Scottish Fishermen's Federation
SLVIA	Seascape, Landscape and Visual Impact Assessment
SMZ	Scallop Mitigation Zone
SNCB	Statutory Nature Conservation Bodies
SoCG	Statement of Common Ground
SOLAS	Safety of Life at Sea Convention
SPA HOFO	Specific Approval for Helicopter Offshore Operations
SWFPA	Scottish White Fish Producers Association Ltd
TAEZ	Temporary Archaeological exclusion zones
UXO	Unexploded ordnance
UWSMS	Underwater sound Management Strategy
VHF	Very high frequency
VMC	Visual Meteorological Conditions
VMS	Vessel Monitoring System
VTS	Vessel Traffic Service
WFA	Welsh Fishermen's Association
WCSP	West Coast Sea Products Ltd
WEL	Walney Extension Limited
WSI	Written Scheme of Investigation

Units

Unit	Description
GW	Gigawatt
NM	Nautical Mile

1 APPLICANT'S RESPONSE TO WRITTEN REPRESENTATIONS

1.1 Introduction

1.1.1.1 Following Deadline 1, Morgan Offshore Wind Limited (the Applicant), has taken the opportunity to review each of the Written Representations (WRs) and post hearing submissions received from stakeholders who registered as Interested Parties in the Examination.

1.1.1.2 Details of the Applicant's response to each of the Written Representations (WRs) and one post hearing submission are set out in the subsequent sections of this document and its annex.

1.1.1.3 The Applicant has numbered the WRs in line with the Planning Inspectorate's document library with subsequent paragraph numbering.

1.1.1.4 One annex was produced to support the Applicant's response, as follows:

- Annex 3.1 to the Applicant's response to Written Representations from the Marine Management Organisation at Deadline 2

2 RESPONSES TO WRITTEN REPRESENTATIONS

2.1 BAE Systems (Marine) Limited

Table 2.1: REP1-042 BAE Systems (Marine) Limited (Post-Hearing Submission)

Reference	Post Hearing Submission	Applicant's response
REP1-042.0	We are making these further comments on behalf of BAE Systems (Marine) Ltd and BAE Systems (Operations) Ltd. The comments provide clarification on matters discussed at the Preliminary Meeting (PE) and the Issue Specific Hearing 1 (ISH 1) on the Scope of Development and Interrelationship with other Infrastructure Projects.	This is noted by the Applicant.
REP1-042.1	With reference to the relevant notes from the Meeting and Hearing: 1. "BAE Systems explained their position and interest and noted that they have discussed individual Statement of Common Grounds with the Applicant. The ExA noted that the Defence Infrastructure Organisation (DIO) will become an interested party to this examination and asked if their representations will be preceded by consultation with BAE Systems as a separate organization. BAE Systems said that they will discuss and confirm this." BAE Systems can confirm that an individual Statement of Common Ground is being discussed with the Applicant in relation to the interests of BAE Systems (Marine) Ltd. This relates to impacts and implications for Walney Aerodrome. The company can also confirm that the issues that relate specifically to BAE Systems (Operations) Ltd at Warton Aerodrome will be captured through the Statement of Common Ground currently being discussed by the Defence Infrastructure Organisation (DIO) and the Applicant. In relation to this, BAE Systems are liaising with the DIO. BAE Systems (Operations) Ltd anticipates that, following the completion of the Statement of Common Ground between the Applicant and the DIO,	The Applicant agrees that the following Statement of Common Ground (SoCG) are in progress: 1. SoCG between the Applicant and BAE Systems (Marine) Ltd, in relation to Walney Aerodrome. 2. SoCG between the Applicant and the Defence Infrastructure Organisation (DIO) in relation to Warton Aerodrome. The Applicant notes that BAE Systems are liaising with the DIO in relation to the SoCG concerning Warton Aerodrome. The Applicant would welcome BAE Systems' involvement in the ongoing discussions between the Applicant and the DIO in relation to the Warton Aerodrome to ensure that progress can be made across the Examination phase. Aligned with this position of a conjoined approach between DIO and BAE Systems, the Applicant notes that recent precedent has delivered conditions for Warton that are jointly discharged by DIO in conjunction with the radar operator (BAE Systems).

Reference	Post Hearing Submission	Applicant's response
	then the discussion about appropriate mitigation and the structure of an appropriately worded condition to be attached to the Development Consent Order (DCO) will take place directly between the company and the Applicant.	
REP1-042.2	2. "BAE Systems confirmed that their main principal issue will be aviation and radar and asked if this issue will be subject to an individual hearing as there are lots of organisations who have an interest in impacts on this issue. The ExA replied that they will have a better idea once they have seen further written representations." We look forward to receiving the decision of the ExA on this matter.	This is noted by the Applicant.
REP1-042.3	3. In relation to the Draft Development Consent Order (DCO) and Condition 1 ("The authorised development must commence no later than the expiration of seven years beginning with the date this Order comes into force"). It is the view of BAE Systems that this time frame for the commencement of development is appropriate. The complexity of the project and the inter-relationship with other projects in the Irish Sea combined with the other regulatory procedures to be adhered to underline the need for a longer period in which development can be started.	This is noted by the Applicant.

2.2 Cadent Gas Limited

Table 2.2: REP1-043 Cadent Gas Limited.

Reference	Written Representation Comment	Applicant's response
REP1-043.1	Following liaison and consultation with the promoter, I can confirm Cadent wish to remove their objection outlined in the submitted Rel Rep submitted 26 June. Cadent has no further comment on the scheme.	The Applicant notes Cadent Gas Limited's comment and welcomes that the objection has been removed.

2.3 Harbour Energy

Table 2.3: REP1-044 Harbour Energy.

Reference	Written Representation Comment	Applicant's response
REP1-044.1	**1. Introduction** The proposed Morgan Generation Assets are located adjacent to the Millom West Platform and the Millom East subsea facilities, each forming part of the Millom Field owned and operated by Chrysaor Resources (Irish Sea) Limited referred to herein as "Harbour Energy" **(**See Figure 1). The Millom Field has ceased production, however decommissioning activities are likely to overlap with the construction, and possibly also the operation, of the proposed Morgan Generation Assets. The precise timing of decommissioning activities will depend upon two key points: 1. the availability of suitable vessels, which is currently constrained; and 2. efficient vessel utilisation as part of a combined campaign for decommissioning activities in the East Irish Sea. As set out in Harbour Energy's response to the Section 42 Consultation (documented by Morgan Offshore Wind Limited the ("Applicant") in environmental Statement Vol 2, Chapter 9: Other Sea Users, pg 7 [App-027]), Harbour Energy anticipates the need for continued aviation access until 2030 at Millom West and to approximately 2032 at Millom East. The proposed proximity of wind turbines will restrict aviation (helicopter) access to non-producing installations ("NPI"s) stationed to work at the Millom West Platform and the Millom East subsea facilities. Harbour Energy's production and decommissioning activities are obligations under the licence(s) granted by the Secretary of State. Harbour Energy is committed to finding solutions that will allow the co-existence of its operations with other stakeholders, including the Applicant.	The Applicant welcomes Harbour Energy's commitment to finding solutions to allow co-existence with the Morgan Generation Assets and confirms that discussions are ongoing between the Applicant and Harbour Energy in this regard. The Applicant also notes that, as stated by Harbour Energy in REP1-044.4 and REP1-044.11, it is not anticipated that flights would be required during the decommissioning period at the Millom West platform, and therefore concerns relating to the Millom West platform in relation to helicopter access are closed. This is also reflected in the SoCG with Harbour Energy submitted at Deadline 1 (REP1-031). The Applicant has responded to each matter raised by Harbour Energy below, where it is an ongoing point of discussion.

Reference	Written Representation Comment	Applicant's response
REP1-044.2	The National Policy Statement for Renewable Energy Infrastructure (EN-3) makes clear that "the Secretary of State should be satisfied that the site selection and site design of a proposed offshore wind farm and offshore transmission has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries." (EN-3: 2.8.345). The Secretary of State is also required to employ "a pragmatic approach" (EN-3: 2.8.342). Accordingly, Harbour Energy presents within this Written Representation, its assessment of the potential for: disruption; economic loss; and adverse effects on safety arising from the proposed Morgan Generation Assets development. Further, Harbour Energy presents suggestions for pragmatic approaches to mitigate such adverse effects.	Paragraphs 2.8.341 to 2.8.348 of NPS EN-3 relevant to Secretary of State decision making in respect to other offshore infrastructure and activities have a focus on safety. In this regard, it is set out that the Secretary of State should be satisfied that site selection and site design has avoided or minimised disruption or economic loss or any adverse effects on safety; and that applicants will be required to demonstrate that risks to safety will be reduced to as low as reasonably practicable. It is also set out that providing there has been careful design and consultation with relevant stakeholders from an early stage, mitigation measures may be possible to reduce effects to a level sufficient to enable the Secretary of State to grant consent. The Applicant has engaged productively with Harbour Energy since 2022. As stated by Harbour Energy in REP1-042.4 and REP1-044.11, it is not anticipated that flights would be required during the decommissioning period at the Millom West platform, and therefore concerns relating to the Millom West platform in relation to helicopter access are closed. It is understood that the residual concern in relation to helicopter access is in relation to the Millom East subsea assets during their short-term programme of decommissioning works. The Applicant notes that the Morgan Array Area is 2.07 nm from Millom East. The Applicant also notes that a 1.26 nm distance was considered as being sufficient for helicopter access in day Visual Meteorological Conditions (VMC) operations to the Waveney platform in relation to the Sheringham and Dudgeon Extension projects, where an obstacle-free area of 1.26 nm around the platform was secured in the DCO (see Applicant's response to REP1-044.6). The Applicant maintains that the impact on operations to the Millom Field would be logistic in nature (i.e. involving coordination of decommissioning activities in accordance with specific flight schedules) and would not cause a reduction in safety.
REP1-044.3	Offshore oil & gas operations at any offshore installation are conducted under a dedicated safety case which must be approved by the Health and Safety Executive ("HSE"). Should a proposed alternative to a mitigation provision contained within the currently accepted safety case be significant, a material revision to that installation safety case is required and will be subject to statutory assessment and acceptance by the HSE. A major revision to a safety case is a time-consuming and expensive process requiring detailed quantitative risk assessments and extensive workforce consultation. When an offshore installation requires support from a Non-Production Installation ("NPI"), such as for well decommissioning, the NPI is similarly obliged to have an HSE accepted safety case, as it meets the definition	The Applicant has considered access for Commercial Air Transport (CAT) and Search and Rescue (SAR) Helicopters in the Helicopter Access Report (Appendix A within Volume 4, Annex 11.1: Aviation and radar technical report (APP-045)). Loss of access for routine commercial flights in poor weather and at night has been assessed. SAR helicopters will be able to access installations in the Millom Field under night and Instrument Meteorological Conditions (IMC) so safety will not be affected. The Applicant would welcome further discussion with Harbour Energy on the outcome of the review of their safety case and the assumptions on which this is based in order to understand if a material revision to the safety case is required. The Applicant does not have sight of the safety case to be able to comment further at this stage. The major helicopter operators, including those used by Harbour Energy, also conduct flights to offshore renewable energy installations under the same CAT regulations as apply to flights to the Millom Field. Therefore, any procedural changes to the helicopter operator(s) Operations Manuals will already have been incorporated and noted by the CAA.

Reference	Written Representation Comment	Applicant's response
	of an Offshore Installation (under the terms of the Offshore Safety Directive Regulations 2015). Where obligations under the NPI safety case cannot be met this will restrict the NPI's ability to support the operation. Helicopter service providers to the offshore industry have procedures which form part of their licence to operate as approved by the Civil Aviation Authority ("CAA"). Should a proposed mitigation require modifications to a helicopter operator's procedures, such revision would be subject to approval by the CAA of the revised procedures.	
REP1-044.4	**2. Aviation Operations** The Millom West Platform is a normally unmanned installation ("NUI") which no longer supports helicopter access. During removal and/or decommissioning operations, one or more NPIs, will be stationed close to the platform. Although each of these NPIs would have its own helideck, it is not anticipated that flights would be required during the relatively short period that each would be working at the Millom West Platform. The Millom East subsea facilities comprise a Pipeline End Manifold ("PLEM") and three subsea wells. During decommissioning operations, one or more NPIs will be stationed close to the PLEM and subsea well-heads. These will be routinely accessed by helicopters utilising the NPI's helideck. Helicopters will be an essential component of offshore decommissioning operations at the Millom East subsea facilities. Helicopters operating in accordance with Commercial Air Transportation ("CAT") Regulations will be used to transport crews to and from the NPIs to undertake the decommissioning work, and are typically the primary means of evacuation, as required by the Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995 ("PFEER Regulations"), from an offshore installation. Occasionally, CAT regulated helicopters will also be used to transport equipment to NPIs. Furthermore, under some non-	The Applicant notes that it is not anticipated that flights would be required during decommissioning activities at the Millom West platform and therefore concerns relating to Millom West in relation to helicopter access are closed. The Applicant has considered access for CAT and SAR Helicopters in the Helicopter Access Report (Appendix A within Volume 4, Annex 11.1 Aviation and radar technical report (APP-045)). The assessment of the loss of access for routine commercial flights in poor weather and at night has been shared with Harbour Energy. The analysis, applying meteorological data supplied by Harbour Energy and a methodology consistent with other NSIP projects, shows that the impact on day CAT helicopter flights will be low. SAR helicopters will be able to access installations in the Millom Field under night and IMC so safety will not be affected. The HSE regulates the Prevention of Fire and Explosion, and Emergency Response Regulations (PFEER). Following a fire, explosion or hydrocarbon release, helicopters will be unable to land on the NPI helidecks and so cannot be the "primary" means of rescue, although it is agreed that helicopters are the preferred means of rescue for other types of event. The primary helicopter type used by Harbour Energy is the AW169 which only has a maximum seating capacity of 8 people. This is only available during the opening hours of Blackpool Airport (standard opening times of 07:00 to 21:00). Down manning an installation 8 people at a time, assuming the CAT helicopter was available, would not be a rapid process and so the MCA would be involved if the requirement was for more than the avoidance of personnel discomfort. Critical medevac flights are conducted by the MCA as CAT operators are not permitted to carry physically or mentally impaired casualties, especially when they cannot wear or operate their survival equipment or escape exits. Even if a medevac is conducted by a CAT helicopter, it is subject to a risk assessment and so cannot be an immediate response. Therefore, as CAT helicopters cannot play a part in any incident involving an offshore fire, explosion, hydrocarbon release or conduct a serious medevac flight, and as the AW169 cannot be

Reference	Written Representation Comment	Applicant's response
	routine circumstances, CAT regulated helicopters will also be relied upon for medi-vac, down-manning and compassionate flights. Where there is danger to life, Search and Rescue ("SAR") services may be requested, however such evacuation without the restriction of the Morgan Generation Assets would often be carried out by CAT regulated helicopter. It has been assumed within this Written Representation that the requirements for SAR access will be reviewed by the Marine Coastguard Authority ("MCA"), therefore the discussion in this Written Representation is restricted to CAT Regulations.	used as a primary means of evacuation (as noted above), reduced CAT access will not impact the safety of the NPI or its personnel. The Applicant maintains that the impact on operations to the Millom Field would be logistical in nature and would not cause a reduction in safety.
REP1-044.5	**2.1. Current Availability** The helidecks on the NPIs that are likely to be used for the Millom Field decommissioning activities, are approved for flights during both daylight and darkness. It should be noted that, due to the configuration of the Millom West Platform, the NPI helideck could be at least one hundred (100) metres from the Millom West Platform helideck and nearer to the Morgan Generation Assets boundary. Statistical analysis of five (5) years' of proprietary met-ocean data from the Morgan Field area shows that flights to an NPI have taken place ninety four percent (94%) of the time during normal airport operating hours (refer to Appendix 1: Assessment of Helicopter Access). This is the baseline position for flights to an NPI.	As stated in REP1-044.4 and REP1-044.11, the Applicant notes that concerns relating to the Millom West platform in relation to helicopter access are closed. In relation to Millom East, the Applicant refers to Harbour Energy's position stated within the SoCG (HE.AOME.4) (REP1-031): 'Recent work suggests however that, due to the remoteness of the East Irish Sea from other UK oil and gas areas, aviation support for decommissioning is more likely to be provided by a part-time dedicated aircraft than by aircraft supporting other operations in the area. Based on this, and not the Applicant's reasoning, Harbour Energy believes that flights to support the Millom East decommissioning programme will be able to be scheduled within daylight hours'.
REP1-044.6	**2.2. Operations with Morgan Generation Assets as Proposed in Applicant's Draft DCO** Any wind farm located within nine (9) nautical miles of an offshore installation helideck will restrict flying to that installation. These restrictions include: • Wind turbine rotor tips within nine (9) nautical miles downwind of the helideck would preclude the use of an Airborne Radar Approach ("ARA"). An approach may still be possible by means of an en-route letdown, but this would require a higher cloud base than an ARA, therefore flying opportunities would be slightly reduced.	Each point raised by Harbour Energy in this comment is addressed below: 3. Civil Aviation Publication (CAP) 764 states that 'in order to help achieve a safe operating environment, a consultation zone of 9 NM radius exists around offshore helicopter destinations. This consultation zone is not a prohibition on development within a 9 NM radius of offshore operations, but a trigger for consultation with offshore helicopter operators, the operators of existing installations and exploration and development locations to determine a solution that maintains safe offshore helicopter operations alongside the proposed development'. As such, flights to helidecks within 9 nm of the Morgan Generation Assets will not necessarily be impaired. The Applicant carried out consultation with operators of installations located within 9 nm of the Morgan Array Area (Volume 2, Chapter 11: Aviation and radar (APP-015)).

Reference	Written Representation Comment	Applicant's response
	• Wind turbine rotor tips within three point nine (3.9) nautical miles upwind of the helideck would preclude a take-off on instruments, therefore flying opportunities would be further reduced. • It was agreed at the August 2024 meeting of the CAA led Offshore Helicopter Safety Leadership Group that if any wind turbine rotor tip is within three (3) nautical miles of the helideck (in any direction) flying would be limited to daylight and visual with a slightly increased cloud base and visibility requirement. It is anticipated that this will be enacted by the CAA. • If any wind turbine rotor tip is within one point nine (1.9) nautical miles upwind of the helideck, a takeoff would not generally be possible. This would restrict flying to times when the wind is not from the direction of the location of the wind farm. • If any wind turbine rotor tip is within one point five (1.5) nautical miles downwind of the helideck, an approach with a turn and landing into wind would not be possible. This would restrict flying to times when the wind is not towards the wind farm.	4. Harbour Energy has not provided justification why 3.9 nm is required for a take-off into IMC. The Applicant notes that Harbour Energy has not previously raised this distance, and would welcome sight of the report which provides the evidence for this. 5. The CAA is due to consult on changes to the Helicopter Offshore Operations (HOFO) regulations. There is no timescale for this change. The Applicant notes that the assessment presented in the Helicopter Access Report (Appendix A within Volume 4, Annex 11.1: Aviation and radar technical report (APP-045)) was carried out assuming that this change would take place. 6. Harbour Energy has not provided justification why 1.9 nm is required for a take-off in VMC. The Applicant notes that Harbour Energy has not previously raised this distance, and would welcome sight of the report which provides the evidence for this. The obstacle free distances around the Millom Field are consistent with those agreed for CAT flights under day Visual Meteorological Conditions for other projects. Helicopters routinely fly under CAT regulations to helidecks located inside and adjacent to offshore wind farms on a daily basis with wind turbines within 0.65 nm (1,200 m) of the helideck. The take-off distance required is dependent on the helicopter type, mass, ambient wind strength, air pressure and temperature. As noted in REP1-044.12, the Applicant considers that there is adequate separation distance between the Morgan Array Area and the Harbour Energy assets; consultation with stakeholders, including helicopter operators, indicates that a distance of 1.5 nm is sufficient for a Day VMC approach and take-off. The Applicant notes that the Millom East assets are located 2.07 nm from the Morgan Array Area.
REP1-044.7	The Applicant's Draft DCO [APP-012], Schedule 1 Part 1, sets out an area for the scheduled works that is less than one point nine (1.9) nautical miles, but greater than one point five (1.5) nautical miles from the Millom West Platform (see Figure 1). No protective provisions have been included. Therefore, assuming that wind turbines will be placed along the array boundary such that wind turbine rotor tips are no less than one point five nine (1.59) nautical miles from the Millom West Platform, analysis of the met-ocean data (refer to Appendix 1: Assessment of Helicopter Access) shows that an annual average of thirty eight percent (38%) of current opportunities to fly a crew to an NPI adjacent to the Millom West Platform would be lost. However, this figure is further increased to fifty eight percent (58%) loss of current opportunities to fly a crew to an NPI	As stated in REP1-044.4 and REP1-044.11, the Applicant notes that concerns relating to the Millom West platform in relation to helicopter access are closed.

Reference	Written Representation Comment	Applicant's response
	adjacent to the Millom West Platform since works must be undertaken in winter (to prevent disturbance of nesting sea birds).	
REP1-044.8	The Applicant's Draft DCO [APP-012], Schedule 1 Part 1, sets out an area for the scheduled works that is less than three (3) nautical miles, but greater than one point nine (1.9) nautical miles from the Millom East subsea facilities (see Figure 1). No protective provisions have been included. Therefore, assuming that wind turbines will be placed along the array boundary such that wind turbine rotor tips are two point zero seven (2.07) nautical miles from the Millom East PLEM, analysis of the met-ocean data (refer to Appendix 1: Assessment of Helicopter Access) shows that an annual average of twenty percent (20%) of current opportunities to fly a crew to an NPI adjacent to the Millom East subsea facilities would be lost. It is equally likely that the work would be undertaken in winter, meaning that this figure would increase to a loss of forty two percent (42%) of current opportunities to fly a crew to an NPI carrying out work at Millom East subsea facilities.	In relation to Millom East, the Applicant refers to Harbour Energy's position stated within the SoCG (HE.AOME.4) (REP1-031), which confirmed that flights to support the Millom East decommissioning programme will be able to be scheduled within daylight hours. Harbour Energy noted in the SoCG (HE.AOME.5) (REP1-031) that if flights are only conducted in daylight hours, an annual average of 10% of currently available daylight opportunities to fly to an NPI would be lost, and that were the work conducted in winter, 16% of currently available daylight opportunities to fly to an NPI would be lost. This also reflects Harbour Energy's position in REP1-044-10 below. The Applicant has considered access for CAT Helicopters. Loss of access for routine commercial flights in poor weather and at night has been assessed. The Applicant's Helicopter Access Report (Appendix A within Volume 4, Annex 11.1 Aviation and radar technical report (APP-045)) calculated an average daytime access of 94.4%. This informed the assessment presented within Volume 2, Chapter 11: Aviation and radar (APP-015) where the potential effect has been assessed to be of minor adverse significance.
REP1-044.9	**2.2.1. Disruption** Up until permanent cessation of production in 2022, aviation support for the Millom Field production operations was provided by Spirit Energy as part of its extensive East Irish Sea ("EIS") operations. Helicopters were heavily utilised, supporting operations at numerous installations, allowing little flexibility in the flying schedules. Harbour Energy's future arrangements for aviation support during decommissioning have yet to be finalised. Given the remoteness of the EIS from other oil and gas operations, aviation support options for the Millom Field decommissioning activities are limited. For the purposes of this analysis, it is assumed that helicopters will be brought to the EIS from another area of the UKCS.	This is noted by the Applicant.

Reference	Written Representation Comment	Applicant's response
REP1-044.10	There is not, nor is there anticipated to be, sufficient availability of suitable helicopters to allow dedicated helicopters to be relocated to the EIS for the duration of the Millom Field decommissioning operations. Millom Field decommissioning is expected to require approximately one flight per day during the four (4) months of peak activity. Such a level of activity, would be insufficient to justify dedicated helicopters, were it to be available. A more likely scenario is that a helicopter would be made available part-time from another area of the UKCS. For example, a helicopter could be moved to the EIS for three (3) days per week and all the flights for Millom Field decommissioning would be undertaken during this time. In such an arrangement, any loss of an opportunity to fly to the Millom Field, would result in a delay of between one (1) and four (4) days relative to duration of the programme if the Morgan Generation Assets had not been constructed. As the number of flights required whilst the helicopter is in the EIS would not be high, it should be possible to schedule all the flights within daylight hours (even within winter), significantly reducing the adverse impact of the Morgan Generation Assets on Millom decommissioning programme. Given the decommissioning operations at Millom West will be undertaken in winter, the anticipated loss of flights relative to those currently available to an NPI would be forty one percent (41%) of flights. The corresponding anticipated loss of flights to an NPI at Millom East is ten percent (10%) of flights (rising to sixteen percent (16%) in winter).	As stated in REP1-044.4 and REP1-044.11, the Applicant notes that concerns relating to the Millom West platform in relation to helicopter access are closed. Further, as flights are no longer possible to the Millom West platform and it is not anticipated that flights will be required to any NPI associated with Millom West decommissioning activities (REP1-044.11), this reduces the number of helicopter flights required for the decommissioning of the Millom Field to a lower number than suggested by Harbour Energy here. Therefore the synergies presented by Harbour Energy here are unlikely to arise. Harbour Energy's concerns regarding helicopter availability and potential delays presented here are now likely to be reduced. The Applicant also notes Harbour Energy's statement that it should be possible to schedule all flights to the Millom East assets within daylight hours (even within winter), significantly reducing the adverse impact of the Morgan Generation Assets on Millom decommissioning programme, and that this reflects the position presented in the SoCG (REP1-031). As noted above, the Applicant's Helicopter Access Report (Appendix A within Volume 4, Annex 11.1 Aviation and radar technical report (APP-045)) calculated an average daytime access of 94.4%. This informed the assessment presented within Volume 2, Chapter 11: Aviation and radar (APP-015) where the potential effect has been assessed to be of minor adverse significance.
REP1-044.11	As noted in the introduction to Section 2 above, flights are no longer possible to the Millom West Platform and it is not anticipated that flights will be required to any NPI operating adjacent to it during Millom West removal and/or decommissioning. Accordingly, any disruption to Millom West decommissioning is not considered here. Delays to the Millom East subsea facilities decommissioning programme (assuming a four-month	As stated in REP1-044.4 and REP1-044.11, the Applicant notes that concerns relating to the Millom West platform in relation to helicopter access are closed. The Applicant has considered access for CAT and SAR Helicopters. Loss of access for routine commercial flights in poor weather and at night has been assessed. The loss of day access is detailed in the Helicopter Access Report (Appendix A within Volume 4, Annex 11.1 Aviation and radar technical report (APP-045)) and shows that mean day Visual Meteorological Conditions (VMC) access is 94.4%, although this will vary seasonally.

Reference	Written Representation Comment	Applicant's response
	(4-month) programme) due to the Morgan Generation Assets might be expected to be between twenty-three (23) days and thirty nine (39) days1. In each case this represents a very significant disruption.	Based on data from similar decommissioning projects, including some in close proximity to current wind farms in Morecambe Bay, the figure of a 23 day delay is excessive and not a reasonable worst case. The meteorological data provided by Harbour Energy demonstrates that regular daytime access will remain available and so significant delays caused by reduced helicopter access are improbable. However, it is not possible to comment conclusively until the Harbour Energy assessment has been shared with the Applicant.
REP1-044.12	**2.2.1.1. Potential Mitigation of Disruption** The most straightforward and effective mitigation would be to ensure a distance of at least three (3) nautical miles clear of wind turbine rotor tips is maintained around the Millom East PLEM. This would reduce the daylight lost flying opportunities from ten percent (10%) to four percent (4%) and in winter from sixteen percent (16%) to eight percent (8%).	With specific consideration to the 3 nm separation distance referenced as acceptable mitigation to Harbour Energy, the Applicant would note this is materially larger than recent precedent in similar situations. In relation to the Hornsea Four Wind Farm DCO, the Secretary of State considered it appropriate to secure Protective Provisions (PPs) for an obstacle free distance of 0.86 nm (1,600 m) around each wellhead for helicopter access to decommission the Johnstone wellheads which are located inside the Hornsea Four Wind Farm. The same Specific Approval for Helicopter Offshore Operations (SPA HOFO) regulations apply to CAT flights inside a wind farm as well as flights adjacent to a wind farm. As part of the PPs secured in the Sheringham and Dudgeon Extension DCO, an obstacle free distance of 1.26 nm was considered by the Secretary of State as sufficient to facilitate helicopter access to the Waveney Platform. As set out in the Helicopter Access Report (Appendix A within Volume 4, Annex 11.1 Aviation and radar technical report (APP-045)), the Applicant states that the distance to the Morgan Array Area is insufficient for an IMC, or night approach. Consultation with stakeholders, including helicopter operators, indicates that a distance of 1.5 nm is sufficient for a Day VMC approach and take-off. The loss of day access is detailed in the Helicopter Access Report and shows that mean day VMC access is 94.4%, although this will vary seasonally. As such, the Applicant does not agree that mitigation in the form of a 3 nm distance is appropriate or proportionate. The Applicant also wishes to reiterate, that, as noted in Volume 2, Chapter 11: Aviation and radar (APP-015), decommissioning activities requiring helicopter access at the Millom East subsea structures are planned to take place until approximately 2032, meaning a potential impact over a period of only two years (as the Applicant intends for the Morgan Generation Assets to be fully operational by 2030). As such, implementing mitigation in the form of a 3 nm separation distance effective over the 35 year lifetime of the Morgan Generation Assets is not proportionate to the potential impact.
REP1-044.13	**2.2.2. Economic Loss** During the Millom East well decommissioning, a jack-up drilling rig with its associated crew and attendant vessels will be required. The global market for drilling rigs and associated attendant vessels, including dive support vessels (DSV) required for subsea well decommissioning support, is currently constrained due	As noted in the Applicant's response to REP1-044.11, the figure of a 23 day delay is considered excessive and not a reasonable worst case, but further comment cannot be offered without access to the underlying Harbour Energy assessment. The Applicant is not able to comment on the validity of the predicted economic loss being presented without further detail being provided however the Applicant would note that the scale of

Reference	Written Representation Comment	Applicant's response
	to demand that is driving higher vessel rates. Based on the average of the anticipated delays outlined in section 2.2.1 an economic loss arising from an increase in length of the Millom East well decommissioning programme of twenty three (23) days would be a reasonable conservative assumption, and is likely to result in an economic loss in excess of ten million GBP (£10million). If the campaign was to be conducted largely in the winter months, this would be correspondingly higher.	economic loss presented is not recognisable in the context of the minor logistical impact to helicopter access to facilitate a short term and temporary decommissioning programme.
REP1-044.14	**2.2.2.1. Potential Mitigation of Economic Loss** The mitigating measures suggested in Section 2.2.1.1, would reduce the additional length of the Millom East well decommissioning programme to an average of ten (10) days, which would still be likely to result in an economic loss in excess of four million GBP (£4,000,000). If the campaign was to be conducted largely in the winter months, this would be correspondingly higher. Further mitigation may be possible by means of compensation to Harbour Energy, however such payments would be inefficient when considered on a post-tax basis.	Please refer to the Applicant's response REP1-044.13. The Applicant also wishes to reiterate, that, as noted in Volume 2, Chapter 11: Aviation and radar (APP-015), decommissioning activities requiring helicopter access at the Millom East subsea structures are planned to take place until approximately 2032, meaning a potential impact over a period of only two years (the Applicant intends for the Morgan Generation Assets to be fully operational by 2030). As such, implementing mitigation in the form of a 3 nm separation distance effective over the 35 year lifetime of the Morgan Generation Assets is not proportionate to the potential impact. The Applicant considers it has already adequately justified that a 3 nm separation is excessive to allow the safe decommissioning of the Millom East asset. The Applicant notes that the Millom East assets are located 2.07 nm from the Morgan Array Area. Flights to helidecks located inside and adjacent to wind farms occur daily under CAT Regulations, where wind turbines are located considerably closer than 1.5 nm from the helideck. These operations demonstrate that regular and practical access will be available during the short decommissioning period of Millom East. Please see also response to REP1-044.6. Furthermore, the potential economic loss presented by Harbour Energy is considerably less than the economic cost to the Applicant of a 3 nm separation distance, and should be considered in the context of EN-3 paragraph 2.8.2 which notes that in order to meet the government's objectives of up to 50 GW of offshore wind capacity by 2030 and net zero carbon emissions by 2050, offshore wind developments are likely to need to maximise their capacity within the technological, environmental, and other constraints of the development.
REP1-044.15	**2.2.3. Adverse Effect on Safety** CAT regulated flights are only conducted when it is safe to do so. The proposed proximity of the Morgan Generation Assets will not reduce the safety of these flights but will result in a reduction of times when flights can be made. The significant reduction in availability of	Evacuation under PFEER (Prevention of Fire Explosions and Emergency Response) applies to emergency cases where the MCA would have primacy. CAT flights are not generally used for emergency cases. As noted in the Applicant's response to REP1-044.4, the primary helicopter type used by Harbour Energy is the AW169 which only has a maximum seating capacity of 8 people. This is only

Reference	Written Representation Comment	Applicant's response
	flying opportunities to the Millom Field due to the proposed proximity of the Morgan Generation Assets will have an adverse effect on safety. Setting aside situations where there is a risk to life where SAR flights would be requested, it will become more likely that, should there be a need to evacuate any personnel using CAT regulated flights, personnel would need to remain on the offshore installation for a longer period than if there was the current availability of flying. It is accepted that evacuation of personnel occurs infrequently, however the provision of a means of evacuation from an offshore installation is a legal requirement as per the PFEER Regulations. A significant reduction in the availability of CAT flights to conduct evacuations may preclude the use of some NPIs or may restrict the execution of works to times when CAT flights would be available. Such intermittent working increases the safety risks and would further add to the disruption and economic loss outlined in Sections 2.2.1, 2.2.1.1, 2.2.2, and 2.2.2.1.	available during the opening hours of Blackpool Airport (standard opening times of 07:00 to 21:00). Down manning an installation 8 people at a time, assuming the CAT helicopter was available, would not be a rapid process and so the MCA would be involved if the requirement was for more than the avoidance of personnel discomfort. Critical medevac flights are conducted by the MCA as CAT operators are not permitted to carry physically or mentally impaired casualties, especially when they cannot wear or operate their survival equipment or escape exits. Even if a medevac is conducted by a CAT helicopter, it is subject to a risk assessment and so is not an immediate response. The Applicant maintains that the impact on operations to the Millom Field would be logistic in nature and would not cause a reduction in safety.
REP1-044.16	**2.2.3.1. Potential Mitigation of Adverse Effect on Safety** Restricting work to when CAT flights are available as suggested in Section 2.2.3 would be a practical step towards mitigating the adverse impact on safety, but as noted in Section 2.2.3 would increase the disruption and economic loss beyond that set out in Sections 2.2.1, 2.2.1.1, 2.2.2, and 2.2.2.1.	Please refer to the Applicant's response to REP1-044.15. It is assumed that work is not currently restricted when Blackpool Airport is closed and so there is no reason why work should be restricted when CAT helicopters are not available due to other causes.
REP1-044.17	**3. Marine Operations** During the Millom Field decommissioning, there will be a need to manoeuvre several large vessels, (such as jack-up drilling rigs, heavy lift vessels) along with any attendant vessels such as tugs or anchor handlers. Whilst these activities fall outside of the Order Limits for the Morgan Generation Assets, Harbour Energy is nevertheless concerned that the Applicant may place temporary infrastructure (such as buoys or vessels) that would impede Harbour Energy's access for such large	The Applicant can confirm that 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.

Reference	Written Representation Comment	Applicant's response
	vessels to affect the decommissioning work at the Millom Field. Harbour Energy believes that a condition of granting the Morgan Generation Assets DCO should be a requirement that an agreement (a Cooperation and Co-existence Agreement) is in place between the Applicant and Harbour Energy that ensures that the parties will work together to enable one another's work.	
REP1-044.18	**3.1. Spatial Requirements** As set out in Harbour Energy's response to the PEIR, the Millom West platform and Millom East subsea facilities will require marine access corridors free from temporary or permanent surface infrastructure (except as may from time to time be approved by the Millom Operator) as follows: 1. a radius of one point eight (1.8) kilometres (1 nautical miles) around the Millom West platform; 2. a one point eight (1.8) kilometres (1 nautical mile) corridor between the Millom West and DPPA platforms; and 3. Five hundred (500) metres each side of the Millom West and Millom East pipelines and subsea cables. **3.1.1. Disruption** If the marine access corridors set out in Section 3.1 are not available delay and disruption to decommissioning activity could result.	Please refer to response above (REP1-044.17).
REP1-044.19	**3.1.1.1. Potential Mitigation of Disruption** Harbour Energy believes that a condition of granting the Morgan Generation Assets DCO should be a requirement that an agreement (a Cooperation and Co-existence Agreement) is in place between the Applicant and Harbour Energy that ensures that the parties will work together to enable one another's work.	Please refer to response above (REP1-044.17).
REP1-044.20	**3.1.2. Economic Loss** If the marine access corridors set out in Section 3.1 are not available economic loss arising from delay and disruption to decommissioning activity could result.	Please refer to response above (REP1-044.17).

Reference	Written Representation Comment	Applicant's response
REP1-044.21	**3.1.2.1. Potential Mitigation of Economic Loss** Harbour Energy believes that a condition of granting the Morgan Generation Assets DCO should be a requirement that an agreement (a Cooperation and Co-existence Agreement) is in place between the Applicant and Harbour Energy that ensures that the parties will work together to enable one another's work.	Please refer to response above (REP1-044.17).
REP1-044.22	**3.1.3. Adverse Effect on Safety** If the marine access corridors set out in Section 3.1 are not available, no adverse effect on safety would arise as no work would be undertaken unless it is safe to do so.	Please refer to response above (REP1-044.17).
REP1-044.23	4. Mutually Exclusive Simultaneous Operations Harbour Energy's Relevant Representation [RR-012] states that detrimental impacts may arise affecting mutually exclusive simultaneous operations such as piling and diving operations (reference Diving Medical Advisory Committee: DMAC 12 Safe Diving Distance from Seismic Surveying Operations Rev. 2.1 – June 2020).	The measures adopted as part of the Morgan Generation Assets to reduce the potential for impacts on other sea users, as outlined in Table 9.13 of Volume 2, Chapter 9: Other Sea Users (APP-027), are appropriate and will ensure significant effects are avoided. In particular, the measure "Continued communication with other offshore energy operators to promote and maximise cooperation between parties and minimise both spatial and temporal interactions between conflicting activities" is considered a key measure and in line with industry good practice. The Applicant suggests that the parties agree to meet regularly to discuss their respective activity programmes in order to minimise disruption to either party's operations and to maximise coexistence. Where necessary, this will include establishing simultaneous operations procedures in accordance with recognised industry good practice such as the International Marine Contractors Association Guidance on Simultaneous Operations (IMCA, 2023). Further, the Applicant will set up a Marine Coordination Centre to coordinate all marine activities and the process for communication with other operators in the East Irish Sea will be established. The Applicant considers this to be a logistical matter which can be coordinated between the parties post-consent using industry standard practices. The Applicant also notes that the Marine Navigation Engagement Forum, which Harbour Energy is a member of, will continue post-consent and may provide a suitable management interface for these matters. This position reflects the Applicant's position as set out in the SoCG with Harbour Energy submitted at Deadline 1 (REP1-031).
REP1-044.24	4.1. Disruption Poor planning and coordination between the Applicant and Harbour Energy in connection with mutually	Please refer to response above (REP1-044.23).

Reference	Written Representation Comment	Applicant's response
	exclusive simultaneous operations would result in disruption to execution of work.	
REP1-044.25	4.1.1. Potential Mitigation of Disruption Harbour Energy believes that a condition of the Application being granted should be that an agreement (a Cooperation and Co-existence Agreement) is in place between Harbour Energy and the Applicant setting out the mechanisms for coordinating such mutually exclusive activities.	Please refer to response above (REP1-044.23). As stated, the Applicant suggests that the parties agree to meet regularly to discuss their respective activity programmes in order to minimise disruption to either party's operations and to maximise coexistence. Where necessary, this will include establishing simultaneous operations procedures in accordance with recognised industry good practice such as the International Marine Contractors Association Guidance on Simultaneous Operations (IMCA, 2023). The Applicant will set up a Marine Coordination Centre to coordinate all marine activities and the process for communication with other operators in the East Irish Sea will be established. The Applicant considers this to be a logistical matter which can be coordinated between the parties post-consent using industry standard practices. The Applicant also notes that the Marine Navigation Engagement Forum, which Harbour Energy is a member of, will continue post-consent and may provide a suitable management interface for these matters.
REP1-044.26	**4.2. Economic Loss** Poor planning and coordination between the Applicant and Harbour Energy in connection with mutually exclusive simultaneous operations would result in economic loss arising from disruption to execution of work.	Please refer to response above (REP1-044.23).
REP1-044.27	**4.2.1. Potential Mitigation of Economic Loss** Harbour Energy believes that a condition of granting the Morgan Generation Assets DCO should be a requirement that an agreement (a Cooperation and Co-existence Agreement) is in place between the Applicant and Harbour Energy that ensures that the parties will work together to enable one another's work.	Please refer to response above (REP1-044.25).
REP1-044.28	**4.3. Adverse Effect on Safety** Poor planning and coordination between the Applicant and Harbour Energy in connection with mutually exclusive simultaneous operations could result in an adverse effect on safety as there would be a risk to personnel.	Please refer to response above (REP1-044.23). The Applicant considers that implementation of industry standard measures as noted above will ensure effective planning and coordination between the parties.

Reference	Written Representation Comment	Applicant's response
REP1-044.29	**4.3.1. Potential Mitigation of Adverse Effect on Safety** Harbour Energy believes that a condition of granting the Morgan Generation Assets DCO should be a requirement that an agreement (a Cooperation and Co-existence Agreement) is in place between the Applicant and Harbour Energy that ensures that the parties will work together to enable one another's work.	Please refer to response above (REP1-044.23). The Applicant considers this to be a logistical matter which can be coordinated between the parties post-consent using industry standard practices, and that, as such, a Cooperation and Co-existence Agreement is not required.
REP1-044.30	**5. Collision / Allision Avoidance** The NPI located at the Millom West platform and the NPI located at Millom East subsea facilities are vulnerable to allision from passing vessels. Two methods of giving early warning of a potential allision that are generally used in combination are: - Marine radar systems; and - The radio based Automatic Identification System (AIS). Both systems are vulnerable to interference from nearby wind farms. The Applicant has assessed the impact of the proposed Morgan Generation Assets on radar and on AIS systems in the Environmental Statement, Volume 4, Annex 7.1: Navigational risk assessment (APP-060). Based on a 2004 study by MCA and QinetiQ2, the Applicant cites that there were intolerable impacts on marine radar experienced up to zero point five (0.5) nautical miles from an offshore wind farm and effects may extend for up to one point five (1.5) nautical miles from an offshore wind farm. The same study did not identify any issues with receiving AIS information from vessels close to the wind farm. Harbour Energy has not conducted its own studies nor fully reviewed the literature on this subject but is concerned that shipping passing around the southern tip of the Morgan Generation Assets and then turning north or north-west may not be easily visible on an NPI's marine radar and there may thus be limited early warning of a potential allision. For a vessel heading towards an NPI at around twenty (20) knots, the effect of the Morgan Generation	The Applicant maintains that, based on available evidence for marine radar, the Harbour Energy assets are beyond the range where intolerable impacts may be experienced. Potential effects on AIS and marine radar are assessed in Volume 4, Annex 7.1: Navigational risk assessment (APP-060). Based on the available evidence for AIS, it was concluded that no significant impact on AIS communications is anticipated (Table 1.29). Based on the available evidence for marine radar, effects may extend for up to 1.5 nm from an offshore wind farm, with intolerable impacts experienced up to 0.5 nm from an offshore wind farm (paragraph 1.8.12.4). The Millom West platform is located 1.6 nm from the Morgan Array Area and the Millom East assets are located 2.07 nm from the Morgan Array Area. The Applicant also expects that the greater spacing between structures within the Morgan Array Area will reduce these effects being experienced and successfully managed by other vessels in relation to existing offshore wind farms in the Irish Sea.

Reference	Written Representation Comment	Applicant's response
	Assets may be to reduce the early warning available to the NPI to as little as five (5) or ten (10) minutes.	
REP1-044.31	**5.1. Disruption** When a potential allision event is identified, attempts will be made to contact the bridge of the approaching vessel. However, unless this can successfully be achieved early enough, all work must be suspended and personnel summoned to muster stations ready to evacuate the installation. Such events would cause considerable disruption to the programme of work.	Please refer to response above (REP1-044.30).
REP1-044.32	**5.1.1. Potential Mitigation of Disruption** The most effective mitigation against such disruption is reliable early warning of an approaching vessel. In most cases it would then be possible to contact the bridge and ensure that the vessel is aware of the stationary hazard and change its course accordingly.	Please refer to response above (REP1-044.30).
REP1-044.33	**5.2. Economic Loss** The suspension of work each time a potential allision event is identified described in Section 6.1 above, would result in a corresponding cumulative economic loss over the course of the decommissioning programme arising from the cost of the NPI, its crew and any attendant vessels whenever work has to be suspended due to a potential allision event.	Please refer to response above (REP1-044.30).
REP1-044.34	**5.2.1. Potential Mitigation of Economic Loss** As noted in Section 5.1.1, reliable early warning of any approaching vessel is the most effective mitigation against any economic loss arising from potential allision events.	Please refer to response above (REP1-044.30).
REP1-044.35	**5.3. Adverse Effect on Safety** The safety procedures implemented in the event of any potential vessel allision (i.e. attempt to contact the vessel and failing that: suspend all work; go to muster; and prepare to evacuate), ensure that the safety risk to personnel is minimised. Should potential allision events with late change of course become more frequent due	Please refer to response above (REP1-044.30).

Reference	Written Representation Comment	Applicant's response
	to the concentration of marine traffic between the Morgan Generation Assets and the Walney and Walney Extension wind farms and any increased difficulty due to the Morgan Generation Assets in detecting approaching oncoming vessels early enough, there would be a safety impact arising from stopping and starting work and the stress on personnel of each such event.	
REP1-044.36	**5.3.1. Potential Mitigation of Adverse Effect on Safety** As noted in Section 5.1.1, reliable early warning of any approaching vessel is the most effective mitigation against any adverse effects on safety arising from potential allision events.	Please refer to response above (REP1-044.30).
REP1-044.37	**6. Microwave Line of Sight Communications** The Millom West platform is now hydrocarbon free. The only communications link is for solar navigation aids. This is satellite based and will not be affected by the Morgan Generation Assets. Any NPI working at Millom West will be able to rely on satellite communications and will not be affected by the Morgan Generation Assets. Any NPI working at Millom East will be able to rely on satellite communications and will not be affected by the Morgan Generation Assets	The Applicant welcomes Harbour Energy's confirmation that satellite communications will not be affected by the Morgan Generation Assets, and notes that this is in line with Harbour Energy's position set out within the SoCG submitted at Deadline 1 (REP1-031). The Applicant therefore notes that this matter is closed.
REP1-044.38	**6.1. Disruption** No disruption is anticipated due to the Morgan Generation Assets.	Please refer to response above (REP1-044.36).
REP1-044.39	**6.2. Economic Loss** No economic loss is anticipated due to the Morgan Generation Assets.	Please refer to response above (REP1-044.36).
REP1-044.40	**6.3. Adverse Effect on Safety** No adverse effect on safety is anticipated due to the Morgan Generation Assets.	Please refer to response above (REP1-044.36).

Reference	Written Representation Comment	Applicant's response
REP1-044.41	**7. Summary and Conclusions** • Decommissioning activities relating to the Millom West Platform and the Millom East subsea facilities are expected to overlap with construction and operation of the proposed Morgan Generation Assets. • Harbour Energy is committed to working with the Applicant to find acceptable approaches to coexisting and cooperating. • The National Energy Policy Statement for Renewable Energy Infrastructure (EN-3) expects the Secretary of State to be "satisfied that the site selection and site design of a proposed offshore wind farm and offshore transmission has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries." (EN-3: 2.8.345). As currently proposed, the Morgan Generation Assets would have the potential to result in significant disruption and economic loss to Harbour Energy's remaining decommissioning activities at the Millom Field. There would also be an adverse effect on safety arising from the restrictions that would apply to aviation operations due to the proposed proximity of Morgan Generation Assets.	Please refer to the Applicant's response to REP1-044.1, REP1-044.4 and REP1-044.6.
REP1-044.42	• It is anticipated that Millom Field decommissioning will be disrupted to the extent that an annual average of ten percent (10%) (rising to sixteen percent (16%) in winter) of currently available flying opportunities to an NPI at Millom East would be lost. • An estimate of Harbour's economic loss based on the average extension of the Millom East subsea facilities decommissioning programme would be in excess of ten million GBP (£10,000,000) (excluding any further economic impact of safety mitigations). This loss would be increased if work had to be undertaken largely in winter.	Please refer to the Applicant's response to REP1-044.4, REP1-044.6, REP1-044.8, REP1-044.12 and REP1-044.13 in relation to helicopter access to Millom East and REP1-044.30 in relation to marine operations.

Reference	Written Representation Comment	Applicant's response
	• A potential mitigation against disruption and economic loss would be for protective provisions to be included in the DCO that ensure that no wind turbines would be constructed with any part of such wind turbine closer than three (3) nautical miles to the Millom East PLEM. This would reduce disruption, however the economic loss would still be in excess of four million GBP (£4,000,000) (excluding any further economic impact of safety mitigations). Compensation could also be considered but would be inefficient when considered on a post-tax basis. Harbour Energy has not yet undertaken a study to satisfy itself that collision avoidance systems would be adequate following construction of the Morgan Generation Assets. Harbour Energy is however concerned that shipping passing around the southern tip of the Morgan Generation Assets and then turning north or north-west may not be easily visible on an NPI's marine radar and there may thus be limited early warning of a potential allision. For a vessel steaming towards an NPI at around twenty (20) knots, the effect of the Morgan Generation Assets may be to reduce the early warning available to the NPI to as little as five (5) or ten (10) minutes resulting in disruption, economic loss and a potential adverse effect on safety.	
REP1-044.43	• Poor planning and coordination between the Applicant and Harbour Energy in connection with mutually exclusive simultaneous operations would result in disruption to execution of work, corresponding economic loss and an adverse effect on safety with risk to personnel. • Harbour Energy believes that a condition of the Application being granted should be that an agreement (a Co-operation and Co-existence Agreement) is in place between Harbour Energy and the Applicant setting out the mechanisms for coordinating such mutually exclusive activities.	Please refer to the Applicant's response to REP1-044.24 onwards in relation to mutually exclusive simultaneous operations and REP1-044.18 onwards in relation to marine operations.

Reference	Written Representation Comment	Applicant's response
	• As set out in Harbour Energy's response to the PEIR, the Millom West platform and Millom East subsea facilities will require marine access corridors free from temporary or permanent surface infrastructure (except as may from time to time be approved by the Millom Operator) as follows: - a radius of one point eight (1.8) kilometres (1 nautical mile) around the Millom West platform; - a one point eight (1.8) kilometres (1 nautical mile) corridor between the Millom West and DPPA platforms; and - Five hundred (500) metres each side of the Millom West and Millom East pipelines and subsea cables. • Harbour Energy believes that a condition of granting the Morgan Generation Assets DCO should be a requirement that an agreement (a Cooperation and Co-existence Agreement) is in place between the Applicant and Harbour Energy that ensures that the parties will work together to enable one another's work.	
REP1-044.44	• **Appendix 1: Assessment of Helicopter Access** **A1.1. Data** Five years of proprietary met-ocean data relating to conditions at Morecambe AP1 were analysed. This data was also provided to the Applicant. The data comprised: wind direction; visibility; cloud height; air temperature; dew point temperature; wind speed; and significant wave height recorded every 10 minutes from 19/12/17 00:00 to 19/12/22 14:30 – a total of 262,583 records. Many cloud height values were recorded as "NaN". If the dewpoint temperature was within 1oC of the air temperature, foggy or similar poor visibility conditions were assumed. If visibility met the minimum required for instrument flying, it was assumed that instrument flying would be possible. Otherwise, it was assumed that "NaN" indicated no cloud, so these values were replaced by a high cloud base that would allow visual	The Applicant was provided with the same meteorological data which was used in Harbour Energy's assessment. The Applicant's analysis using this data is provided in the Helicopter Access Report (Appendix A within Volume 4, Annex 11.1 Aviation and radar technical report (APP-045)). The Applicant has shared their methodology and data filters with Harbour Energy, however the Applicant has not received the requested details for Harbour Energy's assessment.

Reference	Written Representation Comment	Applicant's response
	flying subject to the visibility meeting the minimum requirements.	
REP1-044.45	• **A1.2. Analysis** **Each record was tested against a variety of conditions.** **A1.2.1. Not Suitable for Flying** Although aviation operations can take place in winds up to sixty (60) knots and when significant wave height is up to six (6) metres, Offshore Energy UK (OEUK) document "OEUK Guidelines for the Management of Helideck Operations" Issue 7, April 2024, sets out lower limits for landings at offshore helidecks. Accordingly, winds greater than forty (45) knots or significant wave heights greater than five point five (5.5) metres were considered unavailable for flights to offshore installations. If the temperature was less than 1.5oC and the air temperature minus the dewpoint temperature less than 3oC, icing was assumed to be likely and the time marked as not suitable for flying. In total, two percent (2%) of all records in the dataset (within airport operating hours) were not suitable for flying.	The Offshore Energies UK (OEUK) Guidelines for the Management of Helideck Operations Issue 7, April 2024 do not set any specific limits but remind users that any adverse weather policy should be based on the capabilities of the available rescue and recovery vessels. It is acknowledged that Morecambe Bay uses rescue and recovery vessels with a slightly lower operating envelope than elsewhere in UK waters. High winds and sea states are independent of day or night and IMC, so using the Applicant's slightly higher wind and wave conditions to distinguish no fly conditions has no significant impact on the percentage change in helicopter availability.
REP1-044.46	• **A1.2.2. Suitable for flying on Instruments** CAA rules limit instrument flying to when visibility is at least one point five (1.5) kilometres, and the cloud base is at least 300' in daylight or 400' at night. In total, ninety eight percent (98%) of all records in the dataset (within airport operating hours) were suitable for instrument flights.	Harbour Energy has not quoted the correct figures for flight in IMC. It is not clear if Harbour Energy is referring to the limits for an Airborne Radar Approach, in which case the minimum visibility at the Missed Approach point is 0.75 nm (1,390 m) (see section A.2.2.4 of Appendix A within Volume 4, Annex 11.1 Aviation and radar technical report (APP-045)), or to some other phase of flight.

Reference	Written Representation Comment	Applicant's response
REP1-044.47	• **A1.2.3. Suitable for Visual Flying** CAA rules require there to be a minimum visibility of four (4) kilometres and a minimum cloud base of 600' for visual flying in daylight and there to be a minimum visibility of five (5) kilometres and a minimum cloud base of 700' for visual flying at night. A total of ninety four percent (94%) of records in the dataset (within airport operating hours) were suitable for visual flying.	The Applicant agrees that circa 94% of day operations can be conducted under VMC when access to the Millom Field would not be impaired.
REP1-044.48	• **A1.2.4. Currently Available Flying Opportunities** Data has only been analysed within the normal operating hours of Blackpool Airport (07:30 – 21:00). It has also been assumed that a helicopter would not set off unless there were a thirty (30) minute window with no more than one ten (10) minute interval unavailable for flying. On this basis, ninety four percent (94%) of records in the dataset (within airport operating hours) would currently be suitable for flying. This is the baseline against which the loss of flying opportunities due to the Morgan Generation Assets has been determined.	The Applicant has applied the actual opening times of Blackpool Airport to their analysis.
REP1-044.49	• **A1.2.5. Flying within three (3) nautical miles of a Wind Farm** New rules adopted by North Sea helicopter operators, agreed by the Offshore Helicopter Safety Leadership Group in August 2024, and expected to be enforced by the CAA in 2025, will limit flying within three (3) nautical miles (in any direction) of any part of a wind turbine to daylight and visual with the additional requirement that visibility is at least five (5) kilometres and cloud base is at least 700'. There is also discussion that as new larger wind turbines are planned that the cloud base will also need to be at least 100' or 200' above the nacelle (the centre of the rotor) so that the top of the turbine tower (including its lights) is visible to the pilots. A total of seventy five percent (75%) of all records in the dataset (within	The CAA has not yet consulted on changes to the SPA HOFO regulations but is expected to do so in the next year. Some helicopter operators are still conducting some IMC approaches to helidecks within 3 nm of wind farms. The Applicant notes that the point regarding being able to see a wind turbine nacelle is concerned with flights inside a wind farm and so is not relevant to this discussion. As such, access will still be available to NPIs in the Millom Field for the agreed figure of 94% of day conditions.

Reference	Written Representation Comment	Applicant's response
	airport operating hours) would allow flying within three (3) nautical miles of a wind turbine.	
REP1-044.50	• **A1.2.6. Suitable for flying, subject to wind direction** Where a wind farm is less than one point nine (1.9) nautical miles from a helideck, take-off and landing can only be performed if the helicopter flies in a direction that allows one point nine (1.9) nautical miles before the nearest rotor blade is reached. A helicopter must perform its landing and take-off into wind. Based on consultation with NHV Group (an offshore and onshore helicopter service provider), it has been assumed that a helicopter may take-off up to 20o offset from directly into wind. Also, if the wind speed is less than ten (10) knots, it is assumed the helicopter can take-off and land in any direction. To fly to an NPI at adjacent to the Millom West Platform, the conditions for flying within three (3) nautical miles of a wind farm would need to be met and the wind would need to be between 247o and 133o. In the database, during airport operating hours, these conditions occur thirty eight percent (38%) of the time. As the Millom East subsea facilities are more than one point nine (1.9) nautical miles from the edge of the Morgan Generation Assets, no restrictions in terms of wind direction, apply to flights to an NPI at Millom East.	As stated in REP1-044.4 and REP1-044.11, the Applicant notes that concerns relating to the Millom West platform in relation to helicopter access are closed. The Applicant also notes here that Harbour Energy have confirmed that, as the Millom East subsea facilities are more than 1.9 nm from the Morgan Generation Assets, no restrictions in terms of wind direction apply to flights to an NPI at Millom East under Day VMC. It is understood that the NHV Group conduct CAT flights to helidecks adjacent to and inside wind farms where the distance to the closest wind turbine is less than 1.9 nm. As these flights are conducted under the same regulations as flights to an NPI in the Millom Field, it is not understood why a considerably larger distance is required. A joint workshop with Harbour Energy, NHV Group and the Applicant may be a productive means of confirming these points.
REP1-044.51	• **Summary** This analysis is summarised in the tables below. Note: **T**able 1 gives the percentages of records that permit flying in each case, whereas Table 2 gives the percentage of baseline opportunities that would be lost due to the proposed proximity of the Morgan Generation Assets.	Please refer to the Applicant's responses above.

2.4 Historic England

Table 2.4: REP1-046 Historic England.

Reference	Written Representation Comment	Applicant's response
REP1-045.1	**1. Introduction** 1.1 This Written Representation sets out the views of Historic England on the proposed Development Consent Order (DCO) application made by Morgan Offshore Wind Ltd (a joint venture between bp Alternative Energy Investments (referred to as 'bp') and Energie Baden-Württemberg AG (referred to as 'EnBW') for the proposed Morgan Offshore Wind Farm Project: Generation Assets. We understand from the application documents that the array area could be located in the Irish Sea, approximately 36.3km from the northwest coast of England with an array area of 322.2km^2.	The Applicant thanks Historic England for the comments provided. The Applicant has responded to each of Historic England's comments below. The Applicant notes that the parameters stated in the response from Historic England are those submitted within the Preliminary Environmental Information Report (PEIR). The parameters assessed within the Environmental Statement (ES) are: - The Morgan Array Area will be located in the Irish Sea, approximately 37.13 km from the northwest coast of England - The Morgan Array Area will be a maximum of 280 km^2 . See paragraph 3.3.2.2 of the Project Description chapter (APP-010).
REP1-045.2	1.2 The application explains that the size and capacity of Wind Turbine Generators (WTGs) for the Proposed development will be determined during the final project design stage i.e. post consent, should permission be obtained, and that this Environmental Statement (ES) assess a maximum design scenario for the WTGs as a "worst case" scenario. The ES describes two design scenarios of either 96 WTGs with 293m blade tip height (Scenario 1) or 68 WTGs with 364m blade tip height (Scenario 2).	This is noted by the Applicant. The Applicant would like to clarify that the design scenarios presented within the Project Description chapter of the ES (APP-010) set out the maximum and minimum parameters of the project design envelope for the wind turbine generators. They do not represent two separate either/or design scenarios.
REP1-045.3	1.3 Electricity cables will connect the WTGs to up to four offshore substations, with interconnectors between the substations and up to export four cables to transfer the High Voltage Alternating Current (HVAC) electricity to a proposed landfall location on the Lancashire coast, subject to separate DCO application as transmission assets.	This is noted by the Applicant.

Reference	Written Representation Comment	Applicant's response
REP1-045.4	1.4 The submitted application includes an ES, dated April 2024, produced to satisfy the requirements of Environmental Impact Assessment (EIA) requirements, under the terms of European Union Directive 2011/92/EU (as amended by Directive 2014/52/EU)) on the assessment of the effects of certain public and private projects on the environment (EIA Directive). The EIA Directive is transposed into English law for Nationally Significant Infrastructure Projects (NSIPs) by The Infrastructure Planning (EIA) Regulations 2017.	This is noted by the Applicant.
REP1-045.5	1.5 In our Section 56 Relevant Representation (dated 5th July 2024) we noted that this development has the potential to impact the historic environment, and that this impact could be significant in relation to a number of heritage receptors and in relation to EIA policy.	This is noted by the Applicant. An initial response has been provided to the relevant representation (RR-013.1 to RR-013.6 (PD1-017)).
REP1-045.6	**2. Comments on Environmental Statement: Volume 1, Chapter 3 – Project description (Document Reference: F1.3) PINS Reference: APP-010** 2.1 We note the detail provided regarding the use of a design envelope approach (known as Rochdale Envelope) that should identify key design assumptions, so that the environmental assessment retains flexibility to accommodate further refinement (should the proposed project proceed).	This is noted by the Applicant.
REP1-045.7	2.2 Section 3.5.2 (preconstruction site survey investigation) details surveys to be undertaken, subject to consent, to provide detailed information on seabed conditions, morphology and geology layers. Pre-construction site investigation surveys are very important in revealing the presence of presently unknown features and sites of archaeological interest, which should be designed to obtain data for the overall proposed development area. However, it is appreciated that high resolution data is likely to be required in the vicinity of the WTGs, Offshore Substation Platforms (OSPs) and along the intra-array cable routes. Similarly, any further geotechnical survey (comprising deeper	The Outline offshore Written Scheme of Investigation (WSI) for archaeology (APP-069) provides for archaeological advice at the planning stage of post-consent geophysical surveys and early input into the methods and specifications for geotechnical sampling. These commitments will be restated in the post-consent offshore WSI for archaeology, as secured within Conditions 20(1)(f) and 20-(2) within the deemed marine licences in the draft DCO (REP1-021, Schedules 3 and 4), updated at Deadline 2 (S_D2_8).

Reference	Written Representation Comment	Applicant's response
	boreholes and shallow vibro-cores at specific locations) conducted within the Morgan Array Area should also be planned to optimise data capture which also supports geoarchaeological analysis and interpretation.	
REP1-045.8	2.3 Section 3.5.3 (Unexploded Ordnance clearance) provides a useful illustration of using up-to-date survey data due to the potential for dynamic seabed conditions exposing UXO that may not have been detected in pre-application surveys. Table 3.3 provides a quantified estimate and we add, from experience, that UXO investigations have the potential to also reveal the presence of previously unknown archaeological sites (wreck of both vessels and aircraft).	This is noted by the Applicant.
REP1-045.9	2.4 Section 3.5.4 (Site preparation activities) describes works inclusive of contemporary debris (out-of-service cables), boulder and sand wave clearance (to 3m depth). It is also important to note in paragraph 3.5.4.5 the statement that additional seabed preparation may be required for gravity base foundations, including dredging of the soft sediments and the use of piles to strengthen the seabed could be required.	This is noted by the Applicant.
REP1-045.10	2.5 Section 3.5.8 describes the WTG and OSP foundation types that could be used, subject to completion of geotechnical investigations, identification of environmental sensitivities and final design scenario selected (as summarised in Table 3.5). It is explained that different foundation designs could be used: • Piled jacket foundations; • Suction bucket jacket foundations; • Gravity base foundations	This is noted by the Applicant.

Reference	Written Representation Comment	Applicant's response
REP1-045.11	2.6 If multi-leg foundations with pin piles are selected, the maximum diameter could be 5.5m with 75m penetration. If multi-leg foundations with suction buckets are deployed, the maximum diameter is stated as 18m with 25m seabed penetration. Gravity base foundations could have a 'base slab' diameter of 49m and if additional ground reinforcements are required e.g. suction buckets, these could have 15m penetration. It is relevant to note that for gravity base foundations dredging to 10m depth, seabed 'levelling' and/or stabilising the upper soil layer could be required.	This is noted by the Applicant.
REP1-045.12	2.7 The target depth of cable installation is described as 2m, but no detail is provided to describe the use of pre-lay grapnel runs and anticipated seabed area impacted or if other installation technique (e.g. ploughing, jetting, trenching, or a combination of these techniques) could be used. We did note that array cabling between WTGs and offshore substations and interconnector cabling between offshore substations should be buried between 0.5 and 3m. It is therefore relevant that analysis is conducted of pre-commencement surveys to actively inform cable route selection to determine the proximity of cable installation to features of known or possible archaeological interest.	The Outline offshore WSI for archaeology (APP-069) provides for archaeological analysis of post-consent marine geophysical surveys that cover areas of development impact. This commitment will be restated in the post-consent offshore WSI for archaeology, as secured within Conditions 20(1)(f) and 20-(2) within the deemed marine licences in the draft DCO (REP1-021, Schedules 3 and 4;), updated at Deadline 2 (S_D2_8). The parameters and assumptions used for prelay preparation and associated works are discussed further in response to 1-045.20.
REP1-045.13	2.8 The operation and maintenance phase (section 3.7), explains that cables could require "…one visit per year" which is rather vague and doesn't adequately address survey requirements informed by an understanding of dynamic seabed conditions in the proposed development area. At decommissioning (Section 3.11), states that infrastructure above the seabed will be removed, but that inter-array and interconnector cables might be recovered.	The Offshore in-principle monitoring plan (APP-066), updated at Deadline 2 (S D2 9 section 1.6), outlines the monitoring approach of the cables and their burial status. This will include observations from engineering survey data on cables and their burial status. This monitoring data will be used to understand whether sediment movement in the Morgan Array Area has affected cable burial and to provide information to be considered in the context of seabed mobility, seabed recovery and sandwave recovery, for information purposes. The final offshore monitoring plan (which accords with the Offshore in principle monitoring plan (S_D2_9) will be secured within relevant provisions of the deemed marine licences in the draft DCO (REP1-021, Schedules 3 and 4), updated at Deadline 2 (S_D2_8). At decommissioning inter-array and interconnector cables may be retrieved (See paragraph 3.11.2.4 of the Project Description chapter (APP-010)). Cable protection will preferably be left in situ, but removal has been assessed as the Maximum Design Scenario (MDS). The area of seabed impacted during the removal of the cables is likely to be the same as the area impacted during the

Reference	Written Representation Comment	Applicant's response
		installation of the cables. All decommissioning works will be in line with a decommissioning programme as secured within Condition 5 under Schedule 2 of the draft DCO (REP1-021; updated at Deadline 2 (S_D2_8)). A draft decommissioning programme will be submitted prior to construction commencing (APP-010, paragraph 3.11.1.1).
REP1-045.14	**3. Comments on Environmental Statement: Volume 1, Chapter 5 – Environmental impact assessment methodology (Document Reference: F1.5) PINs Reference: APP-012** 3.1 This Nationally Significant Infrastructure Project (NSIP) is subject to an EIA produced in accordance with the Infrastructure Planning (EIA) Regulations 2017. We understand that the accompanying ES should explain the predicted likely significant effects (positive and negative) and the scope for avoiding, preventing, reducing, and if possible, offsetting any identified significant adverse effects on the 'environment' (defined as inclusive of archaeological heritage).	This is noted by the Applicant.
REP1-045.15	3.2 We appreciate that this assessment will seek to identify likely significant effects associated with the proposed project during the construction, operation and maintenance, and decommissioning phases. Furthermore, that a range of measures that have been designed to reduce or prevent significant adverse effects arising and are set out in a mitigation and monitoring schedule (Document Reference: J6; PINs Reference: App-076)	This is noted by the Applicant.
REP1-045.16	3.3 We note the attention given to identifying mitigation measures that should be incorporated into the design of the proposed project which are categorised as 'primary', 'secondary' and 'tertiary' measures. We also appreciate the attention given to measures that could enhance "environmental conditions" (paragraph 5.3.5.7).	This is noted by the Applicant.

Reference	Written Representation Comment	Applicant's response
REP1-045.17	**4. Comments on Environmental Statement: Volume 2, Chapter 8 – Marine archaeology and cultural heritage (Document Reference: F2.8) PINs Reference: APP-026** 4.1 We note the attention given to EN-3 (published in November 2023) and we are aware that EN-3 (see paragraph 2.8.315) sets out that sufficient and adequate mitigation is applicable as much to known wreck (of historic environment interest) as for discoveries that may occur when high resolution surveys are commissioned post-consent, should permission be obtained.	The Applicant notes that Historic England is confirming the detail as set out in Volume 2, Chapter 8 Marine archaeology and cultural heritage (APP-026). The relevant paragraph of EN-3 is 2.8.325.
REP1-045.18	4.2 The Applicant's review of information held by the UK Hydrographic Office (UKHO) has identified 6 'live' wreck records (including one for an aircraft), as illustrated in Figure 8.2. Geophysical survey data indicates the existence of 51 anomalies of possible archaeological interest of which five are considered, at this stage, to be of 'high potential' and five of 'medium potential'. The five high potential anomalies also spatially correspond with UKHO wreck records, as detailed in Table 8.12.	The Applicant notes that Historic England is confirming the detail as set out in Volume 2, Chapter 8 Marine archaeology and cultural heritage (APP-026).
REP1-045.19	4.3 Section 8.6 (key parameters for assessment) the Applicant offers three Maximum Design Scenario (MDS): • MDS1 – the array area comprises 68 WTGs ('Scenario 2' as described in Chapter 3), 45 on three-legged jacket foundations and 23 on gravity base foundations, an OSP on a rectangular gravity base foundation with a base dimension of 100m x 80m, plus scour protection extending 25m from the base, 390km of inter array cables and 60km of interconnector cable. This MDS is described as having the "largest footprint of impact to near surface sediments and the greatest volume of sediment disturbed that may result in either direct or indirect impact…"; • MDS2 – the array area comprises 57 WTGs on four-legged jacket foundations requiring a total of 229 piles	The Applicant notes that Historic England is confirming the detail as set out in Volume 2, Chapter 8 Marine archaeology and cultural heritage (APP-026).

Reference	Written Representation Comment	Applicant's response
	with a penetration depth of 75m, two OSPs on jacket foundations reaching a pile penetration depth of 75m and associated infrastructure. It is thought that this scenario could have "…the greatest potential to directly impact deeply buried deposits…"; and • MDS3 – array area contains 68 WTGs with maximum blade tip height of 364m and a maximum rotor diameter of 320m and is considered to be the scenario visible from greatest distances.	
REP1-045.20	4.4 Table 8.16 describes different potential impacts during construction, operation and decommissioning, with impacts considered inclusive of jack-up vessels. The inclusion of estimated depths of seabed penetration and widths of disturbance are particularly helpful e.g. that 60% of inter-array and 40% of interconnector cable routes will be subject to pre-lay preparation. However, it is noticeable that the Applicant has focussed on maximum depth of seabed penetration and effects on sediment transport due to WTGs and OSPs (e.g. during construction). It is our advice that impact, particularly direct seabed disturbance through dredging for gravity base foundation placement, sand wave clearance and cable route clearance represent specific construction phase impact risks.	The Applicant can confirm that the MDS assumes that 60% of inter-array and 40% of interconnector cable routes will be subject to pre-lay preparation, and the remainer of the cables will be subject to sandwave clearance (APP-026, section 8.6.1). The MDS also assesses 721,561 m^2 of sandwave clearance associated with seabed preparation for wind turbine foundations and 97,399 m^2 of sandwave clearance associated with seabed preparation for OSP foundations. The risks posed by direct seabed disturbance through dredging for gravity base foundation placement, sand wave clearance and cable route clearance have been assessed in the ES (APP-026, paragraphs 8.8.3.1 to 8.8.3.13). The effects of direct seabed disturbance were assessed as being of minor adverse significance, which is not significant in EIA terms (APP-026, paragraph 8.8.3.13). The primary project mitigation for direct seabed disturbance will be avoidance, achieved through the implementation of AEZs for receptors of high and medium potential or significance, pre-construction site investigation surveys, micrositing, and other mitigation such as the Protocol for Archaeological Discoveries and TAEZs. This is set out within the Outline offshore WSI for archaeology (APP-069) and implemented through the post-consent offshore WSI for archaeology, as secured within Conditions 20(1)(f) and 20-(2) within the deemed marine licences in the draft DCO (REP1-021, Schedules 3 and 4), updated at Deadline 2 (S_D2_8).
REP1-045.21	4.5 Section 8.7 (Measures adopted as part of the Morgan Generation Assets) explains the commitment to implement measures and presents an assessment based on determination of magnitude and significance subject to implementation of those measures. Table 8.17 identified 'primary' measures as inclusive of Archaeological Exclusion Zones (AEZs) identified through implementation of an Offshore archaeological Written Scheme of Investigation (WSI) and Protocol for Archaeological Discoveries (PAD), as secured through	The Applicant notes that Historic England is confirming the detail as set out in Volume 2, Chapter 8 Marine archaeology and cultural heritage (APP-026), and welcomes the agreement on the application of appropriate control measures post consent.

Reference	Written Representation Comment	Applicant's response
	the deemed marine licence(s) within the draft DCO. We also note the inclusion of 'tertiary' measures (i.e. standard industry practice) as secured through the (draft) DCO. We concur with the identification of key aspects of delivery concerning archaeological analysis of survey data obtained post-consent and the role of a professional retained archaeological advice service in the planning and design of any pre-construction surveys. The inclusion of agreed technical reporting produced from archaeological analysis programmes is welcomes vis. National Record of the Historic Environment and completion of OASIS (Online Access to the Index of archaeological investigations) submissions.	
REP1-045.22	4.6 Sub-section 8.7.2 (Archaeological exclusion zones) we concur with the decision to place AEZs, either individually or in cluster configuration around the anomalies considered to be of either 'high' or 'medium' potential (paragraph 8.7.2.3). Also, the use of a Temporary AEZ (TAEZ) for the charted aircraft crash location and two sites in the array buffer zone, as illustrated in Figure 8.5.	The Applicant notes and welcomes Historic England's agreement regarding AEZs and TAEZs.
REP1-045.23	4.7 Consideration of sediment disturbance and deposition (sub-section 8.8.2), specifically suspended sediment concentrations and plume effects is confirmed as not significant in EIA terms. Regarding the assessment of seabed preparation activities, we appreciate that for operational reasons, 'low' potential anomalies should be avoided and that pre-construction site investigation surveys will be reviewed by a retained archaeological advice service (and when necessary due to professional opinion, consultation with Historic England), prior to impact due to construction. However, it should be acknowledged that action to record sites only offsets the harm done and cannot remove the magnitude of the impact on as yet unknown marine archaeology receptors, which will be permanent.	This is noted by the Applicant. It is acknowledged that action to record sites only offsets the significance of effect and cannot remove the magnitude of the impact on as yet unknown marine archaeology receptors. However, the primary project mitigation will be avoidance, achieved for unknown and low potential anomalies through pre-construction site investigation surveys, micrositing, and other mitigation such as the Protocol for Archaeological Discoveries and TAEZs. This is set out within the Outline offshore WSI for archaeology (APP-069) and implemented through the post-consent offshore WSI for archaeology, as secured within Conditions 20(1)(f) and 20-(2) within the deemed marine licences in the draft DCO (REP1-021, Schedules 3 and 4), updated at Deadline 2 (S_D2_8). Preservation by record will be only used as a final option, after consultation with Historic England, and will be in line with relevant guidance (e.g. Wessex Archaeology for the Crown Estate (2021) *Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects*).

Reference	Written Representation Comment	Applicant's response
REP1-045.24	4.8 Sub-section 8.8.6 (Effects on Historic Seascape Character) it is our advice that consideration of historic seascape character is only to provide context for heritage assets as could be located within a particular area. It is therefore not possible to identify 'magnitude of impact' on character. Furthermore, we do not agree with the general interpretation provided about historic seascape. It is apparent that considerable change is occurring through energy transition from hydrocarbon (oil and gas production) to renewables generating electricity. While both require the use of 'modern installations' (paragraph 8.8.6.7) they are fundamentally different in design and purpose and therefore do change the existing seascape character. This point is demonstrated in Chapter 10 of this ES in reference to MMO Marine Planning 'Marine Character Area' 38 (Irish Sea South) which is acknowledged as likely to "experience the most change" (e.g. paragraph 10.8.2.2.). However, it is acknowledged that change should be considered in the context of the legacy of industrial activity in this part of the Irish Sea and how change can be accommodated.	This is noted by the Applicant. The assessment of effects on Historic Seascape Character was undertaken in accordance with *An Approach to Seascape Character Assessment* (Natural England, 2012) and the methodology developed through consultation with the AHEF (APP-026, section 8.5.2.10). As stated in the ES, the methodology is necessarily unique and as such does not follow the methodology detailed for other marine archaeology receptors (APP-026, section 8.5.2.11). Although historic seascape character cannot be physically impacted, it can be changed, and this is the sense in which 'magnitude of impact' was used (APP-026, section 8.5.2.12). The Applicant notes that whilst there are differing perspectives on the application of methodology in this instance it has not resulted in a disagreement on conclusions, as noted at REP1-045.25. It is agreed that there is considerable change occurring to modern energy infrastructure, from hydrocarbon production to renewable energy, that will change the existing seascape character.
REP1-045.25	4.9 Sub-section 8.8.7 (Potential for visual change within the setting of an asset) we are 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.	The Applicant notes and welcomes Historic England's agreement regarding the potential for visual change within the setting of an asset.
REP1-045.26	4.10 Section 8.9 (Cumulative effect assessment methodology) we are aware that the analysis presented is based on three cumulative impact assessment scenarios and an accompanying sequence of tiers. We note the extensive use of tables and the repeated determination that there will be no cumulative impacts that are significant in EIA terms. We note in Section 8.13 (Summary of impacts) and the reference made to	This is noted by the Applicant.

Reference	Written Representation Comment	Applicant's response
	consultation. In consideration of the use of an Archaeology and Heritage Engagement Forum during pre-application it is apparent to us that earlier presentation of analysis could have enabled these sections of the final ES to be shortened substantially.	
REP1-045.27	4.11 It is apparent that overall the conclusion of no significant effects arising from the Morgan Generation Assets during construction, operation and maintenance or decommissioning phases is entirely predicated on implementation of embedded mitigation measures. For example, the recording of archaeological materials before loss. It is important to be clear that such action does not reduce harm or magnitude of impact (such sensitivity is accepted by the Applicant). It is therefore essential that investigative archaeological studies are completed for sites at risk of loss or disturbance (e.g. due to unavoidable ground works envisaged for MDS1) should reduce the loss of knowledge and understanding but cannot reduce the actual harm. The assessment therefore presented, and the resultant effects being classified as 'not significant', does not reflect the actual risk presented by this proposed project.	This is noted by the Applicant. It is acknowledged that action to record sites only offsets the significance of effect and cannot remove the magnitude of the impact on as yet unknown marine archaeology receptors. However, the primary project mitigation will be avoidance, achieved for unknown and low potential anomalies through pre-construction site investigation surveys, micrositing, and other mitigation such as the Protocol for Archaeological Discoveries and TAEZs. This is set out within the Outline offshore WSI for archaeology (APP-069) and implemented through the post-consent offshore WSI for archaeology, as secured within Conditions 20(1)(f) and 20-(2) within the deemed marine licences in the draft DCO (REP1-021, Schedules 3 and 4), updated at Deadline 2 (S_D2_8). Preservation by record will be only used as a final option, after consultation with Historic England, and will be in line with relevant guidance (e.g. Wessex Archaeology for the Crown Estate (2021) Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects).
REP1-045.28	**5. Comments on Volume 4, Appendix 8.1: Marine archaeological technical report (Document Reference: F4.8.1) PINs Reference: APP-061** 5.1 The detail provided about geophysical and geotechnical survey data acquired for the proposed array area (in 2021 and 2022) and the use of survey legacy data (geophysical and geotechnical) that was spatially compatible with the proposed Morgan Generation project is important. We note the conclusion that the specifically acquired survey data for this project is considered to be "average to good quality".	This is noted by the Applicant.
REP1-045.29	5.2 The interpretation of available data as presented in Table 1.6 (Quaternary sequence) is helpful. However, it is apparent in sub-section 1.4.2 that attention is not given to specific geotechnical guidance and deposit	This is noted by the Applicant. The Outline offshore WSI for archaeology (APP-069) provides a framework for the archaeological input into and analysis of further geotechnical survey (APP-069, section 1.7.5) which will include the provision of a sedimentary sequence deposit model. This programme of work will be contained within the post-consent offshore WSI for archaeology, as

Reference	Written Representation Comment	Applicant's response
	modelling guidance, both of which are referenced in sub-section 1.2.4. We have repeatedly explained that the focus for attention should be on production of a sedimentary sequence deposit model which should inform any programmed of "staged" analysis which is applied. The importance of focussing on an agreed deliverable (a deposit model) is to give structure and purpose to an accompanying programme of analysis. It is also crucial that the analysis addresses agreed research questions, such as alluded to in paragraph 1.6.1.2. with attention to given to finding evidence on the timing of the marine transgression to determine when the Morgan marine archaeology study area was finally submerged. We therefore concur that a subsequent stage of geoarchaeological assessment should be conducted to advance the understanding of the Devensian ice retreat in the East Irish Sea. Such action will also enable this project to contribute new information, as a positive contribution, as described in National Policy Statement EN-1 in paragraph 5.9.13.	secured within Conditions 20(1)(f) and 20-(2) within the deemed marine licences in the draft DCO (REP1-021, Schedules 3 and 4), updated at Deadline 2 (S_D2_8).
REP1-045.30	5.3 Therefore, if permission is obtained, an agreed objective should be to produce a deposit model, with the methodological approach to its production explained through an archaeological Written Scheme of Investigation (WSI). However, it is important to note that this programme is predicated on the availability of geotechnical cores which have been retained and preserved and have not already been subject to destructive testing. Paragraph 1.4.2.5 does allude to "ground model stratigraphic units" and "…an opportunity to improve the chronology…" which should be addressed specifically in a WSI subsequently produced if consent is secured, as mentioned in National Policy Statement EN-3 (paragraph 2.8.68).	The Applicant welcomes the response from Historic England. The objectives and methodology of further geoarchaeological assessment will be outlined in the post-consent offshore WSI which will be developed in accordance with the Outline offshore WSI , as secured within Conditions 20(1)(f) and 20-(2) within the deemed marine licences in the draft DCO (REP1-021, Schedules 3 and 4) updated at Deadline 2 (S_D2_8). .
REP1-045.31	5.4 Section 1.5.8 states that a total of 51 anomalies of potential archaeological interest were identified within the wider Morgan marine archaeology study area (Figure 1.5):	This is noted by the Applicant.

Reference	Written Representation Comment	Applicant's response
	• five are classed as "high potential" anomalies; • five as "medium potential"; and • 41 "low potential" anomalies	
REP1-045.32	5.5 The identification of "medium potential" anomalies should receive the most attention as these could be "…either geological or archaeological features..." (e.g. Morgan_0025, Morgan_0015 and Morgan_0116) which are all within the proposed array area as illustrated in Figure 1.6) Another anomaly, Morgan_0030 receives precautionary attention due to poor survey data acquired in this part of the proposed array area. The identification, at this stage, of 'low' potential anomalies is important as subsequent high-resolution survey to inform any foundation positioning and dredging requirements could require re-evaluation of archaeological potential.	This is noted by the Applicant.
REP1-045.33	5.6 The identified "high potential" anomalies all appear to correspond with live UKHO records. It was noticeable from the information presented that two wrecks were the result of an attack by the same U-boat (UB 57) on 7th February 1918 (as noted in paragraph 1.6.2.1) and therefore there is a collective significance. However, all these wrecks should be effectively avoided by the use of AEZs which must be sufficient to not only enclose the readily identifiable wreck structure, but any associated debris fields (e.g. anomalies Morgan_0097 and Morgan_0098). This is an important matter considering the proposed use of gravity base foundations which will require spatially extensive dredging to facilitate placement.	This is noted by the Applicant.
REP1-045.34	**6. Comments on Volume 4, Annex 8.2 Cultural heritage assessment (Document Reference F4.8.2) PINs Reference: APP-062** 6.1 We understand that this document presents the results of the assessment of potential impacts and effects arising from changes which could be considered relevant to the settings of identified terrestrial historic	The Applicant notes that Historic England is confirming the detail as set out in Volume 4, Appendix 8.2 Cultural heritage assessment (APP-062).

Reference	Written Representation Comment	Applicant's response
	assets in the English coastal zone. We note the attention given to using a "maximum design scenario" (vis. Scenario 2).	
REP1-045.35	6.2 Regarding the assessment set out in Table 1.8 and the identified "significance of effect" of the proposed project on designated heritage assets along the English coastline, and if its presence could detract from their archaeological, historic, and architectural interest, we are minded to concur with the conclusions offered by the Applicant.	The Applicant notes and welcomes Historic England's agreement regarding the effects on designated heritage assets along the English coastline.
REP1-045.36	6.3 The consideration of cumulative impact (as described in section 1.7) in reference to a maximum design scenario is important, especially considering already constructed and operational offshore wind farms, as well as proposed developments, such as Morecambe Offshore Wind Farm Generation Assets (PINs Reference: EN010121). We have no further comment or other advice to offer regarding the conclusions drawn by the Applicant, as relevant to any cumulative impact on the setting of heritage assets in the English coastal zone.	The Applicant notes and welcomes Historic England's agreement regarding cumulative impacts on the setting of heritage assets in the English coastal zone.
REP1-045.37	**7. Comments on Outline offshore written scheme of Investigation for archaeology (Document Reference J14) PINs Reference: APP-069** 7.1 We agree that this Outline offshore WSI should be updated to produce a "final" WSI to be applied post-consent, should permission(s) be secured, in accordance with NPS EN-3. This document will also require monitoring and review over the lifetime of the proposed Morgan Generation Assets project and that specific tasks, relevant to the WSI will require method statements, produced by a professional retained archaeological advice service (as described in paragraph 1.2.1.3) and subject to consultation with Historic England prior to formal approval.	The Applicant notes and welcomes Historic England's agreement regarding the post-consent offshore WSI, as secured within Conditions 20(1)(f) and 20-(2) within the deemed marine licences in the draft DCO (REP1-021, Schedules 3 and 4) updated at Deadline 2 (S_D2_8).

Reference	Written Representation Comment	Applicant's response
REP1-045.38	7.2 We acknowledge here that we are the adviser to the competent authority for any deemed Marine Licence secured, the Marine Management Organisation (MMO), who are ultimately responsible or offering any "approval". Regarding any timeframe for approval, as set out in paragraphs 1.2.1.10 and 1.2.2.1, we defer to the MMO.	This is noted by the Applicant.
REP1-045.39	7.3 It is noticeable that Table 1.2 only shows development Scenario 1 (as described in Chapter 3). Section 1.4 duplicates the text used in Volume 4, Appendix 8.4, we therefore offer no further comment.	This is noted by the Applicant.
REP1-045.40	7.4 The inclusion of text about historic seascape character is not relevant to the primary purpose of a WSI. It is the purpose of WSI to set out a clear methodological approach about how post-consent/pre-construction survey campaigns are designed, planned and delivered to incorporate archaeological objectives and thereby inform subsequent engineering design scenarios as described in the ES.	This is noted by the Applicant. This text can be omitted from offshore WSI when it is updated post-consent.
REP1-045.41	7.5 Section 1.4.6 (Research Frameworks) it would be helpful if the text acknowledged the use of Research Frameworks to inform the design of deposit models as part of an agreed programme of geoarchaeological analysis. We expect such detail to be set out in the objectives of any method statements, should consent be obtained.	This is noted by the Applicant. The design of an agreed programme of geoarchaeological analysis will be informed by relevant research frameworks and will be included in the WSI, and any relevant method statements, when these are updated post-consent. The WSI, as secured within Condition 20(1)(f) within the deemed marine licences in the draft DCO (REP1-021, Schedules 3 and 4) has been updated at Deadline 2 (S_D2_8).
REP1-045.42	7.6 Section 1.6 (Measures adopted as part of Morgan Generation Asset) duplicates information provided elsewhere in the ES and is not specifically relevant to the core purpose of a WSI. Furthermore, in consideration of geophysical and geotechnical data acquisition and archaeological interpretation that has already occurred it is disappointing that this document is so generic. Reflecting on the information presented in Chapter 8 (and accompanying Appendix 8.1) and the	This is noted by the Applicant, such detail can be removed or included (as applicable) when the offshore WSI is updated post consent, as secured within Conditions 20(1)(f) and 20-(2) within the deemed marine licences in the draft DCO (REP1-021, Schedules 3 and 4), updated at Deadline 2 (S_D2_8).

Reference	Written Representation Comment	Applicant's response
	likely foundation design to be used (as described in Chapter 3), this WSI should have been able to focus more precisely on optimising specific types of survey to be commissioned post-consent (should authorisation be obtained) and pre-construction to assist final engineering design, as per expectations set out in National Policy Statement EN-3 (e.g. paragraph 2.8.165).	
REP1-045.43	7.7 Section 1.6.2 (Archaeological Exclusion Zones) states that "low" potential anomalies while not presently identified with AEZs or TAEZs, will be included as a factor in the final stages of project design. However, to inform micrositing (as recommended in the EN-3) necessitates the acquisition of high-resolution geophysical data and archaeological interpretation and analysis, as should be acquired post-consent.	This is noted by the Applicant. The Outline offshore written scheme of investigation for archaeology (APP-069) provides for archaeological analysis of post-consent marine geophysical surveys. This commitment will be restated and developed when the offshore WSI for archaeology is updated post consent, as secured within Conditions 20(1)(f) and 20-(2) within the deemed marine licences in the draft DCO (REP1-021, Schedules 3 and 4), updated at Deadline 2 (S_D2_8). The Offshore in-principle monitoring plan (APP-066), updated at Deadline 2 (S_D2_9 section 1.6), outlines the monitoring approach of the cables and their burial status. This will include observations from engineering survey data in the context of seabed mobility, seabed recovery and sandwave recovery.
REP1-045.44	7.8 Section 1.6.3 (Monitoring and watching briefs) in consideration of the intended construction requirements for this proposed development (as set out in Chapter 3 and the maximum design scenarios described), it is not entirely clear why the use of watching brief(s) are dismissed at this stage given the acceptance of risks associated with presently unknown archaeological materials that might be present.	The use of watching briefs is not entirely excluded by the Outline offshore written scheme of investigation for archaeology (APP-069), rather based on the current understanding of archaeological remains and construction techniques watching briefs are not currently foreseen to be needed (APP-069, section 1.6.3.2). However, should the situation change through the implementation of other mitigation, e.g. by the discovery of unknown features through the post-consent geophysical surveys, or through the Protocol for Archaeological Discoveries, an archaeological watching brief may be required. This would be subject to a detailed method statement provided to Historic England prior to any works (APP-069, section 1.6.3.3).
REP1-045.45	7.9 Section 1.7 (Methodology for archaeological work) provides the key information within a WSI. However, it must be made clear that an "approval" can only be given by a competent authority and we therefore defer to the MMO as to the acceptability or otherwise of proposed time cut offs (e.g. paragraphs 1.7.1.2 and 1.7.3.2). It is essential that any and all attention given to a staged process of geoarchaeological assessment (such as described in 1.7.5.5) is done so in the context	This is noted by the Applicant.

Reference	Written Representation Comment	Applicant's response
	of an agreed output, as explained within published guidance (as referenced in paragraph 1.1.2.3).	
REP1-045.46	**8. Mitigation and monitoring schedule (Document Reference: J6) PINs Reference: APP-076** 8.1 While note in Section 1.9 (Marine archaeology and cultural heritage) that the means of securing the commitments for mitigation, specifically a Written Scheme of Investigation (WSI) and Protocol for Archaeological Discoveries (PAD) and the need for a Design Plan to be approved is secured within the deemed marine licence(s) of the draft DCO (PINs examination document reference: APP-005).	The Applicant notes that Historic England is confirming the detail as set out in J6 Mitigation and monitoring schedule (APP-076).
REP1-045.47	**9. Development Consent Order (Document Reference: C1), PINs Reference: APP-005** 9.1 All advice is offered here without prejudice to any decision as might be made whether or not to grant consent for this proposed development.	This is noted by the Applicant.
REP1-045.48	9.2 Schedule 3 Deemed marine licence under the 2009 Act – Generation Assets Part 1 (Licensed Marine activities) requires amendment: 1(4)(b) the address of Historic England should be amended to: Historic England, 4th Floor, Cannon Bridge House, 25 Dowgate Hill, London EC4R 2YA.	This has been updated as requested in the draft DCO submitted at Deadline 2.
REP1-045.49	9.3 Part 2 (Conditions): Pre-construction plans and documentation; It is essential that post-consent and pre-construction archaeological evaluation informs delivery plans to avoid in-situ archaeological sites, as could be revealed through assessments conducted and completed post-consent and pre-construction. We would therefore expect a condition to be applied to that effect on the DML.	The Applicant does not consider that a bespoke Condition of this requirement is necessary as the protections are already in place. The Applicant will be undertaking geophysical surveys that will inform the final layout. Analysis of the data from those surveys would include archaeological evaluation. The Outline offshore written scheme of investigation for archaeology (APP-069) provides for archaeological analysis of post-consent marine geophysical surveys. This commitment will be restated and developed when the offshore WSI for archaeology is updated post consent, as secured within Conditions 20(1)(f) and 20-(2) within the deemed marine licences in the draft DCO (REP1-021, Schedules 3 and 4), updated at Deadline 2 (S_D2_8).
REP1-045.50	9.4 Condition 20(1)(f) to be revised to: "An offshore written scheme of investigation for archaeology in relation to the Order limits, which must accord with an outline marine written scheme of investigation produced in consultation with the statutory	The Applicant has not made an update to the draft DCO, as an outline offshore written scheme of investigation for archaeology has already been produced as part of the application (APP-069), rather than being produced at a later date in consultation with the statutory historic body, which would be the effect of the wording suggested.

Reference	Written Representation Comment	Applicant's response
	historic body at least 12 weeks prior to the commencement of any survey work unless otherwise agreed by the MMO; to include—"	Condition 20(1)(c)(i) states that a monitoring plan which includes details of proposed pre-construction surveys, should be submitted at least four months prior to the first survey. The Applicant agrees that the post-consent offshore written scheme of investigation can be submitted at least 12 weeks prior to the commencement of any survey work.
REP1-045.51	9.5 Condition 20(2) to be revised to: "Pre-commencement surveys and archaeological investigations and pre-commencement material operations which involve intrusive seabed works must only take place in accordance with a specific written scheme of investigation for archaeology (which must accord with the details set out in the outline marine written scheme of investigation) which has been submitted to and approved by the MMO."	This has been updated as requested in the draft DCO submitted at Deadline 2.
REP1-045.52	9.6 Schedule 4 Deemed Marine Licence under the 2009 Act – Licence 2: Offshore Substation Platforms and Interconnector Cables requires amendment: 1(4)(b) the address of Historic England should be amended to: Historic England, 4th Floor, Cannon Bridge House, 25 Dowgate Hill, London EC4R 2YA	This is noted by the Applicant.
REP1-045.53	9.7 Condition 20(1)(f) to be revised to: "An offshore written scheme of investigation for archaeology in relation to the Order limits, which must accord with an outline marine written scheme of investigation produced in consultation with the statutory historic body at least 12 weeks prior to the commencement of any survey work unless otherwise agreed by the MMO; to include—"	The Applicant has not made an update to the draft DCO, as an outline offshore written scheme of investigation for archaeology has already been produced as part of the application (APP-069), rather than being produced at a later date in consultation with the statutory historic body, which would be the effect of the wording suggested. Condition 20(c)(i) states that a monitoring plan which includes details of proposed pre-construction surveys, should be submitted at least four months prior to the first survey. The Applicant agrees that the post-consent offshore written scheme of investigation can be submitted at least 12 weeks prior to the commencement of any survey work.
REP1-045.54	9.8 Condition 20(2) to be revised to: "Pre-commencement surveys and archaeological investigations and precommencement material operations which involve intrusive seabed works must only take place in accordance with a specific written scheme of investigation for archaeology (which must accord with the details set out in the outline marine	This has been updated as requested in the draft DCO submitted at Deadline 2.

Reference	Written Representation Comment	Applicant's response
	written scheme of investigation) which has been submitted to and approved by the MMO."	
REP1-045.55	**10. Historic England Written Representation: Conclusions** 10.1 Historic England do not object in principle to the Proposed Development.	The Applicant welcomes Historic England's acceptance of the Proposed Development.
REP1-045.56	10.2 There is an accepted risk that this project could encounter presently unknown elements of the historic environment which could be subject to a high level of harm.	This is noted by the Applicant.
REP1-045.57	10.3 It is apparent from the description provided about the maximum design scenario and the foundation designs under consideration that post-consent evaluation will be essential (subject to securing authorisation) and that such survey acquisition and data analysis must occur in a timely way to inform any pre-construction design finalisation.	This is noted by the Applicant.
REP1-045.58	10.4 The draft DCO includes (draft) Deemed Marine Licences which include conditions for WSIs. However, the wording requires amendment to ensure implementation in the crucial post-consent and pre-construction phase to adequately inform the planning and engineering design, and delivery of the proposed project.	Please see Applicants responses to Historic England REP1-045.50, REP1-045.51, REP1-045.53 and REP1-045.54 (above).

2.5 Marine Management Organisation

Table 2.5: REP1-048 Marine Management Organisation (MMO).

Reference	Written Representation Comment	Applicant's response
REP1-048.1	1.1. General Comments 1.1.1. The MMO notes that a number of comments have been raised in relation to shipping, radar and impact to other industries. The MMO hopes the Applicant can resolve these comments and defers to the statutory Interested Party. The MMO will maintain a watching brief for any concerns where DML conditions may be required.	The Applicant notes MMO's comments and that MMO defers to the statutory Interested Party.
REP1-048.2	1.2 Corporation of Trinity House of Deptford Strond (TH) (RR-009) 1.2.1. The MMO notes that all correspondence, should it be necessary, between Trinity House and any other Interested Parties should be directed to its Legal Advisor, Russell Dunham. The MMO welcomes this point and will ensure that any correspondence is directed through this channel.	This response is noted by the Applicant.
REP1-048.3	1.3 Environment Agency (EA) (RR-011) 1.3.1. The MMO notes the statement from the EA regarding the location of MOWF being outside of EA jurisdiction. The EA will not be consulted further for the generation assets.	This response is noted by the Applicant.
REP1-048.4	1.4. Historic England (HE) (RR-013) 1.4.1. The MMO notes HE's request that the proposed archaeological mitigation programme needs to adequately take account of Principle 6 regarding anticipated micrositing allowance and the use of Gravity Base Foundations (GBFs) as necessary to avoid known and unknown archaeological sites. 1.4.2. The MMO supports HE's confirmation that a Written Scheme of Investigation (WSI) is required, as	1.4.1 - The Applicant has responded to Historic England in Table 2.13, RR-013.4, S_PD_3 Applicant's Response to Relevant Representations (PD1-017). 1.4.2 - The Applicant has responded to Historic England in Table 2.13, RR-013.5, S_PD_3 Applicant's Response to Relevant Representations (PD1-017). 1.4.3 - The Applicant notes that MMO will keep a watching brief and provide comment where necessary.

Reference	Written Representation Comment	Applicant's response
	conditioned within the deemed Marine Licences (Schedules 3 and 4) of the draft DCO. 1.4.3. The MMO is aware that HE will provide further comment through Written Representations and the MMO will keep a watching brief and provide comment when necessary.	
REP1-048.5	1.5. Maritime and Coastguard Agency (MCA) (RR-019) 1.5.1. The MMO welcomes the MCA's confirmation that the MCA will be responding on matters of navigational safety and maritime emergency response. The MMO notes that the MCA have concerns about vessel routeing, and the MMO hopes to see these concerns addressed throughout examination.	The Applicant has responded to MCA's concerns about vessel routeing in Table 2.19 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017) and the Applicant will continue to engage with MCA through the examination period. A Statement of Common Ground (SoCG) between the Applicant and the MCA, which addresses this issue, has been submitted at Deadline 2 (S_D2_MCA). In their Written Representation (REP1-051), the MCA has confirmed that the Navigation Risk Assessment completed for the Morgan Generation Assets is compliant with MGN654 and they are content that the boundary changes undertaken by the Applicant and other Round 4 developers have resulted in the unacceptable safety risks identified in the section 42 response being reduced to 'Medium Risk – Tolerable if ALARP'. The list of applied (embedded) risk controls in Table 1.9 of the NRA and adopted additional risk controls in Table 1.42 of the NRA, are appropriate for reducing safety risks to As Low As Reasonably Practicable (ALARP).
REP1-048.6	1.6. National Federation of Fishermen's Organisations (NFFO) (RR-24) 1.6.1. The MMO notes that this RR is a join submission from both NFFO and Welsh Fishermen's Association (WFA-CPC). 1.6.2. The MMO acknowledges concerns raised regarding additional loss of space for fishing activities in an area already faced with extensive spatial restrictions such as existing offshore wind developments, offshore cables, Marine Protected Areas and legislative restrictions in the region. The MMO is aware that further displacement could cause economic harm, through loss of earnings from the ground and additional operating costs, due to increased steaming times during construction and operation of the project, as well as contributing to the spatial squeeze on fisheries in the region.	1.6.1 - The Applicant has met with National Federation of Fishermen's Organisations (NFFO) and Welsh Fishermen's Association (WFA-CPC) seven times since 2021. 1.6.2 - The Applicant acknowledges the comments raised by NFFO with respect to potential loss of space for fishing activities and has addressed NFFO's comments in Table 2.24, RR-024.2 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017). 1.6.3 - The Applicant has addressed NFFO's comments relating to survey data in Table 2.24, RR-024.3 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017). Furthermore, the Applicant provided further clarification on the fish and shellfish ecology assessments in S_D1_4.9 Annex 4.9 to Response to Hearing Action Point HAP_ISH1_22: Applicants response to ICES guidance and SFF (REP1-014) and S_D1_4.10 Annex 4.10 Response to SFF oral representation at ISH1 (REP1-015). 1.6.4 - The Applicant has addressed the NFFO comments relating to the methodology in Table 2.24, RR-024.4 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017). The Applicant has also responded to NFFO's comments on the interpretation of data regarding displacement of fishing activity in Table 2.24, RR-024.5 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017). These concerns are covered within the Statement of Common Ground (SoCG) between the Applicant and NFFO which has been submitted at Deadline 2 (S_D2_NFFO).

Reference	Written Representation Comment	Applicant's response
	1.6.3. The MMO notes that the NFFO is concerned about the lack of up-to-date site-based survey data presented in the fish and shellfish ecology assessments, and a lack of focus on key commercial species. The MMO will review the Applicant's response in relation to this and may provide further comments at Deadline 2. 1.6.4. The MMO also notes concerns surrounding the methodology used in assessments and interpretation of data regarding displacement of fishing activity, specifically the return of mobile fishing gear to pre-construction levels. The MMO is aware that the NFFO feel that the assumption of no displacement effects observed during construction for all the different fishing gear sectors is vastly underestimated. The MMO will review the Applicant's response in relation to this and may provide further comments at Deadline 2. 1.6.5. The MMO acknowledges that the NFFO welcomes the development of a Fisheries Liaison and Co-existence Plan, and sees this as an integral and important step to minimise, and, if needed, mitigate impacts on the region's fisheries. 1.6.6. The MMO supports the NFFO's request for a Statement of Common Ground to ensure that fisheries concerns are considered during the decision-making process.	1.6.5 - The applicant has consulted with NFFO on the Outline Fisheries Liaison and Co-existence Plan (OFLCP) and the Applicant has made updates based on these comments/discussions. The Applicant remains transparent with all fisheries stakeholders. An update to the OFLCP has been submitted at Deadline 2 (S_D2_12). 1.6.6 - These concerns are covered within the Statement of Common Ground (SoCG) between the Applicant and NFFO which has been submitted at Deadline 2 (S_D2_NFFO). A meeting was held on the 23/09/24 between the Applicant and NFFO and WFA to discuss the format and approach to the SoCG. The Applicant is hopeful that the MMO is cognisant of the commitments made by the Applicant to ensure coexistence with fisheries can be maximised as far as reasonably practicable, and points the MMO to its response to the relevant fisheries bodies made at Deadline 2 for further clarity on this matter.
REP1-048.7	1.7. Natural England (NE) (RR-26) 1.7.1. The MMO is aware that there remain unresolved issues that centre around protected sites and that on the basis of the information submitted, NE, as the competent authority (Conservation of Habitats and Species Regulations 2017), is not satisfied that it can be excluded beyond reasonable scientific doubt that the project would have an adverse effect alone or in-combination on the integrity of the following sites: • Liverpool Bay SPA	The Applicant has responded to Natural England's Relevant Representations (S_PD_3 Applicant's Response to Relevant Representations (PD1-017)) and has provided a series of clarification notes including a note on the CEA gap filling of historic projects (provided at Deadline 1 (REP1-010)). To confirm, the only designated sites and features Natural England has raised as outstanding matters are included within Table 5.1 of the Relevant representations (RR-026) and all features listed relate to bird species and no habitat features are listed. The Applicant continues to engage with Natural England.

Reference	Written Representation Comment	Applicant's response
	• Morecambe Bay and Duddon Estuary SPA • Morecambe Bay and Duddon Estuary Ramsar • Ribble and Alt Estuaries SPA • Ribble and Alt Estuaries Ramsar • Bowland Fells SPA • Bowland Fells SSSI • Isles of Scilly SPA • Flamborough and Filey Coast SPA • Flamborough and Filey Coast SSSI 1.7.2. The MMO defers to NE on all matters related to HRA. The MMO will maintain a watching brief on these matters and will ensure we are included/are provided updates on any discussions in relation to the HRA. The MMO highlights that any mitigation secured through the HRA will need to be included within the conditions on the deemed marine licence. 1.7.3. The MMO notes NE's decision to use the 'Red Amber Green' (RAG) system to denote the level of risk associated with a topic related to this development. The MMO welcomes NE's use of this system and considers it a clear and concise way to present the severity of an outstanding concern. 1.7.4. The MMO acknowledges concerns raised by NE regarding seascape, landscape, and visual impacts. The MMO defers fully to NE and the LPA on this topic but will keep a watching brief throughout examination and hope to see concerns resolved. <u>Development Consent Order and Deemed Marine Licence</u> 1.7.5. The MMO is aware of NE concerns regarding the DCO and DMLs not accurately capturing all the required maximum parameters of the proposed works, and agrees that the Applicant should update the DCO and DMLs to ensure maximum parameters of all important metrics are appropriately secured.	

Reference	Written Representation Comment	Applicant's response
	1.7.6. The MMO agrees to support NE's view that due to the increasing complexity of construction of large offshore works, the proposed four months consultation on preconstruction documentation is no longer considered an appropriate period, and the DML should be amended to allow for documents to be submitted at least six months prior to commencement. The MMO has provided more comments within Section XX of this document. 1.7.7. The MMO agrees that the DML should be updated to include an appropriate requirement to provide an updated Offshore Operations and Maintenance Plan (OOMP). 1.7.8. The MMO also agrees that monitoring of benthic, ornithological and marine mammals should be secured through appropriate conditions. <u>Offshore Ornithology</u> 1.7.9. The MMO notes NE'S major concerns that the Cumulative Effects Assessment (CEA) does not appear to be sufficiently robust. NE advise that the Round 4 Irish Sea windfarms should be using the same data to conduct their cumulative and in combination assessments and urge collaboration on this aspect. The MMO defers to NE for matters relating to ornithology. 1.7.10. NE raised further concerns regarding Collision Risk Modelling (CRM), displacement assessments and subsequent apportioning undertaken. The MMO acknowledges NE concerns regarding lack of clarity on results of assessments and their interpretation. The MMO defers to NE for matters relating to ornithology and supports NE's request to update the assessments as required. <u>Marine Mammals</u>	

Reference	Written Representation Comment	Applicant's response
	1.7.11. The MMO supports NE in recommending that the Applicant commits fully to using Noise Abatement Systems (NAS) as a mitigation measure to reduce both injury and disturbance to marine mammal receptors during construction activities but notes the Applicant's reservation in relation to this. The MMO would highlight that policy is leading to the requirement for all projects to have NAS and would strongly suggest this is taken into account as part of the Application. Physical Processes 1.7.12. The MMO welcomes comments raised by NE relating to coastal processes and welcomes the request for updated assessments to assess the potential risks to designated features. The MMO supports NE in requesting that an updated ES is submitted which includes and assess these pressures/impacts. Fish and Shellfish Ecology 1.7.13. The MMO supports the exclusion of soft start and ramp up methods, contained within the Marine Mammal Mitigation Protocol (MMMP), as appropriate mitigation for fish species. Benthic and Subtidal Ecology 1.7.14. The MMO has noted NE's major concerns that the Applicant has not committed to return the seabed to its original state at the end of the project. Other Plans 1.7.15. The MMO is aware that NE will submit detailed advice on the Offshore In Principle Monitoring Plan (IPMP) at Deadline 1. The MMO will maintain a watching brief of their advice.	
REP1-048.8	**1.8. North West Wildlife Trusts (NWWT) (RR-31)** 1.8.1. The MMO notes that NWWT are supportive of offshore wind generation, however development must not be at the expense of nature.	1.8.1 - The Applicant has acknowledged this point and has responded to NWWT at the procedural deadline in Table 2.31 RR-031.2 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017).

Reference	Written Representation Comment	Applicant's response
	1.8.2. The MMO notes NWWT's disappointment that there is no future monitoring plan embedded within the project for many ecological reports to validate predictions in the ES and inform future projects. 1.8.3. The MMO notes that NWWT has concerns over the 'very large' maximum design parameters and wishes to see more refined parameters to be properly informed. The MMO notes this is the Rochdale Envelope approach but welcomes any further refinement at this stage. 1.8.4. The MMO is aware of the NWWT's concerns regarding the potential for this scheme to have adverse impacts on designated areas whilst not physically passing through designations. The MMO further notes that NWWT expect designated sites that are close to the site to be fully considered, particularly those that fall within the Zone of Impact (ZOI), within assessments and that suitable mitigation should be proposed. The MMO defers to NE on these matters. 1.8.5. The MMO notes NWWT's concerns over the possible disturbance, displacement and barrier effects on sensitive receptors, particular black-legged kittiwake and northern gannet, and their expectation of a full cumulative impact assessment to be undertaken, including consideration of transboundary impacts. The MMO defers to NE on these matters. • The MMO further notes that NWWT raised concerns regarding the potential for significant barrier effects resulting from the 'belt' of wind farms that will exist from the Isle of Man down to Wales.	1.8.2 - The Applicant has responded to NWWT's comments on monitoring plans in Table 2.31 RR-031.6 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017). 1.8.3 - The Applicant has responded to NWWT comments on the maximum design parameters in Table 2.31 RR-031.7 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017) and while the Applicant remains committed to refining design parameters wherever feasible, it must maintain flexibility to account for the unknown final design, including the precise location of the WTGs and cable routes, and the dynamic nature of seabed conditions. 1.8.4 - The Applicant has responded to NWWT's comments regarding designated sites in Table 2.31 RR-031.8 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017) and notes that MMO defers to NE on these matters.

Reference	Written Representation Comment	Applicant's response
REP1-048.9	**1.9. Royal Society for the Protection of Birds (RSPB) (RR-35)** 1.9.1. The MMO notes RSPB's significant concerns regarding findings from impact assessments and considers that Adverse Effect on Integrity (AEOI) cannot be ruled out for collision impacts arising through the project alone and in combination with other projects. 1.9.2. The MMO acknowledges that the RSPB's key concerns with the impact assessment relate to: • Manx Shearwater: Baseline characterisation and Potential Impacts arising through collision • Gannet: the application of a macro-avoidance correction factor to baseline densities for collision risk modelling • Flight speeds used as parameters in collision risk modelling • Methodology for assessment of cumulative/in-combination impacts • Ecosystem impacts: a lack of consideration of impacts compounded by Highly Pathogenic Avian Influenza. The MMO will maintain a watching brief of these concerns and will look to see resolution on these points. The MMO defers to NE for matters relating to ornithology.	1.9.1 - The Applicant has responded to RSPB's comments relating to the findings from impact assessments in Table 2.35 and RR-035.7 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017). 1.9.2 - The Applicant has responded to RSPB's key concerns in Table 2.35 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017). The applicant notes that the MMO defers to NE for matters relating to ornithology (refer to REP1-048.7).
REP1-048.10	**1.10. UK Chamber of Shipping (UKCOS) (RR-41)** 1.10.1. The MMO notes UKCOS support of the Government's obligations to achieve Net Zero Carbon by 2050 and welcomes the development of offshore renewable energy to succeed in this obligation. 1.10.2. The MMO acknowledges the UKCOS stance in seeking to ensure navigational safety is upheld, and that developments are appropriately positioned to enable existing and future commercial navigation to continue safely and efficiently.	1.10.1 - The Applicant acknowledges this and has responded to UKCoS at the procedural deadline in Table 2.41 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017). 1.10.2 - The Applicant acknowledges this and has responded to UKCoS at the procedural deadline in Table 2.41, RR-041.3, in S_PD_3 Applicant's Response to Relevant Representations (PD1-017). 1.10.3 - UKCoS have been closely involved in the planning process for Morgan Generation Assets. The Applicant has responded to comments raised by UKCoS, refer to Table 2.41, RR-041.4, in S_PD_3 Applicant's Response to Relevant Representations (PD1-017). The Applicant notes that the UKCoS's initial concerns have now been addressed with the revision of the Red Line Boundary and are continuing to engage with the Applicant on other cumulative impacts and mitigation measures.

Reference	Written Representation Comment	Applicant's response
	1.10.3. Further to this the MMO is aware of UKCOS' concerns in finding that the development, as initially presented, is unacceptable on grounds of navigation safety in isolation and cumulatively, and that UKCOS has advocated for enhanced mitigation measures. 1.10.4. The MMO notes that the UKCOS has welcomed the amendment of the Red Line Boundary to take in account of navigational safety concerns for national and international scheduled services. 1.10.5. The MMO is aware that there remain ongoing concerns relating to deviation, scheduling and negative environmental impact upon the shipping industry from the revised boundaries, along with potential negative economic impact to island communities which need full consideration. 1.10.6. The MMO welcomes the UKCOS' request to provide further representation in the area of navigational safety and impact upon commercial routeing at Examination and will maintain a watching brief for anything that may need to be included within the DML.	1.10.4 - The Applicant has noted this comment and has responded to UKCoS on this point in Table 2.41 RR-041.4 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017). 1.10.5 - The Applicant has responded the concerns by UKCoS in Table 2.41 RR-041.4 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017) and submitted a Statement of Common Ground (SoCG) between the Applicant and UKCoS at Deadline 1 where these concerns are addressed S_D1_CoS Statement of Common Ground between Morgan Offshore Wind Limited and UK Chamber of Shipping (REP1-030). 1.10.6 - The Applicant notes that MMO will maintain a watching brief over navigational safety and impact upon commercial routing. All matters shall be covered in Vessel Traffic Management Plan, an outline of which was submitted at application (APP-071) and there should be no requirement for additional conditions to be added to the dML.
REP1-048.11	**2. Comments on Pre-Examination Procedural Deadline Submissions** **2.1. PD1-006 Applicant's response to Relevant Representation from Marine Management Organisation: Fish and Shellfish 4.6.5 (Annex 3.1)** 2.1.1. The MMO acknowledges the submission of this response and will provide further comment at Deadline 2.	This response is noted by the Applicant.
REP1-048.12	**2.2. PD1-007 Applicant's response to Relevant Representations from Marine Management Organisation (RR-020): Underwater Sound (Annex 3.2)** 2.2.1. The MMO acknowledges the submission of this response regarding the maximum design scenario and subsequent mitigation and will provide further comment at Deadline 2.	This response is noted by the Applicant.

Reference	Written Representation Comment	Applicant's response
REP1-048.13	**2.3. PD1-008 Applicant's response to Relevant Representation from Marine Management Organisation: Fish and Shellfish 4.6.12 (Annex 3.3)** 2.3.1. The MMO acknowledges the submission of this response and will provide further comment at Deadline 2.	This response is noted by the Applicant.
REP1-048.14	**2.4. PD1-017 Applicant's Response to Relevant Representations** 2.4.1. The MMO welcomes the submission of this response, specifically Table 2.20 which refers to the Applicant's response to MMO comments raised in the MMO's Relevant Representation (RR-020). The MMO has provided comments in the following table (table 1) and will provide further comments at Deadline 2.	This response is noted by the Applicant with thanks.
REP1-048.15	(RR-020.2) **MMO's Deadline 1 response** The MMO maintains the position that a document showing compliance with all plans is submitted as even those that are not applicable need to be revised to show that each policy has been assessed. The MMO has reviewed the Planning Statement (J2) and has identified that the following policies within the North West Offshore Marine Plan Policy have not been assessed for compliance: NW-ACC-1, NW-AGG-3, NW-AQ-2, NW-CAB-2, NWCC-1, NW-CCUS-1, NW-CCUS-2, NW-CCUS-3, NW-DD-3, NW-DEF-1, NW-FISH-1, NW-INNS-2, NW-ML-1, NW-ML-2, NW-MPA-2, NW-MPA-3, NWMPA-4, NW-OG-2, NW-PS-4, NW-UWN-1	Please see the Applicant's response in S_D2_3.1 Annex 3.1: Annex to Applicants response to MMO.
REP1-048.16	(RR-020.3) Please see response to RR-020.2 above.	Please refer to REP1-048.15.
REP1-048.17	(RR-020.5) The MMO's general position is that UXO activities are sought within a separate marine licence due to the nature of the impacts. The MMO is currently discussing the inclusion of the UXO clearance within the DML and will provide further comments in due course. The MMO is content for the UXO investigation activities	The Applicant welcomes the MMOs response that including UXO investigation activities in the dML is acceptable. Please see RR-20.5 in the S_PD_3 Applicant's Response to Relevant Representations (PD1-017). UXO Clearance Condition 23 of each dML sets out as a separate activity that no removal or detonation of UXO can take place until various documents have been submitted to and approved by the MMO, including a method statement for UXO clearance and a marine mammal mitigation protocol (MMMP).

Reference	Written Representation Comment	Applicant's response
	to be included and recommend this is a clearly identifiable activity within the DML. If the ExA and SoS are minded to include UXO clearances the DML should be updated to ensure these activities are set out as a separate activity taking into account activities 10-13 under section 66(1) (licensable marine activities) of the 2009 Act. This would also include any lift and shift opportunities. The MMO also requests the number of UXOs to be fully assessed at this stage and the maximum number to be included within the DML. The MMO has reviewed the Underwater Sound Management Strategy (Document reference J13) which indicates a maximum UXO clearance number of 13. The MMO requests clarification on this number.	Having regard to activities 10-13 under section 66(1) of the 2009 Act, the Applicant has included express reference to the clearance of unexploded ordinance as an authorised activity under paragraph 2(e) of each dML within Schedules 3 and 4 of the draft DCO. Regarding the number of UXOs please refer to RR-026.A.7 in the S_PD_3 Applicant's Response to Relevant Representations (PD1-017). Regarding the 13 UXOs predicted to require clearance included in the Outline Underwater Sound Management Strategy (APP-068) please see section 3.5.3 of the Project description (APP-010) which sets out that The Applicant commissioned a study to establish the potential for UXO presence at the Morgan Array Area. Based on the results of this study a conservative estimate of 13 UXO clearance events has been used for the purposes of the assessment, as described in Table 3.3. The Applicant is unable to confirm the final numbers of UXO that may be encountered during construction until detailed surveys are undertaken based on where infrastructure is located, which will take place post consent.
REP1-048.18	(RR-020.6-8) The MMO welcomes this update.	This response is noted by the Applicant.
REP1-048.19	(RR-020.9-16) The MMO notes the Applicant's response and will provide an update at Deadline 2.	This response is noted by the Applicant.
REP1-048.20	(RR-020.23) The MMO notes the Applicant's response and will provide an update at Deadline 2.	This response is noted by the Applicant.
REP1-048.21	(RR-020.24) The MMO notes the Applicant's response and will provide an update at Deadline 2.	This response is noted by the Applicant.
REP1-048.22	(RR-020.25) The MMO does not agree with the Applicant's response. These changes are necessary to ensure that the power to amend or vary is consistent with the requirements of the EIA regime as explained in the case of R. (Barker) v Bromley LBC [2007] 1 A.C. 470. That case concluded that EIA will be required at stages subsequent to an initial grant of consent where those likely significant effects were not identified at the earlier consenting stage. It follows that a mechanism to permit a variation or amendment will not be lawful until it prevents any	The Applicant has updated the draft DCO at Deadline 2 to include the MMO's preferred wording.

Reference	Written Representation Comment	Applicant's response
	possibility of a materially new or different significant environmental effects arising as a result of the variation or amendment.	
REP1-048.23	(RR-020.26-27) The MMO acknowledges the Applicant's comments. The MMO believes a timescale is inappropriate. The MMO has internal Key Performance Indicators (KIPs) which work towards a 13-week turn around. The MMO will never unduly delay but cannot be bound by arbitrary deadlines imposed by the Applicant since this would potentially prejudice other licence applications by offering expediency to the Applicant at the expense of other applications. It is also unclear what consequences would result if this deadline was not met, and how that would impact on the MMO's regulatory function. The MMO would highlight that this has been requested by the MMO since the Hornsea Project Three Offshore Wind Farm Examination. Since this examination, there is even more of a concern that more and more time is being spent working to determine documents submitted. There are a number of instances on projects where the submission at the four or six month date does not include everything that is required or within the outline plans and is more of a compliance requirement to ensure something is submitted in line with the consent. This leads to requests for additional information and multiple rounds of consultation and updates to ensure enough information is provided for the MMO to make a determination. It is becoming increasingly difficult to review the first submission of a document and therefore delays to the determination could cause significant impact to both the MMO and the Applicant. In relation to precedented timescales within other offshore wind DCOs. The MMO, of course, accept that there is a need for consistency in decision making.	The Applicant maintains that the inclusion of timescales within the conditions of the deemed marine licence is justified, as this provides a degree of certainty to the Applicant when it is discharging conditions to allow works to commence. This certainty is important to ensure that the Applicant can meet its construction programme. As is accepted by the MMO, this is well precedented in dMLs for offshore wind farms. The Applicant welcomes the engagement from the MMO and notes the MMO's position with regard to timescales and will continue to engage constructively on this matter with the MMO to reach a pragmatic solution. The Applicant will keep the ExA updated on these discussions as they evolve.

Reference	Written Representation Comment	Applicant's response
	However, a decision maker is not bound by previous decisions and can depart from them where there is good reason to do so. The MMO would reiterate that it does not delay approvals unnecessarily and believes more realistic timescales should be included to allow for the Applicant to account for this within their programming. However, without prejudice to this position the MMO believes that if time scales are included within the DML for plans then these should be six months not four months and is open to discussions on which documents must be six months and which documents could be four months to take into account the concerns that the Applicant may have. The MMO will continue to work with the Applicant to advise on any plans or documents that could have a four month timescale.	
REP1-048.24	(RR-020.28) The MMO believes that 'in accordance' is enough to allow any changes to the operations and maintenance plan. The Outline operations and maintenance plan must have the minimum requirements the MMO and other Interested Parties believe is required at this stage. The inclusion of 'substantially' does not provide any additional requirements of the condition and is a surplus requirement. The MMO would highlight that this has not been used in similar Offshore Wind DCOs recently granted.	The Applicant has updated the draft DCO at Deadline 2 as requested.
REP1-048.25	(RR-020.29) The MMO welcomes this update.	This response is noted by the Applicant.
REP1-048.26	(RR-020.30) The MMO welcomes this update.	This response is noted by the Applicant.

Reference	Written Representation Comment	Applicant's response
REP1-048.27	(RR-020.31) The MMO has noted the Applicants comments and although the condition was included due to 'the impact of that project on sensitive habitats and species.' if monitoring shows an impact higher than predicted within the Environmental statement the MMO may require additional monitoring or mitigation at the post consent stage. The MMO will review the monitoring requirements and condition and provide further updates in due course.	The Applicant refers MMO to the responses to this matter in RR-020.31 of the S_PD_3 Applicant's Response to Relevant Representations (PD1-017), 6.a) in S_D1_3 Hearing Summaries Prelim Meeting and ISH (REP1-004). The Applicant maintains that it does not consider the requirement for monitoring necessary in this case given the lack of benthic habitats or species of importance being recorded within the Morgan Array Area and lack of there being any potential for significant effects. Notwithstanding this, the Applicant has made commitments with regard to specific benthic concerns which are detailed in the responses to Natural England's comments Appendix H1 IPMP REP1-054.26-REP1-054.65 at Deadline 2 (S_D2_3_Morgan Gen_Applicants response to Written Representation_F01). Please also refer to the updated Offshore in-principle monitoring plan (previous reference APP-066) submitted at Deadline 2 (S_D2_9_Morgan Gen_In Principle Monitoring Plan_F02).
REP1-048.28	(RR-020.32) The MMO notes this and will review and provide any additional comments in due course.	This response is noted by the Applicant.
REP1-048.29	(RR-020.33) The MMO has previously requested the removal of this clause. That is because it unnecessarily duplicates the effect of s.86 of the 2009 Act. The MMO is reviewing this response, and will advise whether the condition can remain, or will provide further comment at Deadline 2.	This response is noted by the Applicant.
REP1-048.30	(RR-020.34-93) Where a response is required, the MMO will provide comments at Deadline 2.	This response is noted by the Applicant.
REP1-048.31	(RR-020.94) Nothing further to add.	This response in relation to the OFLCP is noted by the Applicant.
REP1-048.32	(RR-020.95) The MMO acknowledges this comment and will continue to keep a watching brief on the document and consultee responses.	This response in relation to the OFLCP is noted by the Applicant.
REP1-048.33	(RR-020.96) The MMO looks forward to reviewing the updated Plan.	This response in relation to the OFLCP is noted by the Applicant.

Reference	Written Representation Comment	Applicant's response
REP1-048.34	**3. Initial Statements of Common Ground (SoCG)** 3.1. The MMO has worked with the Applicant to prepare a SoCG which will be submitted at Deadline 1. The MMO will continue to work with the Applicant outside of the written process to ensure issues are being moved to resolution where possible.	The Applicant thanks MMO for engaging with the SoCG process and looks forward to working with the MMO to resolve any remaining matters.
REP1-048.35	**4. Comments from ISH1** 4.1. The MMO has reviewed EV2-005 'Action Points Arising from Issue Specific Hearing 1' and will review the documents/updates to be submitted by the Applicant.	This response is noted by the Applicant.
REP1-048.36	4.2. Regarding point five in document EV2-005: *"Provide comments on the appropriateness of a 7-year commencement period in draft DCO Schedule 2, Requirement 1."* The MMO notes this is longer than the standard five years on Offshore Wind Nationally Significant Infrastructure Projects. The MMO will review the Applicant's response but would highlight initial concerns in the accuracy of the information within the Environmental Statement. The MMO uses up to a 5-year maximum standard for information relating to environmental impacts due to the nature in some environments changing over this period.	As noted in paragraph 5.9 of the Explanatory Memorandum [REP1-023], there are a number of other Offshore Wind NSIPS where a seven-year commencement period was included within the DCO as granted, and the applicant would therefore not consider there to be a set 'standard' of five years. 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.
REP1-048.37	**5. Notification by Statutory Parties of their wish to be considered as an IP by the ExA 5.1.** The MMO wish to be considered as an interested party by the ExA.	This response is noted by the Applicant.
REP1-048.38	**6. Notification of wish to have future correspondence received electronically** 6.1. The following people request future correspondence to be received electronically: [redacted]@marinemanagement.org.uk [redacted]@marinemanagement.org.uk [redacted]@marinemanagement.org.uk	This response is noted by the Applicant.

2.6 Maritime and Coastguard Agency

Table 2.6: REP1-051 Maritime and Coastguard Agency.

Reference	Written Representation Comment	Applicant's response
REP1-051.1	**Deadline 1 – Written Representation** The Maritime and Coastguard Agency (MCA) is an Executive Agency of the Department for Transport and is responsible throughout the UK for implementing and developing the UK Government's maritime safety and environmental protection policy. This includes co-ordinating maritime Search and Rescue (SAR) through His Majesty's Coastguard 24 hours a day, and checking that ships meet UK and international safety rules. The MCA works to prevent the loss of lives on the coast and at sea, to ensure that vessels are safe, and to prevent coastal pollution. The UK Technical Services Navigation Branch is responsible for UK radiocommunication and navigation policy. This primarily covers SOLAS Convention (Safety of Life at Sea Convention 1974, as amended) Chapters IV and V; the COLREG Convention (International Regulations for Preventing Collisions at Sea 1972, as amended); and the ITU Convention (International Telecommunications Convention 1932, as amended). The Navigation Risk Assessment (NRA), the Shipping and Navigation chapter of the Environmental Impact Report and draft DCO have been reviewed and we would like to comment as follows:	The Applicant notes this response. The Applicant has a Statement of Common Ground (SoCG) with the MCA, which has been submitted at Deadline 2 (S_D2_MCA SoCG MCA). This initial SoCG covers all aspects of the MCA's remit.
REP1-051.2	**F4.7.1 Environmental Statement Volume 4, Annex 7.1 Navigation Risk Assessment (APP-060) and F2.7 Environmental Statement Volume 2, Chapter 7 Shipping and Navigation (APP-025).** Morgan Offshore Wind Limited has undertaken a detailed Navigation Risk Assessment (NRA) in accordance with MCA guidance MGN (Marine Guidance Note) 654 and NRA risk assessment methodology. We are satisfied that appropriate traffic data has been collected in accordance with MGN654, which includes four 14-day marine vessel traffic surveys in November	The Applicant welcomes the MCA's confirmation that the NRA has been undertaken in accordance with MCA MGN654. The methodology, consultation and data collection for Volume 2, Chapter 7: Shipping and navigation (APP-025) and Volume 6, Annex 7.1: Navigation Risk Assessment (APP-060) have been agreed with the MCA, as documented in the SoCG submitted at Deadline 2 (S_D2_MCA SoCG MCA).

Reference	Written Representation Comment	Applicant's response
	2021, July 2022, May 2023 and November 2023, supplemented by 12 months of AIS data from both 2019 and 2022. Key and appropriate stakeholders were identified, and the MCA is content that suitable consultation took place via two hazard identification workshops, dedicated meetings and navigational simulation sessions. A completed MGN654 Checklist has been provided as part of the NRA, and we are content the recommended NRA process has been followed.	
REP1-051.3	**1. Navigable sea room, collision and allision risks** Following extensive consultation from the applicant with key stakeholders which included a multi-day HAZID workshop and navigational simulation exercises to assess the affect the development may have on shipping, in particular ferry routes, some navigational safety risks were found to be unacceptable. This led to a decision by the applicant to reduce the northern boundary to increase the sea room between Morgan and Walney wind farms to 4.3NM at its narrowest point. The northern boundary of Mona was also amended to increase the space between Morgan and Mona to 6NM. Through further assessment and consultation, including additional bridge simulation exercises and a second HAZID workshop, the refined Red Line Boundary and risk controls reduced the perceived collision and allisions risk to tolerable levels.	The Applicant notes this response and that the refined Red Line Boundary and risk controls reduce collision and allisions risk to tolerable levels. This is agreed with the MCA as documented in the SoCG submitted at Deadline 2 (S_D2_MCA SoCG MCA).
REP1-051.4	**2. Shipping and Navigation Mitigation Measures** The list of applied (embedded) risk controls in Table 1.9 of the NRA and adopted additional risk controls in Table 1.42 of the NRA, are appropriate for reducing safety risks to As Low As Reasonably Practicable (ALARP). It should be noted that the requirement for an Emergency Response Cooperation Plan (ERCoP), as referenced in Table 7.17 of the ES Chapter 7 Shipping and Navigation, will be secured in the Deemed Marine Licence under the condition for complying with	The Applicant notes this response and confirms that the findings of Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060) have been agreed with the MCA as part of the initial SoCG submitted at Deadline 2 (S_D2_MCA SoCG MCA). The clarification of the means of securing the ERCoP is noted. With regards to the MCA's comment the draft DCO submitted at Deadline 1 (REP1-051.24) (C1 Draft Development Consent Order F02 (AS-003)) does not include a specific condition relating to the ERCoP and reference is made to compliance with MGN654 as part of Condition 25 'Offshore safety management' of the deemed marine licences (Schedules and 4 of the draft DCO).

Reference	Written Representation Comment	Applicant's response
	MGN654. There will not be a specific condition for the completion of an ERCoP.	
REP1-051.5	**3. Layout Design** The turbine layout design must be compliant with MGN654 and it will require MCA and Trinity House approval prior to construction to minimise the risks to surface vessels, including rescue boats, and search and rescue aircraft operating within the site. MCA will seek to ensure all structures are aligned in straight rows and columns with a minimum of two lines of orientation. The layout principles in F1.3 Environmental Statement - Volume 1, Chapter 3 Project Description (APP-010) for two lines of orientation and a minimum 1400m spacing between structures (NRA paragraph 1.8.9.3) are recognised and welcomed for reducing risks to mariners and SAR aircraft.	The draft DCO (Document Reference C1 F02 (REP1-021)) has been updated at Deadline 3 to include within Condition 20(1)(a), Part 2, Schedules 3 and 4 (Pre-construction plans and documentation) reference to a design plan being submitted to MMO in consultation with Trinity House and the MCA in accordance with the layout principles. A new definition of layout principles has been added to the paragraph 1 of each deemed marine licence within the draft DCO to refer to the Environmental Statement - Volume 1, Chapter 3: Project Description (APP-010). The layout principles will therefore be taken into account when the final design plan is being prepared, including the commitment to two lines of orientation along with all the other layout principles. Condition 20(1)(a)(ii) retains the obligation for the layout of the wind turbine generators being in accordance with MGN654.
REP1-051.6	**4. Marking and Lighting.** MCA will seek to ensure the turbine numbering system follows a 'spreadsheet' principle and is consistent with other windfarms in the UK. All lighting and marking arrangements will need to be agreed with MCA and Trinity House. The MCA requires all aviation lighting to be visible 360° and compatible with night vision imaging systems, as detailed in CAP 764 and MGN654 Annex 5.	The Applicant notes this response and confirms that this is secured as part of Condition 20(1)(g) (aids to navigation management plan) and Condition 25 (offshore safety management) of the deemed marine licences (Schedules 3 and 4 of the draft DCO submitted at Deadline 1 (C1 Draft Development Consent Order F02).
REP1-051.7	**5. Emergency Response and Search and Rescue.** There is an expectation that the presence of wind farms will increase the likelihood of the requirement for emergency response, not just from navigational incidents but from other incidents such as medical evacuation or pollution. A SAR checklist based on the requirements in MGN654 Annex 5 will need to be completed in agreement with MCA before construction starts. This will include the requirement for an approved Emergency Response Co-operation Plan (ERCoP). The NRA outlines the most likely incidents which may result in a required emergency response though does	The Applicant notes this response and confirms that this mitigation associated with Search and Rescue is secured as part of Condition 20 (Pre-construction plans and documentation) and Condition 25 (offshore safety management) of the deemed marine licences (Schedules 3 and 4 of the Draft DCO submitted at Deadline 2 (S_D2_7 Draft Development Consent Order F04). Both Sections 1.8 and 1.9 of Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060) provide a detailed assessment of the likelihood and consequences of different hazardous scenarios which might necessitate a Search and Rescue response. Whilst the presence of personnel working as part of the Morgan Generation Assets during construction, operations and maintenance and decommissioning may result in an increase in Search and Rescue demand, sufficient mitigation will be put in place to manage this. This mitigation will be defined post consent, when the final design is established and the specifics of the construction and operations and maintenance activities are confirmed. As identified within

Reference	Written Representation Comment	Applicant's response
	not fully consider the additional demand likely caused by the presence of personnel offshore, as has been experienced from some other windfarms of comparable size. Since the operations and maintenance strategy is not yet clear or the type of vessels utilised (e.g. crew transfer vessels or service operations vessels), it is difficult to determine what resource and capability will be on site and what the availability of this will be at this stage. There may be situations requiring a SAR response where project vessels are unavailable due to weather or crew rotation etc. It should be noted that the presence of a windfarm diminishes the SAR capability and even with an MGN654 compliant layout, there are still no guarantees of an effective SAR response and therefore consideration should be given as to how the windfarm will mitigate this reduction.	Paragraph 1.8.10.6 of the NRA (APP-060), it is likely that the first responders to any incident would be Morgan Generation Assets vessels avoiding the need for separate SAR presence. These vessels will have appropriate rescue and medical capability and will be set out within the ERCoP, secured as part of Condition 25 of the deemed marine licences (Schedules 3 and 4 of the draft DCO (AS-003)). Notwithstanding these points, whilst it is recognised that the Morgan Generation Assets may reduce Search and Rescue capability within the eastern Irish Sea, the Morgan Generation Assets has committed to both two lines of orientation and minimum spacing of 1,400 m between infrastructure which greatly exceed industry best practice set out in MGN654 Annex 5. On occasions where there are no Morgan Generation Assets vessels within the Morgan Array Area, these commitments would facilitate safe and effective Search and Rescue missions. Therefore, the Applicant believes that the above measures will ensure impacts to Search and Rescue are reduced to As Low As Reasonably Practicable.
REP1-051.8	During SAR discussions, particular consideration will need to be given to the implications of the site size and location. Attention should be paid to the level of radar surveillance, AIS and shore-based VHF radio coverage and give due consideration for appropriate mitigation such as radar, AIS receivers and in-field, Marine Band VHF radio communications aerial(s) (VHF voice with Digital Selective Calling (DSC)) that can cover the entire wind farm site and surrounding areas. It would have been helpful for the NRA to consider radio reception interference caused by larger turbines; however we would expect radio surveys to be conducted pre-construction and post-construction to confirm and compare levels of coverage. It will also be expected to discuss the provision of AIS and VHF capability to the MCA with direct access to HM Coastguard systems.	The Applicant notes this response and notes that Section 1.8.12 of Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060) states that previous studies have not identified any significant adverse impacts on radio reception from offshore wind farms. The Applicant is unaware of any specific evidence to challenge this. The Applicant confirms that the mitigation associated with Search and Rescue and communications will be secured as part of Condition 25 of the deemed marine licence (Offshore safety management) (Schedules 3 and 4 of the draft DCO submitted at Deadline 2 (C1 Draft Development Consent Order F04)). As part of this the Applicant confirms that the requirement for and nature of radio surveys as part of the Search and Rescue Checklist will be discussed with MCA through engagement on the SoCG. The Applicant would not object to provision of access to HM Coastguard to AIS or VHF coverage, providing this can be achieved technically and without creating a security risk. Applicant will discuss this matter with the MCA through engagement on the SoCG.
REP1-051.9	Paragraph 1.5.4.4 (and 4.4.3.1.1 of the CRNRA) confirms that SOLAS obligations require vessels to respond to persons or vessels in distress. It should be noted that vessels should only respond if they are safely able to do so and the presence of turbines may	The Applicant notes this response and confirms that Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060) was undertaken in consideration with the relevant sections of SOLAS.

Reference	Written Representation Comment	Applicant's response
	preclude the vessel's ability to safely respond to those in distress.	
REP1-051.10	Paragraph 1.8.9.4 summarises helicopter response times and it should be noted that tasking times are likely quicker that the 30-minute approximation although it is longer between the hours of 2200 and 0800.	Paragraph 1.8.10.4 of APP-060 summarises the helicopter response times. The Applicant suggested that 30 minutes was an average response time, recognising that in some situations there will be variation such as when the helicopter is already airborne or undergoing refuelling.
REP1-051.11	The CRNRA identifies 1300 charted wrecks in the cumulative study area which could pose a risk of releasing pollution over time and this may require an environmental response. Within the boundaries of a windfarm, emergency response becomes more complex and this must be considered in the Marine Pollution Contingency Plan.	The Applicant notes this response and confirms that the preparation of a Marine Pollution Contingency Plan is secured under Condition 20(1)(e)(i) in the deemed marine licences (Schedules 3 and 4 of the draft DCO submitted at Deadline 2 (C1 Draft Development Consent Order F04)).
REP1-051.12	**6. Construction scenarios.** We would expect to see some form of linear progression of the construction programme avoiding disparate construction sites across the development area, and the consent needs to include the requirement for an agreed construction plan to be in place ahead of any works commencing.	The Applicant notes this response and confirms that construction will only occur within the buoyed construction area as set out in the Aids to Navigation Management Plan which will be prepared post-consent and is secured under Condition 20(1)(g) of the deemed marine licences (Schedules 3 and 4 of the draft DCO (AS-003)). A construction programme and a construction method statement will also be prepared which are also secured under Condition 20(1)(b) and Condition 20(1)(d) respectively within Schedules 3 and 4 of the draft DCO submitted at Deadline 2 (C1 Draft Development Consent Order F04).
REP1-051.13	**7. Cable Routes.** Cable routes, cable burial protection index and cable protection are issues that are yet to be fully developed. However due cognisance needs to address cable burial and protection, particularly close to shore where impacts on navigable water depth may become significant. Any consented cable protection works must ensure existing and future safe navigation is not compromised. If cable protection measures are required e.g., rock bags or concrete mattresses, the MCA would accept a maximum of 5% reduction in surrounding depth referenced to Chart Datum. This will be particularly relevant where depths are decreasing towards shore and potential impacts on navigable water increase.	The Applicant notes this response and confirms that an 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 2 (C1 Draft Development Consent Order F04). The condition limits the height of cable protection exceeding five percent navigable depth without prior written approval from the Licensing Authority in consultation with the MCA.

Reference	Written Representation Comment	Applicant's response
REP1-051.14	Should HVDC cables be installed, consideration must be given to the effect of electromagnetic deviation on ships' compasses. The MCA would be willing to accept a three degree deviation for 95% of the cable route. For the remaining 5% of the cable route no more than five degrees will be attained. We would expect the applicant undertake a desk based compass deviation study based on the specifications of the cable lay proposed and assess the effect of EMF on ship's compasses. MCA may request for a deviation survey post cable installation which will confirm conformity with the consent condition. The applicant should then provide this data to UKHO via a hydrographic note (H102), as they may want a precautionary notation on the appropriate Admiralty Charts (actions at a later stage depending upon the desk-based study and post installation deviation survey).	The cable envelope for the inter-array and interconnector cables only includes for High Voltage Alternating Current (HVAC) cables. High Voltage Direct Current (HVDC) cables will not be installed.
REP1-051.15	**8. Safety Zones.** The requirement and use of safety zones as detailed in the application is noted, and MCA will comment on the safety zone application once submitted. Safety zones during the construction, maintenance and decommissioning phases are supported. A detailed justification would be required for a 50m operational safety zone, with significant evidence from the construction phase in addition to the baseline NRA required supporting the case. Safety zones triggered by a Service Operation Vessel connecting to a wind turbine will not be supported	The Applicant notes this response. As set out in the Safety Zone Statement (APP-106), during the operations and maintenance phases, the Applicant only intends to apply for safety zones of 500 m around infrastructure where major maintenance works are being undertaken (for example a blade replacement). This application will be made to the Secretary of State for DESNZ. Safety zones around service operation vessels connecting to a wind turbine generator or 50 m safety zones around infrastructure not undergoing major maintenance have not been proposed.
REP1-051.16	Additional minor comments on F4.7.1 Environmental Statement Volume 4, Annex 7.1 Navigation Risk Assessment (APP-060) **Section:** Table 1.1 **Comment: T**he NPS EN-3 paragraph references need correcting e.g. 2.8.178 should read 2.8.168 and 2.8.179 should read 2.8.169 etc.	The Applicant notes that it has referenced National Policy Statements updated in November 2023 in Table 1.1 and Table 1.2 of Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060). The paragraph references noted by the MCA are from an earlier consultation draft. The references in APP-060 are therefore correct.

Reference	Written Representation Comment	Applicant's response
REP1-051.17	Additional minor comments on F4.7.1 Environmental Statement Volume 4, Annex 7.1 Navigation Risk Assessment (APP-060) **Section:** 1.8.10.1 **Comment:** The ERCoP facilitates information sharing between the OWF and HMCG.	The Applicant notes this clarification.
REP1-051.18	Additional minor comments on F4.7.1 Environmental Statement Volume 4, Annex 7.1 Navigation Risk Assessment (APP-060) **Section:** 1.9.3.6 **Comment:** Risks are defined as Broadly Acceptable, Tolerable (if ALARP), and Unacceptable or Intolerable.	The Applicant notes this typographic error and as per Table 1.33 of Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060), hazards were scored against each of these three levels. This has been included in the updated Errata document submitted at Deadline 2 (S_D2_6 Errata F03)
REP1-051.19	Additional minor comments on F4.7.1 Environmental Statement Volume 4, Annex 7.1 Navigation Risk Assessment (APP-060) **Section:** 1.5.4.1 & CRNRA 4.4.1.1.1 **Comment:** Coastguard Operations Centres (CGOC) have been replaced by Maritime Rescue Coordination Centres (MRCC).	The Applicant notes this clarification.
REP1-051.20	**9. Cumulative impacts** We welcome the further work by the project in regard to the Cumulative Regional Navigation Risk Assessment (CRNRA). MCA concerns raised in response to the PEIR dated 31 May 2023 regarding the cumulative impacts of the neighbouring Mona and Morecambe windfarms have been addressed by the boundary changes as referred to in 1.10.1.7. We are content that these changes have resulted in the unacceptable safety risks identified in the section 42 response being reduced to '*Medium Risk – Tolerable if ALARP*', as stated in 1.11.1.19.	The Applicant notes this response and confirms that the findings of the cumulative assessment on navigational safety were agreed with the MCA as part of the initial SoCG submitted at Deadline 2 (S_D2_MCA Morgan Gen_SoCG_MCA).
REP1-051.21	However, the proposed Mooir Vannin in Isle of Man waters would reduce the sea space between the southern boundary and northern boundary of Morgan to 2.6NM. A separate assessment has been conducted and included in the CRNRA as Appendix D which	The Applicant notes the response on the cumulative risks by the MCA and notes agreement with the findings of the CRNRA Appendix D (APP-060) and hazard workshop (attended by MCA) and SoCG with the MCA submitted at Deadline 2 (S_D2_MCA SoCG MCA). However, the Applicant does not believe that it would be appropriate to suggest further mitigation for the following reasons:

Reference	Written Representation Comment	Applicant's response
	concludes that collision and allision risks would be unacceptable, particularly for the passenger route between Heysham and Douglas. It is noted that the scoping report for Mooir Vannin was issued in October 2023 and the planning timeline is behind the planning timeline for Morgan. We would expect Morgan and Mooir Vannin to reach agreement for increasing the sea space between the two sites to ensure the navigation risks are tolerable.	1. The Applicant has followed due process with the assessment of cumulative effects: a. Due to the spatial and temporal overlap between the Morgan Offshore Wind Project, Mona Offshore Wind Project and Morecambe Offshore Windfarm (the "Round 4 Projects"), the developers collaborated to address shipping and navigation impacts. This included the CRNRA (APP-060), conducting navigation simulations and joint hazard workshops. b. During the shipping and navigation assessments undertaken to support PEIR during 2022, it was noted that an agreement for lease had been awarded to Orsted in 2015 for an area of seabed in Isle of Man territorial waters but no further information was available, nor was a Scoping Report issued publicly. As such it was treated as a Tier 3 Project as per the Planning Inspectorate's Advice Note Seventeen. There was, therefore, insufficient information for the Applicant to assess cumulative impacts on navigation. c. Based on the findings of the PEIR where unacceptable impacts to navigation safety were identified, in January 2023 the Round 4 Projects announced amendments to the Red Line Boundaries which were assessed throughout 2023. d. A Scoping Report was issued on 18 October 2023 by Mooir Vannin Offshore Wind Farm Limited, after completion of the CRNRA (APP-060), navigation simulations and hazard workshop to inform the Environmental Statement. Noting the late stage at which information was provided, the Applicant endeavoured to include the Scoping Boundary of the Mooir Vannin Offshore Wind Farm as a Tier 2 Project within its Application. However, this information was provided long after the Round 4 Projects proposed mitigation had been formulated and subsequently agreed with stakeholders to be sufficient to address cumulative effects on navigation safety, as recognised in the SoCG with the MCA submitted at Deadline 2 (S_D2_MCA_Morgan Gen_SoCG_MCA). e. There remains insufficient information on the Mooir Vannin Offshore Wind Project to meaningfully address further cumulative effects. Since the Scoping Report was issued in October 2023, only a minor update has been provided on their website in June 2024 (https://orsted.im/mooirvannin/document-library). The Applicant expects the full Environmental Assessment, including the finalised project design, to not be submitted until March 2025 as per the Mooir Vannin Offshore Wind Farm Limited's response to ExQ1 at Deadline 3 for the Mona Offshore Wind Project. The Applicant notes this will be at or near the close of this Examination and will have limited time to review and respond.

Reference	Written Representation Comment	Applicant's response
		2. The Applicant has already reduced the spatial extent of the Morgan Array Area to address unacceptable risks to shipping and navigation between the Morgan Array Area and Walney wind farms identified at PEIR, with the area of the Morgan Array Area reducing from 322 km^2 to 280 km^2. Whilst this Red Line Boundary refinement was taken to improve navigational safety between the Morgan Array Area and Walney wind farms, it incidentally increased the searoom between what would subsequently become the Scoping Boundary of the Mooir 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 their project and take this into account in their assessment and mitigation of cumulative effects on shipping and navigation. 3. Mooir Vannin Offshore Wind Farm Limited will be 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 Orsted as described in Appendix E of the Technical Engagement Plan (APP-093). The Applicant therefore expects that Mooir 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. Within their responses to ExQ1 at Deadline 3 for the Mona Offshore Wind Project, Mooir Vannin Offshore Wind Farm Limited indicated that they have undertaken a preliminary assessment of both project alone and cumulative effects on shipping and navigation in accordance with the relevant guidance. Whilst this has been shared with consultees (operators and regulators) and feedback sought during July and August 2024, the Applicant has had no sight of these assessments and it is not aware of its conclusions. The Applicant notes that it will be invited to the hazard workshop for the Mooir Vannin Offshore Wind Farm scheduled for Q4 2024. The Applicant expects to be provided with further information on the Mooir Vannin Offshore Wind Farm design in the lead up to this workshop and will update the Examining Authority where appropriate.
REP1-051.22	There also remains a concern that the in-combination effects of the Mona, Morgan, Morecambe and Mooir Vannin offshore wind farms will have significant impacts to ferry operations in the Irish Sea. Whilst this is more of a commercial issue MCA is an executive agency of the Department for Transport and we are concerned with the economic impacts on the nationally and internationally important ferry routes in the Irish Sea and whether these services will remain commercially viable with the necessary deviations.	The Applicant notes this response and confirms that the findings of the cumulative assessment on impacts to commercial operators (including ferries) were agreed with the MCA as part of the initial SoCG submitted at Deadline 2 (S_D2_MCA Morgan Gen_SoCG_MCA). Impacts on Stena Line and Isle of Man Steam Packet Company in both typical and adverse weather conditions were highlighted within Volume 2, Chapter 7: Shipping and navigation (APP-025) as moderate adverse and thus significant within the EIA. The Applicant is engaging with the affected operators on the residual impacts and will continue to do so through the Examination phase of the Morgan Generation Assets. This has been confirmed through SoCG with Stena Line (REP1-040) and Isle of Man Steam Packet Company (REP1-033) submitted at Deadline 1.

Reference	Written Representation Comment	Applicant's response
REP1-051.23	**C1 Draft Development Consent Order (APP-005)** MCA contact details in Schedules 3 and 4 should be amended to: Maritime and Coastguard Agency UK Technical Services Navigation Spring Place 105 Commercial Road Southampton SO15 1EG Email: navigationsafety@mcga.gov.uk	The Applicant notes this response and has made this update in the dDCO submitted at Deadline 2 (C1 Draft Development Consent Order F04).
REP1-051.24	**Schedules 3 and 4, Part 2:** • Condition 15(7)(a) should be amended to "at least 14 days prior to commencement…", as per the standard notification period to Kingfisher Information Service. • Condition 15(8) should be amended to "…local notification to mariners is issued at least 14 days…", as per the standard notification period for notifications. • Condition 20(a)(ii) allows for up to 125m turbine or platform micrositing which is a significant increase from the standard 50m. Such an increase has not been discussed and is a concern to MCA as there are potential impacts on SAR access and operations.	The Applicant notes the MCA's comments on Condition 15(7)(a) and Condition 15(8) and has made this update to 14 days in the dDCO submitted at Deadline 2 (C1 Draft Development Consent Order F04). With regards to Condition 20(a)(ii), the Applicant notes the MCA's concern with regards to an increase from 50m to 125m for micrositing and how this could impact SAR access and operations. Whilst it is necessary to have the provision to microsite the turbines to account for unknown ground conditions that could not be identified through survey, the likelihood of needing to microsite post-approval of the design plan is anticipated to be low as detailed ground investigation work will have fed into the final design plan. It should be noted that the 125 m figure represents the maximum extent of micrositing, and it is likely that where micrositing is required, it would be at much smaller distances. Moreover, the likelihood of two adjacent infrastructure locations both requiring micrositing is low. Additionally, the likelihood of the two adjacent locations requiring micrositing towards one another, is even lower. However, were micrositing to be needed, then with 1,400 m minimum spacing and a highly unlikely worst case maximum micrositing scenario of two adjacent infrastructure locations needing to each move 125 m closer to one another, there would still be at least 1,150 m between them, exceeding the requirements of MGN654 Annex 5 and still facilitating safe Search and Rescue access. The Applicant will engage with MCA on this issue through ongoing discussions on the Statement of Common Ground.
REP1-051.25	The comments detailed above are to highlight areas of concern, and items to be addressed by the applicant in consultation with the MCA and navigation stakeholders to ensure the risk to the safety of navigation and the impact on SAR capability remains low.	The Applicant notes this response and is committed to engagement with the MCA and navigation stakeholders to ensure the risk to the safety of navigation and the impact on SAR capability remains low.

2.7 Natural England

Table 2.7: REP1-053 Natural England.

Reference	Written Representation Comment	Applicant's response
REP1-054.1	**Appendix A1 to A11** As submitted by Natural England on 25 July 2024.	The Applicant responded to Natural England's comments at the Procedural Deadline in S_PD_3 Applicant's Response to Relevant Representations (PD1-017) and S_D1_8 Draft Development Consent Order (REP1-021).
REP1-054.2	**Appendix B1 to B55** As submitted by Natural England on 25 July 2024.	The Applicant responded to Natural England's comments at the Procedural Deadline in S_PD_3 Applicant's Response to Relevant Representations (PD1-017), S_D1_4.6 Displacement Rates Clarification Note (REP1-011) and Apportioning clarification note S_D1_4.7 Annex 4.7 to Response to Hearing Action Point 15: Apportioning Sensitivity Analysis (REP1-021).
REP1-054.3	**Appendix C1, C11 & C35** Natural England have concerns on the assessment methodology. We see the issues as follows: • Dual effect categories in the assessment matrix where in certain cases non-significant and significant effects can result from the same combination of magnitude and sensitivity. It is generally accepted that the assessment should follow the precautionary principle thus further justification is needed when lower effect categories are chosen. Or, ideally, dual categories in the matrix should be avoid. • Terminology used to base the conclusions of the assessment is not defined thus there is uncertainty as to what spatial or temporal scale terms such 'short term', 'medium term', long term', "temporary", "small scale", "regional', 'highly localised' mean. The assessment methodology be revised. **Update at Deadline 1** No change.	The Applicant notes that Natural England's Written Representation is as per Natural England's Relevant Representation (RR-026.C.1). The Applicant has responded to the Relevant Representation provided at the Procedural Deadline. Please refer to RR-026.C.1, RR-026.C.11 and RR-026.C.35 within PD1-017.

Reference	Written Representation Comment	Applicant's response
REP1-054.4	**Appendix C2 & C12** Natural England has concerns regarding the conclusion of negligible magnitude for injury and disturbance to marine mammals, especially harbour porpoises, from elevated underwater sound due to piling activities. We note that the assigned magnitude in the previous iteration of the assessment presented at PEIR was low thus we ask for further justification why this score has been downgraded. At PEIR, Natural England stated that "we do not agree that assigned magnitude low is appropriate for Permanent Threshold Shift (PTS) as it is irreversible injury. As per magnitude definition (Table 9.11 …"the impact would lead to permanent effects on individuals"…), the more appropriate score would medium". Revise the assigned magnitude scores in relation to injury and disturbance form piling activity. **Update at Deadline 1** No change	The Applicant notes that Natural England's Written Representation is as per Natural England's Relevant Representation (RR-026.C2 and RR-026.C12). The Applicant has responded to the Relevant Representation provided at the Procedural Deadline. Please refer to RR-026.C.2 and RR-026.C.12 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017).
REP1-054.5	**Appendix C3 & C13** There is over-reliance in the assessment on Acoustic Deterrent Devices (ADDs) as a key mitigation tool to prevent the injury while the impact of the additional noise produced by ADDs has not been taken into the consideration. The onus should be on reducing the noise at the source as a priority (please see our advice below on Noise Abatement Systems (NAS)). Furthermore, careful consideration needs to be given when choosing the right type of ADD to be used to balance prevention of injury with production of unnecessary noise with potential negative effects. If relying on ADDs as a main mitigation tool to reduce the risk of injury, the impact of additional noise	The Applicant notes that Natural England's Written Representation is as per Natural England's Relevant Representation (RR-026.C3 and RR-026.C13). The Applicant has responded to the Relevant Representation provided at the Procedural Deadline. Please refer to RR-026.C3 and RR-026.C13 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017). The Applicant is confident that the UWSMS including the MMMP is the most appropriate approach to mitigate the potential impacts, particularly in light of the forthcoming policy changes regarding underwater sound mitigation. The MMMP will be developed in accordance with the most up to date published guidance and policy. The MMMP (as secured under condition 20(1)(h) in the deemed marine licences in schedule 3 and 4 of the Draft Development Consent Order (AS-003)) will be developed in consultation with relevant stakeholders and will require approval from the MMO, prior to commencement of construction. The Applicant has considered Natural England's request and commits to not use ADDs during geophysical surveys unless required by the forthcoming policy and guidance on underwater sound and mitigation for marine mammals.

Reference	Written Representation Comment	Applicant's response
	produced by ADDs, and any unintended consequences, should be acknowledged and considered in the assessment which is especially important for harbour porpoises and cumulative assessment. **Update at Deadline 1** No change	
REP1-054.6	**Appendix C4** Natural England does not support use of scare charges for UXO clearance thus we advise that this measure is removed from the final Marine Mammal Mitigation Protocol (MMMP). **Update at Deadline 1** No change	The Applicant notes that Natural England's Written Representation is as per Natural England's Relevant Representation (RR-026.C.4). The Applicant has responded to the Relevant Representation provided at the Procedural Deadline. Please refer to RR-026.C.4 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017).
REP1-054.7	**Appendix C5, C21 & C43** Standard industry mitigation measures are intended to minimise the risk of injury, thus they cannot be used as a justification to conclude that there will be no significant disturbance of the species. Mitigation measures aimed to reduce disturbance should be considered instead of relying on measures for reducing the risk of injury. This needs to be revised throughout the assessment. **Update at Deadline 1** No change	The Applicant notes that Natural England's Written Representation is as per Natural England's Relevant Representation (C1 of RR-026). The Applicant has responded to the Relevant Representation provided at the Procedural Deadline. Please refer to RR-026.C5, RR-026.C.21 and RR-026.C.42 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017).
REP1-054.8	**Appendix C6 and C23** The inter-related effects have potential to create a more significant effect on a receptor than if just assessed in	The Applicant thanks Natural England for acknowledging the submission of Annex 3.4 (PD1-009) to the Applicant's Response to Relevant Representation from Natural England and Natural Resources Wales: Interrelated Effects.

Reference	Written Representation Comment	Applicant's response
	isolation. Thus, this assessment needs to be given the appropriate credence and the outcomes of the inter-related effects assessment should be presented in the marine mammal chapter. We note the 'light touch' approach of the assessment (Volume 2, Chapter 15: Inter-related effects, Table 15.9) especially when it comes to assessment of disturbance. We disagree with the outcome of the assessment for receptor-led effects. Outcomes of the inter-related effects assessment should be included in this report. In particular, the receptor-led effects from disturbance should be assessed adequately. **Update at deadline 1** Applicant provided Annex 3.4 to the Applicant's Response to Relevant Representation from Natural England and Natural Resources Wales: Interrelated Effects	The Applicant notes that Natural England's Written Representation is as per Natural England's Relevant Representation (RR-026.C.6 and RR-026.C.23). The Applicant responded to the Relevant Representation at the Procedural Deadline in RR-026.C.6 and RR-026.C.23 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017) and Annex 3.4 to the Applicant's Response to Relevant Representation from Natural England and Natural Resources Wales: Interrelated Effects (PD1-009). Furthermore, the Applicant welcomes Natural England's change to the RAG status (from amber to green) for this matter, and in light of this change, the Applicant considers that this matter has been resolved.
REP1-054.9	**Appendix C7** Natural England strongly advises the Applicant to commit to using noise abatement (NAS) as mitigation during construction. Noise abatement systems are proven to reduce the level of noise generated by piling and its propagation through the marine environment. As the noise levels are reduced at or close to the source, the range and area over which noise-related impacts occur will be reduced significantly. Defra will be publishing a marine noise policy paper soon (announced at MMO workshop, 13th March 2024) which will include the expectation that all offshore wind pile driving activity in English waters will be required to demonstrate that they have utilised best endeavours to deliver noise reductions through the use of primary and/or secondary noise mitigation methods in the first instance from January 2025. We expect that the	The Applicant notes that Natural England's Written Representation is as per their Relevant Representation RR-026.C.7). The Applicant has addressed this in the response provided at the Pre-Exam Procedural Deadline. Please refer to RR-026.C.7 in S_ PD_3 Applicant's Response to Relevant Representations (PD1-017).

Reference	Written Representation Comment	Applicant's response
	majority of piling from 2025 onwards will not be able to go ahead without noise abatement in place. We strongly advise that the Applicant fully commits to using NAS as mitigation to reduce both injury and disturbance to marine mammals receptors during the construction activities (i.e. piling and high order UXO clearance). **Update at Deadline 1** No change	
REP1-054.10	**Appendix C8 & C32** Natural England notes that the Applicant did not propose monitoring for marine mammals within the Mitigation and Monitoring Schedule document and the Offshore In-principle Monitoring Plan. We do not agree that because no significant impacts are predicted, no monitoring is required. Marine mammal monitoring should be undertaken in addition to the standard monitoring of underwater noise generated from the piling of the first four piles. Further detailed discussion is required on the monitoring plans. The Applicant should compile an in-principle monitoring plan for marine mammals. Detailed requirements for In Principal monitoring (IPMP), can be found in: Offshore Wind Marine Environmental Assessments: Best Practice Advice for Evidence and Data Standards Phase IV: Expectations for monitoring and environmental requirements at the post-consent phase. This document outlines Natural England's recommendations for an effective IPMP and should be considered when planning monitoring post-consent.	The Applicant notes that Natural England's Written Representation is as per Natural England's Relevant Representation (RR-026.C8 and RR-026.C32). The Applicant responded to the Relevant Representation at the Procedural Deadline. Please refer to RR-026.C8 and RR-026.C32 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017).

Reference	Written Representation Comment	Applicant's response
	Update at Deadline 1 No change	
REP1-054.11	**Appendix C15** It was estimated that there will be an additional 1,929 installation vessel movements during the construction phase within the Morgan Array Area thus there will be a significant increase in traffic in the area outside of the shipping lanes. We also note that the estimated number of animals disturbed by vessels is based on the static impact radii (Table 4.44) thus the conclusions of the assessment are not based on the realistic scenarios. As such, this assessment should be revised, particularly the magnitude, taking into account the increase in the number of vessels in the project area compared to baseline as well as sensitivity of harbour porpoise to vessel noise. This is of particular importance for cumulative assessment with other projects. Furthermore, we do not agree with the statement: "Given the existing levels of vessel activity in the Morgan shipping and navigation study area it is expected that marine mammals could tolerate the effects of disturbance…" considering that the tolerance threshold levels of harbour porpoises to vessel disturbance are not known, claims such as this cannot be made. N.B. The same comment applied to HRA Stage 2 Information to support an appropriate assessment, paragraph 1.6.4.315.	The Applicant thanks Natural England for acknowledging the submission of Annex 3.5 (PD1-010) to the Applicant's response to Relevant Representations from Natural England (RR-026) and Natural Resources Wales (RR-027): Impacts on Marine Mammals and Elevated Underwater Sound Due to Vessel Use. The Applicant notes that Natural England's Written Representation is as per Natural England's Relevant Representation (RR-026.C15). The Applicant has responded to the Relevant Representation provided at the Procedural Deadline. Please refer to RR-026.C15 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017) and Annex 3.5 – Applicant's response to Relevant Representations from Natural England (RR-026) and Natural Resources Wales (RR-027): Impacts on Marine Mammals and Elevated Underwater Sound Due to Vessel Use (PD1-010).

Reference	Written Representation Comment	Applicant's response
	Revise the assessment for disturbance from elevated underwater sound due to vessel use and other (non-piling) sound producing activities. **Update at Deadline 1** Applicant provided Annex 3.5 to the Applicant's response to Relevant Representations from Natural England (RR-026) and Natural Resources Wales (RR-027): Impacts on Marine Mammals and Elevated Underwater Sound Due to Vessel Use	
REP1-054.12	**Appendix C22** Given the cumulative number of vessels across all projects as well as large disturbance ranges for some vessels of up to 20km, Natural England does not agree with the assigned magnitude score 'low' for disturbance from elevated underwater sound due to vessel use and other (non-piling) sound producing activities. The assessment should be revised accordingly. **Update at Deadline 1** No change	The Applicant notes that Natural England's Written Representation is as per Natural England's Relevant Representation (RR-026.C.22). The Applicant has responded to the Relevant Representation provided at the Procedural Deadline. Please refer to RR-026.C.22 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017).
REP1-054.13	**Appendix C30** There is no requirement to use ADDs during the geophysical surveys. Thus, this mitigation should not be considered for these activities and the MMMP updated accordingly. **Update at Deadline 1** NE acknowledges that the Final MMMP will be developed in consultation with relevant stakeholders, including NE. However, our comments will remain until we have seen the final version.	The Applicant welcomes Natural England's acknowledgement that the Final MMMP will be developed in consultation with relevant stakeholders. The Applicant is confident that the UWSMS including the MMMP is the most appropriate approach to mitigate the potential impacts, particularly in light of the forthcoming policy changes regarding underwater sound mitigation. In the Relevant Representation response (RR-026.C.30 in S_PD_3 Applicant's Response to Relevant Representations (PD1-017)) the Applicant states the final MMMP will be developed post-consent in consultation with stakeholders, including Natural England. The MMMP will be developed in accordance with the most up to date published guidance and policy. The MMMP (as secured under condition 20(1)(h) in the deemed marine licences in schedule 3 and 4 of the Draft Development Consent Order (AS-003)) would require approval from the MMO, prior to commencement of construction. The Applicant has considered Natural England's request and commits to not use ADDs during geophysical surveys unless required by the forthcoming policy and guidance on underwater sound and mitigation for marine mammals.

Reference	Written Representation Comment	Applicant's response
REP1-054.14	**Appendix C37** Natural England disagrees with the conclusion regarding the pre-construction site investigation surveys. Natural England does not consider that a period of several months can be considered a 'very short duration'. New data collected in Wales by Veneruso *et al.* 2024 should be given credence in the assessment especially given very large disturbance ranges (17.3km). We advise that appropriate mitigation is considered for these surveys within the MMMP and UWSMP. **Update at Deadline 1** Natural England notes the applicant's errata sheet addition to correct the term "very short duration". However, our concerns around SBP displacement still remain.	The Applicant thanks Natural England for acknowledging the Applicant's errata sheet (REP1-019) addition to correct the term "very short duration". The Applicant notes that Natural England's Written Representation is as per Natural England's Relevant Representation (RR-026.C.37). The Applicant has responded to the Relevant Representation provided at the Procedural Deadline. Please refer to RR-026.37 in S_ PD_3 Applicant's Response to Relevant Representations (PD1-017).
REP1-054.15	**Appendix C9, C10, C14 & C31, C16, C17, C18, C19, C20. C24, C26, C27, C28, C29, C33, C34, C36, C39, C40, C41, C42** As submitted by Natural England on 25 July 2024.	The Applicant responded to Natural England's comments at the Procedural Deadline in S_PD_3 Applicant's Response to Relevant Representations (PD1-017) and Annex 3.5 to the Applicant's response to Relevant Representations from Natural England (RR-026) and Natural Resources Wales (RR-027): Impacts on Marine Mammals and Elevated Underwater Sound Due to Vessel Use (PD1-010).
REP1-054.16	**Appendix D1 to D13** As submitted by Natural England on 25 July 2024.	The Applicant responded to Natural England's comments at the Procedural Deadline in S_PD_3 Applicant's Response to Relevant Representations (PD1-017).
REP1-054.17	**Appendix D14** As submitted by Natural England on 25 July 2024. Given the active sediment transport in the study area and the availability of recharge material, we advise that consideration should be given to sandwave recovery monitoring in post-installation surveys. Appropriate survey design and power analysis should be conducted to ensure that adequate data is collected for long term	The Offshore In-Principle Monitoring Plan (IPMP) (APP-066), section 1.5.2.1, outlines the approach to geophysical and geotechnical surveys for engineering and design related studies (i.e. asset integrity monitoring surveys). This monitoring will be undertaken to observe the effect of sediment transport and sediment transport pathways on cable burial with specific reference to physical processes. The primary function of this monitoring is to examine changes to the seabed morphology and sediment type post-construction, and the surveys will be expected to focus on areas where active mobile seabed features, such as sandwaves, have been identified and were subject to sandwave clearance during the construction phase.

Reference	Written Representation Comment	Applicant's response
	comparisons of the effect of change compared to baseline data.	The Applicant has already included a commitment to pre- and post-construction geophysical surveys which are secured as conditions in the dMLs within the draft DCO (see conditions 27(4) and 29(3)(a) of the dML in Schedules 3 and 4 of the draft DCO (REP1-021)). While the Morgan Generation Assets application did not identify any potential significant effects on physical processes and, therefore, monitoring to test the predictions of the impact assessment is not required (as outlined in section 1.9.7 of Volume 2, Chapter 1: Physical processes (APP-013)), the Applicant confirms that the asset integrity monitoring surveys already committed to, together with the relevant data gathered, will be considered in the context of seabed mobility, seabed recovery and sandwave recovery, for information purposes. The Applicant has no objections to sharing this information with the MMO and relevant stakeholders as part of the post-consent offshore monitoring plan. The commitment to develop a monitoring plan in accordance with the Offshore IPMP (APP-066) is secured as a condition in the dMLs within the Draft DCO see conditions 27(4) and 29(3)(a) of the dML in Schedules 3 and 4 of the draft DCO (REP1-021)). The asset integrity monitoring surveys already committed to by the Applicant will highlight any morphological changes to the seabed in areas directly impacted by construction activities, improving the evidence base for future mitigation in accordance with NPS EN-3 paragraphs 2.8.83 and 2.8.85 and best practice guidance and principles outlined in section 1.3 of the Offshore IPMP (APP-066). Please see the Applicant's response to NE- IPMP Appendix H1 (REP1-054.27-65) for further information and clarification regarding the Offshore IPMP.
REP1-054.18	**Appendix D15 to D22** As submitted by Natural England on 25 July 2024.	The Applicant responded to Natural England's comments at the Procedural Deadline in S_PD_3 Applicant's Response to Relevant Representations (PD1-017).
REP1-054.19	**Appendix D23** As submitted by Natural England on 25 July 2024. Natural England would welcome and encourage the Applicant to consider future monitoring of benthic and physical processes to be included as a commitment to review whether priority habitats/species and morphological features such as sandbanks has recovered from construction activities and these are secured in an In Principle Monitoring Plan. We note that geophysical surveys may be required as a condition of the marine licence. We therefore advise that the surveys should have adequate scope to include long term impact monitoring, with a particular focus on sandwave recovery.	Please see the response to REP1-054.17.

Reference	Written Representation Comment	Applicant's response
REP1-054.20	**Appendix D24 to D26** As submitted by Natural England on 25 July 2024.	The Applicant responded to Natural England's comments at the Procedural Deadline in S_PD_3 Applicant's Response to Relevant Representations (PD1-017).
REP1-054.21	**Appendix E1 & E3** Natural England do not agree with the use of the Outline Marine Mammal Mitigation Protocol (OMMMP) methods of soft starts and ramp ups as a means of mitigation for fish species. We do not include these measures as appropriate mitigation for impacts to fish species. **Update at Deadline 1** No Change	The Applicant responded to Natural England's comments at the Procedural Deadline in response RR-026.E.2 and RR-026.E.5 of S_PD_3 Applicant's Response to Relevant Representations (PD1-017).
REP1-054.22	**Appendix E2, E6** As submitted by Natural England on 25 July 2024.	The Applicant responded to Natural England's comments at the Procedural Deadline in S_PD_3 Applicant's Response to Relevant Representations (PD1-017).
REP1-054.23	**Appendix E7** Further to the above comment, whilst it is useful to display TTS range (23,900m) for fish in a tabular format, it would be more useful to have a site contour map displaying the array red line boundary, designated sites and this range to allow Natural England to visually assess proximity to protected sites more easily. Provide a contour map for TTS range. **Update at Deadline 1** Contour maps for TTS range have been provided by the Applicant. Comment Resolved.	The Applicant welcomes Natural England's confirmation that this comment has been resolved.
REP1-054.24	**Appendix F1 to F20** As submitted by Natural England on 25 July 2024.	The Applicant responded to Natural England's comments at the Procedural Deadline in S_PD_3 Applicant's Response to Relevant Representations (PD1-017).
REP1-054.25	**Appendix G1 to G19** As submitted by Natural England on 25 July 2024.	The Applicant responded to Natural England's comments at the Procedural Deadline in S_PD_3 Applicant's Response to Relevant Representations (PD1-017).

Reference	Written Representation Comment	Applicant's response
REP1-054.26	**Appendix H1** As advised at the PEIR stage, Natural England request that single frame images with a Horizontal Frame of View (HFoV) of 39.6° are included within the SLVIA for all viewpoints. Natural England also note that a couple of the images within the SLVIA documents still have issues with sun glare obscuring the Wind Turbine Generator (WTG) representations (e.g. images for viewpoint 14 in document APP-039). Updated material should be submitted into the Examination in due course. **Update at Deadline 1** The Applicant has resolved our comments relating to HFoV 39.6 degrees for images and sun glare issues, no further comment needed.	The Applicant welcomes Natural England's confirmation that this comment has been resolved.
REP1-054.27	**IPMP - Appendix H1** Natural England's Comments on the Morgan Offshore In-Principle Monitoring Plan (IPMP) [APP-066] 1) Introduction 1. Natural England welcomes the submission of the Morgan Generation Offshore In-Principle Monitoring Plan (IPMP) as part of the application. Further, we welcome the Applicant's inclusion of the general guiding principles for proposed monitoring (Section 1.3). We also refer the Applicant to Natural England's Best Practice Advice document which sets out our expectations in terms of monitoring. This document is available at: Environmental considerations for offshore wind and cable projects - Phase IV Best Practice Advice for Post-Consent Monitoring, Version 1.0, July 2022.pdf. Relevant sections are also included in Annex A of this document for reference.	**Overview** The Applicant is pleased that Natural England welcomes the Offshore In-Principle Monitoring Plan (Offshore IPMP (APP-066)) and guiding principles. The Applicant notes Natural England's reference to their Best Practice Advice. Please see the Applicants responses in RR-026.A.6 and RR-026.D.16 of Procedural Deadline in S_PD_3 Applicant's Response to Relevant Representations (PD1-017) and responses to REP1-054.28 REP1-054.65 below. **The Applicant's monitoring approach** The Applicant's approach to monitoring has 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. 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 the Morgan Generation Assets EIA and ISAA). The Applicant's Environmental Statement undertaken by experts in their field, concluded no residual significant effects for the biological topic receptors following implementation of suitable mitigation, where relevant.

Reference	Written Representation Comment	Applicant's response
		Following stakeholder feedback in the DCO application, the Applicant has expanded from this best practice approach set out by the MMO to include additional monitoring as follows: • **Physical processes:** utilising scheduled pre- and post construction geophysical surveys for physical processes monitoring, including to observe the effect of sediment transport and sediment transport pathways on cable burial, to be considered in the context of seabed mobility, seabed recovery and sandwave recovery, for information purposes • **Benthic ecology:** utilising scheduled pre- and post construction surveys for ecological monitoring such as reviewing any suitable Drop Down Video (DDV) data available for the identification of INNS (subject to data quality) and the colonisation around a representative sample of any novel foundations (i.e. gravity base foundation structures) • **Fish and shellfish:** the Applicant has committed to monitoring of queen scallop within and around the Morgan Array Area. Monitoring of queen scallop is likely to take the form of pre- and post-construction dredge surveys for up to five years post-construction • **Marine mammals:** Measurements of underwater sound generated by the installation of the first four piled foundations of each piled foundation type and associated marine mammal monitoring, to be set out in the MMMP. The Applicant has updated the Offshore IPMP at Deadline 2 to reflect the above in response to Natural England's and other Interested Parties' comments. 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 (REP1-021) in consultation with their statutory advisors where necessary. **Strategic monitoring** It is the Applicant's view that the different approaches to collecting monitoring data at project sites across the UK is preventing the development of a coordinated, robust evidence base to support the understanding and potential resolution of uncertainty regarding impact from offshore wind developments. There has been a strong move over the last few years towards strategic monitoring in recognition of the limitations of project level monitoring, even at offshore wind farms with far greater species abundances within the array than at the Morgan Generation Assets. There are already a considerable number of strategic evidence gathering programmes in existence at an offshore wind industry level. The Applicant is engaged on many of these groups including the Offshore Wind Evidence and Change (OWEC) Programme such as MOTUS (remote tracking of seabirds) where the Applicant is a member of the Project Advisory Group, and the Applicant is a partner of the Ecological Consequences of Offshore Wind research programme (ECOWind). OWEC is led by The Crown Estate, in partnership with the Department for Energy Security and Net Zero (DESNZ), and the Department for Environment, Food and Rural Affairs (Defra). These strategic evidence gathering programmes go beyond data collection and use multi-project data to

Reference	Written Representation Comment	Applicant's response
		fill evidence gaps related to cumulative effect and receptor population level monitoring at appropriate temporal and spatial scales, helping to achieve a greater level of understanding than is currently possible through individual project level monitoring. This more strategic holistic approach is endorsed by The Crown Estate who established The Crown Estate's Offshore Wind Environment and Evidence Register (OWEER) of strategic evidence gaps and recently completed or planned research relevant to reducing uncertainty in impact assessments or mitigation approaches for offshore wind consenting. In May 2023 a workshop was facilitated by Howell Marine Consulting to examine the barriers of delivering wider strategic monitoring for the industry. One of the key messages from that workshop which was attended by both NE and the MMO was that government should take the lead on developing strategic monitoring. Many of the identified barriers would become surmountable if there was a strong need defined for participating in a strategic monitoring approach as this would provide justification for cultural change and resourcing commitment (HMC, 2023).The endeavours by The Crown Estate, Defra and stakeholders, the national programmes and workshops on strategic monitoring is tantamount to this position that strategic, rather than project level monitoring (without the statistical robustness), is needed to address the uncertainty regarding impacts from offshore wind developments.
REP1-054.28	**IPMP - Appendix H1** 2. This document outlines Natural England's overarching concerns with the Offshore IPMP [APP-066], particularly in relation to the overall aim of ensuring adaptive monitoring and remediation is secured within the DCO. In addition, this document provides further advice on each of the offshore nature conservation receptors: physical processes, benthic subtidal ecology, fish and shellfish ecology, offshore ornithology, and marine mammals.	Please refer to response REP1-054.27.
REP1-054.29	**IPMP - Appendix H1** 2) Overarching Concerns with the IPMP 3. Natural England advises that this is a live document which is updated throughout examination and post consent to reflect the outcome of discussions and/or monitoring.	The Applicant has updated the Offshore IPMP at Deadline 2 to account for the inclusion of the following in response to comments from Natural England and other Interested Parties: • **Physical processes:** utilising engineering surveys for physical processes monitoring, including to observe the effect of sediment transport and sediment transport pathways on cable burial, to be considered in the context of seabed mobility, seabed recovery and sandwave recovery, for information purposes • **Benthic ecology:** utilising engineering surveys for ecological monitoring such as reviewing any suitable Drop Down Video (DDV) data available for the identification of INNS (subject to data

Reference	Written Representation Comment	Applicant's response
		quality) and the colonisation around a representative sample of any novel foundations (i.e., GBS structures) • **Fish and shellfish:** the Applicant has committed to monitoring of queen scallop within and around the Morgan Array Area. Monitoring of queen scallop is likely to take the form of pre- and post-construction dredge surveys for up to five years post-construction • **Marine mammals:** Measurements of underwater sound generated by the installation of the first four piled foundations of each piled foundation type and associated marine mammal monitoring, to be set out in the MMMP. As stated in the Offshore IPMP (APP-060), following an iterative approach, the focus, requirements and methodologies for future monitoring for the Morgan Generation Assets may differ from the outline approach presented in the IPMP. Any such future modifications to monitoring approaches will be the subject of ongoing consultation between the Applicant, MMO and its statutory advisers. This document can be varied as required by MMO, in consultation with the Applicant.
REP1-054.30	**IPMP - Appendix H1 - 4** 4. In recognition of the emphasis being placed by projects currently in the post consent phase on the IPMP when setting the monitoring requirements and parameters; Natural England highlights the importance of this document. Natural England emphasises the requirement to agree the scope of the IPMP and hypotheses which will be tested by the monitoring as part of the consenting phase.	Please refer to response REP1-054.27 and NE-IPMP - Appendix H1-3.
REP1-054.31	**IPMP - Appendix H1** 5.Overall, Natural England feels that much more detail is required than is provided in the IPMP in its current form. For example; • What are the hypotheses the monitoring will be testing and how do they relate to the assessments undertaken in the ES? • How will the monitoring be designed to ensure that the desired outcomes can be achieved i.e. is the monitoring fit for purpose? • What are the indicative timings of the surveys? • Can lessons be learnt from previous thematic surveys	The Applicant notes Natural England's questions and agrees that these are key considerations when designing a monitoring programme targeted at answering specific questions about potential impacts of concern. The Applicant considers that the detail set out in the Offshore IPMP (as submitted at D2 (S_D2_9_In Principle Monitoring Plan_F02) is appropriate for the stage of the development process. The precise nature of any monitoring will be influenced by the final design of the project and therefore, it is important that this level of requested detail is reserved for the monitoring plans that will be developed post consent. The Applicant believes that the detail set out in the Offshore IPMP is commensurate with the level of detail provided for in a number of recent cases, including Hornsea Four, Hornsea Three, East Anglia One North, East Anglia Two, Norfolk Boreas and Norfolk Vanguard). As set out in the Offshore IPMP further refinement will be subject to ongoing consultation between the Applicant, MMO and its statutory advisors post consent.

Reference	Written Representation Comment	Applicant's response
	and how will modifications to surveys design be incorporated between survey campaigns? • What does 'success' look like to demonstrate that no further monitoring is required? • What happens if the results do not support the null hypothesis? Is further monitoring required (with/without modifications)? If impacts are greater than predicted, do actions need to be undertaken to address these impacts? How will further monitoring and actions be secured, is a change to the wording of the dML required? And if so, how will success of any action/s be monitored and what will be the success criteria before monitoring can cease? To answer the above, Natural England considers the IPMP should focus on what the uncertainties and evidence gaps of the EIA and/or HRA are, rather than repeating the outcomes of the EIA only (Sections 1.6-1.7). We consider that establishing and agreeing the uncertainties and evidence gaps of the EIA and/or the HRA is necessary to inform what monitoring should be undertaken.	
REP1-054.32	**IPMP - Appendix H1** 6. As per the Applicant's 'General Principles and Guidance' (Section 1.3) Natural England advises an approach mechanism in which the Applicant presents a clearly defined hypothesis or null hypothesis of no impact would be beneficial. Monitoring thereafter would aim to test this. We advise a review period during which Statutory Nature Conservation Bodies (SNCBs) and regulatory bodies such as the Marine Management Organisation (MMO) are consulted by the Applicant to assess the results of the first period of monitoring. For example, one mechanism that could be introduced for particular receptors would be a live document which is reflective of what the monitoring is observing, including consideration of species/habitat recovery.	Please see response to REP1-054.31. .

Reference	Written Representation Comment	Applicant's response
REP1-054.33	**IPMP - Appendix H1** 7. We advise that monitoring should be effective in providing sufficient evidence pre-construction to inform the deployment of mitigation measures, and similarly demonstrate the efficacy of mitigation measures during construction and post- construction. This is important to demonstrate compliance with the measures identified in assessments to mitigate significant impacts. It is also important to provide evidence to assess the significance of adverse effects, evaluate the success of mitigation measures and to help inform whether further remedial measures are required.	Please see response to REP1-054.31.
REP1-054.34	**IPMP - Appendix H1** 8. In relation to remedial measures, Natural England wishes to highlight the importance of ensuring that all relevant monitoring proposals for Morgan Generation Assets (and/or associated DCO/dML conditions) consider the aim of securing a mechanism for adaptive monitoring when unforeseen impacts are detected. Thus, ensuring remedial measures (i.e., adaptive management) are triggered should the results of monitoring demonstrate impacts that are significantly greater than predicted and/or incorrect assumptions were made following review of the conclusions of the environmental statement and supporting documents. We advise that the potential for certain monitoring to trigger the development of countermeasures (with associated monitoring of those measures) should be clearly stated in relevant tables of the IPMP and incorporated into the DCO conditions where relevant.	Please refer to the Applicant's response in RR-020.31 of Procedural Deadline in S_PD_3 Applicant's Response to Relevant Representations (PD1-017).
REP1-054.35	**IPMP - Appendix H1** 3) Nature conservation thematic advice 3.1 Engineering and design related monitoring 9.	Please refer to RR-26.F.2, RR-026.F.4 and RR-026.F.11. Please see section 3.5.2 of Volume 1, Chapter 3: Project description (APP-010) for further details of the pre-construction site investigation surveys. The IPMP has been updated at Deadline 2 (S_D2_9) to account for the inclusion of further clarification in regards to the monitoring proposed in response to comments from Natural England. If there are any further specific questions that cannot be answered beyond the information provided

Reference	Written Representation Comment	Applicant's response
	It is unclear to Natural England if this also encompasses monitoring surveys to inform final project design including those required to inform mitigation measures such as avoidance of certain sensitive receptors particularly environmental ones. If so, it would be useful if the Applicant could specify the purpose of each aspect of the engineering and design related monitoring in full. We highlight that geotechnical investigations will be critical to inform the cable burial risk assessment and in relation to reducing down the direct or indirect impacts to environmental receptors. We request that further details are provided to answer the questions posed in our overarching comments.	in the Project Description and other ES chapters the Applicant would be happy for Natural England to clarify and to discuss this with Natural England.
REP1-054.36	**IPMP - Appendix H1 - 10** 3.2 Physical Processes and Benthic and Subtidal Ecology 10. Natural England highlights the risks and issues we have raised in our Relevant/Written Representations [D14, D23, F4 & F14] in relation to potential disruption of physical processes, and seabed morphology. Therefore, as with other thematic areas we advise that further consideration is given to monitoring requirements, and the timing and duration of monitoring campaigns in order to better understand if there are any lasting impacts and/or recovery.	The Applicant can confirm that it recognises the request from NE for this monitoring and can confirm that the Applicant will be undertaking this monitoring. Please see response to NE-Appendix D14. The asset integrity monitoring surveys will comprise geophysical and drop-down video surveys. Geophysical monitoring of areas of inter-array and interconnector cables are proposed to be undertaken yearly during the first five years post-installation and thereafter based upon the level of risk. As outlined in the Offshore IPMP (APP-066), the final detailed plans for monitoring work will not be produced until post-consent (following final scheme design). These will be agreed with the MMO, as required by the conditions of the dMLs within the draft DCO (REP1-021) in consultation with their statutory advisors where necessary. While the Morgan Generation Assets application did not identify any potential significant effects on physical processes or benthic subtidal ecology and, therefore, monitoring to test the predictions of the impact assessment is not required (as outlined in section 1.9.7 of Volume 2, Chapter 1: Physical processes (APP-013) and section 2.9.12 of Volume 2, Chapter 1: Benthic subtidal ecology (APP-020)), the Applicant confirms that the asset integrity monitoring surveys already committed to, together with the relevant data gathered, will be considered in the context of seabed mobility, seabed recovery and sandwave recovery, for information purposes. The Applicant has no objections to sharing this information with the MMO and relevant stakeholders as part of the post-consent offshore monitoring plan. The commitment to develop a monitoring plan in accordance with the Offshore IPMP (APP-066) is secured as a condition in the dMLs within the Draft DCO (REP1-021). The asset integrity monitoring surveys already committed to by the Applicant will highlight any morphological changes to the seabed in areas directly impacted by construction activities. Additionally, the asset integrity monitoring surveys, together with the relevant data gathered, will be

Reference	Written Representation Comment	Applicant's response
		considered in the context of seabed mobility, seabed recovery and sandwave recovery (including potential timescales of recovery), for information purposes. The Applicant would note that the monitoring would focus on sandwaves and not sandbanks, as no sandbanks were recorded within the Morgan Array Area. This will both improve the evidence base for future mitigation in accordance with NPS EN-3 paragraphs 2.8.83 and 2.8.85 and best practice guidance and principles outlined in section 1.3 of the Offshore IPMP (APP-066).
REP1-054.37	**IPMP - Appendix H1** 3.2 Physical Processes and Benthic and Subtidal Ecology 11. Natural England has concerns relating to the lack of future data analysis to test predictions made within the impact assessment. We note that future monitoring is encouraged in National Policy Statement (as recognised in the NPS for Renewable Energy Infrastructure (EN-3) 3.8.98).	Please see response to REP1-054.36.
REP1-054.38	**IPMP - Appendix H1** 3.2 Physical Processes and Benthic and Subtidal Ecology 12. Natural England would welcome and encourage the Applicant to consider future monitoring of benthic and physical processes to be included as a commitment to review whether priority habitats/species and morphological features such as sandbanks have recovered from construction activities and these are secured in the In Principle Monitoring Plan.	Please see response to REP1-054.36.
REP1-054.39	**IPMP - Appendix H1** 3.2 Physical Processes and Benthic and Subtidal Ecology 13. Given the active sediment transport in the study area and the availability of recharge material, we advise that consideration should be given to sandwave recovery monitoring in post installation surveys. This would also	Please see response to REP1-054.36.

Reference	Written Representation Comment	Applicant's response
	validate assumptions made in the ES, i.e. in Table 1.13 of [APP-013] which states that sandwave reformation would occur, but there is no further indication on timings for recovery.	
REP1-054.40	**IPMP - Appendix H1** 3.2 Physical Processes and Benthic and Subtidal Ecology 14. We note that geophysical surveys may be required as a condition of the marine licence. We therefore advise that the surveys should have adequate scope to include long term impact monitoring in the geophysical surveys in order to monitor recovery of the seabed. Appropriate survey design and power analysis should be conducted to ensure that adequate data is collected for long term comparisons of the effect of change compared to baseline data.	Please see response to REP1-054.36.
REP1-054.41	**IPMP - Appendix H1** 3.3 Offshore ornithology 15. The Applicant has not proposed any post-consent monitoring in relation to offshore ornithology. We note that throughout the documents the Applicant has highlighted knowledge and evidence gaps. However, in the absence of post-consent monitoring, these gaps cannot be addressed. 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.	There is a plethora of national evidence gathering programmes exploring the best approaches to undertake strategic monitoring to fill the ornithology evidence gaps (see response REP1-054.27). Please see the Applicant's response to RR-026.B.95. The populations within the Morgan Array Area and the potential impacts are very small and therefore any monitoring would not have the statistical robustness required. The monitoring would be disproportionate to the level of effects and would not align with the MMO's recommendations presented in the review of post-consent monitoring (MMO, 2014). The Applicant will continue to participate in strategic evidence gathering programmes designed to fill evidence gaps. For example, the Applicant is a partner of the Ecological Consequences of Offshore Wind research programme (ECOWind) and sits on the Project Advisory Group of the OWEC MOTUS (remote tracking of seabirds) collaboration project led by the RSPB. There has been a strong move over the last few years towards strategic monitoring in recognition of the limitations of project level monitoring, even at offshore wind farms with far greater abundances within the array than at the Morgan Generation Assets. The endeavours by The Crown Estate, Defra and stakeholders, national programmes and workshops such as the outcomes from the Howell Marine Consulting workshop, which also included MMO and NE is tantamount to this position that strategic, rather than project level monitoring without the statistical robustness, is needed to develop a coordinated, robust evidence base to address the uncertainty regarding impacts from offshore wind developments (see response REP1-054.27).

Reference	Written Representation Comment	Applicant's response
REP1-054.42	**IPMP - Appendix H1** 3.3 Offshore ornithology 16. We advise that the Applicant should commit to post-consent monitoring in relation to key offshore ornithology receptors, drawing on SNCB advice regarding potential risks and Natural England's Phase IV post-consent monitoring and environmental considerations in our Best Practice Advice. We advise that Natural England should be consulted on the suitability of any post consent monitoring proposed.	Please refer to REP1-054.27 and REP1-054.41.
REP1-054.43	**IPMP - Appendix H1** 3.4 Marine Mammals 17. Natural England notes that the Applicant did not propose monitoring for marine mammals within the Mitigation and Monitoring Schedule document and the Offshore IPMP. Natural England does not agree that because no significant impacts are predicted, no monitoring is required. Currently the only post-consent monitoring that has been proposed is the industry-standard monitoring of underwater noise from the first 4 piles. However, monitoring undertaken as part of the Marine Mammal Mitigation Plan (MMMP) should not be considered post-consent monitoring as it does not meet the objective of validating impacts. Natural England is concerned that no monitoring has been outlined that would evidence the impacts to marine mammals e.g. monitoring of animal responses to impacts, including mitigated impacts. We highlight that some of the impact pathway assessments factor in mitigation to conclude no significance, therefore validating the effectiveness of the mitigation is a reasonable aim for monitoring. There has been no consideration of the areas of the assessment where assumptions have been made and where the project could contribute to filling knowledge gaps that would inform the project's assessment.	Please refer to the Applicant's response to REP1-054.27. The Applicant notes Natural England's comment. The Applicant agrees that visual observations undertaken as part of the MMMP is not considered to be monitoring. However, the commitment to measure sound levels at the first four piled foundations, as required for the Marine Noise Registry (MNR) comes under the definition of monitoring. The Applicant acknowledges that there are uncertainties in any assessment but emphasises that these are dealt with by undertaking a precautionary approach, with layers of conservatism built into each stage of the assessment. Mitigation has proposed for this project is in accordance with proven industry standards that have been in the public domain for many years and applied successfully over multiple offshore wind farms and therefore the Applicant does not consider there to be a residual risk to marine mammal receptors as a result of mitigation being unsuccessful. The Applicant highlights that the effects of piling on marine mammal receptors is an area of active research in the academic community and that the latest scientific evidence has been employed to underpin the assessment. Monitoring of marine mammals as part of offshore wind development is only useful where there is a specific question that needs to be addressed and that such questions are facilitated more effectively through strategic monitoring and academic studies (in a similar vein to the ornithological receptors where ranges and movement patterns extend over vast areas and therefore, power to detect change or attribute small scale perceived changes at a project level are compromised). The Applicant reiterates that there is confidence that the conclusions of the assessment are valid on the basis of a very precautionary approach, and the mitigation measures proposed are proven and robust, and as such does not see any gaps that need to be addressed via monitoring.

Reference	Written Representation Comment	Applicant's response
REP1-054.44	**IPMP - Appendix H1** 3.4 Marine Mammals 18. Therefore, we advise that further detailed discussion is required on the monitoring plans. We understand that this is proposed to occur post-consent. However, at present we have limited understanding, and therefore low confidence, in how the monitoring will evidence the outcomes of the marine mammal assessments. The Applicant should revise the In Principle Monitoring Plan (IPMP) in discussion with Natural England. Detailed requirements for In Principal monitoring (IPMP), can be found in: Offshore Wind Marine Environmental Assessments: Best Practice Advice for Evidence and Data Standards Phase IV: Expectations for monitoring and environmental requirements at the post-consent phase. This document outlines Natural England's recommendations for an effective IPMP and should be considered when planning monitoring post-consent.	Please refer to the Applicant's response to REP1-054.43
REP1-054.45	**IPMP - Annex A** IPMP - Annex A - 1 Annex A: Natural England's Advice on an In-Principle Monitoring Plan (IPMP) extracted and summarised from: Environmental considerations for offshore wind and cable projects - Phase IV Best Practice Advice for Post-Consent Monitoring, Version 1.0, July 2022.pdf (Parker et al 2022). Purpose of the IPMP document The outcomes of monitoring are necessary to: - validate the predictions that were made during the consenting phase; - mitigate against unforeseen impacts; - evidence the effectiveness/success of mitigation measures; - inform adaptive management strategies Therefore, it is important that the IPMP represents a useful document that ensures the monitoring commitments are detailed and can be referred back to throughout the monitoring process.	Please refer to the Applicants response REP1-054.27 and RR-020.31 of Procedural Deadline in S_PD_3 Applicant's Response to Relevant Representations (PD1-017). The Applicant acknowledges the principles of monitoring set out in Natural England's advice and agrees that these are key considerations when designing a monitoring programme targeted at answering specific questions about potential impacts of concern. The final detailed plans for monitoring work will not be produced until post-consent (following final scheme design). These will be agreed with the MMO, as required by the conditions of the dMLs within the draft DCO (REP1-021) in consultation with their statutory advisors where necessary.

Reference	Written Representation Comment	Applicant's response
REP1-054.46	**IPMP - Annex A** Advice relating to post-consent monitoring (PCM) The process and structure of the planning system, including post-consent monitoring, is currently under review by Government, Defra, Natural England and other bodies (see Section 3.1). Options for how PCM can be improved to increase our understanding of the marine environment, the effects of offshore wind development and provide information-rich data over relevant spatial and temporal scales are being considered, such as the promotion of strategic or collaborative monitoring (see Section 4.4). The following section provides Natural England's advice and recommendations for the production and delivery of receptor-specific monitoring plans at the post-consent phase.	As set out in REP1-054.27, the Applicant fully supports and is already contributing to strategic monitoring endeavours and believes this to be the most effective way to collect robust data to ensure sufficient statistical power in subsequent analyses to detect meaningful changes.
REP1-054.47	**IPMP - Annex A** Natural England's recommendations • Early and continued engagement with SNCBs – engagement with the relevant SNCB(s) is recommended at the earliest possible opportunity to agree the focus of monitoring plans and to allow for continual engagement as plans evolve	Please refer to the Applicant's response to REP1-054.45.
REP1-054.48	**IPMP - Annex A** Natural England's recommendations Clear aims, objectives and hypotheses– post-consent monitoring plans should be targeted and have clear aims and hypotheses (Chambers et al. 2012; MMO, 2014; Lindeboom et al. 2015). Monitoring should be proportionate to the level of risk to biological receptors and should not be delivered for the sake of monitoring, but instead focus on sensitive receptors and be driven by a clear understanding of what the monitoring is seeking to address (MMO, 2014). This helps to collect data that is information rich, as well as data rich (Wilding et al. 2017). Early engagement with	Please refer to the Applicant's response to REP1-054.45. The Applicant agrees that monitoring should be proportionate to the level of risk to biological receptors and should not be delivered for the sake of monitoring. The Applicant has developed the Offshore IPMP (APP-066) accordingly, and in response to the findings of the Morgan Generation Assets EIA process.

Reference	Written Representation Comment	Applicant's response
	NE or relevant SNCB is recommended to help agree monitoring plans.	
REP1-054.49	**IPMP - Annex A** Natural England's recommendations - Detection of unforeseen impacts – post-consent monitoring should be targeted, with clear monitoring aims and objectives. Whilst PCM plans should not be designed to detect unforeseen impacts, the analysis of the results of PCM may identify unforeseen impacts which arise during offshore wind farm development across relevant spatial and temporal scales (MMO, 2014). If detected, unforeseen effects can be investigated through adaptive monitoring (see Section 4.3). Participation in collaborative or strategic-level monitoring projects may be also appropriate for identifying long term and lasting effects to marine receptors as a result of offshore wind development.	Please refer to the Applicant's response to REP1-054.45 and REP1-054.46.
REP1-054.50	**IPMP - Annex A** Natural England's recommendations - Statistical power – the ability of a survey to collect a sufficiently large amount of data to make robust statistical inferences about changes is known as its power (Maclean et al. 2006). Where possible, power analyses should be undertaken before monitoring commences to inform the design of PCM to ensure sufficient statistical power in subsequent analyses to detect meaningful changes (Bennet et al. 2016). Projects should also aim to reduce dependence within or between sampling units and plan the statistical tests and/or modelling approach so that the nature and quantity of data collected is suited to conduct the required tests/modelling (Bennet et al. 2016; Noble-James et al. 2018). Early engagement with Natural England is recommended when considering the statistical power of analyses and how this is used to inform survey design, or if power analyses indicate that the expected statistical power may not be sufficient to draw meaningful conclusions.	Please refer to the Applicant's response to REP1-054.45 and REP1-054.46.

Reference	Written Representation Comment	Applicant's response
REP1-054.51	**IPMP - Annex A** Natural England's recommendations - Uncertainty and significance – as set out within MMO (2014), uncertainty and significance are two important considerations when designing and implementing PCM plans. Uncertainty reflects the extent of error or assumptions that were made when predicting impacts. There is a greater need to monitor topics if there is higher uncertainty regarding the effects of an impact or resulting recovery of receptors. The significance of an impact is another important consideration for PCM and helps to inform whether further management or remedial measures are required (MMO, 2014).	Please refer to the Applicant's response to REP1-054.45 and REP1-054.48. The Applicant has developed the Offshore IPMP (APP-066) accordingly, and in response to the findings of the Morgan Generation Assets EIA process.
REP1-054.52	**IPMP - Annex A** Natural England's recommendations - Sufficient duration – PCM should be of a suitable duration to capture lags in impacts to receptors being detected as some impacts may only be detectable after a duration of time, depending on the receptor and the monitoring objectives. In addition, PCM may be required to monitor the recovery of receptors after an impact has occurred (e.g., impacts from construction) or a compensation measure has been put in place. Monitoring plans should be designed to incorporate long term or lasting impacts to validate predictions made within the ES and to improve our understanding of long-term effects and recovery of marine receptors. Monitoring plans should also have a clearly defined criteria for when and how decisions will be made on the conclusion of monitoring during the post-consent phase, for example when monitoring will be deemed to have met the objectives of the monitoring programme. Refer to the adaptive management approach principle below (Section 4.3).	Please refer to the Applicant's response to REP1-054.27.

Reference	Written Representation Comment	Applicant's response
REP1-054.53	**IPMP - Annex A** Natural England's recommendations - Strategy for consequence – a key role of post-consent monitoring is to validate the predictions of the ES, HRA, EIA or MCZ Assessment (Section 4). Monitoring plans should therefore have a clear strategy for subsequent remedial action if the monitoring shows that the original conclusions are incorrect, such as the significance of an impact upon a receptor or the timeframe for its recovery (MMO, 2014). Thresholds can be used to set acceptable levels of change for some environmental indicators, which if exceeded, can trigger additional monitoring or the implementation of mitigation or management measures to avoid adverse effects (Bennet et al. 2016; Wilding et al. 2017).	Please refer to the Applicant's response to REP1-054.27.
REP1-054.54	**IPMP - Annex A** Natural England's recommendations - Sharing of data – in order to maximise the usefulness of post-consent monitoring, data and reports should be made publicly available and provided to the relevant data repositories, such as the Marine Data Exchange (MDE) and the Marine Environmental Data and Information Network (MEDIN). All reports should be supported by the source/raw data and provide a description of the collection methodology and protocols followed (MMO, 2014). Metadata and environmental metadata should also be made publicly available (Chambers et al. 2012). Natural England advise that PCM data should be shared within the relevant data repositories as a matter of best practice. This could be secured as a licence condition for projects.	The Applicant supports the sharing of post-consent monitoring data.

Reference	Written Representation Comment	Applicant's response
REP1-054.55	**IPMP - Annex A** Natural England's recommendations Maximise use of baseline characterisation data and existing data – where possible, data collected at the pre-application phase should be used to supplement post-consent monitoring data. The results of baseline characterisation surveys may also be useful to inform the design of post-consent monitoring plans (e.g., the key areas or receptors for monitoring to focus upon). There may also be suitable existing datasets which can be used to provide context or supplement site-specific monitoring data. However, the validity and suitability of existing datasets must be carefully considered if used beyond providing a historical context for subsequent monitoring data (Noble-James et al. 2018). Parker et al. (2022a) provides advice and principles for the use of existing data to inform baseline characterisation surveys.	Please refer to the Applicant's response to REP1-054.45.
REP1-054.56	**IPMP - Annex A** Natural England's recommendations - Comparable and standardised data – data should be collected and presented in a consistent format which, where possible, enables effective comparisons with other datasets and other monitoring programmes. Consistent data standards may also allow for backwards/forwards compatibility of monitoring methods over time. Data collection should follow the MEDIN data standards and guidelines as a matter of best practice.9A consistent naming convention should also be followed. Species should be recorded using the World Register of Marine Species (WoRMS) list of accepted scientific names and biotopes should be recorded using the EUNIS classification system (EEA, 2019). A consistent and comparable approach also enables effective cumulative and in-combination assessments and improves the functionality of data repositories	Please refer to the Applicant's response to REP1-054.45.

Reference	Written Representation Comment	Applicant's response
REP1-054.57	**IPMP - Annex A** Natural England's recommendations - Follow industry standards, methodologies and protocols – monitoring programmes should follow the current industry standards, methodologies and protocols as a matter of best practice. This may apply to data collection, handling or analysis (Chambers et al. 2012). Receptor-specific advice is provided within the relevant sections below. Whilst this document will be periodically updated to reflect evolving best practice for industry standards and survey methodologies, Natural England would welcome the opportunity to discuss proposals to use the latest industry monitoring methods, standards or protocols.	Please refer to the Applicant's response to REP1-054.45.
REP1-054.58	**IPMP - Annex A** Natural England's recommendations Novel and emerging monitoring methods – Natural England acknowledges the role of offshore wind farm developers in exploring and testing new monitoring methods. Natural England supports innovation and welcomes the exploration of novel and emerging monitoring methods, such as environmental DNA (eDNA), or passive monitoring methods. Although there can be challenges presented by the relative novelty of some techniques in early stages, collaborative working can unlock many wider benefits if planned carefully. Early engagement with Natural England is recommended if novel approaches are proposed.	Please refer to the Applicant's response to REP1-054.45.

Reference	Written Representation Comment	Applicant's response
REP1-054.59	**IPMP - Annex A** Natural England's recommendations Strategic / joined up approach – a strategic, collaborative or joined up approach can deliver monitoring programmes of a greater scale and scope, thereby providing a greater understanding of ecological impacts, sensitivity or recovery (see Section 4.4). Natural England strongly supports strategic or collaborative monitoring proposals and can provide bespoke advice on a case-by-case basis.	Please refer to the Applicant's response to REP1-054.27, REP1-054.45 and REP1-054.46.
REP1-054.60	**IPMP - Annex A** Adaptive monitoring and discharge of conditions Adaptive monitoring is the process of evaluating data collected to date, to help inform the duration and/or design of further monitoring (Bennet et al. 2016). It can also be used to assess whether monitoring should continue or if the relevant licence conditions can be discharged (MMO, 2014). Adaptive monitoring can also inform on the requirement for further mitigation, compensation or restoration measures. Adaptive monitoring is of particular importance for where there is scientific uncertainty regarding lasting impacts or recovery of receptors (Bennet et al. 2016) or where monitoring is seeking to validate predictions of the ES, EIA, HRA or MCZ Assessment.	Please refer to the Applicants response REP1-054.27 and RR-020.31.
REP1-054.61	**IPMP - Annex A** Adaptive monitoring and discharge of conditions Adaptive monitoring is relevant during the post-construction phase where monitoring is investigating changes to the natural environment and ecological receptors over an undefined timescale, such as until a receptor recovers. Licence conditions should incorporate flexibility over the duration of monitoring plans, to allow the results of monitoring surveys to inform the requirement for future surveys or the implementation of management measures (MMO,	Please refer to the Applicants response REP1-054.27 and RR-020.31.

Reference	Written Representation Comment	Applicant's response
	2014). This helps to ensure monitoring programmes are delivering the agreed aims and objectives set out by the monitoring plans and ensure monitoring is proportionate to the level of data required. For example, if the ES predicted a full recovery of an MPA feature within a certain timeframe, monitoring may be required until full recovery has occurred and can be agreed between the applicant, SNCB and MMO as the relevant regulator. Conversely, if a receptor has demonstrated the predicted level of recovery, and if agreed by all parties, the requirement for additional post-construction surveys may be discharged early.	
REP1-054.62	**IPMP - Annex A** Adaptive monitoring and discharge of conditions In addition, another aspect of adaptive monitoring is the flexibility of the monitoring plan. Due to the long timeframe between projects obtaining consent and completing PCM surveys after construction, monitoring plans need to capture the scope for changes to the methodology or focus of surveys over time. This may be due to new evidence or understanding of impacts to marine receptors, or due to new technology becoming available which enables more ambitious studies. For example, seabird tagging projects should allow for flexibility in methods as new tracking devices become available. Natural England can provide advice on a case-by-case basis.	Please refer to the Applicants response REP1-054.27 and RR-020.31.
REP1-054.63	**IPMP - Annex A** Collaborative / strategic monitoring Delivering monitoring projects collaboratively could have many benefits for the collection of post-consent monitoring data and can help to answer key evidence gaps or research priorities. Collaborative monitoring could include joint monitoring programmes across zones or regions where projects pool resources to achieve monitoring aims, or where key research questions are divided between projects within a zone or	Please refer to the Applicant's response to REP1-054.45 and REP1-054.46.

Reference	Written Representation Comment	Applicant's response
	region to allow sufficient time and resources to be dedicated to each question. Collaborative monitoring could also comprise individual offshore wind projects contributing data, money or resources to a strategic research project led by another organisation, such as by ORJIP or ORSMRF, to address shared research questions or evidence gaps. Working collaboratively allows for the pooling of resources and/or division of labour, which enables monitoring programmes to be of a greater scale and scope than possible on a project-specific basis. This enables data collection to produce useful and information-rich data over sufficient spatial and temporal scales to enhance our understanding of the marine environment and the effect of offshore wind development upon ecological receptors (Wilding et al. 2017).	
REP1-054.64	**IPMP - Annex A** Collaborative / strategic monitoring In addition, collaborative monitoring could be undertaken over larger spatial and temporal scales than project-specific monitoring plans, which could enable the detection of wider community changes, unforeseen or long-term effects, and allow for greater statistical power in subsequent analyses. Some projects have worked collaboratively to address key shared questions of mutual interest at the post-consent phase (e.g., see Section 6.3.1). If implemented effectively, this allows for the division of labour and allows multiple projects to undertake more insightful monitoring programmes than possible on an individual project-level.	Please refer to the Applicant's response to REP1-054.45 and REP1-054.46.
REP1-054.65	**IPMP - Annex A** Collaborative / strategic monitoring Whilst there is widespread agreement of the benefits of collaborative monitoring across sector groups, a framework is required to facilitate strategic monitoring programmes at the government level. Facilitating strategic monitoring is a key objective of Natural	Please refer to the Applicant's response to REP1-054.45 and REP1-054.46.

Reference	Written Representation Comment	Applicant's response
	England's Approach to Offshore Wind (Natural England, 2021) and Natural England supports the implementation of strategic monitoring as a mechanism to address key evidence gaps and to deliver monitoring projects at scale. Natural England are also leading the Planning Offshore Wind Strategic Environmental Impact Decisions (POSEIDON) project. This is a multi-year project, funded through the Crown Estate's Offshore Wind Evidence and Change (OWEC) programme, which is seeking to address strategic data collection for offshore wind projects. The outputs of the POSEIDON project will be incorporated into this advice when available. Projects should consider whether data collection for some aspects of post-consent monitoring could be undertaken collaboratively with other regional projects in order to answer specific monitoring aims and priorities. Natural England strongly supports the implementation of collaborative monitoring programmes across projects, zones or regions, and can provide advice on a case-by-case basis	

2.8 Natural Resources Wales

Table 2.8: REP1-056 Natural Resources Wales.

Reference	Written Representation Comment	Applicant's response
REP1-056.1	1. Summary Marine Ornithology 1. NRW (A) provide more detail on the issues raised in our Relevant Representations, along with updates on progress made on some of these issues since then. Some issues remain unresolved. The issues relate to Collision Risk Modelling, cumulative assessment and Habitats Regulations Assessment.	The Applicant thanks NRW for their ongoing engagement and recognition of the progress made. The Applicant looks forward to working with NRW to resolve any remaining matters. The Applicant provided responses to the relevant representations (S_ PD_3 Applicant's Response to Relevant Representations (PD1-017)) and further responses and clarification notes at Deadline 1 to resolve many of the matters raised: • S_D1_4 Response to Hearing Action Points (REP1-005) • S_D1_4.5 Annex 4.5 to Response to Hearing Action Point 15: Offshore Ornithology CEA and In-combination Gap-filling of Historical Projects Note (REP1-010) • S_D1_4.6 Displacement Rates Clarification Note (REP1-011) • S_D1_4.7 Annex 4.7 to Response to Hearing Action Point 15: Apportioning Sensitivity Analysis (REP1-012) and • S_D1_4.8 Annex 4.8 to Response to Hearing Action Point 15: Great Orme Head SSSI Clarification Note (REP1-013). The Applicant looks forward to NRW's response to the Deadline 1 submissions. The Applicant has provided responses to detailed comments associated with the high-level issues identified in this representation where relevant in this table (reference REP1-056.9 to REP1-056.55).
REP1-056.2	Marine Mammals 2. NRW (A) provide more detail on the issues raised in our Relevant Representations along with updates on progress made on some of these issues since then. However, some issues remain unresolved, these include impacts to marine mammals from elevated levels of underwater sound, interrelated effects and have provided notes for consideration on the Applicant's Underwater Sound Management Strategy.	This is noted by the Applicant. Further detail is provided in response to the detailed submissions.

Reference	Written Representation Comment	Applicant's response
REP1-056.3	Fish and Shellfish Ecology 3. NRW (A) agree with the overall conclusion of no risk of an adverse effect on the integrity of diadromous fish features from the Welsh protected sites. As the development is within English territorial waters, NRW defer to advice from Natural England (NE) on all fish species not originating from Welsh protected sites.	The Applicant welcomes this representation that NRW agree with the overall conclusion of no risk of an adverse effect on the integrity of diadromous fish features from the Welsh protected sites.
REP1-056.4	Physical Processes 4. When considering cumulative impacts, the zone of influence for the potential alteration to the hydrodynamics during operation caused by the presence of the generation asset structures and the potential advection of the suspended sediment concentration plumes generated during construction works and maintenance works do not overlap with Mona OWF inside the 12NM jurisdiction boundary line. As a result, NRW will be deferring to JNCC/NE for these matters.	This is noted by the Applicant.
REP1-056.5	Benthic Subtidal and Intertidal Ecology 5. Considering the physical processes advice provided above, the location of Morgan Generation Assets being wholly in English waters, and the zone of influence affecting benthic habitats in Welsh waters only, NRW defers all benthic subtidal and intertidal ecology advice to JNCC/NE.	This is noted by the Applicant.
REP1-056.6	Biodiversity Benefit 6. NRW welcomes the Applicant's ongoing commitment to engage with us on biodiversity enhancement measures at an appropriate time.	This is noted and welcomed by the Applicant.
REP1-056.7	Designated Landscapes/Seascapes 7. NRW are satisfied with the 60km study area used in the Seascape, Landscape and Visual Impact Assessment (SLVIA), and the decision to scope out statutory designated landscapes in Wales from the SLVIA.	This is noted by the Applicant.

Reference	Written Representation Comment	Applicant's response
REP1-056.8	2. Detailed Comments This section of our Written Representation covers issues associated with matters considered to be cumulative impacts and/or mobile species in relation to Welsh designated sites. It draws on the information contained in the original application documents submitted by the Applicant and the Applicant's response to our Relevant Representations [RR-027] as set out in in the Applicant's response to the Procedural Deadline of 27 August 2024 in PD1-017 (and documents referenced therein). In our Relevant Representations, NRW (A) set out the main issues in relation to the application. This Written Representation is intended to provide more detail on these issues and to update the Examining Authority (ExA) on progress on those issues following the Applicant's response to our Relevant Representations provided into the examination in document PD1-017 (and relevant documents contained and referred to therein), with the Applicant during the pre-examination period and any updates on issues. Where relevant this Written Representation will refer to the Applicant's response to the specific issues raised in our Relevant Representations as set out by the Applicant in PD1-017. We also provide advice on the Applicant's approach when (although it may be suitable for this application) it may not be for other situations and should not set a precedent for further offshore wind applications coming up in the same area. We are also progressing a draft SoCG between NRW and the Applicant, which is planned for submission (by the Applicant) at Deadline 2. This SoCG will highlight progress made and those matters that are still outstanding / ongoing between the two parties.	This is noted by the Applicant and the Applicant has responded to each point below (please also refer to REP1-056.1). The Applicant welcomes NRWs ongoing engagement. The Applicant has submitted the updated SoCG at Deadline 2.
REP1-056.9	2.1 Marine Ornithology 9. Following a review of the environmental material submitted by the Applicant, in our Relevant Representations NRW (A) identified the key issues as:	The Applicant has provided responses to detailed comments associated with the high-level issues identified in this representation where relevant in this table (reference REP1-056.9 to REP1-056.55) (please also refer to REP1-056.1).

Reference	Written Representation Comment	Applicant's response
	• Methods and input parameters (avoidance rates and flight speeds) used in collision risk modelling (CRM). • Data gaps and figures included in cumulative assessments. • Displacement and mortality rates used in HRA Stage 2 ISAA integrity test step 1. Lack of consideration of Liverpool Bay SPA for operations and maintenance vessel movements in HRA Stage 1 Screening and Stage 2 ISAA.	
REP1-056.10	2.1 Marine Ornithology 10. This Written Representation sets out more detail on these issues and any updates to the issues identified above since submission of the Relevant Representations.	This is noted by the Applicant and the Applicant has responded to each point below (please also refer to REP1-056.1).
REP1-056.11	2.1.1 Methodological Issues 2.1.1.1 Seabird Collision Risk Modelling (CRM) Density data used in CRM (Applicant response reference to RR-027.9 in PD1-017) 11. In our Relevant Representations NRW (A) requested clarification from the Applicant as to how the Applicant had entered the seabird density data into the sCRM. In PD1-017, the Applicant has clarified that they have undertaken the CRM using the code associated with the stochastic collision risk model developed by McGregor et al. (2018) which has been run within R studio. We would therefore request that the R code and any excel/.csv files used by the Applicant are made available, as we consider this to be best practice and for transparency in the approach taken. Without this information model run cannot be replicated and we are unable determine if the approach taken is correct.	The R code upon which the modelling is based is available at: https://github.com/dmpstats/stochCRM with all data required for collision risk modelling presented in Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report (APP-055). As the collision risk model was undertaken stochastically, although it will be possible to follow the same method, it will not be possible to achieve exactly the same results, as each run will involve different samples from the distributions associated with each parameter.

Reference	Written Representation Comment	Applicant's response
REP1-056.12	12. Regardless of the method used for running the tool (through using R code or the Shiny app), clarification is required on the bird density data considered. We note that entering the mean monthly data plus confidence limits (as would have to be done based on the data provided in Table 1.5 of Volume 4, Annex 5.3 of APP-055) rather than uploading the bootstrapped density data could result in different collision predictions as the model samples from a truncated normal distribution, and as a result this may not reflect the distribution of the bird density data from the site (Trinder 2017). NRW advise the approach of uploading 1,000 samples from a distribution of mean density values (e.g. as generated by bootstrapping) is taken and that bootstrapped density data are provided along with the input and output log files generated by the sCRM tool. If bootstrapped data have been uploaded, then we highlight that supply of the bootstrapped data is required not only to verify the sCRM, but also to enable future access for consideration in cumulative and in-combination assessments.	Density data, regardless of the associated confidence metric (confidence intervals or bootstrapped data) uses the same underlying raw data. Any differences in collision risk estimates that may result from the use of different sampling regimes within the collision risk model will make no material difference to the assessments conducted in Volume 2, Chapter 5: Offshore ornithology (APP-023) or HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098). The use of multiple simulations within the stochastic collision risk model also reduces any differences that may occur due to the use of different sampling regimes. The approach to collision risk modelling, specifically the use of confidence intervals, was presented to the Expert Working Group (EWG) as part of the second EWG meeting (18/02/2022) (included in "Offshore ornithology collision risk assessment technical note for the Evidence Plan Offshore Ornithology Expert Working Group" (see Technical engagement plan appendices Part 4 (Appendix D) (APP-092)). The approach was applied as part of the PEIR with no issues raised at that stage. As a result the Applicant maintained the approach in the application. A change from the methodology used by the Applicant, to the methodology recommended by NRW, would not change the central values used for impact assessments, beyond the variability expected when applying a stochastic analysis. Confidence intervals are used within the assessment to show the confidence associated with the central value and although the methodology is different to that proposed by NRW, the approach used by the Applicant provides a valid and robust measure of confidence around the central value. The use of the approach proposed by NRW for calculating confidence intervals will not change the outcomes of the assessment (i.e. no significant impacts or adverse effect on the integrity of any SPA) or provide any greater confidence in the estimates calculated, as the assessments are conducted based on the mean central value, with the confidence intervals used to describe the confidence in these values, and not to define the magnitude of an effect.
REP1-056.13	Flight speeds used in CRM (Applicant response reference to RR-027.11 in PD1-017) 13. We acknowledge the Applicant's review of evidence of seabird flight speeds that was presented in APP-055. The evidence presented by the Applicant was considered in the formulation of the SNCB advice on CRM parameters that was provided to the Applicant via Natural England during the EWG. As was acknowledged by NRW (A) in our Relevant Representations [RR-027] bird flight speeds are an important issue in the context of CRM, and bird flight speeds are acknowledged by the SNCBs as requiring	The Applicant notes the recent publication of JNCC *et al.* (2024) which provides SNCB recommendations in relation to the parameters to use in collision risk modelling. The flight speed section of JNCC *et al.* (2024) provides no detail on how the recommended flight speeds were selected, and provides no apparent review of the evidence presented by the Applicant in Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report (APP-055). It is the Applicant's position that, based on the evidence presented in Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report (APP-055), the flight speed data from Alerstam *et al.* (2007) and Pennycuick (1987) are unsuitable for use in collision risk modelling. Modelling conducted utilising these values will therefore provide collision risk estimates that are not accurate and do not represent the likely impact from the Morgan Generation Assets. Any assessments based on these values will therefore have a high level of associated uncertainty. The best available evidence in relation to flight speeds is therefore provided by Skov *et al.* (2018).

Reference	Written Representation Comment	Applicant's response
	update. We understand that work is currently underway using tracking data for a number of species at a range of sites, which should provide further information on flight speeds. In the interim period we are happy to consider the application of site or region-specific evidence for specific projects (for example we have been happy for site-specific flight speed of gannet from Grassholm to be used in a previous project assessment).	Regardless of this issue the Applicant has presented collision risk estimates calculated using both the flight speeds advocated by the EWG and those by the Applicant, with conclusions of no significant effect and no adverse effect on integrity reached for all relevant species and features of designated sites for all parameter scenarios.
REP1-056.14	14. Our advice therefore remains at present that the flight speeds as presented in the recommended input parameters provided to the Applicant by Natural England during the EWG are used. We again acknowledge that the Applicant has presented CRM outputs for a range of flight speeds, including those recommended by the SNCBs. We again note that NRW (A) will base its advice when considering the assessment conclusions on impact significance or the potential for Adverse Effect on Site Integrity (AEoSI) on the predicted impacts resulting from the SNCB recommended input parameters, including flight speeds (from Alerstam et al. (2007) or Pennycuick (1997)). Therefore, we advise that the estimates calculated using SNCB recommended parameters should continue to be progressed through all stages of the assessment.	The Applicant welcomes acknowledgement that CRM outputs incorporating the parameters advocated by the EWG have been presented in the application. The Applicant notes that even when using the collision risk estimates calculated using the flight speed data advocated by the EWG, conclusions of no significant effect and no adverse effect on integrity are reached for all relevant species and features of designated sites.
REP1-056.15	Avoidance rates used in CRM (Applicant response reference to RR-027.12 in PD1-017) 15. As noted in our Relevant Representations [RR-027], the use of species-specific versus species-group avoidance rates was discussed with the Expert Working Group (EWG). We again reiterate the advice provided to the Applicant through the EWG, that we do not currently consider the use of species-specific rates (as the applicant has done) to be appropriate for CRM. This is because the paucity of offshore, species-specific data undermines the confidence we can place in species-specific rates at this stage. Additionally, some of the high value collision data collected offshore could not	The Applicant has provided a review of the available avoidance rates used in the collision risk modelling exercise in Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report (APP-055). This review concluded that the species-specific avoidance rates were robust based on the criteria set out by Cook (2021) and therefore represented the best available evidence. Regardless of this issue the Applicant has presented collision risk estimates calculated using both the avoidance rates advocated by the EWG and those by the Applicant.

Reference	Written Representation Comment	Applicant's response
	confirm specific species identifications, so there is more data to inform grouped rates in some cases.	
REP1-056.16	16. We again acknowledge that the Applicant has presented CRM outputs for a range of avoidance rates, including those advised by the SNCBs. As noted above, NRW (A) will base its advice when considering the assessment conclusions on impact significance or the potential for AEoSI on the predicted impacts resulting from the SNCB advised input parameters, including species-group avoidance rates. Therefore, we again advise that the estimates calculated using SNCB advised parameters should continue to be progressed through all stages of the assessment.	The Applicant welcomes acknowledgement that CRM outputs incorporating the parameters advocated by the EWG have been presented in the application. The Applicant notes that even when using the collision risk estimates calculated using the avoidance rates advocated by the EWG, conclusions of no significant effect and no adverse effect on integrity are reached for all relevant species and features of designated sites.
REP1-056.17	2.1.1.2 Impacts to Sites of Special Scientific Interest (SSSI) (Applicant response reference to RR-027.14 in PD1-017) 17. In our Relevant Representations [RR-027], NRW highlighted that several areas of clarification were required regarding the Applicant's assessment of impacts from the Morgan Generation Assets project on the guillemot, razorbill and kittiwake features of the Pen y Gogarth / Great Orme's Head SSSI. We welcome the commitment by the Applicant in their response to our Relevant Representations [PD1-017] that they intend to submit a clarification note at Deadline 1, detailing responses to our comments regarding this aspect. We will provide further advice on this aspect following review of this document.	The Applicant has provided this clarification note at Deadline 1 (S_D1_4.8 Annex 4.8 to Response to Hearing Action Point 15: Great Orme Head SSSI Clarification Note (REP1-013)) and awaits NRW's response.
REP1-056.18	2.1.1.3 Cumulative (and in-combination) Assessments Data gaps (Applicant response reference to RR-027.17 to RR-027.19 in PD1-017) 18. As noted by NRW in our Relevant Representations [RR-027], the Applicant's cumulative (and in-combination) impact assessments contain numerous data gaps and cannot be considered comprehensive. This issue was raised as a concern by the SNCBs	The Applicant provided responses to the relevant representations (S_ PD_3 Applicant's Response to Relevant Representations (PD1-017)) and further responses and clarification notes at Deadline 1 to resolve many of the matters raised (S_D1_4 Response to Hearing Action Points (REP1-005)). The Applicant looks forward to NRW's response to the Deadline 1 submissions. The Applicant has provided the proposed clarification note at Deadline 1 (S_D1_4.5 Annex 4.5 to Response to Hearing Action Point 15: Offshore Ornithology CEA and In-combination Gap-filling of Historical Projects Note (REP1-010)) and awaits NRW's response. The Applicant notes that there was general agreement on the methodology applied as part of this note during an SNCB meeting undertaken on 29 August 2024 (please see Appendix B , S_D1_4.5 Annex 4.5 to Response to

Reference	Written Representation Comment	Applicant's response
	(NRW/NE/JNCC) in PEIR responses and discussed during the EWGs.	Hearing Action Point 15: Offshore Ornithology CEA and In-combination Gap-filling of Historical Projects Note (REP1-010)).
REP1-056.19	19. We welcome that the Applicant, together with the Mona project Applicant, is engaging with SNCBs on the proposed methodology for a 'gap-filling' exercise and that the Applicant intends to produce a technical note regarding this exercise in accordance with the SNCB Advice Note at Deadline 1. NRW (A) has engaged with the Applicant regarding their proposed approach and results of the 'gap-filling' exercise, and a useful meeting was held with the Applicant, NRW (A), JNCC and NE to discuss this on 29th August. Joint SNCB written comments (NRW (A), NE and JNCC) have been provided to the Applicant following this meeting (sent via email by JNCC on 6th September 2024). NRW (A) will provide further advice into the examination following full review of the Applicant's document that will be submitted into the examination at Deadline 1.	The Applicant notes NRW welcomes the engagement with SNCBs on the CEA and in-combination gap filling approach and note and thanks NRW for their advice. Please see response to REP1-056.18 above.
REP1-056.20	Data included for other projects in cumulative assessments (Applicant response reference to RR-027.20 to RR-027.22 in PD1-017) 20. In our Relevant Representations [RR-027], NRW highlighted a number of issues with inconsistencies with figures for projects included in the assessments between the Morgan application and the Mona application. We understand that the Applicant is working with the Mona Applicant on an updated cumulative effects assessment to fill the gaps for historic projects and we therefore suggest that both Applicant's ensure that the same figures are included for projects with data in both sets of cumulative assessments.	The 'Offshore Ornithology Cumulative Effects Assessment and In-combination Gap-fill of Historical Projects' methodology note provided in Appendix B of S_D1_4.5 Annex 4.5 to Response to Hearing Action Point 15: Offshore Ornithology CEA and In-combination Gap-filling of Historical Projects Note (REP1-010) was developed collectively by the Mona Offshore Wind Project, Morgan Offshore Wind Project: Generation Assets and Morecambe Offshore Wind Farm: Generation Assets project teams. The Mona Offshore Wind Project and Morgan Generation Assets project teams have continued to collaborate during the development of the clarification note to ensure consistency where appropriate. Please see response to REP1-056.18 above. The Applicant notes that there are reasons why cumulative and in-combination numbers may differ in the assessments presented by different projects including, but not limited to, the application of surrogate apportioning values, seasonal definitions, etc..
REP1-056.21	21. As noted in our Relevant Representations [RR-027], we noted that the cumulative collision assessment text and tables in Volume 2, Chapter 5 [APP-023] suggests the predicted collision figures for the other projects included have been corrected for the species-specific avoidance rates from Ozsanlav-Harris et al. (2023), with	Collision risk estimates for projects considered cumulatively and in-combination have been corrected using a simple correction factor that represents the difference between the avoidance rate used in the original project assessment and those now advocated by relevant stakeholders (in this case the avoidance rates advocated by the Applicant and EWG). For example, if collision risk estimates were calculated in the original assessments for a project using a 98% avoidance rate and

Reference	Written Representation Comment	Applicant's response
	cumulative totals also presented for the species-group avoidance rates as advised by NE/NRW/JNCC. In PD1-017, the Applicant has confirmed that this is the case, but does not provide any information as to the approach they have taken to do this and so we again request information is provided on this – we assume a correction factor of some kind has been applied but would welcome more information on the approach taken. We note that correcting collision figures to account for current advised avoidance rates has been standard practice in cumulative/in-combination assessments undertaken for assessments for projects located in the North Sea and we do not have any issues with this approach being taken by the Applicant. However, we would like to understand the approach taken and whether it is consistent with approaches taken in the North Sea.	the new avoidance rate was 99%, then the collision risk estimates would be multiplied by 0.5. This is identical to the approach applied as part of multiple assessments for projects in the North Sea. The Applicant welcomes agreement on the use of a correction factor to address this aspect of the calculation of cumulative and in-combination numbers.
REP1-056.22	22. In PD1-017 the Applicant has confirmed that Option 2 figures for all species have been included for Awel y Môr with the exception of herring gull where the Option 3 figure has been included. Based on this response, it is unclear as to the reasoning for the Applicant's decision to include Option 3 figures for herring gull, but Option 2 for great black-backed gull. We note that the avoidance rates recommended for use by the Morgan Generation Assets Applicant by NE/NRW (A)/JNCC are those for the 'basic' Band model (i.e. Options 1 and 2) and are not considered appropriate for use with the 'extended' model (i.e. Option 3). We note that at the time of the Awel y Môr examination SNCB advice would have been that the extended model (i.e. Option 3) could be used for large gulls (including herring gull) using the avoidance rates advised for the extended model. However, we note that the advice provided to the Applicant in the EWG by NE regarding CRM parameters in July 2022 stated that they no longer accept use of the extended Band model (options 3 & 4) (see Section D.3.9 of Appendix D of Technical Engagement Plan	The Applicant is undertaking a sensitivity review of the cumulative and in-combination assessments undertaken in the application to account for recently submitted projects. This will also consider the matters raised in this comment. For offshore ornithology, this will be available at Deadline 3.

Reference	Written Representation Comment	Applicant's response
	APP-092). NRW (A) agree with NE's position. Therefore, we advise that if the Option 3 herring gull collision predictions for Awel-y-Môr are included in the cumulative assessments, they should not be corrected to the currently advised avoidance rates. However, if the Option 2 figures for this project are included instead (which in light of current advice would be our preferred approach), then these could be corrected to the currently recommended avoidance rates. In PD1-017 in response to this issue (response to point REP-027.30) the Applicant notes that the use of Option 2 figures for herring gull would make no difference to the conclusions of the herring gull cumulative collision assessment. Whilst this may be the case, as the Applicant intends to submit an updated cumulative effects assessment to gap fill for historic projects, we advise that the herring gull figures included for Awel y Môr are updated to include the Option 2 rather than Option 3 figures.	
REP1-056.23	23. In our Relevant Representations [RR-027] we also noted that the figures the Applicant had included in their cumulative assessments for the Morecambe generation assets project were based on the PEIR figures for this project, which were based on only the first 12 months of data for that project and hence were subject to a level of uncertainty. We acknowledge that at the time of the Applicant's production of the ES, the Morecambe generation PEIR figures represented the most applicable publicly available data at the time. As note by the Applicant in the response to REP-027.22 in PD1-017, the Applicant notes that since their application submission the Morecambe Generation assets application has been accepted for examination by PINS. Given that the Applicant is working on an updated cumulative effects assessment to fill gaps in historic projects, we advise the Applicant to consider updating the numbers included for the Morecambe Generation Assets project to those in the submission at the same time.	Please see response to REP1-056.22 above.

Reference	Written Representation Comment	Applicant's response
REP1-056.24	2.1.2 HRA Related Issues 24. We note that the advice provided below is applicable to the potential impacts and effects to Welsh protected sites only. For the many SPAs/Ramsar sites screened and assessed by the Applicant that are located outside of Wales (in England, Scotland, Northern Ireland and Ireland), the relevant Statutory Nature Conservation Bodies (SNCBs) should be consulted.	The Applicant notes this comment and is consulting with relevant SNCBs where necessary.
REP1-056.25	2.1.2.1 LSE Screening 25. We again reiterate our advice provided in our Relevant Representations [RR-011] and during the EWG discussions on the approach to the HRA Screening of likely significant effects (LSE) taken by the Applicant, i.e. that the approach taken may be considered appropriate regarding the Morgan Generation Assets project alone, but that this approach will not necessarily be appropriate for all offshore wind cases. Therefore, we advise future offshore wind projects discuss any proposed LSE screening approaches with NRW well in advance of any proposed submission of an application.	The Applicant notes this comment and highlights the agreement between the Applicant and SNCBs in relation to the approach used for HRA screening.
REP1-056.26	Liverpool Bay SPA (Applicant response reference RR-027.25 in PD1-017) 26. As noted in our Relevant Representations [RR-027], whilst the Morgan Generation Assets application does not cover the offshore export cable, as the port location is not yet decided, we consider that there is the potential for operations and maintenance vessel movements through the Liverpool SPA for such vessels transiting from port to the array area. No consideration has been given in the HRA Stage 1 Screening Report [APP-099] to the potential impacts from such activities on the qualifying features of this SPA, particularly the red-throated diver and common scoter features. Given that these features are particularly sensitive to disturbance/displacement from vessel movements, we	The Applicant welcomes and agrees with NRW's conclusion that it is likely that an adverse effect on integrity from operation and maintenance vessel movements can be ruled out for these features of the SPA based on the measures adopted as part of the Morgan Generation Assets (section 5.8 of Volume 2, Chapter 5: Offshore ornithology (APP-023)).

Reference	Written Representation Comment	Applicant's response
	would consider that an LSE cannot be ruled out for these features and hence should be taken through to the HRA Stage 2 ISAA. However, we note the measures listed in Table 5.26 of Volume 2, Chapter 5 [APP-023] of adherence to an offshore Environmental Management Plan (EMP) that will include measures to minimise disturbance to rafting birds from transiting vessels (as set out in APP-070) and include a Marine Pollution Contingency Plan (MPCP). We note and agree that the offshore EMP is secured within the deemed marine licence (dML) in Schedule 3 Part 2 of the draft DCO [APP-005]. Therefore, based on the adoption of best practice vessel operations to minimise disturbance it is likely that an AEoSI from operation and maintenance vessel movements can be ruled out for these features of the SPA.	
REP1-056.27	2.1.2.2 Qualifying features of Welsh SPAs/Ramsars (Applicant response to RR-027.26 in PD1-017) 27. We welcome that assessments have been made of all qualifying features and listed main component species of assemblage features for designated sites. However, the Applicant should note that the assemblages are qualifying features in their own right and require their own assessment. We recommend the Applicant includes an assessment for each assemblage feature.	Within HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) and HRA Stage 1 Screening Report (APP-099) the Applicant has considered assemblage features within the assessments presented. In all cases, conclusions of no adverse effect have been reached with these conclusions also considered applicable to the assemblage feature as a whole (see for example paragraph 1.6.3.37 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098)).
REP1-056.28	2.1.2.3 Apportionment of impacts (age classes, methods for apportionment of impacts to designated sites) Age class apportionment: kittiwake in the breeding season (Applicant response reference to RR-027.27 in PD1-017) 28. In our Relevant Representations [RR-027], NRW (A) raised concerns regarding the appropriateness of the Applicant's use of the kittiwake adult proportion that was calculated for Hornsea 2. We note that this approach was not raised by the Applicant during EWG meetings	The Applicant notes this comment and has provided a detailed response in REP1-056.29 below.

Reference	Written Representation Comment	Applicant's response
	or subsequently, and therefore NRW (A) has not agreed to this approach.	
REP1-056.29	29. In their response to this issue in PD1-017, the Applicant states that 'this approach was developed as part of the Hornsea Two assessments in consultation with Natural England and applied as part of the assessments presented for that project'. Whilst it may be the case that the Hornsea 2 approach was developed in consultation with NE, it does not necessarily mean NRW agree with the approach or that it is applicable to a different project located in a different area. We note that the Hornsea 2 approach to apportioning to age class referred to in Paragraph 1.2.3.13 of the Applicant's Apportioning Technical Annex [APP-057] relies on reliable counts of first year birds, i.e. in the case of kittiwake first summer birds which by August of that year have largely transitioned to adult plumage and are indistinguishable from mature adults. Therefore, the identification rate of first summer kittiwake is questionable and calculations derived from this e.g. applying survival rates to define an age class structure, are also questionable. Additionally, the juvenile survival rates (0-1 year) given in Horswill & Robinson (2015) are very old and from a single colony in the North Sea (taken from Coulson & White 1959) and hence have a poor data quality score (score of 1) and therefore it is highly uncertain that they are applicable here. These issues mean there is uncertainty around the appropriateness of the approach for use at the Morgan Generation Assets site which is located in the Irish Sea. Therefore, we reiterate our advice from our Relevant Representations [RR-027] that a more appropriate approach for the breeding season would be to use the 84.11% of adults recorded in the Morgan Generation Assets site-specific Digital Area Survey (DAS) data, or to take the same approach as for auks and Manx shearwater and assume all birds are adults	As discussed in Volume 4, Annex 5.5: Offshore ornithology apportioning technical report (APP-057), the approach applied is ecologically 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). The use of 84.11% would represent a known over-estimate, as it is known that older immature kittiwake age classes, whose plumage is inseparable from that of breeding adults, visit natal waters during the breeding season (e.g. Coulson, 2011). Coulson (2011) indicates that the moult of first-summer birds may begin in mid to late April, taking 130 days to complete and therefore ending by late September. This would therefore mean that the large majority of first-summer birds would retain some degree of first-plumage throughout the summer months and would still be identifiable from adults. Even if a proportion of these birds were indistinguishable from adults this would only serve to make the Applicant's approach more precautionary as it would provide an under-estimate of the likely proportion of immature birds and therefore an over-estimate of the adult proportion. The percentage of adults calculated by the Applicant (58.95%) takes into account all immature age classes whilst remaining precautionary, and has therefore been applied in the assessments. The survival rate data in Horswill and Robinson (2015) have been used throughout offshore wind farm assessments to inform analyses such as Furness (2015) which underpins many of the analyses required as part of offshore wind farm assessments (e.g. apportioning in the non-breeding season, non-breeding season regional population, etc.).

Reference	Written Representation Comment	Applicant's response
REP1-056.30	30. We also note that the Mona project (also located in the Irish Sea) were also initially taking this Hornsea 2 approach but following NRW (and JNCC) concerns raised in Relevant and Written Representations (same concerns as raised here), the Mona applicant has now committed to updating assessments using their DAS data proportion of adults for kittiwake age class apportioning in the breeding season. Therefore, we recommend the Morgan Generation Assets Applicant considers doing the same.	The Mona Offshore Wind Project is independent of the Morgan Generation Assets. As stated above, the survival rate data in Horswill and Robinson (2015) have been used throughout offshore wind farm assessments to inform analyses such as Furness (2015) which underpins many of the analyses required as part of offshore wind farm assessments (e.g. apportioning in the non-breeding season, non-breeding season regional population, etc.). Therefore, the approach taken provides consistency with existing assessment methods and is appropriate to be applied for the Morgan Generation Assets.
REP1-056.31	Age class apportionment for all other species in the breeding season (Applicant response reference to RR-027.28 in PD1-017) 31. In our Relevant Representations [RR-027], we requested clarification from the Applicant as to the approach that had been taken for age classes for species where it is not possible to use the site-specific DAS data (e.g. auks, Manx shearwater), as it was unclear from Volume 4, Annex 5.5 'Apportionment Technical Report' [APP-057]. In their response to this in PD1-017, the Applicant has confirmed that where data on age classes is available from site-specific surveys (i.e. at least one or more immature age classes are readily identifiable during surveys) these data have been used within the apportioning process to identify the proportion of immature present at the Morgan Generation Assets. This has been applied to gannet, kittiwake and large gulls. Where immature age classes are not identifiable from surveys, it is assumed that all birds present at the Morgan Generation Assets are adult birds. This has been applied to guillemot, razorbill, fulmar and Manx shearwater. We welcome this clarification and are content with the approaches taken regarding this aspect.	The Applicant welcomes NRW's response on this matter.
REP1-056.32	Non-breeding season apportionment of impacts (Applicant response reference to RR-027.29 and RR-027.30 in PD1-017)	The Applicant welcomes agreement on the approach taken.

Reference	Written Representation Comment	Applicant's response
	32. The Applicant has clarified that the approach taken to apportioning in the non-breeding season utilises population data from Furness (2015) to derive apportioning values that reflect the proportion of adults that are assumed to be present at a site. We note that the approach taken APP-057 is based on the proportion of the SPA adult birds across the BDMPS total of birds of all ages for each relevant non-breeding Biologically Defined Minimum Population Scale (BDMPS) season based on data presented in Appendix A tables of Furness (2015). We agree that this approach follows standard practice that is advised by NRW (A) and are therefore content with the approach taken.	
REP1-056.33	33. In our Relevant Representations [RR-027] we advised that the Applicant checks the apportionment rate calculations for the non-breeding seasons for lesser black-backed gull for Skomer, Skokholm and seas off Pembrokeshire SPA as the figures presented in Table 1.16 of Annex 5.5 'Apportioning Technical Report' look incorrect. In the response to this in PD1-017m the Applicant has confirmed that the values in Table 1.16 of APP-057 for this site and species are incorrect. However, the have confirmed that this is just a transcription error and the correct values were used in the apportioning calculations and associated impact assessments, which was as NRW had suspected. We welcome that the Applicant has noted this in their Errata document [PD1-002]. We therefore consider this issue to be suitably resolved.	The Applicant welcomes the resolution of this matter.
REP1-056.34	2.1.2.4 Apportioned impacts from the Morgan project alone Apportioned CRM impacts and avoidance rates and flight speeds (Applicant response reference to RR-027.31 in PD1-017) 34. In our Relevant Representations [RR-027], NRW (A) noted that the apportioned collision risk estimates presented in paragraph A.1.2.1.1 (Table A.1) of the HRA Stage 1 Screening report [APP-099] were the	HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) includes collision impact estimates that reflect the EWG position apportioned to relevant SPAs.

Reference	Written Representation Comment	Applicant's response
	estimates calculated using flight speed data from Skov et al. (2018) and species-grouped avoidance rates. As noted in Section 1.1.2 above, use of the Skov et al. (2018) flight speeds does not reflect the flight speeds advised by the SNCBs (including NRW) for use in CRM. In their response to this issue in PD1-017, the Applicant notes that: 'the collision risk estimates presented in paragraph A.1.2.1.1 (Table A.1) are incorrect and represent collision risk estimates calculated using flight speed data from Skov et al. (2018) and grouped avoidance rates, a parameter set not advocated by either the Applicant or the SNCBs. However, this is a transcription error and these values have not been used to inform the screening process undertaken in HRA Stage 1 Screening Report (APP-099) or any other document supporting the application. This process has incorporated the collision risk estimates calculated incorporating the parameters recommended by the EWG. These estimates are provided in Volume 4, Annex 5.3 Offshore ornithology collision risk modelling technical report (APP-055).' Whilst we welcome the error has been noted by the Applicant and that this has been included in the Applicant's Errata document [PD1-002], we suggest that this error is actually amended in A.1.2.1.1 of the HRA Screening Report and an updated version of the report is submitted into the examination in order for the most appropriate figures for the project to be easily accessible for use by future projects including the Morgan Generation Assets project in in-combination assessments. We also suggest that the Applicant conducts a full review of their apportioned impacts to fully ensure that all apportioned collision estimates based on the SNCB advised input parameters are made available, particularly following any updates to assessments in light of the documents the Applicant intends to submit at Deadline 1 (particularly for collision plus displacement assessments for gannet (and kittiwake) designated sites).	

Reference	Written Representation Comment	Applicant's response
REP1-056.35	Stage 2 ISAA Part 3 (SPAs and Ramsars), Step 1 displacement assessments (Applicant response reference to RR-027.32 to RR-027.33 in PD1-017) 35. In our Relevant Representations [RR-027], NRW (A) noted that the apportioned impacts from displacement and resulting % increases to baseline mortality presented and assessed in the Step 1 assessment of the HRA Stage 2 ISSA Part 3 (SPAs and Ramsars) [APP-098] are based on the Applicant's considered appropriate % displacement and % mortality rates only. The apportioned impacts for the full ranges of SNCB (NRW/NE/JNCC) advised % displacement and % mortality rates are not presented in the HRA Stage 1 Screening [APP-099] or HRA Stage 2 ISAA Part 3 (SPAs and Ramsars) [APP-098] reports. The only apportioned figures available are for the Applicant's preferred % displacement and % mortality for each species feature of: 50% displacement and 1% mortality for auks, Manx shearwater and kittiwake and, 70% displacement and 1% mortality for gannet. To account for uncertainty in displacement and mortality rates we advise that apportioned impacts and associated increases in baseline mortality across the range of SNCB advised % displacement and % mortality are also presented and considered in the assessments. While it's possible that this might not materially change the conclusions we cannot agree to the applicant's preferred mortality and displacement rates.	The Applicant has provided the proposed clarification note at Deadline 1 (S_D1_4.6 Displacement Rates Clarification Note (REP1-011))) and awaits NRW's response. The Applicant highlights that the approach taken by the Applicant follows JNCC *et al.* (2022) guidance in relation to the identification of displacement and mortality rates, specifically in section 7 of JNCC *et al.* (2022) which states: *"Therefore, developers are encouraged to seek and present emerging sources of empirical evidence to provide support for their displacement assessment."* The Applicant has also presented displacement mortality at a range of displacement and mortality rates in Volume 4, Annex 5.2: Offshore ornithology displacement technical report (APP-054) with apportioning rates for all relevant SPAs presented in Volume 4, Annex 5.5: Offshore ornithology apportioning technical report (APP-057).
REP1-056.36	Auk displacement rates 36. In paragraphs 5.9.1.13-5.9.1.17 of the Offshore Ornithology Chapter [APP-023] the Applicant presents evidence to justify its preferred rates of 50% displacement and 1% mortality across the site and 2km buffer as being the most realistic rates to base the auk HRA assessments on. NRW considers that the evidence for auk displacement is variable, with some studies finding a strong displacement effect of guillemots and razorbills from offshore wind farms,	The literature review provided by the Applicant in Volume 2, Chapter 5: Offshore ornithology (APP-023) or HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) takes account of a wide range of evidence to derive evidence-based displacement and mortality rates for auk species which is summarised in APEM (2022). Interrogation of studies, as provided in APEM (2022), is required to understand the validity of the conclusions reached. For example, APEM (2022) concluded that the results found in many of the studies cited by NRW were "misleading" making predictions "unreliable". The report also stated that "displacement effects range from strong attraction to strong avoidance, but the mean effect tended to be weak avoidance, a statistically significant displacement rate of less than 50%."

Reference	Written Representation Comment	Applicant's response
	whereas other studies have found none. For example, displacement of guillemots and razorbills have been reported in the non-breeding season in the southern North Sea of distances from 2 to 4km (Petersen et al. 2004) and Petersen & Fox (2007) demonstrated the exclusion of guillemots out to at least 2km at Horns Rev development site. Mendel et al. (2014), studying the Alpha Ventus windfarm in Germany found that guillemot were in significantly lower numbers in all distance bands from the windfarm (out to 6-10km), with the highest displacement within 2km of the windfarm (razorbill were not in sufficient numbers to assess). Welcker & Nehls (2016), also studying Alpha Ventus, found that auks (predominantly guillemot) were 75% lower inside compared to outside the windfarm and that the lower numbers were evident out to 2.5km of the windfarm. Welcker & Nehls (2016) also conducted a literature review of studies looking at displacement and concluded that there was strong evidence across studies that auks are displaced by offshore windfarms. However, this has not been the case for other studies, e.g. guillemots at Robin Rigg wind farm in Scotland (Vallejo et al. 2017) and a study by Webb et al. (2017) found no displacement or attraction occurred at the Lincs and LID wind farms for all auks. Dierschke et al. (2016) conducted a review (for full details see table 3 in the paper) and they concluded that common guillemot and razorbill 'weakly avoided' windfarms. We note that displacement of auks may be state-specific (breeding or non-breeding), or it may be due to habitat quality and/or availability (e.g. birds will be more easily displaced from poorer quality habitat or where habitat is not limiting). The Applicant's evidence in paragraph 5.9.1.13 of APP-023 notes that evidence for auk displacement is variable. We also note a recent study has highlighted the potential for displacement to occur over much greater distances (up to ~20km) than are typically assessed or considered by baseline characterisation surveys (Peschko et al. 2024). Therefore, our advice	The Applicant has provided the proposed clarification note at Deadline 1 that provides assessments considering additional displacement and mortality rates (S_D1_4.6 Displacement Rates Clarification Note (REP1-011) and awaits NRW's response. See also response to point REP1-056.35 above.

Reference	Written Representation Comment	Applicant's response
	remains that consideration should be given to a range of displacement rates from 30%-70% across a 2km buffer and we strongly advise the Applicant provides apportioned impacts for relevant designated sites across this range to give us confidence in the approach. This is in line with Natural England's advice in their Relevant Representation Response [RR-026]. We understand the Applicant intends to submit a clarification note at Deadline 1 a response in relation to the comments above (see 46 paragraph below).	
REP1-056.37	Manx shearwater displacement rates 37. The Applicant has not presented any evidence to justify a 50% displacement and 1% mortality rate as being appropriate evidence-based rates to use for Manx shearwater HRA displacement impact assessments. As was noted by NRW in our response to actions from EWG2 (see Section D.3.15 of Appendix D of APP-092), there is currently no evidence for any particular range of displacement rates (1-10%, 30-70% or any other) for this species from offshore wind farms. Therefore, we advise that the full displacement matrices for apportioned impacts to Manx shearwater designated sites are provided, or as a minimum the range of impacts across the same range of rates as per auks are provided (i.e. 30-70% displacement and 1-10% mortality). We strongly advise the Applicant provides apportioned impacts for relevant designated sites across this range and/or the full displacement matrices for apportioned impacts for each relevant designated site. It is possible that these may not materially change the conclusions but without this information being provided, we are unable to confirm our agreement.	The Applicant is unaware of any evidence justifying the use of a 30-70% displacement rate range for Manx shearwater. In JNCC *et al.* (2022), Manx shearwater is identified as a species that does not require consideration as part of assessments of displacement impacts scoring a "1" (the lowest vulnerability score) in terms of the species vulnerability to displacement from structures in Wade *et al.* (2016). However, the species was included in the Morgan Generation Assets assessments at the request of the EWG. JNCC *et al.* (2022) also states: *"Some species with 'Disturbance Susceptibility' scores of 1 (e.g. northern fulmar) may not be displaced or hardly displaced. If assessment of these species is recommended in a particular case, usually a displacement level of 10% or less is assumed."* The Applicant's assessment is therefore significantly precautionary when considered against the guidance in JNCC *et al.* (2022).
REP1-056.38	Gannet displacement rates 38. With regard to the Applicant's chosen rates of 70% displacement and 1% mortality for use for gannet displacement assessment, we note that in paragraph 5.9.1.21 of the Offshore Ornithology Chapter [APP-023], the Applicant presents the evidence from Pavat et al.	The use of a 70% displacement rate for gannet aligns with the macro-avoidance rate proposed by Natural England as part of their advice in relation to collision risk, whereby densities inputted into the collision risk model are reduced by 70% to account for macro-avoidance which essentially represents a form of displacement (see E4.4 - Technical engagement plan appendices Part 4 (Appendix D) (APP-092)).

Reference	Written Representation Comment	Applicant's response
	(2023) and Apem (2022) as justification for its chosen rates. The Apem (2022) review results in a conclusion that 40-60% displacement should be considered for gannet during the breeding season and a 60-75% would be more appropriate during the non-breeding season. We note that of the seven studies reported in Apem (2022) suggesting displacement rates of less than 60%, the authors placed low confidence in the survey methods and/or data collected for five of these. We also note there is currently no empirical evidence for displacement consequent mortality of gannet and the studies quoted in Apem (2022) have significant limitations and numerous underlying assumptions limiting confidence in their conclusions. Therefore, based on the evidence, we do not consider that the Apem (2022) report provides sufficient justification for the use of different displacement and mortality rates to those advised by NRW.	
REP1-056.39	39. We note that the work by Pavat et al. (2023) was commissioned by Natural England and the aim of the work was to deliver an evidence-based method to ensure macro-avoidance behaviour is appropriately accounted for in collision risk models of gannet at offshore wind farms. This work was not aimed at reviewing displacement rates for use in the displacement matrix. We acknowledge that displacement effects are an inherent part of macro-avoidance behaviour because macro-avoidance is a combination of both displacement and barrier effects. However, currently displacement and collision risk are performed as separate analyses and there are spatio-temporal mismatches in how displacement and collision mortalities are measured (Pavat et al. 2023). We note that in assessments macro avoidance applies only to birds in the array footprint in flight, whereas displacement applies to the buffer as well and to all birds (on the water plus in flight). NRW agree with the advice provided by NE to the Applicant on 7th July 2022	Macro-avoidance is defined in Skov *et al.* (2018) as: *"Bird behavioural responses to the presence of the wind farm occurring beyond its perimeter, resulting in a redistribution of birds inside and outside the wind farm. In this study, empirical macro avoidance is quantified up to 3 km outside the wind farm."* Skov *et al.* (2018) represents the largest study on bird avoidance of wind farms in UK waters with the results of the study incorporated into Ozsanlav-Harris *et al.* (2023) from which avoidance rates for use in collision risk modelling are taken. Collision risk modelling is undertaken using density data obtained prior to the construction of a wind farm. These data therefore include birds that may exhibit macro-avoidance once the wind farm is built and therefore collision risk estimates need to be corrected to account for the presence of these birds during site-specific surveys. The abundance metrics used for collision risk modelling and displacement analyses have no impact on avoidance rate. The Applicant maintains that the use of a 70% displacement rate for gannet is precautionary and is based on the best available evidence as advised by Natural England. The Applicant also notes comment 31 of Natural Resources Wales' Relevant Representation (RR-027) which states that there is unlikely to be connectivity between gannet from Grassholm and the Morgan Generation Assets and therefore, from a HRA perspective, this issue is immaterial.

Reference	Written Representation Comment	Applicant's response
	regarding CRM parameters that to account for gannet macro avoidance by a reduction of density of birds in flight based on the level of macro avoidance displayed by this species, which was advised to be 70% (see Section D.3.9 of Appendix D of APP-092). However, we note that the displacement matrix approach uses mean seasonal peaks of all birds, whereas CRM uses monthly means of birds in flight. Hence the two things do not fit together, and we have no way of reconciling this at present.	
REP1-056.40	40. Therefore, NRW (A) maintain our position that a range of 60-80% displacement and 1-10% mortality for gannet should be considered in the assessment. So, we strongly advise the Applicant provides apportioned impacts for relevant designated sites across this range of displacement and mortality rates. It is possible that this may not materially change the conclusions but without the provision of this information we are unable to confirm our agreement with the conclusions.	The Applicant has provided further displacement analyses incorporating additional displacement and mortality rates in S_D1_4.6 Displacement Rates Clarification Note (REP1-011).
REP1-056.41	Mortality rates 41. We note that empirical evidence regarding the energetic consequences of displacement for seabirds and wintering waterbirds using the marine environment are very limited, and the role of overwinter survival on seabird population dynamics is poorly understood. Therefore, as there is very little information available about the consequences of displacement for individuals, there is no evidence to suggest that 10% is precautionary. Furthermore, we note that the mortality rates are a crude method of capturing a range of potentially deleterious effects that could arise from displacement, including reduced fitness for migration and reduced productivity during the breeding season. These are particularly relevant when considering displacement effects within sites designated for the species affected.	Given the scale of offshore wind farm development in UK waters, alongside other offshore activity such as oil and gas platforms, shipping movements, etc., if a mortality rate of 10% was occurring for any species, it is likely that such declines would be evident at breeding colonies around the UK coast. However, for many species that are considered particularly vulnerable to displacement (e.g. guillemot, razorbill and gannet), population sizes have increased in recent years. APEM (2022) provides a review of three studies that attempt to derive mortality rates for auks with none concluding that 10% is an appropriate mortality rate to consider. This leads to APEM (2022) concluding that a mortality rate of 1% is reflective of the evidence base whilst remaining precautionary. Whilst there is evidence to support the use of a 1% mortality rate there is no evidence to support the use of a 10% mortality rate. The Applicant also highlights that the Secretary of State in their decision for the Hornsea Four and Sheringham Shoal Extension and Dudgeon Extension offshore wind farms applied a mortality rate of 2% on the advice of Natural England. This rate has been considered in the S_D1_4.6 Displacement Rates Clarification Note (REP1-011) submitted at Deadline 1. The clarification note (REP1-011) has shown that using a mortality rate of 2% does not change the conclusions of no adverse effect on the integrity of any SPA and the conclusions of the assessments conducted in Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) remain valid.

Reference	Written Representation Comment	Applicant's response
REP1-056.42	42. We note that the evidence for mortality rates cited by the Applicant in paragraph 5.9.1.11 of APP-023 (e.g. Van Kooten et al. 2019 and Searle et al. 2014; 2018) used individual based models (IBMs) to infer mortality rates and we highlight that in each case that was not the primary aim of the studies. The cited studies each suffer from data deficiencies that introduce significant uncertainty to any estimate of mortality rate arising from OWF displacement.	The Applicant highlights that the Secretary of State in their decision for the Hornsea Four and Sheringham Shoal Extension and Dudgeon Extension offshore wind farms applied a mortality rate of 2% on the advice of Natural England. This rate has been considered in the S_D1_4.6 Displacement Rates Clarification Note (REP1-011) submitted at Deadline 1.
REP1-056.43	43. Therefore, as there is very little information available about the consequences of displacement for individuals, we continue to advise that a range of mortality rates from 1-10% are assessed for all species for displacement assessments.	Please see response to REP1-056.42 above.
REP1-056.44	Conclusion and range based approach 44. We consider that the applicant's use of single values runs a significant risk of 'false precision', which is inappropriate given the range of responses apparently recorded and the limitations of the studies so far carried out. As a result, the SNCB advised range-based approach seeks to encompass a range of potential displacement effects as observed in post-construction monitoring studies and mortality rates that reflect the considerable uncertainty relating to site-specific drivers for, and impacts of, displacement. The Applicant should note that the mortality rates are a simple way of attempting to capture a range of sub-lethal as well as lethal effects from displacement, e.g. adults entering the breeding season in poor condition. Furthermore, this approach is considered evidence-based and accurately reflects the relatively data poor landscape of offshore impact assessment.	Please see response to REP1-056.35 above. The approach to displacement analysis incorporates significant levels of precaution including the use of mean-maximum population estimates. The Applicant highlights that for projects in Scottish waters, NatureScot advise the use of single values for displacement rates (NatureScot, 2023). The Applicant also highlights that the Secretary of State in their decision for the Hornsea Four and Sheringham Shoal Extension and Dudgeon Extension offshore wind farms applied single displacement and mortality rates on the advice of Natural England. This has been considered in the S_D1_4.6 Displacement Rates Clarification Note (REP1-011) submitted at Deadline 1.
REP1-056.45	45. We note that NRW (A) are not advising that the HRA be based solely on the upper end of the % displacement and % mortality rates advised (e.g. 70%	Please see responses to previous comments, for example comments REP1-056.35 to REP1-056.44.

Reference	Written Representation Comment	Applicant's response
	displacement and 10% mortality for auks), but we are advising that in order to account for the large degree of uncertainty regarding displacement rates and effects, that the assessments consider a range of potential rates and effects rather than focussing on a single figure as the Applicant has done in their HRA documents. Additionally, seabirds in general also continue to experience multiple human induced pressures that offshore developments are at risk of accentuating. Therefore, NRW (A) do not consider our advised approach to the impact assessment to be unduly precautionary and question the characterisation of it as such in light of the evidence base and high levels of uncertainty regarding the consequences of displacement.	
REP1-056.46	46. We would highlight that NRW will base our advice and conclusions on assessments that consider the full range of advised displacement and mortality rates that follow SNCB guidance. As the apportioned impacts across the full range of advised displacement and mortality rates are currently not available for each designated site, we suggest that the Applicant provides this information into the examination as soon as possible. We note that the Applicant intends to submit a clarification note at Deadline 1, detailing responses to the comments regarding our recommendations that apportioned impacts and associated increases in baseline mortality across the range of SNCB advised % displacement and % mortality are also presented and considered in the assessments. NRW (A) will provide further advice into the examination following review of the submitted document.	The Applicant has presented displacement mortality at a range of displacement and mortality rates in Volume 4, Annex 5.2: Offshore ornithology displacement technical report (APP-054), collision risk estimates calculated using parameters advocated by the EWG in Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report (APP-055) and apportioning rates for all relevant SPAs presented in Volume 4, Annex 5.5: Offshore ornithology apportioning technical report (APP-057). Volume 2, Chapter 5: Offshore ornithology (APP-023) provides assessments incorporating both the Applicant's and the EWG's advocated parameters for both collision and displacement. HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) provides assessments incorporating collision risk estimates calculated using both the Applicant's and the EWG's advocated parameters. The Applicant has submitted S_D1_4.6 Displacement Rates Clarification Note (REP1-011) which provides HRA-level assessments incorporating a range of displacement and mortality rates. The clarification note (REP1-011) has shown that using the upper range of displacement and mortality rates does not change the conclusions of no adverse effect on the integrity of any SPA and the conclusions of the assessments conducted in Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) remain valid.
REP1-056.47	Stage 2 ISAA Part 3 (SPAs and Ramsars), Step 1 collision assessments (Applicant response reference to RR-027.34) 47. In our Relevant Representations [RR-011], NRW (A) requested clarification as to what the range of predicted	Collision risk estimates calculated using SNCB advised parameters are assessed throughout HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) and the Applicant welcomes acknowledgement of this.

Reference	Written Representation Comment	Applicant's response
	collision impacts presented in the Step 1 assessment tables of the HRA Stage 2 ISSA Part 3 (SPAs and Ramsars) [APP-098] are based on. In their response in PD1-017, the Applicant has confirmed that: 'the range of collision risk estimates incorporated into the analyses presented in HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments [APP-098] reflect the range of estimates presented in Volume 4, Annex 5.3 Offshore ornithology collision risk modelling technical report. This therefore incorporates collision risk estimates calculated using both the Applicant's and the EWG's preferred modelling parameters. Where any value within this range surpasses the baseline mortality thresholds defined, the SPA feature is progressed to the next stage of the assessment.' We welcome this clarification and that all input parameter scenarios have been considered and if any surpasses the baseline mortality thresholds defined, the SPA feature is progressed to the next stage of the assessment. However, as NRW (A) will base its advice on the predicted impacts based on the SNCB recommended input parameters (including flight speeds and species group avoidance rates), we advise that the apportioned predicted impacts calculated using SNCB parameters are highlighted and made explicitly clear in the HRA Stage 1 Screening and HRA Stage 2 ISAA where sites are taken forward to this stage. It is possible that this may not materially change the conclusions but without seeing this information we are unable to confirm our agreement with the the conclusions.	
REP1-056.48	Stage 2 ISAA Part 3 (SPAs and Ramsars), survival and mortality rates used (Applicant response reference to RR-027.34) 48. In our Relevant Representations [RR-027], NRW (A) requested clarification from the Applicant as to the survival and hence mortality rates used to calculate the baseline mortality and proportions of baseline mortality	The Applicant welcomes agreement on this approach.

Reference	Written Representation Comment	Applicant's response
	predicted impacts equate to presented in Step 1 of the HRA Stage 2 ISSA Part 3 (SPAs and Ramsars) report [APP-098]. We assumed that the species adult survival rates from e.g. Horswill & Robinson (2015) had been used in these calculations, but we requested that this was clarified. In their response in PD1-017, the Applicant has confirmed that the mortality rates used in the analyses presented in HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments [APP-098] are indeed sourced from Horswill & Robinson (2015). We agree with this approach	
REP1-056.49	Stage 1 HRA Screening and Stage 2 ISAA Part 3 (SPAs and Ramsars), presentation of gannet and kittiwake collision and displacement impacts separately as well as combined (Applicant response reference to RR-027.36) 49. In our Relevant Representations [RR-027], NRW (A) advised on the need for apportioned collision and apportioned displacement impacts to designated sites to be presented separately as well as combined. The Applicant has responded in PD1-017 noting that: 'In Volume 2, Chapter 5 Offshore ornithology [APP-023], displacement mortality estimates for kittiwake are presented in Table 5.36 and for gannet in Table 5.48. Collision estimates are presented for kittiwake in Table 5.51 and for gannet in Table 5.58. Combined collision and displacement impacts are presented in Table 5.62 for both kittiwake and gannet.' We note that these are referring to the EIA scale predicted impacts, rather than the apportioned impacts to designated sites. The results for Welsh designated sites in the HRA Stage 1 Screening Report [APP-099] do not therefore present the predicted apportioned impacts from collision and displacement separately, rather they just discuss the combined total (for example see text regarding disturbance and displacement and collision risk in paragraph 1.4.6.50 for Grassholm gannet in APP-099).	The Applicant requests additional clarity from NRW as to the paragraph they are referring to as there is no paragraph 1.4.6.50 in HRA Stage 1 Screening Report (APP-099). The use of impact estimates in HRA Stage 1 Screening Report (APP-099) is to identify where apportioned impacts represent more than zero. At this stage of the process whether this impact is a result of collision, displacement or both impacts combined makes no difference to the end result (i.e. the identification of LSE or not). In Step 1 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) the same reasoning applies. The purpose of this step is to identify whether any impact, whether this be collision or displacement (alone or combined) surpasses the 1% threshold of baseline mortality of the SPA population. If the predicted mortality does not, then a conclusion of no adverse effect on integrity is reached. The only features for which assessments of combined displacement and collision risk impacts were required in Step 2 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) were kittiwake at the Ireland's Eye SPA and Cape Wrath SPA. For the Ireland's Eye SPA in-combination collision risk impacts are presented in Table 1.61 with in-combination displacement impacts presented in Table 1.79. Combined impacts are presented in paragraphs 1.6.3.119 to 1.6.3.122. For the Cape Wrath SPA in-combination collision risk impacts are presented in Table 1.66 with in-combination displacement impacts presented in Table 1.83. Combined impacts are presented in paragraphs 1.6.3.132 and 1.6.3.35. The Applicant has presented displacement mortality at a range of displacement and mortality rates in Volume 4, Annex 5.2: Offshore ornithology displacement technical report (APP-054), collision risk estimates in Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report (APP-055) and apportioning rates for all relevant SPAs in Volume 4, Annex 5.5: Offshore

Reference	Written Representation Comment	Applicant's response
		ornithology apportioning technical report (APP-057). If necessary, this would allow for impacts specific to individual SPAs to be calculated for use in future assessments if required.
REP1-056.50	50. NRW (A) do not recommend that displacement is assessed for kittiwake as we currently consider the evidence base to be insufficient. Hence, we have not provided advice/comment on the displacement aspect of the kittiwake assessment, and we recommend that impacts to kittiwake (to Welsh designated sites at least) are presented for collision and displacement separately, rather than just the single combined total of collision and displacement. We also again recommend that the impacts of gannet collision and displacement are also presented separately as well as the combined impact of both. As noted in our Relevant Representations [RR-027], presentation of these apportioned impacts separately as well as combined will assist with verification of predicted impacts to Welsh sites.	Please see the Applicant's response to comment REP1-056.49.
REP1-056.51	51. Please note our advice above with respect to the provision of apportioned impacts for gannet across the range of advised % displacement and % mortality rates in addition to the preferred single rates used by the Applicant.	Please see responses to previous comments, for example comments REP1-056.38 to REP1-056.40 and REP1-056.43 to REP1-056.44.
REP1-056.52	2.1.2.5 In-combination Assessments (Applicant response reference to RR-027.39 to RR-027.41 in PD1-017) 52. We reiterate our advice provided in our Relevant Representations [RR-027] that the approach taken by the Applicant to in-combination assessment may be appropriate for this project where predicted impacts from the project alone are likely very small. However, we advise that the Applicant gives consideration to our advice in the Sections above, particularly regarding the advice for the Applicant to consider the apportioned impacts across the full range of SNCB advised % displacement and % mortality rates.	Please see responses to previous comments, for example comments REP1-056.38 to REP1-056.44 in relation to displacement.

Reference	Written Representation Comment	Applicant's response
REP1-056.53	53. It should be noted that this advice is provided with regard to Welsh designated sites only. As we noted in our Relevant Representations [RR-027], the approach taken by the Applicant may not be appropriate in other situations, including for designated sites where in-combination impacts are already close to/at levels that are already considered to be of an adverse effect; or designated sites considered to be in unfavourable condition/have restore conservation objectives. We note that this may be the case for designated sites located outside of Wales. We again note that it also does not mean that impacts from the Morgan Generation Assets project should be excluded from in-combination totals for future project assessments.	The Applicant is consulting with relevant SNCBs in regard to each SPA.
REP1-056.54	54. Therefore, it should be noted that we do not endorse this approach for use by future projects and recommend that future Applicants discuss proposed approaches to in-combination assessments with NRW (A) (and/or other relevant SNCBs) well in advance of submission.	The Applicant notes this response.
REP1-056.55	55. We again note that, if following the advice we have provided in the various Sections above, the Applicant's apportioned impacts predict further Welsh site and feature combination impacts from the project alone may exceed 0.05% of baseline mortality, then the gaps in the cumulative and hence in-combination assessments will be relevant.	The Applicant notes this response.
REP1-056.56	2.2 Marine Mammals 56. Following a review of the environmental material submitted by the Applicant, in our Relevant Representations [RR-027], NRW identified the key issues as: • Inadequate justification has been provided to support the assigned magnitude score of low when assessing the cumulative effects of injury and disturbance to marine mammals from elevated underwater sound	This is noted by the Applicant. Further detail is provided in response to the detailed submissions.

Reference	Written Representation Comment	Applicant's response
	due to vessel use, traffic and other non-piling sound producing activities. • The general cumulative effects assessment has not included the in-combination effects of other key offshore projects. • Inadequate justification has been provided to support the absence of assessing potential barrier effects as a result of the development. • Inadequate justification has been provided to support the conclusions of interrelated effects on marine mammals receptors. Impacts from additional disturbance caused as a result of the large-scale use of Acoustic Deterrent Devices (ADDs) need to be considered.	
REP1-056.57	57. This Written Representation sets out more detail on these issues and any updates to the issues identified above since submission of the Relevant Representations.	This is noted by the Applicant.
REP1-056.58	2.2.1 Baseline 58. NRW agrees with the data collected through surveys and literature including the data sources used to characterise the baseline, as well as the management unit approach adopted [AS-010] (although please see section Morgan ISA SAC section below), as discussed through the various EWGs. We agree with the majority of the conclusions in the Environmental Statement (ES) and Habitats Regulation Assessment (HRA), unless listed in the representations below.	The Applicant thanks NRW for the confirmation of agreement on the baseline characterisation, management unit approach, and apparent missing information on other projects and plans for the Cumulative Effects Assessment (CEA), and the majority of the conclusions for marine mammals in Volume 2, Chapter 4: Marine Mammals (AS-010) and in the HRA Stage 2 Information to support an appropriate assessment Part 2: Special areas of conservation assessments (APP-097). The Applicant has responded to further representations below.
REP1-056.59	2.2.2 Injury and disturbance to marine mammals from elevated underwater sound due to vessel use, traffic and other (non-piling) sound producing activities [AS-010] 59. In its Relevant Representation [RR-027], NRW acknowledged and welcomed the information provided regarding vessel traffic data [AS-010]. We advised	The Applicant notes that the maximum disturbance range from vessels is 3.627 km (Table 4.43 in Volume 2, Chapter 4: Marine Mammals (AS-010)). The Applicant highlights, as per its response to NRWs Relevant Representation (RR-036), in which the matter of disturbance from vessel noise was raised, that the ranges/numbers of animals disturbed presented are based on responses to moving vessels gathered from a literature review of empirical data from field studies, therefore not based on static impact radii.

Reference	Written Representation Comment	Applicant's response
	however, that there was inadequate justification for an overall conclusion of low magnitude, further noting that the estimated numbers of animals disturbed by vessels and any subsequent conclusions appear to be based on static impact radii – i.e. equivalent to vessels that are not moving. Given that vessels would be expected to move location, NRW considers that estimating numbers based on static radii may lead to both underestimates of daily numbers disturbed and an underestimate of the overall daily area ensonified.	The Applicant welcomes the agreement from NRW that it would be unrealistic to assess injury and disturbance from vessel use by presenting a sum of the impact ranges of all vessels. NRW stated "this does not preclude the need to propose an alternative method to gauge the number of animals affected by this impact pathway", and the Applicant highlights that an alternative method was proposed and used in the assessment in AS-010, which provided numbers of animals disturbed per vessel using highly precautionary impact ranges from literature. The Applicant also quantified the elevation in the number of vessels above the baseline. The Applicant did not go further and sum the impact ranges of all vessels, as, in agreement with NRW, this would be unrealistic and lead to a highly over-amplified assessment. The Applicant reviewed the suggested Wylfa Newydd assessment, highlighting NRW state "This is by no means prescriptive and other approaches can be taken". The Applicant highlights the Wylfa Newydd study had a maximum impact range of 60 m, whilst the assessment presented in AS-010 presented modelled ranges of ~4 km. In any case, as described above, the assessment applied a highly conservative disturbance range of up to 7 km (based on a literature review) and therefore this represents a ~3 km buffer around the modelled impact range of ~4 km. The Wylfa Newydd study also assessed harbour porpoise responses using different and older thresholds for a "minor" behavioural effect, which were derived from single airgun impulses (i.e., not a continuous threshold) and therefore the approach is not comparable. The Applicant highlights that the conservative range of 7 km is far enough from the North Anglesey Marine/Gogledd Môn Forol SAC (which lies 28.2 km from the Morgan Array Area) and that there would be no time/area threshold exceedance (JNCC, Natural England, and DAERA, 2020) (exceeding the threshold could indicate significant disturbance), and therefore no potential adverse effect on the site integrity of the North Anglesey Marine/Gogledd Môn Forol SAC, for which harbour porpoise are a feature. The Applicant considers that the marine mammal assessment in AS-010 has gone above and beyond previously accepted DCO applications such as Awel y Môr Offshore Wind Farm, and that further calculations would not change the outcome of the assessment. The Applicant also reviewed the use of "habituation" from PEIR to Environmental Statement as requested by NRW and amended the discussion in AS-010 to focus more on tolerance to vessel noise (NRW stated "it is reasonably likely that boat noise as a stressor is tolerated by marine mammals"). In their response to NRW's Relevant Representation (RR-036) the Applicant highlighted a number of studies which demonstrated that marine mammals remain in areas of high vessel traffic with no detected change in foraging behaviour that the speed of the vessel was an important factor in the direct response of animals (Hao *et al.,* 2024). The Applicant agrees with NRW that direct measures of associated energetic costs of exposure to be used in Population Consequence of Disturbance (PCoD) models would be useful, to be able to link disturbance parameters to fitness and population dynamics, however given this work remains ongoing, it cannot be incorporated.

Reference	Written Representation Comment	Applicant's response
		Therefore, the Applicant considers the conclusion of low magnitude is acceptable and robust and 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, including reduction in speeds where an animal is in the vicinity of a moving vessel.
REP1-056.60	60. As mentioned in the Relevant Representation [RR-027], NRW acknowledged that it is unrealistic to assess injury and disturbance from vessel use by presenting a sum of the impact ranges of all vessels. This is because the level of detail necessary to assess the trips of over 2000 vessels of different size and function for the project alone would be impractical and disproportionate in terms of the time required. While we still hold to this opinion, this does not preclude the need to propose an alternative method to gauge the number of animals affected by this impact pathway, which we suggest can be done by making certain assumptions to make the calculation more tractable (see below).	Refer to response above (REP1-056.59).
REP1-056.61	61. Given the known sensitivity of harbour porpoise (Dyndo et al 2015; Wisniewska et al 2018; Rojano-Doñate et al 2023) and other marine mammal species (e.g. Marley et al 2017a, 2017b; Erbe et al 2019) to vessel noise and the increase of the number of vessel trips in the area as a result of the construction / operation of the proposed development compared to baseline vessel traffic, we do not agree with an overall magnitude of low, and recommend that the assessment is revised and quantified both for the project alone and in-combination in a manner that takes into particular account the impact of repeated and chronic interruptions to harbour porpoise foraging (see paragraph 63 below).	Refer to response above (REP1-056.59).
REP1-056.62	62. As a point of clarification in the actions following EWG05 the Applicant requested further advice from NRW on how to assess disturbance from vessels. Our email response of 27 July 2023 was as follows: "In our PEIR comments, NRW(A) provided an example of how	Refer to response above (REP1-056.59).

Reference	Written Representation Comment	Applicant's response
	this could be done, referring to the Wylfa assessment which considered disturbance based on the travel paths of vessels used by the project. This by no means prescriptive and other approaches can be taken. We recommend that the crucial thing to consider is to avoid basing assessment conclusions on assumptions that marine mammals are anticipated to demonstrate some degree of habituation to sound from vessels as this runs the risk of verging into speculation and overlooking the extent of a potential impact pathway. While it is reasonably likely that boat noise as a stressor is tolerated by marine mammals, absence of displacement is not evidence of absence of all detrimental consequences to animals. Responses may be physiological which are harder to detect, and animals may react by reducing foraging which leads to energy intake costs (e.g. harbour porpoise, see Rojano-Donate et al. 2023 - presented at Oceanoise 2023), or making deeper dives increasing swimming effort, and ceasing echolocation and foraging for several minutes (Wisniewska et al. 2018). Thus the presence of vessels almost certainly has an energetic cost to harbour porpoise. Similar / related findings were made by, e.g. Pirotta et al. (2013, 2015), Dyndo et al. (2015), Oakley et al. (2017), Marley et al. (2017a, 2017b). Other arguments such as the increase in number of vessels will be small when compared to the baseline shipping traffic should ideally also be quantified. In future, ideally, direct measures of the associated energetic costs of exposure would be available for Population Consequence of Disturbance (PCoD) models, to link disturbance parameters to fitness and population dynamics, however work on this is still ongoing".	
REP1-056.63	63. We suggest adapting the approach taken for the Wylfa Newydd project (5.2 Shadow Habitats Regulations Assessment Report) referred to in paragraph 134, noting that conclusions on magnitude and significance for the operational and	Refer to response above (REP1-056.59).

Reference	Written Representation Comment	Applicant's response
	decommissioning phases may need to be reviewed and updated based on the assessment for the construction phase. This method would involve assuming that all vessels involved in the construction, operation, and decommissioning phases travel along the same track from port to their required location. For simplicity, this could be taken to be e.g. the centre of the array. A value from the literature, could then be used as an impact radius on either side of the track to allow calculation of an estimated area (and estimated numbers) ensonified on a daily basis. Further refinements could also be included, for example information on expected recovery time which could be touched upon qualitatively in an evidence-based discussion in the text.	
REP1-056.64	2.2.3 Injury from elevated underwater sound due to piling [AS-010] 64. Exposure of marine mammals to loud sounds, such as those generated by pile driving, can lead to reductions in hearing sensitivity known as "threshold shifts" (TS). These can either be temporary (TTS), or permanent (PTS). In the UK, PTS is considered an injury (JNCC 2010). Threshold shifts are assessed using the most recent set of auditory injury criteria (currently Southall et al. 2019). For impulsive noise (i.e., noise that has almost instantaneous spikes in the sound level, like for example pile driving), two metrics are used: the sound pressure level (SPL, i.e., the maximum sound level at any point) and the sound exposure level (SEL, i.e., the sound an animal is exposed to over a period of time).	The Applicant highlights the matter on assessing disturbance from ADD use was raised in NRWs Relevant Representations and the Applicant responded in the Applicant's Response to Relevant Representations (RR-045). The Applicant welcomes NRW's statement in that 'we consider that the Applicant's response (in the Applicant's Response to Relevant Representations (PD1-017 (RR-027.51)) is sufficient, noting in particular the final paragraph which states that "Therefore, the Applicant understands the need for proportionate and judiciary application of Acoustic Deterrent Devices (ADDs), and this will be considered carefully when finalising the ADD deployment duration post consent"'. The Applicant reiterates that the 30 minute indicative activation period used is not a fixed time period and highlights their commitment that the final ADD duration will be agreed post-consent in the final MMMP (as secured under Schedule 3 and 4, Condition 20(1)(h)) of the draft development consent order (REP1-021)). The Applicant acknowledges the indicative 30 minutes ADD duration that was modelled for AS-010 leads to large swim distances (i.e. the distance an animal moves away during ADD activation, based on conservative swim speeds) for species including harbour porpoise and minke whale compared to the instantaneous Permanent Threshold Shift ranges, and this will be considered in the final MMMP, where ADD duration will be tailored specifically to the final project design post consent, in accordance with the Outline MMMP (APP-072) and secured within (as secured under Schedule 3 and 4, Condition 20(1)(h)) of the draft DCO (REP1-021)). The Applicant welcomes the agreement from NRW that that "the overall conclusions of the assessment are valid". The Applicant also welcomes the agreement that no separate ADD assessment is required. The Applicant therefore considers the assessment to be acceptable and robust, and this issue to be resolved.

Reference	Written Representation Comment	Applicant's response
		The Applicant confirms the two metrics (peak sound pressure level (SPLpk) and cumulative sound exposure level (SELcum)) NRW discuss in their WR (REP1-056.65) are used in the assessment of injury from elevated underwater sound due to piling and factored into the discussion on mitigation for injury to marine mammals.
REP1-056.65	65. These two metrics account for the different aspects of impulsive noise from piling, that is: (1) exposure to sound level, and (2) duration. SEL can be used as a measure of the sound energy released over a single pile strike, a metric known as single strike SEL (SELss) or summed over multiple pile strikes using a metric known as cumulative SEL (SELcum) When carrying out impact assessments, we often refer to instantaneous PTS (from SPL) and cumulative PTS (from SELcum), and the spatial extent or range (m to km) that can elicit PTS in marine mammal species from instantaneous and cumulative noise respectively.	Refer to response above (REP1-056.64).
REP1-056.66	66. Acoustic Deterrent Devices (ADDs) are often used to deter marine mammals from pile driving operations that may otherwise cause hearing injury. These devices work by emitting a noise to which the target animal is sensitive, and at a level loud enough, or for a long enough time period, to elicit a behavioural reaction sufficient for the animal to swim away to a safe distance – i.e. a deterrence range. This deterrence range can be altered based on the expected PTS impact range.	Refer to response above (REP1-056.64).
REP1-056.67	67. NRW [RR-027] noted that a conclusion of negligible magnitude for auditory injury impact pathway (i.e. Permanent threshold shift / PTS) had been assigned based on the inclusion of the potential indicative use of designed-in measures (i.e. 30 minutes of ADDs). NRW advised that consideration of the large-scale use of ADDs was required, as evidenced by, for example, Elmegaard et al. (2023), which demonstrates that harbour porpoise show very strong flight and physiological responses to ADD use far beyond the intended range of mitigation. NRW believe that there is a risk that in an effort to reduce the number of animals	Refer to response above (REP1-056.64).

Reference	Written Representation Comment	Applicant's response
	injured, a reliance on ADD deployment over other forms of mitigation will increase the number of animals disturbed, particularly harbour porpoise. A deterrence sound must be efficient in clearing an area of animals, yet it should not cause disruptions at scales larger than necessary.	
REP1-056.68	68. In principle, NRW agree with the overall conclusion of minor adverse significance, based on numbers presented in the "no ADD" scenario [AS-010]. However, while we acknowledge that the proposed mitigation strategy outlined in the ES [AS-010], Marine Mammal Mitigation Protocol (MMMP) [APP-072] and Underwater Sound Management Strategy (UWSMS) [APP-068] is to be agreed post-consent, we note that the length of ADD exposure should be scaled to the need - i.e. the impact range from PTS. Where exposure length is indicative, this should be made clear. Based on results presented in the ES [AS-010], the range at which instantaneous PTS could be elicited at maximum hammer energy (for a hammer energy of 4400 kJ) ranged between 39 – 652 m. Estimated swim distances for 30 minutes of ADD activation ranged between 2,700m (for harbour porpoise) to 4,140m (for minke whale). We believe that the indicative length of ADD exposure may be excessive when considering the additional noise and disturbance introduced to the environment. We consider that there are other ways that the range could be reduced, for example by altering the pattern of pile strikes - especially by increasing the time between each strike. We would be happy to discuss this further with the Applicant.	Refer to response above (REP1-056.64).
REP1-056.69	69. Evidence from Elmegaard et al. (2023), Graham et al. (2023), Voß et al. (2023), and Brandt et al. (2013) demonstrates that harbour porpoise show very strong flight and physiological responses to ADD use even at low received levels and often far beyond the intended mitigation zone. This evidence is corroborated by data collected on porpoise response (displacement) to	Refer to response above (REP1-056.64).

Reference	Written Representation Comment	Applicant's response
	chronic and long-term exposure to ADDs at aquaculture sites (Findlay et al. 2024). Such energetic responses to noise may have a cumulative effect on health if they occur frequently enough, particularly for porpoise who are thought to need to forage constantly to meet their energy demands.	
REP1-056.70	70. We note the Applicant's response to the matters raised concerning ADD use in PD1-017 (RR-027.51). On balance, we consider that the Applicant's response is sufficient, noting in particular the final paragraph which states that "Therefore, the Applicant understands the need for proportionate and judiciary application of ADDs, and this will be considered carefully when finalising the ADD deployment duration post consent". We confirm that we agree with the Applicant that overall conclusions of the assessment are valid. We can also confirm that we do not believe it is necessary for the Applicant to assess separately the effects of Acoustic Deterrent Devices given that proportionate application of ADD use will be considered post consent.	Refer to response above (REP1-056.64).
REP1-056.71	71. However, we also note the Applicant's assertion at RR-027.51 [PD1-017] that the approach adopted is typical for Offshore wind assessments NRW (A) contend that this approach being "typical" does not preclude that publication of new evidence, akin to Elmegaard et al. (2023), Graham et al. (2023), and Voβ et al. (2023), may lead to questions being raised with respect to existing approaches. Furthermore, as per the agreement logs this issue was raised by both NRW and NE.	Refer to response above (REP1-056.64).
REP1-056.72	72. We welcome the Applicant's commitment as referenced in PD1-017 (RR-027.51) that the time period and final ADD duration will be agreed post-consent in the final MMMP and secured by condition within the DCO.	Refer to response above (REP1-056.64).

Reference	Written Representation Comment	Applicant's response
REP1-056.73	2.2.4 Barrier effects [AS-010] 73. NRW note that in our Relevant Representation [RR-027] that limited justification had been provided for the absence of cumulative assessment of barrier effects. This is particularly relevant given the planned construction and operation of four new offshore windfarm arrays (Awel-y-Môr, Mona, Morgan, Morecambe) in the area. We advised that clarity and potentially further assessment was required.	The Applicant highlights the matter on barrier effects was raised in NRWs Relevant Representation and the Applicant responded in the Applicant's Response to Relevant Representations (PD1-017 (RR-027.44 and RR-027.48)). The Applicant agrees with NRW that a conclusion of non-significance from an EIA perspective is not equivalent to lack of an effect, and this is presented in detail in Volume 2, Chapter 4: Marine mammals (AS-010), which discusses barrier effects particularly for bottlenose dolphin and grey seal/harbour seal. The Applicant therefore considers the assessment to be acceptable and robust, and this issue to be resolved. The Applicant notes NRWs comments on the UWSMS and acknowledges NRW 'caution that while NRW's agreement that the UWSMS could reduce the magnitude of impacts to an acceptable level, this should not be taken to imply unconditional agreement prior to any measures being discussed'. The Applicant highlights the commitment to engaging with the licencing authority and statutory nature conservation bodies on the UWSMS, with paragraph 1.1.2.6 of the UWSMS (APP-068) stating "the Final UWSMS will be in general accordance with the Outline UWSMS and agreed with the relevant authority prior to construction commencing".
REP1-056.74	74. We note the Applicant's response to this matter, as stated at RR-027.44 [PD1-017]. It is our view that a conclusion of non-significance for the project alone does not necessarily imply that the effects of all projects together may not potentially result in a scaling up of effects. Similarly, we advise that a conclusion of non-significance from an EIA perspective is not equivalent to lack of an effect. In addition, we would caution that while NRW's agreement that the UWSMS could reduce the magnitude of impacts to an acceptable level, this should not be taken to imply unconditional agreement prior to any measures being discussed and finalised post-consent.	Refer to response above (REP1-056.73).
REP1-056.75	2.2.5 Interrelated effects [APP-022] 75. NRW noted in our relevant representation that there was inadequate, evidence-based, justification for the conclusion that "the effects on marine mammal receptors are not anticipated to interact in such a way as to result in combined effects of greater significance than the assessments presented for each individual phase or when considered in conjunction with other topics addressed in the ES" [AS-010].	The Applicant highlights the matter on interrelated effects was raised in NRWs Relevant Representation and the Applicant responded in detail in the Applicant's Response to Relevant Representation from NRW: Interrelated Effects (PD1-009). The Applicant welcomes the response from NRW on this point that they anticipate being able to agree with the overall conclusion in the Volume 2, Chapter 4: Marine mammals (AS-010) following discussion and provided agreement is reached on mitigation measures post-consent. The Final MMMP will be developed in accordance with the Outline MMMP (APP-072) in consultation with the NRW and other relevant stakeholders and is secured under Schedule 3 and 4, Condition 20(1)(h)) of the draft DCO (REP1-021).

Reference	Written Representation Comment	Applicant's response
		The Applicant welcomes NRW's acknowledgement of the inherent challenges in quantifying interrelated effects and the Applicant has endeavoured to give robust evidence-based justification for the conclusion that there is no significant interrelated effect on marine mammals (as per Volume 2, Chapter 4: Marine mammals (AS-010) and the Applicant's Response to Relevant Representation from Natural Resources Wales (NRW): Interrelated Effects (PD1-009). The Applicant notes NRW's direction to consider aggregate exposure for future projects.
REP1-056.76	76. While the effect of two or more pressures acting together may not necessarily be additive (e.g. Crain 2008; Thomsen & Popper 2024), this does not rule out such a possibility occurring. The presence of several different pressures at the same time could also lead to different responses compared to when the animal is exposed to one. Animals within a population may potentially be making adaptive trade-offs to avoid or remain within a prime habitat due to the presence of favourable prey resources and site quality, even when exposed to noise, yet they may not have sufficient resilience to adapt to additional pressures.	Refer to response above (REP1-056.75).
REP1-056.77	77. NRW have reviewed the Applicant's response in PD1-017 on interrelated effects. On balance, given the mitigation measures planned, including development of the MMMP, and being conscious of the challenges inherent in quantifying such effects, we anticipate being able to agree with the overall conclusion in the ES [AS-010] following discussion and provided agreement is reached on mitigation measures post-consent, secured through conditions.	Refer to response above (REP1-056.75).
REP1-056.78	78. In the Applicant's response [PD1-017] we note that the conclusions are underpinned by statements that "the effect of behavioural disturbance is reversible, and receptors are expected to recover within hours/days following the cessation of the activity, therefore unlikely to lead to any long-term, additive effects on the individual." We understand that the assessment has based its conclusion of no long-term additive effects by considering each disturbance event to take place independently, assuming reversibility based on the	Refer to response above (REP1-056.75).

Reference	Written Representation Comment	Applicant's response
	temporary nature of the noise, and full recovery between each event. However, the potential effects of aggregate exposures to one or multiple pressures has not been discussed. The interrelated effects assessment would be made more robust by considering the potential effects of aggregate exposure, particularly within the context of this assessment being used to inform cumulative assessments with other future projects.	
REP1-056.79	2.2.6 Outline Underwater Sound Management Strategy (UWSMS) [APP-068] 79. As noted in our Relevant Representation [RR-027], we agree, in principle, with the commitment to develop an Underwater Sound Management Strategy (UWSMS), and that it should identify all potential noise sources associated with the project with further detail provided in associated mitigation plans. Whilst we acknowledge that further detail cannot be populated at this time, we consider it likely that the UWSMS could potentially reduce the magnitude of impacts to an acceptable level. We welcome the commitment of the Applicant to continue to engage with NRW to develop the USWMS during examination and post-consent. We agree that the UWSMS be conditioned through the deemed marine licence (dML) NRW welcomes the opportunity to engage with the Applicant on developing the UWSMS during the examination and post-consent.	The Applicant welcomes the response from NRW on the outline Underwater sound Management Strategy (UWSMS) (APP-068) and will continue to engage with NRW during the examination and post-consent. The Applicant responds to NRW's Written Representation (REP1-056.80) comments as below: • The Applicant highlights that UWSMS applies to all marine mammal and fish species and mitigation is relevant to all receptors sensitive to underwater sound. However, the UWSMS targets species where a residual significant effect has been identified that cannot be mitigated by the MMMP alone. The MMMP details mitigation included as industry best practice. The wording in the final UWSMS will be developed post-consent in accordance with the outline UWSMS (APP-068) to provide this clarity. • The Final UWSMS will consider the range of mitigation options available and consider NAS technologies as an option if possible and necessary. The Applicant would like to highlight that all further (secondary) options will be considered fully post consent (as demonstrated in section 1.8 of the Outline UWSMS (APP-068)), and the most appropriate option(s) applied (based on the final design and construction programme) if required post consent, to best mitigate the effects from underwater sound to a non-significant level. The Applicant emphasises that NAS is termed 'secondary' mitigation in line with guidance from IEMA (2016), but should not be taken as lesser than other primary or tertiary measures, instead it is a further mitigation measure considered in addition to primary and tertiary measures. • The Applicant highlights that the specific UXO mitigation hierarchy commitment is detailed clearly in paragraph 1.6.2.2 of the Outline UWSMS (APP-068). The Final UWSMS will be developed in accordance with the Outline UWSMS (APP-068) in consultation with NRW and other relevant stakeholders and therefore will incorporate any feedback on areas which require further clarity and is secured within Schedule 3 and 4, Condition 20(1)(h)) of the draft DCO (REP1-021). • The Applicant notes the recommendation to avoid soft start charges in this comment, however also notes that in NRW's Written Representation [90] NRW state that they "have reviewed the

Reference	Written Representation Comment	Applicant's response
		Applicant's response to this matter [PD1-017 section RR-027.55] and are satisfied with the Applicant's response and can agree that this does not materially impact the conclusions of the application. We consider that this matter can now be closed". As per the Applicant's response to NRW's Written Representation [90] the Applicant welcomes NRW's response and agreement that the matter of soft start scare charges is now resolved. The Applicant reiterates that the UWSMS (APP-068) will be developed post consent in consultation with NRW and other stakeholders, and agreed with the relevant authority prior to construction commencing. The Applicant considers any reduction in sound impacts will be beneficial for both marine mammals and fish species. Species-level benefits will be investigated and presented for the Final UWSMS and will depend on the type of mitigation applied. However, the overall premise of NAS, as one potential mitigation option, is to reduce sound levels at source or to reduce the propagation of sound over distance and therefore, the statement that NAS will be beneficial to marine mammals and fish still applies, although noting that the magnitude of the benefit on a species by species basis will need to be provided in more detail as NAS is investigated for the Final UWSMS.
REP1-056.80	80. We have the following comments on the draft UWSMS as provided with the application [APP-68]: • The document focuses only on two species: bottlenose dolphin and harbour porpoise. The current decision appears to have been based on the conclusions of significance in the ES and appears to suggest that only two species are at risk. We do not consider that this is assumption is correct. Without mitigation, all marine mammals are sensitive to injury and disturbance from piling and Unexploded Ordnance (UXO) clearance and as European Protected Species (EPS), all cetacean species need to be considered. Thus, a conclusion of not significant / no adverse effects is not accurate; mitigation should be included as industry best practice to reduce the risk of a residual effect to negligible in relation to EPS. • Noise abatement systems (NAS) for piling, which are technologies that reduce the noise propagating through the water during pile driving (e.g. bubble curtains), have been presented as other (or 'secondary') mitigation by the Applicant. It is our view that NAS should be given more serious consideration. In line with the Governments Joint Position Statement	Refer to response above (REP1-056.79).

Reference	Written Representation Comment	Applicant's response
	on UXO clearance [DEFRA, 2022] low order methods of clearance (i.e. methods which cause the UXO to burn out but not detonate and are thus less disruptive / damaging) should be prioritised, with high order clearance (i.e. detonation of UXO using a small explosive charge) only to be used in exceptional circumstances. We recommend that this commitment be made more explicit in the UWSMS. • We do not recommend the proposed use of soft start charges for UXO clearance due to the substantial additional impulsive noise they introduce into the environment (Robinson et al 2022), and their scaring effect not being proven (Lewis 1996; Keevin and Hempen 1997, Cheong et al 2020). In relation to prey fish, no evidence has been provided to support the statement that "it is anticipated any reduction in sound impacts from potential implementation of the NAS will act to mitigate impacts on fish species in the same area." NRW requests that supporting evidence is provided.	
REP1-056.81	2.2.7 Underwater Sound Technical Report [APP-028] 81. As noted in our Relevant Representation [RR-027] that whilst NRW did not disagree with the overall conclusion of minor adverse significance (for both disturbance and injury) for site investigation surveys, the impact ranges for sparkers (a type of pulsed sub-bottom profiler, or SBP) appeared relatively small in contrast with the non-pulsed sub-bottom profiler methods presented. We requested further clarity in this regard. Following consideration of the Applicant's response and explanation [RR-027.54 of PD1-017], we consider this issue closed.	The Applicant notes NRW's response on the Underwater Sound Technical Report and welcomes that the position is closed.
REP1-056.82	2.2.8 Morgan ES Marine Mammals [AS-010] / Morgan ISAA Special Areas of Conservation [APP-097] 82. For impulsive sources, both AS-010 and APP-097 reference that changes in the impulsive characteristics of impulsive noise at range implies that disturbance	The Applicant notes NRW's response and welcomes confirmation that the matter of the effects of impulsive noise at range on disturbance does not materially affect the conclusions of Volume 2, Chapter 4: Marine mammals (AS-010) and Morgan ISAA Part Two: Special Areas of Conservation (SACs) Assessments (APP-097). The Applicant therefore considers this issue to be resolved.

Reference	Written Representation Comment	Applicant's response
	thresholds for piling noise should be considered precautionary at long range (i.e., a few kilometres).	
REP1-056.83	83. We have reviewed the Applicant's response at RR-027.57 [PD1-017]. As outlined in our position statement [NRW 2023], we fully agree that at ranges over several kilometres impulsive noise gradually becomes more continuous due to refraction, absorption and scattering attenuating high frequencies more than low frequencies. Sound also reflects off the surface and bottom of the sea taking different paths, thus it takes a different amount of time to arrive at a given point, lengthening the pulse. In this way noise that is impulsive at the source becomes less likely to cause hearing injury with range (Hastie et al. 2019; Martin et al. 2020; ORJIP Offshore Wind, 2024).	Refer to response above (REP1-056.82).
REP1-056.84	84. NRW disagree that this will affect disturbance thresholds except in very specific cases where thresholds were based on observations close to the source noting that at present, changes in impulsive characteristics have only been discussed in the published literature in terms of their effects on hearing injury but not disturbance. Similarly, to our knowledge there are currently no published data which quantify the impact of these changes with regard to disturbance, or the relative importance / extent of this in comparison with other explanatory variables such as piling duration, piling schedule, exposure to previous piling events, and other contextual factors which include differences between species and individuals, situational contexts (e.g. foraging, breeding, presence of calves), and temporal scale. Thus, although we agree that it is plausible that changes in impulsive characteristics with range will influence animal behaviour, particularly when applying thresholds at ranges further away than the observations on which they were based, we also caution against phrasing this in conclusive terms in the absence of published data.	Refer to response above (REP1-056.82).

Reference	Written Representation Comment	Applicant's response
REP1-056.85	85. NRW can confirm that this does not materially affect the conclusions, since assessment results were based on the full modelled range of disturbance, however, we do recommend that for this project and future projects the Applicant acknowledges the uncertainty with regard to potential effects of impulsive noise at range on disturbance and clarifies that the points and conclusions made with regard to this are their own. When sufficient evidence is found to support this, it may then be appropriate to incorporate into an assessment.	Refer to response above (REP1-056.82).
REP1-056.86	2.2.9 Morgan ISAA Special Areas of Conservation [APP-097] 86. We noted in our Relevant Representations [RR-027] that in line with NRW's position statement on use of Management Units [NRW, 2022], photo-ID evidence shows that most individual dolphins move between the two SACs, strongly supporting the idea that the populations of the two Special Areas of Conservation (SACs) are highly connected, and that there is likely a single genetic population across the management unit (although a few individuals appear to be faithful to one particular site).	The Applicant welcomes NRW's response and agreement that the matter of considering Cardigan Bay SAC and Pen Llyn a'r Sarnau SAC together is resolved.
REP1-056.87	87. Cardigan Bay (CB) SAC is the principal SAC for bottlenose dolphin and was designated primarily (Grade A) for this species, whereas bottlenose dolphins are a secondary (Grade C) feature of Pen Llyn a'r Sarnau (PLAS) SAC. However, there is no legislative reason why one site would be more important than the other, and given the strong evidence outlined above, we consider the entire Irish sea MU to be a single inter-connected unit. We therefore consider the population associated with PLAS SAC and CB SAC to be the same and that this is broadly equivalent to the population of the wider management unit for purpose of assessment of site integrity.	Refer to response above (REP1-056.86).

Reference	Written Representation Comment	Applicant's response
REP1-056.88	88. However, we have reviewed the Applicant's response to this matter [PD1-017, section RR-027.58] and agree that this does not materially impact the conclusions of the application. We consider that this matter can now be closed.	Refer to response above (REP1-056.86).
REP1-056.89	2.2.10 Outline Marine Mammal Mitigation Protocol (MMMP) [APP-072] 89. Table 1.2 of the MMMP states 'For high order detonation of UXO, soft start will be undertaken using a sequence of small explosive charges detonated at specific time intervals allowing marine mammals to move away from the mitigation zone prior to the detonation of the UXO'. NRW determine these small explosions to be akin to scare charges. Noise monitoring of scare charges during a UXO clearance are not recommended as a mitigation option for marine mammals and therefore should not be used for this purpose.	The Applicant welcomes NRW's response and agreement that the matter of soft start scare charges is now resolved.
REP1-056.90	90. NRW have reviewed the Applicant's response to this matter [PD1-017 section RR-027.55] and are satisfied with the Applicant's response and welcome the final MMMP which will be developed post-consent and in line with any new advice and guidance. The Applicant has proposed that clearance of UXOs will follow a mitigation hierarchy with preferred approaches being to avoid UXOs or clear using low order techniques. We can agree that this does not materially impact the conclusions of the application. We consider that this matter can now be closed.	The Applicant welcomes NRW's response and agreement that the matter of soft start scare charges is now resolved.
REP1-056.91	91. NRW welcomes the conservative mitigation zone of 1700m for piling, in accordance with the modelling. Although suitably conservative, it is a large mitigation zone, given the average is usually 500m. We recommend a detailed explanation of how the Applicant plans to effectively monitor this zone and suggest the consideration of different technologies to aid monitoring.	The Applicant welcomes NRW's response and agreement that the matter of the mitigation zone for piling is now resolved.

Reference	Written Representation Comment	Applicant's response
REP1-056.92	92. NRW have reviewed the Applicant's response to this matter [PD1-017 section RR-027.56] and are satisfied with the applicants response and welcome the final MMMP which will be developed post-consent and in line with any new advice and guidance. In addition to the Applicant revisiting the sound modelling post-consent as part of the final UWSMS once project details have been finalised. This modelling (applying the confirmed project parameters (e.g. hammer energy)) will inform the establishment of a specific mitigation zone for piling, and thus an appropriate MMMP. We consider that this matter can now be closed.	The Applicant welcomes NRW's response and agreement that the matter of the mitigation zone for piling is now resolved.
REP1-056.93	2.2.11 Cumulative Effects Assessment [APP-022] 93. NRW have reviewed the Applicant's response to this matter [PD1-017, section RR-027.43 and RR-027.48] and are satisfied with the Applicant's understanding. NRW consider that in-general the Cumulative Effects Assessment now covers the key points of the in-combination effects of Morgan, Mona and Morecambe, as well as other offshore projects interacting together to effect changes on local marine mammals that can manifest as masking, behavioural response, hearing impairment and physical and physiological effects i.e., barrier effects. Additionally, NRW notes that the considerable information once missing from the 'List of other projects, plans and activities considered within the CEA issue has now been rectified and all columns of Table 4.50 are now visible in the updated version of the chapter submitted on 5 August 2024 (AS-010).	The Applicant welcomes NRW's response and agreement that the matter of the full consideration of relevant plans and projects for the Cumulative Effects Assessment is now resolved.
REP1-056.94	2.3 Fish and Shellfish 94. NRW agree with the screening undertaken in the HRA Screening report [APP-099] and the subsequent Stage 2 assessment [APP-096 AND APP-097] and agree with the overall conclusion of no risk of an adverse effect on the integrity of diadromous fish features from the Welsh protected sites; Dee Estuary/Aber Dyfrdwy SAC, River Dee and Bala	The Applicant welcomes NRW's agreement on the screening undertaken in the HRA Screening Report (APP-099) and the Stage 2 Assessment (APP-096 and APP-097), and the overall conclusions of no risk of adverse effects on integrity of the Welsh protected sites.

Reference	Written Representation Comment	Applicant's response
	Lake/Afon Dyfrdwy a Llyn Tegid SAC, and Afon Gwyrfai a Llyn Cwellyn SAC.	
REP1-056.95	95. As the development is within English territorial waters, NRW defer to advice from Natural England (NE) on all fish species not originating from Welsh protected sites.	The Applicant notes this representation by NRW.
REP1-056.96	96. NRW note from PD1-017 that the Applicant notes and welcomes our comments on fish and Shellfish Ecology and therefore have no further comments to make.	The Applicant notes this representation by NRW with thanks.
REP1-056.97	2.4 Physical Processes 97. The potential impact to hydrodynamics, sediment transport and seabed morphology during construction caused by sand wave clearance and the deposition of scour protection and cable protection, was previously raised by NRW at PEIR stage even though the Morgan Generation Assets are entirely in offshore English waters. When considering cumulative impacts, the zone of influence for the potential alteration to the hydrodynamics during operation caused by the presence of the generation asset structures and the potential advection of the suspended sediment concentration plumes generated during construction works and maintenance works does not overlap with the nearby Mona OWF inside the 12NM jurisdiction boundary line. As a result, NRW will be deferring to JNCC/NE for these matters.	This is noted by the Applicant.
REP1-056.98	98. The Applicant has noted the above [PD1-017], and as such NRW have no further comments to make on Physical Processes.	The Applicant notes that NRW have no further comments to make on physical processes.
REP1-056.99	2.5 Benthic Subtidal and Intertidal Ecology 99. Considering the physical processes advice provided above, the location of Morgan Generation Assets being wholly in English waters, and the zone of influence affecting benthic habitats does not overlap with Welsh	This is noted by the Applicant.

Reference	Written Representation Comment	Applicant's response
	waters, NRW defers all benthic subtidal and intertidal ecology advice to JNCC/NE.	
REP1-056.100	100. The Applicant has noted the above [PD1-017], and as such NRW have no further comments to make on Benthic Subtidal and Intertidal Ecology.	The Applicant notes that NRW have no further comments to make on benthic ecology.
REP1-056.101	2.6 Biodiversity Benefit 101. NRW welcomes the Applicant's commitment to consider opportunities to enhance resilience of marine and coastal ecosystems as noted in APP-073 and the work that the Applicant has done on this topic thus far.	This is noted and welcomed by the Applicant.
REP1-056.102	102. We note that the Applicant refers to providing biodiversity benefit measures in addition to ensuring sufficient mitigation is to be put in place, in order to reduce and/or eliminate potential for significant effects as part of the mitigation hierarchy (avoid, minimise, mitigate). We welcome the inclusion of nature positive design elements (subtidal and intertidal) in the proposals, beyond what may be required through the mitigation hierarchy, in order to deliver biodiversity benefits, and the commitments to explore wider opportunities to contribute to building resilience of marine and coastal ecosystems - both within the footprint of the proposal and beyond. We advise, however, that mitigation measures should not be considered as methods for biodiversity improvement or enhancement, as they are in place as preventative measures of deterioration of features rather than providing biodiversity benefits from the baseline.	This is noted by the Applicant.
REP1-056.103	103. NRW assume that the proposals for delivering biodiversity benefit presented by the Applicant are not being considered for Welsh waters given the project lies wholly within English waters. However, depending on the focus and nature of the delivery, projects targeted in English waters may also deliver benefits in Welsh waters, e.g. actions targeted to mobile species including birds, marine mammals and fish. Should the Applicant	This is noted by the Applicant.

Reference	Written Representation Comment	Applicant's response
	wish to consider proposals for delivering biodiversity benefit in Wales, we recommend that the Applicant reviews NRW's Guidance Note 59 Principles supporting restoration and enhancement in marine or coastal development proposals, which sets out NRW 's approach to advising on the inclusion of restoration or enhancement elements in a marine or coastal development proposal and encourages engagement with NRW.	
REP1-056.104	104. This guidance has been developed to support implementation of Welsh National Marine Plan (WNMP) policy ENV_01: Resilient Marine Ecosystems which aims to ensure that biological and geological components of ecosystems are maintained, restored where needed and enhanced where possible, to increase the resilience of marine ecosystems and the benefits they provide. WNMP Policy ENV_01 encourages consideration of the inclusion of restoration and enhancement in a development project at sea and at the coast but there is not currently obligation upon proposers of projects in the marine environment to do so.	This is noted by the Applicant.
REP1-056.105	105. The Applicant has acknowledged NRW's comments [PD1-017], and as such NRW have no further comments to make on Biodiversity Benefit.	The Applicant notes that NRW have no further comments to make on biodiversity benefit.
REP1-056.106	2.7 Designated Landscapes and Seascapes 106. NRW's landscape planning advice relates to the landscape character and visual amenity of statutory designated landscapes in Wales, and the statutory purpose of these designations to conserve and enhance their natural beauty.	This is noted by the Applicant.
REP1-056.107	107. The following Maximum Design Scenarios for the Morgan Array Project are provided in Table 3.5 in ES Volume 1, Chapter 3: Project Description [APP-010]. It's noted these have been updated since the PEIR stage: • Scenario 1 - 96 x 293m tall turbines	This is noted by the Applicant.

Reference	Written Representation Comment	Applicant's response
	Scenario 2 - 68 x 364m tall turbines	
REP1-056.108	108. NRW advise that offshore turbines with tip heights up to 364m have an approximate average 48.5km buffer for low magnitudes of effect (White et al., 2019). Low magnitude buffer distances are an indication that there is a likelihood that there would be no significant effects on a high sensitivity receptor for the size of wind turbine at, or beyond, the distance stated.	This is noted by the Applicant.
REP1-056.109	109. Statutory designated landscapes on the north coast of Wales are all further than 48.5km from the Morgan Array Area. The Isle of Anglesey Area of Outstanding Natural Beauty (AONB) (National Landscape) is the closest at approximately 60km. The closest points to the Morgan Array Area in Eryri National Park and the Clwydian Range and Dee Valley AONB are approximately 70km and 73km respectively.	This is noted by the Applicant.
REP1-056.110	110. The Applicant's Seascape, Landscape and Visual Impact Assessment (SLVIA) includes one assessment viewpoint within the Isle of Anglesey AONB (Viewpoint 55 Trwyn Eilian (Point Lynas)) (Volume 4, Annex 10.6: Seascape visualisations Part 3, Figures 19.1-2 and Figures 65-66). The visualisations indicate the visual impact of the proposals at this location are expected to be minor and not significant.	This is noted by the Applicant.
REP1-056.111	111. Based on the above, we are satisfied with the 60km study area used in the SLVIA, and the decision to scope out statutory designated landscapes in Wales from the SLVIA. We have no further comments.	The Applicant welcomes that NRW are satisfied with the study area and the decision to scope out statutory designated landscapes in Wales from the SLVIA, and notes that NRW have no further comments.
REP1-056.112	112. The Applicant acknowledges the above comments [PD1-017], and as such NRW have no further comments to make on designated landscapes and seascapes.	The Applicant notes that NRW have no further comments to make on designated landscapes and seascapes.

2.9 Royal Society for the Protection of Birds (RSPB)

Table 2.9: REP1-058 Royal Society for the Protection of Birds (RSPB).

Reference	Written Representation Comment	Applicant's response
REP1-058.1	The RSPB has been in discussion with the Applicant on an initial draft of a Statement of Common Ground (SOCG), which the Applicant will submit at Deadline 1. Through these discussions, the RSPB is aware that the Applicant intends to submit a technical note in relation to the 'gap filling' exercise that is highly relevant to the RSPB's concerns set out in its Relevant Representation (RR-035). Therefore, rather than submit a Written Representation at Deadline 1 which would reiterate the Relevant Representation, the RSPB considers it would be most helpful to the Examining Authority if it reviewed the Applicant's technical note and updated its position through the SOCG discussion and, if necessary, any further written submission to the examination at an appropriate deadline.	The Applicant notes and welcomes the response from the RSPB and the engagement in development of the SoCG submitted at Deadline 1 (REP1-039). The Applicant submitted at Deadline 1 the S_D1_4.5 Annex 4.5 to Response to Hearing Action Point 15: Offshore Ornithology CEA and In-combination Gap-filling of Historical Projects Note (REP1-010). The Applicant looks forward to engaging with the RSPB to resolve remaining matters and RSPB responses to the Deadline 1 submissions.

2.10 Scottish Fishermen's Federation

Table 2.10: REP1-059 Scottish Fishermen's Federation.

Reference	Written Representation Comment	Applicant's response
REP1-059.1	**SFF Response to Morgan Offshore Windfarm Generation Assets License Application Consultation** This response to the application is presented by the Scottish Fishermen's Federation on behalf of the 450 plus fishing vessels in membership of its constituent associations, the Anglo Scottish Fishermen's Association, Fife Fishermen's Association. Fishing Vessel Agents and Owners Association, Mallaig & North West Fishermen's Association, Orkney Fisheries Association, Scottish Pelagic Fishermen's Association, the Scottish White Fish Producer's Association and Shetland Fishermen's Association.	The Applicant notes the response from the Scottish Fishermen's Federation (SFF) and the organisations that it represents. The Applicant has submitted a Statement of Common Ground (SoCG) with a number of commercial fisheries stakeholders, including SFF at Deadline 2 (S_D2_OF).
REP1-059.2	**Summary** SFF's members Associations vessels have been fishing in the eastern Irish Sea from 1970s. WCSP Ltd (a member of Scottish White Fish Producers Association Ltd.- SWFPA) have been catching and processing Queen Scallops (also King Scallops) in the eastern Irish Sea since 1971, currently employing over 100 people at our processing site and 30 fishermen who rely on the health of the Queen Scallop fishery. In addition, SPFA members have been fishing at the Morgan area and rest of Irish Sea for decades. We object to the proposal as its area overlaps important Queen Scallop beds and herring fishing grounds of the eastern Irish Sea fishery as well important spawning and nursery ground for these fish species. Current proposal measures do not go far enough to respect these important fisheries. The Queen Scallop fishery is one of 4 global Queen Scallop commercial fisheries, therefore Morgan OWF raises significant socioeconomic and market implications and this is	<u>Commercial Fisheries:</u> The Applicant recognises the importance of queen scallop landings to members of the SFF and has engaged with SFF and their members since 2021 to establish the spatial extent of the nomadic fleets that operate in this region. Spatial distribution of fishing activity using VMS data, supported by feedback from project-specific consultation and other sources of data (observations from Offshore Fisheries Liaison Officers; Marine Traffic Survey data), highlighted that the west part of the Morgan Array Area is an important queen and king scallop fishing ground for vessels utilising dredges. These data also indicated that the Douglas Bank herring fishery overlaps with the northwest section of the Morgan Array Area (as presented in section 1.4.8.5 of Volume 6, Annex 5.6: Commercial Fisheries Technical Report (APP-059)). It is evident that scallop dredge activity and intensity varies by year, which also corroborates with information from fisheries stakeholders, which suggest that the fishery is cyclical over seven-to-eight-year periods. It is also noted that the Douglas Bank herring fishery is subject to annual closure between 21 September and 15 November, with August and September being the most important months for the fishery. The Applicant has recognised the importance of the fishing activity within this region and has made significant commitments to facilitate co-existence with existing commercial fishing activity and to minimise disruption as far as possible. The Applicant will continue to constructively engage with the fishing community to ensure concerns are addressed as far as reasonably practicable. The engagement since June 2021 to understand stakeholder requirements and the potential for co-existence is summarised in Table 6.4 of Volume 2, Chapter 6: Commercial fisheries (APP-024) and

Reference	Written Representation Comment	Applicant's response
	especially the case if considered in tandem with the developer's other Mona OWF proposal which will develop on the other most commercially important Queen Scallop beds of the eastern Irish Sea. There are also no mitigation measures proposed to financially compensate Queen Scallop operators and herring pelagic vessels for any unforeseen consequences such as short or long-term habitat loss.	detailed in Appendix G.19 of the Technical Engagement Plan Appendices - Part 5 (Appendix E to L) (APP-093). Engagement will continue throughout the lifetime of the project. The high-level and quality of consultation with commercial fisheries stakeholders to date is recognised in the SoCG (S_D2_OF) between the Applicant and commercial fisheries stakeholders (ref: CF.EIA.1). The commitment to continue this engagement throughout the lifetime of the project is also captured within the SoCG (ref: CF.EIA.2). Both these discussion points are Agreed. A Fisheries Liaison and Co-existence Plan (FLCP) is a condition of the deemed marine licence and will be developed by the Applicant through ongoing consultation with fisheries stakeholders. The final plan must be approved by the MMO and will be based on the Outline FLCP (APP-065) submitted as part of the Application, which has been updated at Deadline 2 (S_D2_12 Outline Fisheries Liaison Co-existence Plan F02). Specific commitments are set out within Volume 2, Chapter 6: Commercial fisheries (APP-024), J6 Mitigation and monitoring schedule ((APP-076) and the Offshore In-Principle Monitoring Plan (APP-066). An updated version of the Mitigation and monitoring schedule and Offshore In-Principle Monitoring Plan has been submitted at Deadline 2, to include additional monitoring of queen scallop to validate predictions made within the EIA relating to impacts from the construction of Morgan Generation Assets. The approach to monitoring will be fully developed post-consent and secured in the final offshore monitoring plan. However, monitoring is likely to take the form of pre- and post-construction dredge surveys for up to five years post-construction, to determine changes to queen scallop from baseline conditions based upon annual monitoring results. The monitoring will be cognisant of similar commitments on Mona Offshore Wind Project, and, where possible, will adopt aligned methodologies to ensure a more strategic approach is taken to the monitoring. This will serve to ensure a more comprehensive evidence base is established for these Irish Sea scallop grounds. The additional monitoring of queen scallop is recognised in the SoCG (S_D2_OF) between the Applicant and commercial fisheries stakeholders (ref: CF.OFLCP.T17). This is an ongoing point of discussion. The commitments are designed to enable co-existence as far as possible during all project phases. They include commitments to not close the entire development area during the construction phase, the establishment of a Scallop Mitigation Zone (SMZ), which will be free of wind turbines and offshore substation platforms (a commitment which is a 'first' for offshore wind in the United Kingdom as far as the Applicant is aware) and the orientation and spacing of infrastructure such that fishing can continue within the Morgan Array Area. As a result of these measures, commercial fishing receptor groups will be able to continue fishing within parts of the Morgan Array Area during construction. During the operations and maintenance phase, the measures will provide the space for continued fishing within the Morgan Array Area and allow fishing vessels to transit through the area. Consequently, additional mitigation measures linked to financial compensation are not considered necessary.

Reference	Written Representation Comment	Applicant's response
		These commitments to co-existence are recognised in the SoCG (S_D2_OF) between the Applicant and commercial fisheries stakeholders (ref: CF.OFLCP.P4; CF.OFLCP.P5; CF; OFLCP.P6). CF.OFLCP P4 and P5 are agreed whilst CF.OFLCP.P6 is an ongoing point of discussion. The Applicant engaged with commercial fisheries stakeholders on the commitments set out within the Outline FLCP (APP-065) via a series of meetings in July and September 2024. Based on the feedback from these meetings, the Applicant has updated wording to applicable commitments in the Outline FLCP, in parallel with progressing the SoCG referred to above (S_D2_OF) with the fisheries stakeholders that also covers the commitments for co-existence and ongoing liaison (Updated Outline FLCP and SoCGs have been submitted by the Applicant at Deadline 2). Following these recent consultation meetings, the Applicant has agreed to refine the wording of two Primary Measures and added a new Primary Measure and four Tertiary Measures within an updated version of the Outline FLCP. This updated version of the Outline FLCP has been submitted at Deadline 2 (S_D2_12 (F02)). These refinements specifically include: • Use of gear penetration and snagging risks as factors to determine target burial depth – incorporated into Primary Measure 1. • The Applicant has set out limits on cable protection, as assessed Volume 2, Chapter 6: Commercial fisheries (APP-024), as a new Primary Measure 2 to address concerns over the impact of cable protection on fishing activity and the amount of cable protection that can be used. • Infrastructure spacing will be a minimum of 1,400m and will also be aligned with the layout principles detailed in Table 3.7 of the Project Description Chapter (APP-010) – incorporated in Primary Measure 4. • Feedback highlighted the importance of using a Fishing Industry Representative (FIR) identified by the local fishing industry. The Applicant has amended the justification for Tertiary Measure 2 to note that a suitable candidate for the FIR will be identified to the Company Fisheries Liaison Officer (CFLO) by fisheries stakeholders. • Feedback highlighted the importance of using a local Offshore Fisheries Liaison Officers (OFLOs) where possible. Tertiary Measure 5 has been updated by the Applicant to reflect the use of Local OFLOs where possible. • To reduce the potential for cable exposure, Tertiary Measure 10 has been updated to include consideration of likely seabed level change where possible establishing target cable burial depth.

Reference	Written Representation Comment	Applicant's response
		• The commitment in Tertiary measure 11 to undertake annual reviews for the first five years of the operations and maintenance phase to review Vessel Monitoring System (VMS) data and landings data, has also been updated to include I-VMS when available. • Additionally, in recognition of submissions from the SFF the Applicant has also incorporated a new monitoring commitment in relation to queen scallop (Tertiary measure 17). The refined wording of these measures in the updated Outline FLCP is also captured in the SoCG (S_D2_OF) between the Applicant and commercial fisheries stakeholders (ref: CF.OFLCP.T1; CF.OFLCP.T2; CF.OFLCP.T3; CF.OFLCP.T4; CF.OFLCP.T5). All these points of discussion are agreed. In summary, the Applicant has made significant design-based commitments and monitoring proposals for both the fishing fleets and its primary resource, which have been developed in consultation with commercial fisheries stakeholders in response to PEIR assessment conclusions and provide a comprehensive approach to facilitating co-existence with commercial fishing activities. The design-based commitments mitigate potential impacts on commercial fisheries as far as reasonably practicable and allow for continued access to fishing grounds within the Morgan Array Area. The design commitments are further supported by two monitoring proposals that address the residual concerns raised by the SFF and emphasises the Applicant's confidence in conclusions presented within Volume 2, Chapter 6: Commercial fisheries (APP-024). <u>Fish and Shellfish Ecology:</u> The Applicant acknowledges the extent and distribution of queen and king scallop fishing activity and spawning and nursery grounds within the vicinity of the Morgan Array Area. The available research on queen and king scallop responses to impacts including temporary habitat loss and disturbance, increased suspended sediment concentrations, and long-term habitat loss has been assessed within the fish and shellfish ecology chapter (APP-021), and no significant effects were concluded. Please refer to RR-036.1 in S_-PD_3 Applicant's Response to Relevant Representations (PD1-017). From an ecology perspective, temporary habitat loss/disturbance and long term habitat loss are fully assessed in section 3.9.2 and 3.9.5 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), with particular reference paid to impacts to both scallop species and herring. No significant effects are predicted to either queen scallop or herring as a result of these impacts. Further details are provided in the Applicant's responses to points REP1-059.4 and REP1-059.41 to REP1-059.48 raised by the Scottish Fishermen's Federation.
REP1-059.3	We consider that the proposal in its current state presents a possible Moderate or Major (leaning towards major) impact on fisheries.	The Applicant has assumed that the key impact of concern to the SFF and which forms the basis of their comment is 'loss or restricted access to fishing grounds', as assessed in section 6.8.2 of Volume 2, Chapter 6: Commercial fisheries (APP-024).

Reference	Written Representation Comment	Applicant's response
		The Applicant engaged with fishing stakeholders in Autumn 2022, post-scoping, on requirements to allow access to and continued fishing within Morgan Array Area. As set out under section 6.3 in Volume 2, Chapter 6: Commercial fisheries (APP-024), this engagement highlighted a preference for avoidance of infrastructure over queen scallop grounds, sufficient spacing between infrastructure to allow continued access and fishing, orientation of wind turbines against dominant towing directions, burying of cables and minimising the use of cable protection. In Winter 2022, further engagement was undertaken specifically with scallop fishing stakeholders on the potential development of a SMZ. Following the publication of the PEIR, and in light of commercial fisheries and wider feedback on the PEIR, the Applicant met with commercial fisheries stakeholders in September 2023 to provide more specific details on the following mitigation measures, which the Applicant understood were well received (see Appendix G.19 of the Technical Engagement Plan Appendices - Part 5 (Appendix E to L) (APP-093)): • Increased spacing from 1,000 m between rows of wind turbines and OSPs and 875 m between wind turbines and OSPs in a row to a minimum of 1,400 m within or between rows, in accordance with the layout principles, to increase ability to travel through and fish within the wind farm array area. • Inclusion of a SMZ over queen scallop grounds in the western part of the array to reduce potential for impacts to scallop and enable continued fishing of these core grounds by vessels that currently fish in this area. • Orientation of wind turbines rows in a roughly north south orientation to allow vessels to maintain the dominant tow direction in this area. • Commitment to burying cables as far as possible and minimising cable protection where burial is not possible to reduce the potential for gear snagging risks/maintain ability to continue fishing within the order limits. These commitments are set out within the Outline FLCP (APP-065). There is a requirement to produce a Final FLCP (which must accord with the commitments of the Outline FLCP), within which these commitments will be secured. These commitments to co-existence are recognised in the SoCG (S_D2_OF) between the Applicant and commercial fisheries stakeholders (ref: CF.OFLCP.P1; CF.OFLCP.P4; CF.OFLCP.P5; CF; OFLCP.P6). CF.OFLCP P1, P4 and P5 are agreed whilst CF.OFLCP.P6 is an ongoing point of discussion. In light of the commitments to the preceding mitigation and on the basis that fishing will be able to continue within the Morgan Array Area during the operational phase, the assessment in Volume 2, Chapter 6: Commercial fisheries (APP-024) concluded a minor adverse impact (which is not

Reference	Written Representation Comment	Applicant's response
		significant in EIA terms) on 'loss or restricted access to fishing grounds' for the Scottish west coast scallop vessels receptor group. In summary, the Applicant developed the SMZ to mitigate a moderate adverse impact on scallop receptors at the PEIR stage, and by including the SMZ in the final assessment, the significance of effect was reduced to minor adverse. The Applicant has made significant design-based commitments and monitoring proposals 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-based commitments mitigate potential impacts on commercial fisheries as far as reasonably practicable and allow for continued access to fishing grounds within the Morgan Array Area. The design commitments are further supported by two monitoring proposals (as discussed in response to REP1-059.2) that address the residual concerns raised by the SFF and emphasise the Applicant's confidence in conclusions presented within Volume 2, Chapter 6: Commercial fisheries (APP-024).
REP1-059.4	This document initially assesses the proposal in relation to our vessels' 2023 fishing activity for Queen Scallops and we conclude that over 50% of the Queen Scallop fishery and a remarkable percentage of our pelagic fishery will be situated within OWF infrastructure in the future between Morgan (and Mona for cumulative considerations). Secondly this document outlines the practical issues of fishing vessels being able to continue fishing in which are poor weather autumn & winter fisheries. Finally with Morgan (and Mona cumulatively) being unique in covering so much of the sandy/gravelly Queen Scallop and herring nursery & fishing grounds, there is a real risk of loss of their habitat and the commercial fishery we rely on, for which the Fish & Shellfish Ecology Chapter unacceptably also dismisses as an impact, rated as minor.	<u>Commercial Fisheries:</u> The Applicant has noted the Written Representation response from the SFF in REP1-059.4 and REP1-059.5 and acknowledge the conclusion made regarding spatial extent of current queen scallop fishing in relation to the Morgan Array Area. The SFF comment that the overall cumulative effect with the proposed Mona Offshore wind Project could affect over 50% of activity observed within their 2023 queen scallop data. However, it is noted that the SFF's conclusions are based on plotted data presented in the Written Representation response provided by the West Coast Sea Products (WCSP) Ltd, which is not publicly available. The Applicant notes that WCSP's representation (REP1-065) confirms the key observations from previous data provided via consultation with the Applicant. Specifically, the key parts of the Morgan Array where fishing for queen scallop occurs at a high density. With regard to the cumulative assessment, Volume 2, Chapter 6: Commercial fisheries (APP-024) considered the potential loss of fishing grounds from Morgan Generation Assets, Mona Offshore Wind Project, Morecambe Offshore Wind Farm: Generation Assets and Morgan and Morecambe Offshore Wind Project: Transmission Assets during the operational phase. This assessment concluded that whilst the cumulative magnitude of impact would have a regional spatial extent, be of long-term duration and continuous, with low reversibility, a minor adverse impact significance was concluded on the basis that the reduction in access to scallop resulting from the cumulative impact would not lead to more than a 5-10% reduction of the annual value of landings (informed by expert judgement that is based on data analysis, stakeholder feedback, the revised array layouts presented and how these may affect fishing activity). Paragraph 6.8.1.60 of Volume 2, Chapter 6: Commercial fisheries (APP-024) specifically references the reliance of the 'Scottish west coast scallop' receptor group upon grounds within the Morgan Array Area, stating that this may account

Reference	Written Representation Comment	Applicant's response
		for approximately 40% of their total annual value of landings of queen scallop within the Morgan Array Area alone. This importance of queen and king scallop landings to the SFF and other Scottish scallopers, who form the 'Scottish west coast scallop vessel' receptor group is fully accounted for within Volume 2, Chapter 6: Commercial fisheries (APP-024), which was established through analysis of the latest publicly available VMS data and via extensive engagement that has been conducted since 2021, where the Applicant sought to establish the spatial distribution of the nomadic fleet. Aspects related to the project alone and cumulative assessments are included in the SoCG (S_D2_OF) between the Applicant and commercial fisheries stakeholders (ref: CF.EIA.5; CF.EIA.6). Both these are ongoing points of discussion. The Applicant developed the SMZ to mitigate a moderate adverse impact on scallop receptors at the PEIR stage, and by including the SMZ in the final assessment, the significance of effect was reduced to minor adverse. The Applicant fully recognises the importance of queen scallop to the SFF and has made significant design-based commitments and monitoring proposals 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-based commitments mitigate potential cumulative impacts on commercial fisheries as far as reasonably practicable and allow for continued access to fishing grounds within the Morgan Array Area. The design commitments are further supported by two monitoring proposals (as discussed in response to REP1-059.2) that address the residual concerns raised by the SFF and emphasise the Applicant's confidence in conclusions presented within Volume 2, Chapter 6: Commercial fisheries (APP-024). Relevant aspects of the assessment undertaken, the design-based commitments and monitoring proposals are all detailed in the SoCG (S_D2_OF) between the Applicant and commercial fisheries stakeholders. The majority of these points are agreed, whilst some remain as point of discussion. <u>Fish and Shellfish Ecology:</u> The impacts to fish and shellfish ecology receptors, including queen scallop, for the impacts of temporary and long term habitat loss are assessed within section 3.9.2 and 3.9.5 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). The area to the south east of the Morgan Array Area (i.e. outside of the Array Area; Volume 2, Annex 3.1: Fish and shellfish ecology (APP-051); Figure 1.35), is not expected to be subject to disturbance as a result of Morgan Generation Assets and is considered a queen scallop nursery/spawning area which is unfished; spawning and nursery in this area is therefore expected to be unimpeded by the Project. As shown within Figure 1.2 of Volume 4, Annex 2.1: Benthic subtidal ecology technical report (APP-050), broadscale habitat mapping indicates the presence of coarse and mixed substrate beyond the boundaries of the Morgan Array Area, suggesting that

Reference	Written Representation Comment	Applicant's response
		suitable habitat is available within the region adjacent to the Project to support recovery of queen scallop into areas which are subject to temporary habitat loss/disturbance. To validate the predictions made within the ES regarding impacts on scallop, an appropriate scallop monitoring programme commitment is proposed (as discussed in REP1-059.2). Herring nursery grounds extend across much of the east Irish Sea, along the coastlines in the north and east of this area, with a very small proportion of mapped nursery ground overlapping with the Morgan Array Area (Ellis *et al.*, 2012; see Figure 1.9 of Volume 4, Annex 3.1: Fish and shellfish ecology technical report; APP-051). As a pelagic species, juvenile herring do not require specific substrate conditions for habitation, therefore direct changes/loss or disturbance to seabed habitats within the Morgan Array Area are considered highly unlikely to lead to significant effects on juvenile herring and their ability to inhabit and feed within the area.
REP1-059.5	2. Current Queen Scallop fishing activity evidence and quantifying ground altered by OWF infrastructure This section provides an initial background of Queen Scallop fishing for 2023 in relation to the Morgan proposal area in the eastern Irish Sea as well as Mona (separate project and application) which requires examination as the two projects collectively by the same developer capture most of the commercial Queen Scallop fishing ground in the eastern Irish Sea. It should be noted that the King Scallop fishery will also be negatively affected by the development but for the purpose of this response, our representation concentrates on the Queen Scallop fishery which we regard as more important in this circumstance. Further evidence on the impact to the King Scallop fishery can be provided on request.	The Applicant refers the SFF to its response provided in REP1-059.4.
REP1-059.6	In terms of spatial data (presented at WCSP Ltd response on this consultation), Morgan shall be situated on approximately 15% of 2023's fishing activity for Queen Scallops. This % assessment considers that the Scallop Mitigation Zone presented in the coexistence plan in its current form for Morgan will not serve as a true Scallop Mitigation Zone where a vessel skipper would not be affected by OWF infrastructure, therefore our opinion considers the impact to be as high as 15% (note only based on 2023 data). Our explanation for	The Applicant has noted the Written Representation response from the SFF and acknowledges the conclusions made with regard to spatial extent of current queen scallop fishing in relation to the Morgan Array Area. The SFF has commented that approximately 15% of activity observed within the WCSP's 2023 queen scallop data overlaps with the Morgan Array Area. While it is noted that the SFF's conclusions are based on plotted data that is not publicly available (as highlighted in response to REP1-059.4), spatial distribution of fishing activity using VMS data, supported by feedback from project-specific consultation and other sources of data (observations from Offshore Fisheries Liaison Officers and Marine Traffic Survey data), concurs with this conclusion and aligns with the observation depicted in the WCSP's plotted data that the west part of the Morgan Array Area is an important queen and king scallop fishing ground for vessels utilising dredges (as

Reference	Written Representation Comment	Applicant's response
	this is based on our understanding that the western triangle SMZ will be bound west along the Isle of Man territorial sea 12nm line and to the south by a row of turbines. The area will be clear within of turbines and substations, but the Fisheries coexistence plan indicates that cables will be routed through. This % affected would be reduced if the Scallop Mitigation Zone was perceived more by ourselves to actually compensate better than its current form (discussed in sections ahead	presented within Volume 6, Annex 6.1: Commercial Fisheries Technical Report (APP-059)). Significant engagement with commercial stakeholders (including the SFF) was instrumental in the development of the SMZ, where the Applicant has sought to protect the most important queen scallop fishing ground within the Morgan Array Area, as far as reasonably practical. The Applicant acknowledges the SFF's comment regarding the design scenario of the SMZ, where a northwest and southwest alignment of wind turbines surrounding the SMZ is required and the concern that this may inhibit access for continued fishing activity. In the event that the final array layout requires 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). The Applicant considers this to be sufficient distance between the wind turbines to enable fishing vessels to access the SMZ area to undertake fishing activity. The Applicant also notes that scallop fishing has resumed within Moray East Offshore Wind Farm where the spacing is 1,128 m apart in the north to south axis and at a distance of 1,547 m apart in the east to west axis, with no SMZ. It is also important to recognise that fishing will also be able to continue 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 (APP-065)), 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). The Applicant acknowledges the preference of the SFF for no cables (or cable protection if/where required) within the SMZ, and notes this is an ongoing point of discussion within the SoCG (S_D2_OF (ref: CF.OFLCP.P6)). At this stage in the development process, the final design, including the transmission and electrical system design of Morgan Generation Assets has not yet been completed. This will require inputs from pre-construction site investigation surveys as set out in Section 3.5.2. of Volume 1, Chapter 3: Project Description (APP-010) and the selection and procurement of key infrastructure such as the wind turbine generator model. Whilst the Applicant has been able to make a commitment to excluding installation of wind turbine generators and offshore substation platforms within the SMZ, it is important that Morgan Generation Assets must be designed with an efficient inter-array and transmission system, which requires the option to place cables and cable protection within the SMZ if required. However, as set out in section 1.3.6 of the Outline FLCP (APP-065), the Applicant has committed to minimising cable installation within the SMZ where possible and where cable routing through the SMZ is required, aligning cables north-south over east-west as far as practically possible to reduce the potential for interaction of the dominant north-south orientated towing patterns followed at this location. The Applicant has also made a commitment to burying cables as far as possible and minimising cable protection where burial is not possible, reducing the potential for gear snagging risks / maintain ability to continue fishing within the Morgan Array Area and SMZ. These commitments also align with the Outline

Reference	Written Representation Comment	Applicant's response
		FLCP submitted by the Applicant of the Mona Offshore Wind Project and is considered within the assessment of cumulative effects in Volume 2, Chapter 6: Commercial fisheries (APP-024). The Applicant notes that the Admiralty Mariners Handbook (NP100) and MCA MGN 661 both highlight the risks of deploying towed fishing gear over subsea cables. The Cable Burial Risk Assessment (CBRA) that will be undertaken by the Applicant once final cable positions are known will aim to mitigate this risk via highlighting any areas where burial to target depth may not be possible and cable protection may be required. This will enable commercial fishing activity to continue over suitably buried cable infrastructure within the Morgan Array area, In summary, the Applicant has made significant design-based commitments and monitoring proposals 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-based commitments mitigate potential impacts on commercial fisheries as far as reasonably practicable and allow for continued access to fishing grounds within the Morgan Array Area. The design commitments are further supported by two monitoring proposals (as discussed in response to REP1-059.2) that address the residual concerns raised by the SFF and emphasise the Applicant's confidence in conclusions presented within Volume 2, Chapter 6: Commercial fisheries (APP-024). Relevant aspects of the design-based commitments and monitoring proposals are all detailed in the SoCG (S_D2_OF) between the Applicant and commercial fisheries stakeholders. The majority of these points are agreed, whilst some remain as point of discussion.
REP1-059.7	The cumulative impact of Morgan is further increased in a future scenario with Mona and Morgan both in construction and eventual operation shows that an additional 38% of 2023's VMS data shall fall within Mona. Again, the Scallop Mitigation Zone for Mona which shall comprise of a 3km wide corridor, has been indicated by the developer in the Co-Existence plan for that project will not be absent cable routing through the Scallop Mitigation Zone. Therefore, for this reason the Scallop Mitigation Zone for Morgan will not reduce the effect the windfarm shall have on queen Scallop vessel operations as likely anticipated. The overall cumulative effect is that 53% of Queen data for 2023 shall fall within the Morgan and Mona OWF proposal areas. With just over half the Queen Scallop fishery being subject to spatial squeeze, this will result in increased	The Applicant has submitted a SoCG with SFF at Deadline 2 (S_D2_OF) which covers the assessment methodology and conclusions of the assessment (alone and cumulatively), along with the mitigation measures and is a point of ongoing discussion (ref: CF.EIA.4 to CF.EIA.7). The Applicant has noted the Written Representation response from the SFF and acknowledges the conclusions made with regard to spatial extent of current queen scallop fishing in relation to the Morgan Array Area. The SFF comment that the overall cumulative effect with the proposed Mona Offshore wind Project could affect over 50% of activity observed within their 2023 queen scallop data. The Applicant refers the SFF to its response provided in REP1-059.4, where this matter is discussed in detail. The Applicant refers the SFF to its response provided in REP1-059.6, where it expresses confidence that potential cable routing or footprint of any cable protection within the SMZ will not compromise the purpose or effectiveness of the SMZ in maintaining access to important queen scallop fishing grounds.

Reference	Written Representation Comment	Applicant's response
	pressure and displacement in other areas affecting the health balance of this fishery	
REP1-059.8	Should the applicant consider designating a more effective Scallop mitigation Zone deserving of the Scallop industry's needs to operate then the overall cumulative effect would be reduced from 53% to possibly 20-25%	The Applicant acknowledges the SFF's comment regarding the design scenario of the SMZ and the potential cumulative effect with the proposed Mona Offshore wind Project. The Applicant refers the SFF to its response provided in REP1-059.4 and REP1-059.6 respectively, where these matters are discussed in detail.
REP1-059.9	3. Impact of infrastructure & significance of effects Page 142-159 of Chapter 6: Commercial Fisheries outline that there will be only a negligible-minor effect on Scottish west coast vessels (including Queen Scallop and herring fisheries), i.e. us as a receptor, associated with a variety of impacts Morgan OWF will impose cumulatively. This is arrived at by the ES with a reliance on the coexistence plan that will deliver as a plan to revert fishing access to near-baseline conditions. We do not agree this scoring and we are of the opinion that there will be a moderate or major effect on our operations. As outlined in Section 2 above there is a risk of 53% of our ground facing access issues or habitat loss and therefore for "Displacement of fishing activity into other areas" for instance to be rated as negligible is a significant underscore of this impact.	The Applicant has submitted a SoCG with SFF at Deadline 2 (S_D2_OF) which covers the assessment methodology and conclusions of the assessment (alone and cumulatively), along with the mitigation measures and is a point of ongoing discussion (ref: CF.EIA.4 to CF.EIA.7). The Applicant acknowledges the SFF's comment relating to cumulative impacts to the Scottish West coast scallop receptor group and the results of the assessment presented in Volume 2, Chapter 6: Commercial fisheries (APP-024). This matter is addressed in the response to the SFF's detailed comments on this matter in REP1-059.4 and REP1-059.6.
REP1-059.10	The reason for our assumption is based on other operational OWF and lessons learned and factual evidence from other operational OWF. As a case study we have used Seagreen OWF which is an array considered which is another prolific Scallop fishery (King Scallops). During construction (2 years) the mobile sector had very limited access due to the Array area, mostly due to prelay of IACs and problems with achieving burial depth. IACs data and rock protection positions very much delayed which further increased the spatial squeeze element of the OWF.	The Applicant acknowledges the comment raised regarding the Seagreen Offshore Wind Farm (OWF) and the SFF's views on the impact its construction phase had on the king scallop fishery. However, it's important to clarify that the issue cited in the SFF's response relates specifically to the construction phase, not the operations and maintenance phase. The challenges faced at Seagreen, such as limited access as a result of complications in achieving cable burial depth, were largely due to site-specific ground conditions, which are not expected to be encountered for the Morgan Generation Assets. Additionally, the Seagreen OWF does not have a SMZ equivalent within its design, whereas construction activities for the Morgan Generation Assets over important scallop grounds, which are protected by the SMZ, will be limited in extent and duration. This is underpinned by the Applicant's commitment to not close the entire Morgan Array Area during the construction phase (as set out within Volume 2, Chapter 6: Commercial fisheries (APP-024) and the J6 Mitigation and monitoring schedule (APP-076)). During the operations and maintenance phase, wind turbines throughout the Morgan Array Area will be spaced much further apart in comparison to the Seagreen OWF and the amount of cabling

Reference	Written Representation Comment	Applicant's response
		(and cable protection) will be minimised as far as practically possible (as discussed in detail in response to REP1-059.6.). In summary, the Applicant has made significant design-based commitments and monitoring proposals for both the fishing fleet and its primary resource, which provide a comprehensive approach to facilitating co-existence with commercial fishing activities. The design-based commitments mitigate potential impacts on commercial fisheries as far as reasonably practicable during both the construction phase and operations and maintenance phase and allow for continued access to fishing grounds within the Morgan Array Area. Relevant aspects of the design based commitments and monitoring proposals are all detailed in the SoCG (S_D2_OF) between the Applicant and commercial fisheries stakeholders. The majority of these points are agreed, whilst some remain as point of discussion.
REP1-059.11	Construction phase of Morgan is proposed to take 4 years therefore access to the Array will be limited reducing effort and annual grossings by as much as 53%, if they have the same problems as other OWF have had with cable burial and rock protection. The magnitude therefore on the receptor should be escalated for the construction phase from low to medium	The SFF comment that the overall cumulative effect with the proposed Mona Offshore wind Project could, during the construction phase, affect over 50% of activity observed within their 2023 queen scallop data. The Applicant refers the SFF to its response provided in REP1-059.4, and REP1-059.10 where this matter is discussed in detail. Whilst the construction phase of both the Morgan and Mona projects may take up to 4 years, the Applicant has committed to not closing either of the Array areas during construction, therefore enabling fishing activity to continue, in/around any relevant safety zones and/or voluntary exclusion zones. Therefore, the cumulative assessment concluded that there will not be a reduction of more than 10 % of the annual value of landings, due to the temporary and intermittent nature of the works and the likelihood that there will be rolling safety zones during the construction phases of these wind farms, which will minimise loss of area to these fleets. The Applicant notes the comment on achieving burial depth for other UK projects, which has been raised by the SFF. A cable burial risk assessment will inform the cable burial depth, which will be undertaken post consent. Where required, cables will typically be buried to a target depth of 1 m for interconnector cables and 2 m for inter-array cables, with a maximum burial depth of 3 m and minimum burial depth of 0.5 m for both. The use of cable protection beyond the limits assessed in relevant chapters of the Environmental Statement is controlled within the deemed marine licence of the draft DCO (C1 Draft Development Consent Order (REP1-021). Within the draft DCO, Table 2 in Schedule 3 sets a maximum limit on cable protection volume and area for inter-array and interconnector cables within the Morgan Array Area. These limits are based on protection of up to 10% and 20% of total cable length being protected for inter-array cables and interconnector cables respectively. The Applicant will not be able to exceed these limits without variation to the deemed marine licence, which the licencing authority would likely consult on with relevant stakeholders.

Reference	Written Representation Comment	Applicant's response
		Aspects related to cable installation and burial depths are included in the SoCG (S_D2_OF) between the Applicant and commercial fisheries stakeholders (ref: CF.OFLCP.P1). This point of discussion is agreed.
REP1-059.12	During the Operation and Maintenance (O&M) phase the magnitude of the impact is deemed negligible, however even with mitigation measures put in place, activity will greatly be reduced. Multiple vessels (including pelagic vessels) cannot fish in the array at any given time as they did preconstruction, multiple cable crossings require rock protection (Which scallop vessels must stay clear of as it causes this type of fishery multiple problems). Weather criteria will be greatly reduced due the physical presence of the WTGs and potential snagging hazards from IACs, rock protection and any other infrastructure connected to the Morgan Array.	As per the responses provided in REP1-059.2, REP1-059.3., REP1-059.4., REP1-059.6. and REP1-059.10., the Applicant has made significant design-based commitments and monitoring proposals for commercial fisheries stakeholders, including those that deploy pelagic and demersal fishing gear. These commitments, which have been developed in consultation with commercial fisheries stakeholders, provide a comprehensive approach to facilitating co-existence with commercial fishing activities. The design-based commitments mitigate potential impacts on commercial fisheries as far as reasonably practicable, and allow for continued access to fishing grounds within the Morgan Array Area. The design commitments are further supported by two monitoring proposals (as discussed in response to REP1-059.2) that address the residual concerns raised by the SFF and emphasise the Applicant's confidence in conclusions presented within Volume 2, Chapter 6: Commercial fisheries (APP-024). The Applicant acknowledges the point raised by the SFF that scallop vessels deploying dredges may wish to avoid cable crossing protection. The presence of cable crossing protection, as a maximum design scenario, is anticipated to contribute up to 38,800 m^2 of habitat loss within the Morgan Array Area (which equates to <1% of the total area of the Morgan Array Area), comprising: • Cable protection for cable crossings for inter-array cables: 28,800 m^2 from 10 cable crossings (each up to 80 m in length and 36 m in width) • Cable protection for cable crossings for interconnector cables: 10,000 m^2 from 10 cable crossings (each up to 50 m in length and 20 m in width). The Applicant is, therefore, confident that the footprint of any cable crossing protection within the Morgan Array Area will not compromise access at significant levels to important scallop grounds, nor diminish the purpose or effectiveness of the SMZ. Further to the response provided to REP1-59.6, the Applicant highlights that as the cabling will be minimal in the SMZ, the likelihood of any additional protection materially interacting with fishing activity in the core grounds is further reduced. Aspects related to design-based commitments, cable burial and/or protection and monitoring are included in the SoCG (S_D2_OF) between the Applicant and commercial fisheries stakeholders. The majority of these points are agreed, whilst some remain as point of discussion. The Applicant has assessed the potential impacts of the Morgan Generation Assets on navigational safety for fishing boats within Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060) and refers the SFF to its response in REP1-059.31, where this comment is discussed in detail.

Reference	Written Representation Comment	Applicant's response
REP1-059.13	Again, learning from Seagreen and other offshore windfarms that are in operation, effort and annual grossing could be reduced by up to 66%	Refer to response provided in REP1-059.10. The Applicant has not seen any evidence of this reduction in earnings.
REP1-059.14	The development impacts on pelagic fishery would be high throughout the construction and (O&M) phases as pelagic vessels cannot operate near or within the windfarms. Therefore, the magnitude of impact therefore must be raised from negligible to High. Too much of the commercial fisheries' chapter are based on assumptions and not adequately looking at the facts and lessons learned from other operational OWF.	Examples of herring fishing within offshore wind farm array areas are somewhat limited, as offshore wind farm developments are often located away from key spawning or fishing grounds for herring due to environmental restrictions. However, there is evidence of co-existence in certain areas where pelagic fishing, including herring, can occur. For instance, the Dutch North Sea has seen co-existence efforts between offshore wind farms and fishing operations. Dutch wind farms like Borssele and Gemini have allowed certain fishing activities, including pelagic fishing for species like herring, in parts of the wind farms. The careful design and spacing of turbines have enabled safe navigation for vessels, which supports such activities in certain locations. As described above in response to REP1-059.3, the Applicant engaged with fishing stakeholders, including the pelagic fishery, in Autumn 2022, post-scoping, on requirements to allow access to and continued fishing within Morgan Array Area. As set out under section 6.3 in Volume 2, Chapter 6: Commercial fisheries (APP-024), this engagement highlighted a preference for sufficient spacing between infrastructure to allow continued access and fishing and orientation of wind turbines against dominant towing directions. In light of commercial fisheries and wider feedback on the PEIR, the Applicant met with commercial fisheries stakeholders in September 2023 to provide more specific details on mitigation measures, including those relevant to the pelagic fishery (i.e. sufficient spacing between turbines), which were well received (see Appendix G.19 of the Technical Engagement Plan Appendices - Part 5 (Appendix E to L) (APP-093)). The significant design-based commitments mitigate potential impacts on commercial fisheries as far as reasonably practicable and allow for continued access to fishing grounds within the Morgan Array Area. The design commitments are further supported by monitoring (as discussed in detail in response to REP-059-2) that address the residual concerns raised by the SFF and emphasise the Applicant's confidence in conclusions presented within Volume 2, Chapter 6: Commercial fisheries (APP-024). Relevant aspects of the design based commitments are detailed in the SoCG (S_D2_OF) between the Applicant and commercial fisheries stakeholders. The majority of these points are agreed, whilst some remain as point of discussion.
REP1-059.15	Further justifications of our disagreement with the fisheries is provided below.	The Applicant notes the SFF's response and has addressed the comments provided below.

Reference	Written Representation Comment	Applicant's response
REP1-059.16	3.1 Outline Fisheries Liaison and Co-Existence Plan Through consultation with the applicant, a co-existence plan has been presented to support the application. This includes a set of measures which would help to accommodate Queen and King Scallop fishing as much as possible in the situation where offshore windfarm infrastructure is constructed on scallop grounds in this area. For instance, the applicant has included a number of measures which we support such as north-south rows of wind turbine generators and cable routing with 1400m spacing. This supports the general movement of fishing vessels in this area which tow north to south with the tides. Within Morgan the western extents are fished (by Queen Scallopers and pelagic vessels (herring) and the eastern extents are considered nursery fishing ground which is left unfished by our members. The proposals also include a Scallop Mitigation Zone which has the intention of leaving as much free access as possible for the western fished area within the proposal area.	The Applicant acknowledges the support given to commitments outlined within the Outline FLCP (APP-065). The Applicant has submitted a SoCG with SFF at Deadline 2 (S_D2_OF) which covers the commitments detailed within the Outline FLCP and most positions apart from the SMZ commitment (ref: CF.OFLCP.P6) are agreed.
REP1-059.17	The Scallop Mitigation Zone is presented as a triangle which is a sufficient area which correlates with the bulk of the fishing data that our members have provided through previous consultation with the developer. The proposals and Coexistence plan however contains details which reveal that it will not be an effective SMZ and fishing vessels (both scallopers and pelagic) will encounter practicalities which will affect safety and fishing access. The flaws identified with the SMZ are as such which fishing businesses such as ourselves find difficult to agree with as being a true SMZ: - 1. Rows of WTGs along the northwest and southwest perimeters of the Scallop Mitigation Zone. 2. Associated WTG Interconnecting cables along the perimeter of the SMZ, and 3. Probable routing of cables through the SMZ.	The Applicant acknowledges the SFF's following comments regarding the design scenario of the SMZ: 1. where a northwest and southwest alignment of wind turbines surrounding the SMZ is required and how this may inhibit access for continued fishing activity. The Applicant refers the SFF to its response in REP1-059.6, where this is discussed in detail. 2. the preference of the SFF for no cables (or cable protection if/where required) or wind turbines along the perimeter of the SMZ. The Applicant refers the SFF to its response in REP1-059.6, where this is discussed in detail. 3. the preference of the SFF for no cables (or cable protection if/where required) within the SMZ. The Applicant refers the SFF to its response in REP1-059.6, where this is discussed in detail. The Applicant maintains that the spacing of 1,400 m is more than sufficient for pelagic vessels to continue to fish within the array area (and scallop mitigation zone). The Applicant has submitted a SoCG with SFF at Deadline 2 (S_D2_OF) which covers the commitments detailed within the Outline FLCP and the SMZ (ref: CF.OFLCP.P6) is an ongoing point of discussion.

Reference	Written Representation Comment	Applicant's response
REP1-059.18	Our concerns over the nature of the SMZ are further shown in the map below which in the view of fishing businesses will present a 'fishing on a postage stamp' scenario in the future.	Refer to response provided in REP1-059.19.
REP1-059.19	Refer to SFF WR for figure.	The Applicant acknowledges the SFF's figure illustrating their preferences for the design scenario of the SMZ, which is in relation to REP1-059.17 above. The Applicant refers the SFF to its response in REP1-059.6, where their comments are discussed in detail.
REP1-059.20	On paper it could be perceived a significant sacrifice of the proposal area from the developer however the finer details are clear that it is going to present a fishing access issue. We have no issues with WTG infrastructure along the east perimeter of the SMZ as this was to be expected; however the SMZ as presented at the moment will affect fishing and connectivity with the ground and tows to the south.	The Applicant acknowledges the SFF's design preferences for the SMZ and accepts that wind turbines along the east perimeter of the SMZ is not a cause for concern. The Applicant refers the SFF to its response in REP1-059.6, where their comments regarding the design scenario of the SMZ are discussed in detail.
REP1-059.21	Analysis of WTG row positioning between points 1 – 3 and points 3 – 2 of the diagram will inflict the following fishing challenges. In terms of points 1 and 3, this is a prolific fishing area for Queen and King Scallops along the Isle of Man territorial sea limit. There is however further concern for continuity of fishing between points 3 and 2 as a row of turbines along this perimeter would cut existing Queen and King Scallops tows in half where vessels at the present would fishing north to south in and out of the Morgan area. This flaw has been experienced by the Scallop fishing industry this year fishing within Seagreen OWF where good fishing tows along favourable contours have been cut in half by ill thought cable routing. With Seagreen OWF this was a serious missed opportunity and flaw which presents a safety issue for fishing vessels operating for life.	The Applicant acknowledges the comments raised regarding the northwest and southwest alignment of wind turbines surrounding the SMZ (cited via points 1 to 3 and 3 to 2 in their figure, respectively) and how this may inhibit access for continued fishing activity. The Applicant refers the SFF to its response in REP1-059.6, where this is discussed in detail. The Applicant acknowledges the views of SFF on the perceived impact the Seagreen OWF had during its construction phase on the king scallop fishery. The Applicant refers the SFF to its response provided in REP1-059.10, where detail is provided on the differences between these two projects and how similar outcomes are therefore not anticipated for the Morgan Generation Assets

Reference	Written Representation Comment	Applicant's response
REP1-059.22	A second flaw of this proposal concerns that the presence of WTGs along the perimeter will reduce the prominence of the SMZ by approximately 8%. For example, our fishing vessel in Seagreen OWF this year (2024) operated at a maximum safe distance of 135m when fishing alongside inter array cables. Therefore we consider that between points 1 – 3 – 2 : a length of 17.5 km x 135 m = 8% of the SMZ area with an access issue, particularly the case if the developer only buries to 0.5m where they will likely become exposed	The Applicant acknowledges the comments raised regarding the northwest and southwest alignment of wind turbines surrounding the SMZ (cited via points 1 to 3 and 3 to 2 in their figure, respectively) and how it is considered this may inhibit access for continued fishing activity. The Applicant refers the SFF to its response in REP1-059.6, where this is discussed in detail. The Applicant acknowledges the specific issue raised by the SFF in regard to cable routing of the SMZ. However, as set out in Table 1.2 of the Outline FLCP (APP-065), the Applicant has committed to minimising cable installation within the SMZ where possible and where 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. Where cables are required to be routed through the SMZ and a portion of those cables require cable protection there would be a reduction in the total area of the SMZ. However, due to the small footprint of cable protection, it is not expected to affect the purpose or effectiveness of the SMZ for providing continued access the queen scallop ground. Should cables need to be routed through the SMZ, it is highly unlikely that their entire length would need to be protected. Indeed, the MDS for cable protection in Volume 2, Chapter 6: Commercial fisheries (APP-058) limits cable protection to 10% of the maximum length of inter-array cables and 20% of the maximum length of interconnector cables. 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 of the SMZ would not reduce the purpose or effectiveness of the SMZ for providing continued access to the core queen scallop ground.
REP1-059.23	The presence of WTGs along the perimeter will make the proposed SMZ area 100% out of use for the pelagic vessels due to technicality of pelagic fisheries and the hazards that WTGs cause for pelagic vessels. As our fishing plotter data indicates (see below) that the herring fishery heavily takes place at the western corner of Morgan array.	The Applicant acknowledges the SFF's figure on spatial distribution of pelagic fishing activity and request that further information be provided on (a) the period over which these data have been collated and (b) the exact species being targeted and vessel types shown. The Applicant acknowledges the comment raised regarding the northwest and southwest alignment of wind turbines surrounding the SMZ (cited via points 1 to 3 and 3 to 2 in their figure, respectively) and how this may inhibit access for continued pelagic fishing activity but the Applicant considers that the spacing of 1,400 m is more than sufficient for pelagic vessels to continue to fish within the array. The Applicant refers the SFF to its response in REP1-059.6, where this is discussed in detail. The Applicant accepts that wind turbines along the east perimeter of the SMZ is not a cause for concern (as per REP1-059.20).
REP1-059.24	Refer to SFF WR for figure.	Refer to response provided in REP1-059.23.

Reference	Written Representation Comment	Applicant's response
REP1-059.25	A third flaw of the SMZ is the co-existence plan's probability that cables will be routed through the SMZ. The fishable area within the SMZ will be some 4km x 4km approximately and if cables are routed through then this defeats the purpose of a coexistence arrangement / allocation of peace of mind access for fishing vessels.	Refer to response provided in REP1-059.22.
REP1-059.26	Furthermore Section 1.1.1.36 suggests that the SMZ shall be further 'refined' which we interpret that that this will be further adjusted to the detriment of fishing access opportunities in this crucial western area of the proposal area. Furthermore, there is nothing to say that the developer will not introduce two rows of WTGs along the perimeter of the SMZ. This section also (similar to the Mona proposal) states that "cables and cable protection are not excluded from this area". This is wholly unacceptable to us as a measure to present in a coexistence plan and appears to offer the minimum to the Queen Scallop fishing industry.	Section 1.3.6 of the updated Outline FLCP (S_D2_12 (F02)) states that there shall be a single row of wind turbines positioned along the perimeter of the SMZ, the final boundary of the SMZ shall be subject to 'minor' refinements. The Applicant has submitted a SoCG with SFF at Deadline 2 (S_D2_OF) which covers the commitments detailed within the Outline FLCP and the SMZ (ref: CF.OFLCP.P6) is an ongoing point of discussion.
REP1-059.27	Another measure of the coexistence plan which is disappointing is with regards to the commitment to 0.5m burial. Our knowledge of this area is that the seabed is gravelly and sandy and sufficient cable burial should not be an issue in our opinion. The ambition and aim for 0.5m presents a real risk to fishing vessels continuing to operate in this area as cables buried to such a depth will just resurface and become exposed quickly on commencement of fishing and with the area being a naturally dynamic moving seabed. There is further vast evidence of shallow buried cables nearby (10miles southeast) at Gwynt y Mor OWF (commissioned 2015) of a similar seabed substrate, whereby in 2021 a notice to mariners was issued, including the statement "a significant number of array cable exposures are still being reported. Due to the mobile nature of the seabed within the wind farm boundary these cable exposures are subject to change and may develop in areas where	As described within Volume 1, Chapter 3: Project Description (APP-010), all subsea cables will be buried below the seabed wherever possible and protected with a hard-protective layer (such as rock or concrete mattresses) where adequate burial is not achievable. A cable burial risk assessment (CBRA) will inform cable burial depth, which will be dependent on ground conditions as well as external risks. Where required, cables will typically be buried to the following depths (depending on the outcome of the cable burial risk assessment): Interconnector cables to a target burial depth of 1 m, with a maximum burial depth of 3 m and minimum depth of 0.5 m and Inter-array cables to a target burial depth of 2 m, with a maximum burial depth of 3 m and minimum depth of 0.5 m. The maximum percentage of interconnector cable route requiring cable protection is 20%. The maximum percentage of the inter-array cable route requiring cable protection is 10%. The CBRA will be undertaken post consent. The Applicant notes the cable exposures at other offshore wind farms within the east Irish Sea and for other UK projects which have been raised by the SFF. The Morgan Generation Assets has committed to monitoring of cables and their burial status to reduce snagging risk, which will be included in the Offshore CMS. Within the Outline FLCP (APP-065) the Applicant has also committed to the use of guard vessels should cables

Reference	Written Representation Comment	Applicant's response
	there were none previously"1. Should Morgan be constructed, it is inevitable that cables only buried 0.5m would become exposed quickly following construction. Exposed lengths would not only be unsafe to fish/tow over, but they may encroach on corridors within the area which are left to fish. Should the development go ahead, the developer should be committing to a deeper burial depth of say 1.5-3m.	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. The Applicant has submitted a SoCG with SFF at Deadline 2 (S_D2_OF) which covers the commitments detailed within the Outline FLCP and most positions apart from the SMZ (ref: CF.OFLCP.P6) commitment are agreed.
REP1-059.28	In general, the Coexistence Plan has intentions of a solution for the fishing industry. There are aspects and measures we support such as 1400m turbine spacing, north to south inter array cable routing and avoidance of protection to a minimum. We however cannot support the application on the basis of the Scallop Mitigation Zone. The coexistence plan contains too many caveats which we perceive puts the developer's interests before respecting the interests of Queen Scallop and pelagic fishermen who have operated within the Morgan proposal area for over 50 years. As it stands, we anticipate the proposal to have a moderate or major effect on our operations and the next section justifies this in slightly more detail. The proposal would be slightly more warming to us in terms of predicted impact if the following measures were included / modified within the application: - • Commitment to removal of northwest and southwestern WTGs bounding the SMZ Scallop Mitigation Zone. • A commitment to bury cables to a greater depth than at present of 0.5m . • The document suggests the Scallop Mitigation Zone is indicative and will be refined which makes us further cautious about what the end result shall be. There needs to be a real commitment in this regard, and • A commitment to not take cables through the Scallop Mitigation Zone.	As per the responses provided in REP1-059.2., REP1-059.3., REP1-059.4., REP1-059.6. and REP1-059.10., the Applicant has made significant design-based commitments and monitoring proposals for commercial fisheries stakeholders. These commitments represent the limit of what can be reasonably committed to at this stage of the design process. The Applicant will continue to work with the fisheries organisations (through the OFLCP) post consent as the design process evolves to ensure that the iterative approach to design continues. The Applicant has submitted a SoCG with SFF at Deadline 2 (S_D2_OF) which covers the commitments detailed within the Outline FLCP and most positions apart from the SMZ (ref: CF.OFLCP.P6) commitment are agreed.

REP1-059.29	SFF is of the view that credit where it is due this outline FLCP is a good plan, however no matter what has been and will be captured within it going forward will not alter the magnitude of impact that the Morgan array will have on commercial fisheries. We have the following suggestion that would make the plan more effective if taken on board: • Again, the proposed western SMZ triangle does not serve as a true SMZ for our members for the fact that it will be bound by turbines around the perimeter of it and as per the outline Fisheries Liaison and Coexistence Plan cables will probably be brought through it. This will undermine the purpose of the SMZ and make it symbolic. We want the western SMZ triangle to be free of any turbines and cables in order for fishing to continue undisrupted. The FIR should be appointed by the fishing industry along with the CFLO this triangle of communication is really important between the fishers/FIRs/and/CFLOs. • FIRs should not be required to be prepare and distribute meeting minutes, this is the role of the CFLO. • In this array where the most impacted fishery is scallop dredging, cable protection over existing cables and where burial depth cannot be achieved will be no go areas for this section of the fleet, which again increases the magnitude of impact. • Time delay in the as laid positions of IACs, export cables and cable protection coordinates further increases the magnitude of impact. Time delay is out with the control of the developer as the data lies with the contractor and therefore delays are inevitable i.e. lessons learned from other OWF. • Increased spacing between WTGs has been welcomed however the number of vessels fishing within the Array at any one time is greatly reduced, therefore effort and earnings will significantly be reduced. This will not help the pelagic vessels at all as they cannot operate within array due to the vessel size and nature of operation, and • The use of smooth shallower profiles, grade and type	The Applicant acknowledges the support given to commitments outlined within the Outline FLCP (APP-065) and notes additional preferences for the design of the SMZ. The Applicant directs the SFF to its response to REP1-059.2., REP1-059.3., REP1-059.4., REP1-059.6. and REP1-059.10 for further details on the SMZ commitment, FIR, cable protection and commitments in the OFLCP including infrastructure spacing. The Applicant has submitted a SoCG with SFF at Deadline 2 (S_D2_OF) which covers the commitments detailed within the Outline FLCP and most positions apart from the SMZ (ref: CF.OFLCP.P6) commitment are agreed.

Reference	Written Representation Comment	Applicant's response
	of rock is not a mitigation measure for the scallop fisheries as previously mentioned.	
REP1-059.30	If the recommendations are adopted as above, we would envisage the overall negative effect on us as a receptor would be greatly reduced. Essentially Morgan OWF would be directly adjacent to the most important fishing grounds and would not interfere with access the interconnecting grounds to the south.	The Applicant notes SFF's position and refers the SFF to response provided in REP1-059.29.
REP1-059.31	3.2 Other practicality considerations Weather The Commercial fisheries chapter and coexistence plan does not necessarily factor enough in the impact that poor weather will have on decision making fishing vessel skippers. From experience, most skippers will only enter windfarms to fish when the weather conditions are ideal. The Morgan project area is situated on top of autumn and winter Queen and King Scallop fisheries as dictated by the seasonality of the product, i.e. fished when yields are at their peak in the autumn and winter months. As a result, fishery management strategies and closed seasonal seasons have been in implemented for years accordingly to account for this seasonality. We expect Morgan to have a High level of magnitude on us a receptor as presently skippers will fish in slightly poorish weather, however will be hesitant to enter during the same conditions with the hazards imposed by a windfarm. This would be the case with the Scallop mitigation Zone presented in the Co-Existence plan whereby there would be an opportunity to fish in the parcel presented, however with rows of turbines along the northwest and southwest perimeter of the SMZ and factoring tide and weather into this, would result in safety issues. Essentially our fishermen are of the opinion that although Morgan at present would enable a SMZ and a parcel of sea to fish, there is the crucial hazard of rows of WTGs along the perimeter of the SMZ. Rather than being an OWF they can fish alongside / adjacent to, they would still view it	The Applicant has assessed the potential impacts of the Morgan Generation Assets on navigational safety for fishing boats within Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060). This included risk to vessels engaged in fishing within the Morgan Array Area and fishing vessels on transit passing adjacent to or through the Morgan Array Area and included consideration of adverse weather conditions. The risk of collision and allision with wind turbines or offshore substation platforms, as well as vessels operating within or adjacent to the Morgan Array Area was identified as part of Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060). These were discussed during the hazard workshop undertaken in September 2023, which was attended by representatives from fishing organisations (Anglo Northern Irish Fish Producers Organisation (ANIFPO) and SWFPA) and these hazards were scored as Medium Risk – Tolerable if As Low As Reasonably Practicable (ALARP). Section 1.8.5 of Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060) discusses impacts to fishing, noting issues surrounding "Spatial Squeeze" and reflected the levels of fishing activity detected as part of the vessel traffic surveys reported in Section 1.6 of Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060). These hazards recognised that causes could include the presence of infrastructure and therefore reduced sea room, adverse weather conditions and increased vessel traffic amongst others. On the basis that crews of fishing vessels are trained, the vessels are equipped with navigational equipment and the spacing between Morgan Generation Assets infrastructure exceeds the spacing of other offshore wind farms in the UK, these risks were determined to be ALARP. Similar conclusions were reached within the Cumulative Regional Navigation Risk Assessment presented in Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060). The SoCG with the MCA submitted at Deadline 2 (S_D2_MCA) supports these conclusions. As per response to REP1-059.2,the Applicant would like to remind the SFF that the minimum separation distance of 1,400 m between wind turbines, was developed in direct consultation with the fishing industry and has been previously welcomed by the SFF (as detailed in detailed in Appendix G.19 of the Technical Engagement Plan Appendices - Part 5 (Appendix E to L) (APP-093)).

Reference	Written Representation Comment	Applicant's response
	as having to enter the OWF to start fishing and in any given moderate sea state, would be nervous about safety of the vessel. We would like to point out at the present that fishing vessels can fish this area during poor weather in the autumn and winter months both for King and Queen Scallops when the yields are at their highest and subsequently the value of the product.	
REP1-059.32	General navigation a. Baseline data The data collected for the commercial fisheries chapter does have a number of gaps, especially in relation to traffic movements and fishing activity. MGN654 states that there is a requirement for a 14-day winter traffic survey and a 14 summer traffic survey, this is very much a snap shot in time.	The Applicant has provided a full response to this comment raised by SFF during Issue Specific Hearing 1 in S_D1_4.9_Morgan Gen_Response to Hearing Action Point 22_ICES guidance and SFF_F01 (REP1-014). Within this response, the Applicant notes the extensive data collection undertaken for the Morgan Generation Assets, in excess of the requirements of the MCA's MGN654 and is supplemented by numerous other datasets to ensure it is comprehensive and robust. The Vessel Traffic Surveys were conducted in accordance with the Maritime and Coastguard Agency's (MCA) Marine Guidance Note 654, which requires two seasonally representative 14-day surveys. To enhance accuracy, the Applicant exceeded this requirement by conducting four 14-day surveys, thus providing double the data recommended in the guidance. The VTS timings were carefully considered following consultation with relevant stakeholders, such as the MCA and Royal Yachting Association (RYA). Specifically, the summer survey was designed to capture recreational vessel movements, reflecting the engagement with these authorities, as outlined in Table 7.4 of Volume 2, Chapter 7: Shipping and Navigation (APP-025). Based on advice from the Company Fisheries Liaison Officer (CFLO), a targeted survey focusing on scallop fishing activity was conducted in May 2023 to align with an important period for this fishery. To further supplement the VTS data, the Applicant also provided a summary of the fishing vessels observed by the Offshore Fisheries Liaison Officer (OFLO) during offshore geophysical, environmental, and geotechnical surveys in 2021 and 2022. As presented in Figure 1.66 of Volume 4, Annex 6.1: Commercial fisheries technical report (APP-059), OFLO observations were recorded during the periods from 30 June to 18 September 2021 and from 01 April to 10 July 2022. Furthermore, the CFLO continued remote fisheries monitoring and made observations of fishing activity until 30 November 2022.
REP1-059.33	The first winter survey took place 21st November - 5th December 2021 which would not have captured any queen scallop fishing vessels, and the summer survey 15th July to 29th July 2022 would have been prior to the major fishery which takes place August to December.	Refer to response provided in REP1-059.32.

Reference	Written Representation Comment	Applicant's response
REP1-059.34	Spring survey 4th - 18th May 2023 would have missed both king scallop and queen scallop fishery, winter survey 11th - 27th 10th November would not have captured the queen scallop fishery.	Refer to response provided in REP1-059.32.
REP1-059.35	In terms of herring fisheries, all a forementioned surveys have also missed herring fishery season in the array as the EIA states, "Landings statistics indicate that August and September are the most important months for the herring fishery".	Refer to response provided in REP1-059.32.
REP1-059.36	The overview of catch and landing data has been captured well as this is a legal requirement that all catches and landings are declared and recorded therefore the figures presented will be correct.	Refer to response provided in REP1-059.32.
REP1-059.37	b. Impacts on navigation We have concerns about the proposal's impacts on navigation and also cumulatively in mind of other windfarm proposals in the east Irish Sea. From our experience of fishing in Seagreen Windfarm this year for King Scallops the fishing vessel skipper, in addition to concentrating on fishing had to secure the safety of the vessel in terms of: - 1. Other fishing vessels operating within the 'alley ways' between the cable routing between WTGs. 2. Other normal marine traffic. 3. Windfarm survey vessels on site at the time – over-trawl. 4. Guard vessels. 5. Anchored Acoustic monitoring equipment. 6. Wind turbine generators, and 7. Inter-array cables	The Applicant has assessed the potential cumulative impacts of the Morgan Generation Assets with other Tier 1 and Tier 2 projects on navigational safety for fishing boats within the CRNRA in Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060). This included the anticipated effects of the Morgan Generation Assets on fishing activity caused by the presence of the infrastructure, cables and Morgan Generation Assets vessels. The CRNRA concludes that the cumulative risk of collision and allision with the Morgan Generation Assets, Mona Offshore Wind Project and Morecambe Generation Assets would be Tolerable and ALARP with proposed mitigation measures. Appendix D of the CRNRA (APP-060) noted that with the addition of the Scoping Boundary of the Mooir Vannin Offshore Wind Farm, unacceptable risks of collision and allision would result for passages between the Morgan Array Area and Mooir Vannin Offshore Wind Farm. The Applicant notes that Mooir Vannin Offshore Wind Farm Limited are undertaking their own shipping and navigation assessment in line with MGN654 and expects appropriate mitigation to be put in place to address these hazards.
REP1-059.38	The current co-existence plan does offer greater scope for coexistence compared to Seagreen on paper; however, we expect that the 0.5m burial target will be disastrous. This would result in our vessels and others having little confidence to tow over the cables, and subsequently lead to a heightened navigation risk with	The shipping and navigation assessment was undertaken with a Maximum Design Scenario (Table 7.16 of Volume 2, Chapter 7: Shipping and navigation (APP-025)) with 390 km of the length of inter-array cables buried to a minimum depth of 0.5 m which would greatly reduce the risk of snagging of fishing gear. Where cables are not sufficiently buried, the Morgan Generation Assets would address this with additional mitigation. With mitigations proposed by the Morgan Generation Assets in place, the risk of snagging of fishing gear was assessed as minor adverse in Section

Reference	Written Representation Comment	Applicant's response
	more vessels operating in a squeezed area. The plotter screen taken from one of our member's fishing vessels this year within Seagreen shows the reality of a fishing vessel operating between cable routing and highlights the squeezing and therefore heightened risk of collision between fishing vessels competing for a smaller area. In context of Morgan, all the important SMZ area which covers the bulk of the current fishable area will probably have cables running through it as indicated by the submitted coexistence plan as well as rows of WTGS to the northwest and southwest of the SMZ. As discussed in the previous section, with poorer weather factored in and fishing vessels desperate to catch in peak season in the Irish Sea in the run up to the busy Christmas market, this risk is even more significant. We have reviewed the Navigation section of the EIA the significance of this effect seems to be downplayed.	7.9.11 of Volume 2, Chapter 7: Shipping and navigation (APP-025). The assessment also considered the influence of adverse weather conditions on vessel safety and navigational risk and is included as a relevant cause in the appropriate hazards within in Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060).
REP1-059.39	The Morgan proposal also raises concerns for transiting to and from ports such as Kirkcudbright when not fishing and also during emergency situations, e.g. airlifting of casualties, engine failure scenarios. This is particularly the case in terms of the cumulative impact of up to a total of 4 offshore wind farms proposed for the Irish Sea within current navigation routes between the fishing grounds and Kirkcudbright.	An assessment of impacts to Search and Rescue was undertaken in Section 7.9.6 of Volume 2, Chapter 7: Shipping and navigation (APP-025) in compliance with Maritime and Coastguard Agency requirements in MGN654 Annex 5. The assessment concluded that with commitments to two lines of orientation and minimum spacing between wind turbines and offshore substation platforms, safe and effective Search and Rescue could still be conducted within and around the Morgan Generation Assets, and other cumulative adjacent projects.
REP1-059.40	The Morgan proposal area in combination with Mona will also create a squeezing and competing of space between the two windfarms, more so in the vicinity of the Isle of Man to Liverpool ferry route directly south of Morgan. We have concerns that there will be an increased collision risk with other marine traffic whilst trying to fish in area which will be squeezed further.	The Applicant has assessed the potential cumulative impacts of the Morgan Generation Assets with the Mona Offshore Wind Project on navigational safety for fishing boats within the CRNRA in Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060). The CRNRA concludes that the cumulative risk of collision and allision between the Morgan Generation Assets and Mona Offshore Wind Project would be Tolerable and ALARP with proposed mitigation measures. Six nautical miles of sea room was shown to be sufficient space to manage the risk of collision and allision, including with representative fishing activity, through navigation simulations with ferry operators and at the hazard workshop with attendees from the fishing communities and commercial operators.

Reference	Written Representation Comment	Applicant's response
REP1-059.41	4. Fish and Shellfish Ecology As a receptor which will be directly impacted by Morgan, we are of the opinion that access to fish is of course one moderate/major impact; however, may not be as concerning to us as the potential for Queen Scallop and herring habitat loss. This is particularly the case since the Morgan proposal area covers unfished juvenile Queen Scallop nursery ground to the east.	The Applicant notes the SFF's comments on queen scallop and herring habitat loss. The available research on queen and king scallop responses to impacts including temporary habitat loss and disturbance, increased suspended sediment concentrations, and long term habitat loss has been assessed within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), with these species included specifically as important ecological features and their higher sensitivity to each impact considered in the conclusion. For each impact (both alone and cumulatively), the overall assessment concluded no significant impact (minor adverse significance) in all project phases, with no further specific mitigation measures required beyond the measures adopted as part of the project (in line with CIEEM, 2022 guidance). Impacts to queen scallop from temporary habitat loss/disturbance and the potential for impacts on queen scallop from deposits of resuspended sediments during construction are presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), sections 3.9.2 and 3.9.4 respectively. Due to the nature of the sediment disturbance and the relatively rapid reintegration of disturbed sediments into the existing sediment transport regime (see Volume 2, Chapter 1: Physical processes; APP-013 and Volume 4, Annex 1.1: Physical processes technical report; APP-033), suitable sediment is anticipated to be available to support spat settlement and habitation by queen scallop following cessation of construction activities, as outlined in paragraph 3.9.2.19 onwards in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). Areas subject to resettlement of significant thicknesses of suspended sediments during construction activities are expected to be close to the source, with this sedimentary material reintegrated into the sediment transport regime within a few tidal cycles. This reduces the potential for long term changes to the substrate/habitat composition with regards to both herring and queen scallop, as discussed within paragraph 3.9.4.16 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). Further details of the modelled deposition of suspended sediments are presented within Volume 2, Chapter 1: Physical processes (APP-013) and Volume 4, Annex 1.1: Physical processes technical report (APP-033). The Applicant's commitment to scallop monitoring will also provide the appropriate mechanism to validate predictions made within the ES as well as providing an opportunity to increase the evidence base on such matters.
REP1-059.42	Reference to Document ref.No: F2.3, page 201 we strongly disagree with paragraph 3.11.5.14, that the cumulative effect on Queen and King Scallop biomass is "minor adverse", and such an assessment without any science is simply an assumption. Furthermore Table 3.34 concludes that there will be no ongoing monitoring required with regard to the effect that the	Refer to response provided in REP1-059.41. The Applicant has submitted a SoCG with SFF at Deadline 2 (S_D2_OF) which covers the assessment methodology and conclusions of the assessment (alone and cumulatively), along with the mitigation measures and is a point of ongoing discussion (ref: CF.EIA.4 to CF.EIA.7)

Reference	Written Representation Comment	Applicant's response
	project shall have on fish and shellfish. We view this as seriously irresponsible as there is simply no science to what impact a windfarm development is on Queen Scallops, let alone probably the largest Queen Scallop commercial fishery in Europe.	
REP1-059.43	The SFF, therefore insists that a robust monitoring plan must be put in place using a baseline of five years prior to construction, during construction and every three years after operation, through to decommissioning if the prosed Morgan OWF achieves consent.	The Applicant has committed to monitoring of queen scallop within and around the Morgan Array Area, with the approach to monitoring to be fully developed post-consent and secured within the final Offshore In-Principle Monitoring Plan (APP-066). The Offshore In-Principle Monitoring Plan (APP-066) is secured as a condition in the deemed marine licences within the Draft Development Consent Order (REP1-021). Monitoring is likely to take the form of pre- and post-construction dredge surveys for up to five years post-construction to determine changes to queen scallop from baseline conditions based upon annual monitoring results. The additional monitoring of queen scallop is recognised in the SoCG (S_D2_OF) between the Applicant and commercial fisheries stakeholders (ref: CF.OFLCP.T17). This commitment is an ongoing point of discussion within SoCG The Applicant's commitment to scallop monitoring will also provide the appropriate mechanism to validate predictions made within the ES as well as providing an opportunity to increase the evidence base on such matters.
REP1-059.44	Windfarms have been developed on King Scallop beds around the UK as we have fished in and have shown survivability. King Scallops however are a different species and so far in the short term, their sensory structures appear to have shown to resist the effects of EMPS, construction noise, turbine vibrations etc; however, there is no science / no one knows yet what wind farms will have one Queen Scallops. The coexistence plan makes an effort to leave a portion of the Queen Scallop ground within Morgan free of development (Figure 1.3, doc ref J13), however we have serious concerns that the disturbance and alteration to the seabed to the east of this corridor shall detrimentally affect the unfished areas considered as nursery/spawning fishing ground by the fishermen. The following risks are as such: - • Cable burial and change of substrate no longer supporting congregations of Queen Scallops and commercially viable levels.	The Applicant notes the SFF's representation for queen scallop and differences with king scallop. Temporary habitat loss/disturbance associated with the Morgan Generation Assets (including that associated with cable burial) is assessed within section 3.9.2 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), and the effects of sediment deposition as a result of increases in suspended sediments and associated deposition are assess within section 3.9.4 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). Please refer to REP1-059.41 of the Scottish Fishermen's Federation's representation for further details regarding temporary habitat loss/disturbance and the assessment of suspended sediments and associated deposition. Please refer to the Applicant's response to point REP1-059.4 of the Scottish Fishermen's Federation's representation for further details regarding areas to of importance for queen scallop nursery and spawning. Modelling presented within Volume 4, Annex 1.1: Physical processes technical report (APP-033), and assessed within Volume 2, Chapter 1: Physical processes (APP-013) concluded up to a maximum of 20% of the tidal current within 50 m of each installed structure may be negligibly adversely affected, which is not significant in EIA terms. This highlights the predicted localised nature of hydrodynamic effects of installed infrastructure, suggesting minimal disruption to the distribution of plankton and the dispersal of queen scallop larvae.

Reference	Written Representation Comment	Applicant's response
	• Fixed Turbine disturbance to currents altering plankton distribution and larval dispersal over the Queen Scallop grounds, as indicated as a possible effect by (Barbut et al., 2020). • Local tidal energy losses of turbines and resulting sedimentation effects (Gill A.B et al., 2020), and • Fixed turbines & cable rock dumping creating artificial reefs encouraging invasive species such as starfish to explode in population (Gill A.B et al., 2020)	Tidal energy has been assessed within Volume 2, Chapter 1: Physical processes (APP-013) as impacts to the tidal regime due to the presence of infrastructure, with no significant effect predicted (negligible adverse). This suggests that sedimentation as a result of any localised reductions in tidal energy will be likewise highly localised to the immediate vicinity of introduced infrastructure resulting in no significant effects. In addition, modelling of the distribution of increased suspended sediments and associated sediment deposition as a result of the Morgan Generation Assets is presented in Volume 4, Annex 1.1: Physical processes technical report (APP-033), demonstrating the localised sedimentation predicted in areas of sediment disturbance and discharge. Further to this, modelling predicts that any sedimentation as a result of construction activities at the Morgan Generation Assets will be rapidly integrated into the existing sediment transport regime within a few tidal cycles, resulting in no significant effect. The increased risk of introduction and spread of invasive non-native species is fully assessed within section 2.9.7 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020). The assessment predicted a minor adverse significance of effect to existing habitats which is not significant in EIA terms, with management of the potential for invasive non-native species through undertaking a Biosecurity Risk Assessment and implementing an Invasive Non-native Species Management Plan (refer to Table 2.17 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020). The impact of colonisation of introduced artificial hard substrates (such as cable protection and other project infrastructure) is assessed within section 2.9.6 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) with regards to changes in benthic habitats and species composition and in section 3.9.7 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). The assessment predicted a minor adverse significance of effect which is not significant in EIA terms. These conclusions were reached based upon the localised nature of the effect, which is expected to be restricted to the immediate vicinity of introduced hard substrates. With regard to this concern, the Applicant can confirm to SFF that it has committed to utilise engineering surveys and review any suitable monitoring data for the identification of invasive non-native species (INNS) and colonisation of hard structures (subject to data quality) (see the updated Offshore In-Principle Monitoring Plan (IPMP) submitted at Deadline 2) and section 2.9.12 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020)). The Applicant's commitment to scallop monitoring will also provide the appropriate mechanism to validate predictions made within the ES as well as providing an opportunity to increase the evidence base on such matters.

Reference	Written Representation Comment	Applicant's response
REP1-059.45	Due to the risks identified above to the Queen Scallop habitat, which are evidenced by what has been observed in other offshore windfarms and literature we cannot support the minor adverse scoring provided in the Fish and Shellfish Ecology chapter.	The Applicant notes the Scottish Fishermen's Federation's representation. As outlined in response to points REP1-059.41 and REP1-059.44 raised by the Scottish Fishermen's Federation, current scientific evidence and site-specific modelling studies have been referenced to inform the assessment presented within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). The assessment resulted in predictions of non-significant effects to king and queen scallop, due to the localised nature of the effects and the highly dynamic hydrodynamic and sediment transport regimes which suggest that temporary habitat changes through seabed disturbance and deposition of suspended sediments will be short-lived, with rapid reintegration into the existing regimes following the cessation of disturbance activities in any given area. The monitoring identified by the Applicant will serve to validate predictions made within the ES as well as providing an opportunity to increase the evidence base on such matters.
REP1-059.46	Further research should be undertaken before a potential catastrophe could occur in altering the Queen Scallop habitat which we rely on. Across the UK many windfarms have been constructed on shallow banks that support King Scallop dredging; of these the King Scallops are recruited from other areas of unfished seabed. Mona (and Morgan) proposals would be unique as they would capture the sandy gravelly ground where both spawning of Queen Scallops occurs and where they are recruited and subsequently fished year after year.	The Applicant notes the Scottish Fishermen's Federation's representation. The Applicant considers its assessment to be robust based on the evidence available, and the monitoring commitments made will serve to validate predictions made within the ES and provide an opportunity to increase the evidence base on such matters.
REP1-059.47	In addition, as the mentioned areas are suitable for herring spawning, the SFF are concerned about the Development impacts on all commercial value fish species in the area, especially the Development impacts on the herring which are also particularly sensitive to noise impacts as they have swim bladders which are involved in hearing (Popper et al., 2014).	As demonstrated within Figure 1.24 of Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051) sediment samples from within the Morgan Array Area were considered almost entirely unsuitable for herring spawning. Herring require highly specific substrates on which to deposit their eggs during spawning, with mapped high and low intensity spawning grounds located to the north west and west of the Morgan Array Area (Coull *et al.*, 1998). Please refer to Volume 4, Annex 1.1: Physical processes technical report (APP-033) and Volume 2, Chapter 1: Physical processes (APP-013), paragraph 3.9.4.5 onwards of section 3.9.4 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), and REP1-059.41 of the Scottish Fishermen's Federation's representation. Sediment deposition as a result of construction activities within the Morgan Array Area will be highly localised, and deposited material will be rapidly reintegrated into the existing sediment transport regime over a few tidal cycles. As such, impacts to seabed substrates at the Douglas Bank herring spawning ground are not predicted. The Applicant recognises the sensitivity of herring to underwater sound impacts; this is demonstrated in the prediction of potentially significant effects to spawning herring during the

Reference	Written Representation Comment	Applicant's response
		reported spawning season due to pile driving at the Morgan Generation Assets for both the project alone and cumulatively with other projects and plans. The Applicant has committed to managing the effects of underwater sound generated by piling to non-significant levels for herring through the development of an Underwater Sound Management Strategy (UWSMS), an Outline of which is provided within the Application (APP-068). The UWSMS will investigate a range of mitigation measures to manage the effects of underwater sound from piling to non-significant, with specific measures defined to address impacts to spawning herring, where required. The UWSMS will be further developed and finalised post-consent to ensure all measures (where required) are based upon the final project design and construction schedule to ensure they are appropriate and proportionate to the realised project risk. Through the Evidence Plan Process, at Expert Working Group Meeting 7 on the 23 April 2024, the Joint Nature Conservation Committee (JNCC) confirmed agreement with the principle of the UWSMS and the outline UWSMS being finalised post-consent. At the same meeting, Natural England welcomed the proposed implementation of the UWSMS and the commitment to reduce the risk of injury and disturbance, with positive feedback to the structure of the outline UWSMS. The UWSMS is secured as a condition of the deemed marine licence(s) within the Draft development consent order (REP1-021).
REP1-059.48	We are of view that Developers must take heed of ICES advice on Irish Sea herring. ICES state in their advice for 2024 for Herring in Division 7.a North that activities that have a negative impact on the spawning of herring are considered as a source of risk for the species. Therefore, SFF propose the above-mentioned ICES advice to be taken into account and acted upon at determination stage.	The Applicant confirmed that the assessment for fish and shellfish ecology presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) is highly precautionary. Whilst the assessment does not directly reference the latest International Council for Exploration of the Sea (ICES) advice regarding herring stocks, the precautionary nature of the assessment of herring means that the Applicant does not foresee any changes required in the way the assessment has been undertaken with regards to herring spawning and nursery sensitivities. Further details were submitted at deadline 1 within, S_D1_4.9 Annex 4.9 to Response to Hearing Action Point HAP_ISH1_22: Applicants response to ICES guidance and SFF (REP1-014).
REP1-059.49	The link to ICES advice on Irish Sea herring is provided as follows: Irish Sea Herring 7.a North	The Applicant welcomes the provision of the link to the ICES Herring 7.a North Advice by the Scottish Fishermen's Federation.
REP1-059.50	On behalf of the SFF we appreciate the opportunity to submit this written response and reiterate the SFF robustly objects to the application as it negatively impacts our members.	The Applicant thanks SFF for their engagement to date with the project and looks forward to future engagement.

2.11 The Ørsted IPs - Barrow Offshore Wind Limited

Table 2.11: REP1-060 The Ørsted IPs - Barrow Offshore Wind Limited.

Reference	Written Representation Comment	Applicant's response
REP1-060.1	**1. Introduction** 1.1 This written representation is provided in accordance with Deadline 1 of the examination timetable for the application by Morgan Offshore Wind Farm Limited (the "Applicant") for an Order under the Planning Act 2008 (the "Act") granting Development Consent for the Morgan Offshore Wind Farm (the "Project").	The Applicant notes Ørsted IPs comment.
REP1-060.2	1.2 We represent six owners of operational offshore windfarms in the East Irish Sea (as set out relevant representations RR-005, RR-007, RR-023, RR-032, RR-043, RR-044), who we refer to together as the "Ørsted IPs". This written representation is made on behalf of Barrow Offshore Wind Limited ("Barrow") (RR-005), one of the Ørsted IPs.	The Applicant notes Ørsted IPs comment. The Applicant has a Statement of Common Ground (SoCG) with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP).
REP1-060.3	1.3 The Ørsted IPs' developments can be seen on Figure 9.4, in Volume 2, Chapter 9 (Other sea users) of the Environmental Statement (APP-027).	The Applicant notes Ørsted IPs comment.
REP1-060.4	1.4 The Ørsted IPs, including Barrow, have been engaged in a consultation process with the Applicant in respect of the potential impacts of the Project on the Ørsted IPs' developments. The Ørsted IPs, including Barrow, filed relevant representations in respect of the Project and were represented at Issue Specific Hearing 1 ("ISH1") on 10 September.	The Applicant notes Ørsted IPs comment.
REP1-060.5	1.5 As outlined in the relevant representations and at ISH1, the Ørsted IPs, including Barrow, do not oppose the Project in principle. However, they have concerns regarding the interactions between the Project and their developments which are yet to be resolved. Primarily, Barrow's concerns relate to the effects of the Project on wake loss and wildlife. These are addressed in turn	The Applicant notes Ørsted IPs comment and has responded to these specific points below. The Applicant also has a Statement of Common Ground (SoCG) with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP). The SoCG covers the following topics of relevance to the Ørsted IPs: • Assessment of effects to existing and proposed infrastructure including wake effects

Reference	Written Representation Comment	Applicant's response
	below. The Ørsted IPs' (including Barrow's) concerns regarding these matters were briefly presented during ISH1.	Assessment of the effects of the Morgan Generation Assets on offshore ornithology and the cumulative impact assessment.
REP1-060.6	**2. Wildlife Impacts/Environmental assessment** 2.1 Given the increasingly complex nature of the existing and proposed development environment in the East Irish Sea, Barrow has an interest in ensuring the EIA for the Project accurately assesses the potential effects of the Project on wildlife and identifies appropriate mitigation.	The Applicant considers that it has robustly assessed the potential impacts of the proposed development which is presented in the DCO submission and has, where necessary, identified appropriate mitigation measures.
REP1-060.7	2.2 As discussed during ISH1, the Ørsted IPs, including Barrow, consider the Applicant's proposed approach to assessing the in-combination/cumulative effects of the Project (a 'sensitivity' analysis), is flawed. The information contained in EIA and Habitats Regulations Assessment must be complete and current in order for the examining authority and Secretary of State to properly undertake their assessments. If additional information is identified which is relevant to these assessments, it must be properly considered and the assessments must be updated by the Applicant.	Please refer to the S_D1_3 Hearing Summaries Prelim Meeting and ISH1 (PD1-004). The Environmental Impact Assessment (EIA) and Information to support the Appropriate Assessment is evidence based and robust, undertaken in accordance with relevant guidance. A detailed assessment of cumulative and in-combination effects was presented in the Morgan Generation Assets application. Information on other projects, plans or activities which was publicly available in January 2024 (up to three months before the application was submitted, as described in Volume 1, Chapter 5: Environmental impact assessment methodology (APP-012)) was considered in the CEA and in-combination assessment. Since January 2024, new or updated assessment material has been published on projects that had been considered in the cumulative effects assessment (CEA)/in-combination assessment, and new projects not previously considered in the CEA/in-combination assessment have entered the public domain. The Applicant has prepared a review of new or updated project information published up to 27 September 2024. For new projects, these have been screened in accordance with the criteria set out in Volume 3, Annex 5.1: Cumulative effects screening matrix (APP-031) to establish the extent of the potential interaction, whether there is potential for a significant effect, and whether the CEA requires updating. For updated projects, which were considered in the CEA presented with the application, a sensitivity analysis has been carried out to consider if the updated information could alter the conclusions of the CEA and in-combination assessment presented in the application. This aligns with the CEA guidance published by the Planning Inspectorate in September 2024 (The Planning Inspectorate, 2024) which states that: 'Further assessment may be required during the examination stage for any newly identified 'other existing development and, or approved development' with potential to give rise to significant effects' (The Planning Inspectorate, 2024). If there is no potential for significant effects to arise, no further detailed assessment is required. The information included and reported on within the CEA review provides sufficient information for the Secretary of State to reach a reasoned conclusion under both the EIA and HRA regimes.

Reference	Written Representation Comment	Applicant's response
REP1-060.8	2.3 The Ørsted IPs, including Barrow, have raised concerns regarding the robustness of the Applicant's ornithology and cumulative impact assessment. We understand that Natural England has raised similar concerns regarding the Applicant's approach to these assessments and, in an effort to avoid duplication, we acknowledge that Natural England will be best placed to further address these concerns in the examination process. Issues identified in the Applicant's assessment include, for example, that limited information on how collision risk modelling estimates for other projects have been adjusted for avoidance rate. Additionally, the Applicant's ornithology assessment does not contain annual displacement totals for the project-alone.	The Applicant has provided clarification notes at Deadline 1 to resolve these matters in response to Natural England's Relevant Representations (RR-026). The Applicant will continue to engage with Natural England. The Applicant notes that the Ørsted IPs will defer to Natural England going forwards and as reflected in the SoCG submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP), this matter is 'Not agreed, but not material' and is now closed out between both parties. At Deadline 1 the Applicant submitted S_D1_4.5 Annex 4.5 to Response to Hearing Action Point 15: Offshore Ornithology CEA and In-combination Gap-filling of Historical Projects Note (REP1-010) which is considered to address the concerns raised by Natural England in relation to 'gaps' in the cumulative and in-combination assessments presented within the application. There was general agreement on the approach applied in this clarification note as part of an SNCB meeting on 29 August 2024. The Applicant has provided additional clarification on how cumulative totals have been adjusted to account for more recent evidence in relation to avoidance rates in its responses to Relevant Representations (see the Applicant's response to NRW's Relevant Representation comment RR-027.20 (PD1-017)). The approach applied is identical to that used in the assessments conducted for numerous recent offshore wind farm applications. This includes the Hornsea Project Two offshore wind farm (SMartWind, submitted 2015), Hornsea Three offshore wind farm (Ørsted, submitted 2018) and Hornsea Four offshore wind farm (Ørsted, submitted 2021). Annual displacement totals for the Morgan Generation Assets alone are presented in Table 5.28, Table 5.29, Table 5.31, Table 5.32, Table 5.33 and Table 5.34 in the construction phase and Table 5.36, Table 5.39, Table 5.43, Table 5.46, Table 5.47 and Table 5.48 for the operations and maintenance phase in Volume 2, Chapter 5: Offshore ornithology (APP-023) and for relevant species in section 1.5.3 (Total predicted impact (birds/annum) column of Tables 1.8 to Table 1.45 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098)).
REP1-060.9	**3. Energy Yield** 3.1 Due to the proximity of the Project to the Ørsted IPs' developments (including Barrow's), the Ørsted IPs are concerned the Project will interfere with the wind speed and/or direction at their developments and therefore adversely affect energy yields.	The Applicant notes Ørsted IPs comment and that the Ørsted Irish Sea developments are located between 8.1 km (Walney Extension) and 61.6 km (Burbo Bank) from the Morgan Array Area in different directions, as shown in Figure 9.4 in Volume 2, Chapter 9: Other sea users (APP-027).
REP1-060.10	3.2 As canvassed during ISH1, the Ørsted IPs, including Barrow, consider this effect must be properly assessed and addressed by the Applicant.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussion at Deadline 1 (S_D1_4.11 Applicants response to wake loss (REP1-016)). The SoCG with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP) summarises both parties' positions on this.

Reference	Written Representation Comment	Applicant's response
REP1-060.11	3.3 The NPS EN-3 requires that, where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities. Barrow is not satisfied that such assessment has been properly undertaken here.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussion at Deadline 1 (S_D1_4.11 Applicants response to wake loss (REP1-016)). The Applicant notes that NPS EN-1 recognises that in order for the UK to reach its net zero target by 2050, a dramatic increase in the volume of new large-scale development is required, which will not be possible without some level of residual impacts (paras 3.1.1 and 3.1.2). The NPS directs developers to minimise effects in accordance with the policy set out in Part 4 and Part 5 of EN-1 and the technology specific NPS. 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. Based on the reasons set out in REP1-016, 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. The Applicant maintains that even if such an assessment was required, there is no robust or recognised approach for its undertaking.
REP1-060.12	3.4 As recorded in its response to Barrow's relevant representation on this issue (PD1-017), the Applicant relies on compliance with the boundary requirements in TCE's Round 4 Leasing Information Memorandum to justify not carrying out this detailed assessment. The Ørsted IPs, including Barrow, do not consider this approach is sufficient – 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.	The Applicant considers that the Ørsted IPs have misinterpreted the Applicant's response in PD1-017. The Applicant noted that the siting of the project was undertaken in accordance with TCE's Round 4 leasing requirements. This is detailed further in section 1.2.4 'Leasing process' of REP1-016. 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 had given its written consent. 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 doing a detailed assessment or for regulating wake effects between sea users in the consenting process.
REP1-060.13	3.5 Additionally, the impacts of the Project on loss of energy generation at the Ørsted IPs' developments is relevant to evaluating the benefits of the Project in terms of emissions reductions and climate change benefits. We consider this assessment must calculate the 'net' benefit – i.e. accounting for renewable energy generation losses arising from impacts to other offshore developers, as well as potential new generation from the Project. It is also a matter of good design.	The Applicant acknowledges Ørsted IPs' concerns about energy loss and net benefit. However, for the reasons set out in REP-016 and REP1-064.17 (above), 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. In terms of good design, 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. Paragraph 2.8.2 directs all offshore wind developments to maximise their capacity within the technological, environmental,

Reference	Written Representation Comment	Applicant's response
		and other constraints of the development. The wording for good design is not explicit for reducing emissions and climate change benefits, when in doing so reduces the ability to maximise capacity to meet net zero targets.
REP1-060.14	3.6 As outlined during ISH1, the necessary data and modelling tools to undertake such an analysis is available to the Applicant. Therefore, there are no impediments to the Applicant undertaking this required step. At the current stage of the development of the Project, the Applicant is best placed to understand the realistic scenarios for the Project, which can then be tested against the known positions of the existing assets.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussions at Deadline 1 S_D1_4.11 Applicants response to wake loss (REP1-016)). The Applicant refers Ørsted IPs to section 1.2.6 of REP1-016 as to the reasons why a meaningful, reliable and transparent assessment cannot be undertaken.
REP1-060.15	3.7 In response to action point 26 of the action points arising from ISH1 (EV2-005), the Ørsted IPs reiterate there are a number of industry-recognised wake models which could be used to undertake this assessment.	The Applicant notes that the ExA asked Ørsted IPs to explain the suggested content or/approach to/scope of a potential Wake Loss Assessment (EV2-005). The Applicant cannot see any further evidence from Ørsted IPs explaining how this could be meaningfully, reliably or transparently conducted.

2.12 The Ørsted IPs - Burbo Extension Limited

Table 2.12: REP1-061 The Ørsted IPs - Burbo Extension Limited.

Reference	Written Representation Comment	Applicant's response
REP1-061.1	**1. Introduction** 1.1 This written representation is provided in accordance with Deadline 1 of the examination timetable for the application by Morgan Offshore Wind Farm Limited (the "Applicant") for an Order under the Planning Act 2008 (the "Act") granting Development Consent for the Morgan Offshore Wind Farm (the "Project").	The Applicant notes Ørsted IPs comment.
REP1-061.2	1.2 We represent six owners of operational offshore windfarms in the East Irish Sea (as set out relevant representations RR-005, RR-007, RR-023, RR-032, RR-043, RR-044), who we refer to together as the "Ørsted IPs". This written representation is made on behalf of Burbo Extension Limited ("Burbo Extension") (RR-007), one of the Ørsted IPs.	The Applicant notes Ørsted IPs comment. The Applicant has a Statement of Common Ground (SoCG) with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP).
REP1-061.3	1.3 The Ørsted IPs' developments can be seen on Figure 9.4, in Volume 2, Chapter 9 (Other sea users) of the Environmental Statement (APP-027).	The Applicant notes Ørsted IPs comment.
REP1-061.4	1.4 The Ørsted IPs, including Burbo Extension, have been engaged in a consultation process with the Applicant in respect of the potential impacts of the Project on the Ørsted IPs' developments. The Ørsted IPs, including Burbo Extension, filed relevant representations in respect of the Project and were represented at Issue Specific Hearing 1 ("ISH1") on 10 September.	The Applicant notes Ørsted IPs comment.
REP1-061.5	1.5 As outlined in the relevant representations and at ISH1, the Ørsted IPs, including Burbo Extension, do not oppose the Project in principle. However, they have concerns regarding the interactions between the Project and their developments which are yet to be resolved. Primarily, Burbo Extension's concerns relate to the	The Applicant notes Ørsted IPs comment and has responded to these specific points below. The Applicant also has a Statement of Common Ground (SoCG) with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP). The SoCG covers the following topics of relevance to the Ørsted IPs: • Assessment of effects to existing and proposed infrastructure including wake effects

Reference	Written Representation Comment	Applicant's response
	effects of the Project on wake loss, wildlife and radar. These are addressed in turn below. The Ørsted IPs' (including Burbo Extension's) concerns regarding these matters were briefly presented during ISH1.	• Assessment of the effects of the Morgan Generation Assets on offshore ornithology and the cumulative impact assessment The effects of the Morgan Generation Assets on two of the Ørsted IPs' radar mitigation for the Warton Airfield Primary Surveillance Radar.
REP1-061.6	**2. Wildlife Impacts/Environmental assessment** 2.1 Given the increasingly complex nature of the existing and proposed development environment in the East Irish Sea, Burbo Extension has an interest in ensuring the EIA for the Project accurately assesses the potential effects of the Project on wildlife and identifies appropriate mitigation.	The Applicant considers that it has robustly assessed the potential impacts of the proposed development which is presented in the DCO submission and has, where necessary, identified appropriate mitigation measures.
REP1-061.7	2.2 As discussed during ISH1, the Ørsted IPs, including Burbo Extension, consider the Applicant's proposed approach to assessing the in-combination/cumulative effects of the Project (a 'sensitivity' analysis), is flawed. The information contained in EIA and Habitats Regulations Assessment must be complete and current in order for the examining authority and Secretary of State to properly undertake their assessments. If additional information is identified which is relevant to these assessments, it must be properly considered and the assessments must be updated by the Applicant.	Please refer to the S_D1_3 Hearing Summaries Prelim Meeting and ISH1 (PD1-004). The Environmental Impact Assessment (EIA) and Information to support the Appropriate Assessment is evidence based and robust, undertaken in accordance with relevant guidance. A detailed assessment of cumulative and in-combination effects was presented in the Morgan Generation Assets application. Information on other projects, plans or activities which was publicly available in January 2024 (up to three months before the application was submitted, as described in Volume 1, Chapter 5: Environmental impact assessment methodology (APP-012)) was considered in the CEA and in-combination assessment. Since January 2024, new or updated assessment material has been published on projects that had been considered in the cumulative effects assessment (CEA)/in-combination assessment, and new projects not previously considered in the CEA/in-combination assessment have entered the public domain. The Applicant has prepared a review of new or updated project information published up to 27 September 2024. For new projects, these have been screened in accordance with the criteria set out in Volume 3, Annex 5.1: Cumulative effects screening matrix (APP-031) to establish the extent of the potential interaction, whether there is potential for a significant effect, and whether the CEA requires updating. For updated projects, which were considered in the CEA presented with the application, a sensitivity analysis has been carried out to consider if the updated information could alter the conclusions of the CEA and in-combination assessment presented in the application. This aligns with the CEA guidance published by the Planning Inspectorate in September 2024 (The Planning Inspectorate, 2024) which states that: 'Further assessment may be required during the examination stage for any newly identified 'other existing development and, or approved development' with potential to give rise to significant effects' (The Planning Inspectorate, 2024). If there is no potential for significant effects to arise, no further detailed assessment is required. The information included and reported on within the CEA review provides sufficient information for the Secretary of State to reach a reasoned conclusion under both the EIA and HRA regimes.

Reference	Written Representation Comment	Applicant's response
REP1-061.8	2.3 The Ørsted IPs, including Burbo Extension, have raised concerns regarding the robustness of the Applicant's ornithology and cumulative impact assessment. We understand that Natural England has raised similar concerns regarding the Applicant's approach to these assessments and, in an effort to avoid duplication, we acknowledge that Natural England will be best placed to further address these concerns in the examination process. Issues identified in the Applicant's assessment include, for example, that limited information on how collision risk modelling estimates for other projects have been adjusted for avoidance rate. Additionally, the Applicant's ornithology assessment does not contain annual displacement totals for the project-alone.	The Applicant has provided clarification notes at Deadline 1 to resolve these matters in response to Natural England's Relevant Representations (RR-026). The Applicant will continue to engage with Natural England. The Applicant notes that the Ørsted IPs will defer to Natural England going forwards and as reflected in the SoCG submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP), this matter is 'Not agreed, but not material' and is now closed out between both parties. At Deadline 1 the Applicant submitted S_D1_4.5 Annex 4.5 to Response to Hearing Action Point 15: Offshore Ornithology CEA and In-combination Gap-filling of Historical Projects Note (REP1-010) which is considered to address the concerns raised by Natural England in relation to 'gaps' in the cumulative and in-combination assessments presented within the application. There was general agreement on the approach applied in this clarification note as part of an SNCB meeting on 29 August 2024. The Applicant has provided additional clarification on how cumulative totals have been adjusted to account for more recent evidence in relation to avoidance rates in its responses to Relevant Representations (see the Applicant's response to NRW's Relevant Representation comment RR-027.20 (PD1-017)). The approach applied is identical to that used in the assessments conducted for numerous recent offshore wind farm applications. This includes the Hornsea Project Two offshore wind farm (SMartWind, submitted 2015), Hornsea Three offshore wind farm (Ørsted, submitted 2018) and Hornsea Four offshore wind farm (Ørsted, submitted 2021). Annual displacement totals for the Morgan Generation Assets alone are presented in Table 5.28, Table 5.29, Table 5.31, Table 5.32, Table 5.33 and Table 5.34 in the construction phase and Table 5.36, Table 5.39, Table 5.43, Table 5.46, Table 5.47 and Table 5.48 for the operations and maintenance phase in Volume 2, Chapter 5: Offshore ornithology (APP-023) and for relevant species in section 1.5.3 (Total predicted impact (birds/annum) column of Tables 1.8 to Table 1.45 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098)).
REP1-061.9	**3. Energy Yield** 3.1 Due to the proximity of the Project to the Ørsted IPs' developments (including Burbo Extension's), the Ørsted IPs are concerned the Project will interfere with the wind speed and/or direction at their developments and therefore adversely affect energy yields.	The Applicant notes Ørsted IPs comment and that the Ørsted Irish Sea developments are located between 8.1 km (Walney Extension) and 61.6 km (Burbo Bank) from the Morgan Array Area in different directions, as shown in Figure 9.4 in Volume 2, Chapter 9: Other sea users (APP-027).
REP1-061.10	3.2 As canvassed during ISH1, the Ørsted IPs, including Burbo Extension, consider this effect must be properly assessed and addressed by the Applicant.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussion at Deadline 1 (S_D1_4.11 Applicants response to wake loss (REP1-016)). The SoCG with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP) summarises both parties' positions on this.

Reference	Written Representation Comment	Applicant's response
REP1-061.11	3.3 The NPS EN-3 requires that, where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities. The Burbo Extension is not satisfied that such assessment has been properly undertaken here.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussion at Deadline 1 (S_D1_4.11 Applicants response to wake loss (REP1-016)). The Applicant notes that NPS EN-1 recognises that in order for the UK to reach its net zero target by 2050, a dramatic increase in the volume of new large-scale development is required, which will not be possible without some level of residual impacts (paras 3.1.1 and 3.1.2). The NPS directs developers to minimise effects in accordance with the policy set out in Part 4 and Part 5 of EN-1 and the technology specific NPS. 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. Based on the reasons set out in REP1-016, 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. The Applicant maintains that even if such an assessment was required, there is no robust or recognised approach for its undertaking.
REP1-061.12	3.4 As recorded in its response to the Burbo Extension's relevant representation on this issue (PD1-017), the Applicant relies on compliance with the boundary requirements in TCE's Round 4 Leasing Information Memorandum to justify not carrying out this detailed assessment. The Ørsted IPs, including Burbo Extension, do not consider this approach is sufficient – 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.	The Applicant considers that the Ørsted IPs have misinterpreted the Applicant's response in PD1-017. The Applicant noted that the siting of the project was undertaken in accordance with TCE's Round 4 leasing requirements. This is detailed further in section 1.2.4 'Leasing process' of REP1-016. 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 had given its written consent. 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 doing a detailed assessment or for regulating wake effects between sea users in the consenting process.
REP1-061.13	3.5 Additionally, the impacts of the Project on loss of energy generation at the Ørsted IPs' developments is relevant to evaluating the benefits of the Project in terms of emissions reductions and climate change benefits. We consider this assessment must calculate the 'net' benefit – i.e. accounting for renewable energy generation losses arising from impacts to other offshore developers, as well as potential new generation from the Project. It is also a matter of good design.	The Applicant acknowledges Ørsted IPs' concerns about energy loss and net benefit. However, for the reasons set out in REP-016 and REP1-064.17 (above), 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. In terms of good design, 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. Paragraph 2.8.2 directs

Reference	Written Representation Comment	Applicant's response
		all offshore wind developments to maximise their capacity within the technological, environmental, and other constraints of the development. The wording for good design is not explicit for reducing emissions and climate change benefits, when in doing so reduces the ability to maximise capacity to meet net zero targets.
REP1-061.14	3.6 As outlined during ISH1, the necessary data and modelling tools to undertake such an analysis is available to the Applicant. Therefore, there are no impediments to the Applicant undertaking this required step. At the current stage of the development of the Project, the Applicant is best placed to understand the realistic scenarios for the Project, which can then be tested against the known positions of the existing assets.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussions at Deadline 1 S_D1_4.11 Applicants response to wake loss (REP1-016)). The Applicant refers Ørsted IPs to section 1.2.6 of REP1-016 as to the reasons why a meaningful, reliable and transparent assessment cannot be undertaken.
REP1-061.15	3.7 In response to action point 26 of the action points arising from ISH1 (EV2-005), the Ørsted IPs reiterate there are a number of industry-recognised wake models which could be used to undertake this assessment.	The Applicant notes that the ExA asked Ørsted IPs to explain the suggested content or/approach to/scope of a potential Wake Loss Assessment (EV2-005). The Applicant cannot see any further evidence from Ørsted IPs explaining how this could be meaningfully, reliably or transparently conducted.
REP1-061.16	**4. Radar** 4.1 As recorded in its relevant representations, Burbo Extension (along with another of the Ørsted IPs, Walney Extension Limited) is implementing appropriate mitigation in relation to potential impacts on the Warton Airfield Primary Surveillance Radar, and is concerned that the Project has the potential to adversely affect or increase the cost of this mitigation. It is noted that the Ministry of Defence ("MoD") has objected to the Project on the grounds of unacceptable impacts on the radar system at BAE Warton (PD1-019).	The mitigation agreed between Burbo Extension (and Walney Extension Limited (WEL)) and BAE Warton/the Defence Infrastructure Organisation (DIO) is a matter for Burbo Extension and BAE Warton/the DIO only. The Applicant assumes that the necessary agreements are in place between the parties for those specific projects. The Applicant is not aware of any mechanism through which the Morgan Generation Assets could affect any previous or current agreements which may or may not be in place between Burbo Extension and BAE Warton/the DIO. The Applicant responded to the DIO's Written Representation at the Procedural Deadline (S_PD_3 Applicant's Response to Relevant Representations) (PD1-017) and has agreed a Statement of Common Ground (SoCG) with the DIO, submitted at Deadline 1 (REP1-032). The SoCG includes a statement on mitigation for BAE Warton which notes that the parties are engaging on the nature of the mitigation, which is likely to include optimisation of the radar system in place, flight trials and a safety case to the Civil Aviation Authority. The Applicant and the DIO will provide updates through subsequent SoCG at future Examination deadlines.
REP1-061.17	4.2 Discussions are ongoing between the parties on this matter, however, a resolution is yet to be reached. It is noted that, in the absence of an agreement between the parties, it is likely that a DCO requirement addressing effects of the Project on the radar system would be necessary.	The need for and terms of any DCO requirement is a matter in discussion between the Applicant and the DIO. Progress towards an appropriate mitigation solution is being made between the Applicant, the DIO and BAE in line with typical processes relating to offshore wind farm interaction with radar assets.

Reference	Written Representation Comment	Applicant's response
	However, it will also be necessary for the ExA and the Secretary of State to be provided with information regarding the deliverability of necessary mitigation.	As per the response above (REP1-064.22), the Applicant and the DIO are engaging on the nature of the mitigation, and will provide updates through subsequent SoCG at future Examination deadlines.

2.13 The Ørsted IPs - Morecambe Wind Limited

Table 2.13: REP1-062 The Ørsted IPs - Morecambe Wind Limited.

Reference	Written Representation Comment	Applicant's response
REP1-062.1	**1. Introduction** 1.1 This written representation is provided in accordance with Deadline 1 of the examination timetable for the application by Morgan Offshore Wind Farm Limited (the "Applicant") for an Order under the Planning Act 2008 (the "Act") granting Development Consent for the Morgan Offshore Wind Farm (the "Project"). 1.2 We represent six owners of operational offshore windfarms in the East Irish Sea (as set out relevant representations RR-005, RR-007, RR-023, RR-032, RR-043, RR-044), who we refer to together as the "Ørsted IPs". This written representation is made on behalf of Morecambe Wind Limited ("MWL") (RR-023), one of the Ørsted IPs. 1.3 The Ørsted IPs' developments can be seen on Figure 9.4, in Volume 2, Chapter 9 (Other sea users) of the Environmental Statement (APP-027). 1.4 The Ørsted IPs, including MWL, have been engaged in a consultation process with the Applicant in respect of the potential impacts of the Project on the Ørsted IPs' developments. The Ørsted IPs, including MWL, filed relevant representations in respect of the Project and were represented at Issue Specific Hearing 1 ("ISH1") on 10 September. 1.5 As outlined in the relevant representations and at ISH1, the Ørsted IPs, including MWL, do not oppose the Project in principle. However, they have concerns regarding the interactions between the Project and their developments which are yet to be resolved. Primarily, MWL's concerns relate to the effects of the Project on shipping and navigation, wake loss, and wildlife. These are addressed in turn below. The Ørsted IPs' (including	The Applicant notes Ørsted IPs comments. The Applicant has a Statement of Common Ground (SoCG) with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP). The SoCG covers the following topics of relevance to the Ørsted IPs: • Assessment of effects to existing and proposed infrastructure including wake effects • Assessment of the effects of the Morgan Generation Assets on offshore ornithology and the cumulative impact assessment • The effects of the Morgan Generation Assets on shipping and navigation.

Reference	Written Representation Comment	Applicant's response
	MWL's) concerns regarding these matters were briefly presented during ISH1.	
REP1-062.2	**2. Wildlife Impacts/Environmental assessment** 2.1 Given the increasingly complex nature of the existing and proposed development environment in the East Irish Sea, MWL has an interest in ensuring the EIA for the Project accurately assesses the potential effects of the Project on wildlife and identifies appropriate mitigation.	The Applicant considers that it has robustly assessed the potential impacts of the proposed development which is presented in the DCO submission and has, where necessary, identified appropriate mitigation measures.
REP1-062.3	2.2 As discussed during ISH1, the Ørsted IPs, including MWL, consider the Applicant's proposed approach to assessing the in-combination/cumulative effects of the Project (a 'sensitivity' analysis), is flawed. The information contained in EIA and Habitats Regulations Assessment must be complete and current in order for the examining authority and Secretary of State to properly undertake their assessments. If additional information is identified which is relevant to these assessments, it must be properly considered and the assessments must be updated by the Applicant.	Please refer to the S_D1_3 Hearing Summaries Prelim Meeting and ISH1 (PD1-004). The Environmental Impact Assessment (EIA) and Information to support the Appropriate Assessment is evidence based and robust, undertaken in accordance with relevant guidance. A detailed assessment of cumulative and in-combination effects was presented in the Morgan Generation Assets application. Information on other projects, plans or activities which was publicly available in January 2024 (up to three months before the application was submitted, as described in Volume 1, Chapter 5: Environmental impact assessment methodology (APP-012)) was considered in the CEA and in-combination assessment. Since January 2024, new or updated assessment material has been published on projects that had been considered in the cumulative effects assessment (CEA)/in-combination assessment, and new projects not previously considered in the CEA/in-combination assessment have entered the public domain. The Applicant has prepared a review of new or updated project information published up to 27 September 2024. For new projects, these have been screened in accordance with the criteria set out in Volume 3, Annex 5.1: Cumulative effects screening matrix (APP-031) to establish the extent of the potential interaction, whether there is potential for a significant effect, and whether the CEA requires updating. For updated projects, which were considered in the CEA presented with the application, a sensitivity analysis has been carried out to consider if the updated information could alter the conclusions of the CEA and in-combination assessment presented in the application. This aligns with the CEA guidance published by the Planning Inspectorate in September 2024 (The Planning Inspectorate, 2024) which states that: 'Further assessment may be required during the examination stage for any newly identified 'other existing development and, or approved development' with potential to give rise to significant effects' (The Planning Inspectorate, 2024). If there is no potential for significant effects to arise, no further detailed assessment is required. The information included and reported on within the CEA review provides sufficient information for the Secretary of State to reach a reasoned conclusion under both the EIA and HRA regimes.

Reference	Written Representation Comment	Applicant's response
REP1-062.4	2.3 The Ørsted IPs, including MWL, have raised concerns regarding the robustness of the Applicant's ornithology and cumulative impact assessment. We understand that Natural England has raised similar concerns regarding the Applicant's approach to these assessments and, in an effort to avoid duplication, we acknowledge that Natural England will be best placed to further address these concerns in the examination process. Issues identified in the Applicant's assessment include, for example, that limited information on how collision risk modelling estimates for other projects have been adjusted for avoidance rate. Additionally, the Applicant's ornithology assessment does not contain annual displacement totals for the project-alone.	The Applicant has provided clarification notes at Deadline 1 to resolve these matters in response to Natural England's Relevant Representations (RR-026). The Applicant will continue to engage with Natural England. The Applicant notes that the Ørsted IPs will defer to Natural England going forwards and as reflected in the SoCG submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP), this matter is 'Not agreed, but not material' and is now closed out between both parties. At Deadline 1 the Applicant submitted S_D1_4.5 Annex 4.5 to Response to Hearing Action Point 15: Offshore Ornithology CEA and In-combination Gap-filling of Historical Projects Note (REP1-010) which is considered to address the concerns raised by Natural England in relation to 'gaps' in the cumulative and in-combination assessments presented within the application. There was general agreement on the approach applied in this clarification note as part of an SNCB meeting on 29 August 2024. The Applicant has provided additional clarification on how cumulative totals have been adjusted to account for more recent evidence in relation to avoidance rates in its responses to Relevant Representations (see the Applicant's response to NRW's Relevant Representation comment RR-027.20 (PD1-017)). The approach applied is identical to that used in the assessments conducted for numerous recent offshore wind farm applications. This includes the Hornsea Project Two offshore wind farm (SMartWind, submitted 2015), Hornsea Three offshore wind farm (Ørsted, submitted 2018) and Hornsea Four offshore wind farm (Ørsted, submitted 2021). Annual displacement totals for the Morgan Generation Assets alone are presented in Table 5.28, Table 5.29, Table 5.31, Table 5.32, Table 5.33 and Table 5.34 in the construction phase and Table 5.36, Table 5.39, Table 5.43, Table 5.46, Table 5.47 and Table 5.48 for the operations and maintenance phase in Volume 2, Chapter 5: Offshore ornithology (APP-023) and for relevant species in section 1.5.3 (Total predicted impact (birds/annum) column of Tables 1.8 to Table 1.45 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098)).
REP1-062.5	**3. Shipping and navigation** 3.1 MWL (along with another Ørsted IP, Walney Extension Limited) has concerns regarding the impact of the Project on shipping and navigation.	The Applicant notes Ørsted IPs comment and has responded to Morecambe Wind Limited and WEL below. The SoCG with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP) also addresses these points.

Reference	Written Representation Comment	Applicant's response
REP1-062.6	3.2 MWL understands, based on the Applicant's assessment and external advice, that the Project will result in a change in the level of risk at its development due to changes in the shipping and navigation environment.	The Applicant has undertaken a comprehensive Navigation Risk Assessment (APP-060), which is fully compliant with the Maritime and Coastguard Agency's Marine Guidance Note 654, and it has concluded that with the proposed mitigation controls in place, the navigation risks caused by the Morgan Generation Assets are reduced to As Low As Reasonably Practicable (ALARP). Consensus was reached on this conclusion with stakeholders (including Ørsted) at the hazard workshop in September 2023 undertaken to inform the Environmental Statement and is reflected within the initial SoCGs with the MCA submitted at Deadline 2 (S_D2_MCA), UK Chamber of Shipping at Deadline 1 (REP1-030) and Trinity House at Deadline 1 (REP1-041). It is noted by the Applicant, that Ørsted were in attendance at the hazard workshop and could have raised views at that juncture if this had been a material concern.
REP1-062.7	3.3 The Applicant has committed in the ES, and recorded in its responses to the relevant representations, to continue engagement with stakeholders on this issue and to implement certain measures to manage increased risks associated with increased project vessel movements, search and rescue incidents and the risk of a marine pollution event, for example.	The Applicant notes Ørsted IPs comment and has committed within Volume 2, Chapter 7: Shipping and navigation (APP-025) to continued engagement with stakeholders through the Marine Navigation Engagement Forum (MNEF) post-consent. This would include engagement on the applicable Plans, and once approved by the MMO in consultation with Trinity House, the MCA and UKHO, as appropriate.
REP1-062.8	3.4 However, MWL consider it must be directly engaged with in respect of the management of risks which impact its development, to ensure that such risks are appropriately mitigated and its consents, agreements, and operations are not adversely affected. MWL considers it should be consulted in respect of and provided with copies of the Marine Pollution Contingency Plan, ERCoP and any Navigational Safety Plan.	The Applicant has undertaken detailed analysis of routing/passage plans for project vessels as presented in the Navigational Risk Assessment (Volume 4, Annex 7.1: Navigational Risk Assessment APP-060). The risks to Morecambe Wind Limited (and WEL) are understood, assessed and were presented during the Hazard Workshop in September 2023 in the presence of Ørsted IPs. As reported in the NRA (APP-060) and the initial SoCG submitted at Deadline 2 (S_D2_MCA), the MCA are satisfied with these conclusions. The Applicant welcomes ongoing engagement to ensure navigational safety is maintained in the eastern Irish Sea and has committed to continue engagement post-consent with all stakeholders through the MNEF which, as the Ørsted IPs will be aware, includes offshore wind energy developers. The MNEF will be used to update stakeholders on the Morgan Generation Assets and also be used for engagement on shipping and navigation mitigations set out within Table 1.10 and Table 1.42 of the NRA (APP-060). In particular, the MNEF will facilitate the development of the Vessel Traffic Management Plan (secured within the deemed Marine Licences within the draft DCO and in accordance with the Outline Vessel Traffic Management Plan APP-071) to safely manage Morgan Generation Assets construction and operations and maintenance activities and reduce adverse impacts on other marine users, which would include other offshore wind farm operators. The Outline Vessel Traffic Management Plan has been updated at Deadline 2, to include further clarity on the MNEF (S_D2_11).

Reference	Written Representation Comment	Applicant's response
		As mentioned in response to REP1-064.11, the Applicant will engage with relevant Ørsted IPs on applicable Plans once approved by the MMO in consultation with Trinity House, the MCA and UKHO, as appropriate.
REP1-062.9	3.5 MWL notes that it is likely a range of agreements will be reached between the Applicant and other sea users, such as vessel operators. Such agreements have the potential to impact the risks arising from shipping and navigation at MWL's development and how those risks should be assessed. Therefore, it is important that the outcome of discussions regarding any such agreements are transparent, to ensure that the wider implications are understood.	Within the Applicant's response to REP1-064.10, it was noted that the Navigational Risk Assessment (NRA) was comprehensive and included significant engagement with operators. Therefore, the anticipated impacts on passages of vessel operators, and any resulting navigational risks, are well described within the application and available to the Ørsted IPs (Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060)). Ongoing engagement with vessel operators relating to residual concerns do not relate to navigational safety and therefore would not result in any changes in risk to the Ørsted IPs' developments.
REP1-062.10	3.6 MWL notes the discussions during ISH1 regarding the possibility of a DCO requirement providing for a process for engagement with stakeholders on shipping and navigation. MWL will be interested to provide its views on such a requirement, if one is developed.	The Applicant notes that this discussion item from ISH1 was a Hearing Action Point for the Applicant's response. The Applicant has provided its response to this under Hearing Action Point 17 (REP1-005). The Applicant would like to reiterate to Ørsted IPs that the MNEF was established by the Applicant (and other Round 4 developers) in 2021 as a forum for effective communication with shipping and navigation stakeholders on the Morgan Generation Assets. There is no specific requirement for an open forum similar to the MNEF within MGN654 or other primary guidance. The forum is, therefore, not a requirement under guidance post-consent or post-construction. Nor is such a forum typical on other constructed or consented offshore wind farms. The Applicant acknowledges the importance of the commitment to ensure that the appropriate authorities and stakeholders (including existing operational wind energy developers) are informed of works being carried out in waters adjacent to the Morgan Array Area (and other Round 4 projects) and for general project updates, but does not consider that a DCO requirement is necessary or justified. The Outline Vessel Traffic Management Plan has been updated at Deadline 2 to include further details on the MNEF (S_D2_11).
REP1-062.11	**4. Energy Yield** 4.1 Due to the proximity of the Project to the Ørsted IPs' developments (including MWL's), the Ørsted IPs are concerned the Project will interfere with the wind speed and/or direction at their developments and therefore adversely affect energy yields.	The Applicant notes Ørsted IPs comment and that the Ørsted Irish Sea developments are located between 8.1 km (Walney Extension) and 61.6 km (Burbo Bank) from the Morgan Array Area in different directions, as shown in Figure 9.4 in Volume 2, Chapter 9: Other sea users (APP-027).

Reference	Written Representation Comment	Applicant's response
REP1-062.12	4.2 As canvassed during ISH1, the Ørsted IPs, including MWL, consider this effect must be properly assessed and addressed by the Applicant.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussion at Deadline 1 (S_D1_4.11 Applicants response to wake loss (REP1-016)). The SoCG with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP) summarises both parties' positions on this.
REP1-062.13	4.3 The NPS EN-3 requires that, where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities. The Ørsted IPs are not satisfied that such assessment has been properly undertaken here.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussion at Deadline 1 (S_D1_4.11 Applicants response to wake loss (REP1-016)). The Applicant notes that NPS EN-1 recognises that in order for the UK to reach its net zero target by 2050, a dramatic increase in the volume of new large-scale development is required, which will not be possible without some level of residual impacts (paras 3.1.1 and 3.1.2). The NPS directs developers to minimise effects in accordance with the policy set out in Part 4 and Part 5 of EN-1 and the technology specific NPS. 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. Based on the reasons set out in REP1-016, 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. The Applicant maintains that even if such an assessment was required, there is no robust or recognised approach for its undertaking.
REP1-062.14	4.4 As recorded in its response to MWL's relevant representation on this issue (PD1-017), the Applicant relies on compliance with the boundary requirements in TCE's Round 4 Leasing Information Memorandum to justify not carrying out this detailed assessment. The Ørsted IPs, including MWL, do not consider this approach is sufficient – 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.	The Applicant considers that the Ørsted IPs have misinterpreted the Applicant's response in PD1-017. The Applicant noted that the siting of the project was undertaken in accordance with TCE's Round 4 leasing requirements. This is detailed further in section 1.2.4 'Leasing process' of REP1-016. 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 had given its written consent. 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 doing a detailed assessment or for regulating wake effects between sea users in the consenting process.

Reference	Written Representation Comment	Applicant's response
REP1-062.15	4.5 Additionally, the impacts of the Project on loss of energy generation at the Ørsted IPs' developments is relevant to evaluating the benefits of the Project in terms of emissions reductions and climate change benefits. We consider this assessment must calculate the 'net' benefit – i.e. accounting for renewable energy generation losses arising from impacts to other offshore developers, as well as potential new generation from the Project. It is also a matter of good design.	The Applicant acknowledges Ørsted IPs' concerns about energy loss and net benefit. However, for the reasons set out in REP-016 and REP1-064.17 (above), 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. In terms of good design, 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. Paragraph 2.8.2 directs all offshore wind developments to maximise their capacity within the technological, environmental, and other constraints of the development. The wording for good design is not explicit for reducing emissions and climate change benefits, when in doing so reduces the ability to maximise capacity to meet net zero targets.
REP1-062.16	4.6 As outlined during ISH1, the necessary data and modelling tools to undertake such an analysis is available to the Applicant. Therefore, there are no impediments to the Applicant undertaking this required step. At the current stage of the development of the Project, the Applicant is best placed to understand the realistic scenarios for the Project, which can then be tested against the known positions of the existing assets.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussions at Deadline 1 S_D1_4.11 Applicants response to wake loss (REP1-016)). The Applicant refers Ørsted IPs to section 1.2.6 of REP1-016 as to the reasons why a meaningful, reliable and transparent assessment cannot be undertaken.
REP1-062.17	4.7 In response to action point 26 of the action points arising from ISH1 (EV2-005), the Ørsted IPs reiterate there are a number of industry-recognised wake models which could be used to undertake this assessment.	The Applicant notes that the ExA asked Ørsted IPs to explain the suggested content or/approach to/scope of a potential Wake Loss Assessment (EV2-005). The Applicant cannot see any further evidence from Ørsted IPs explaining how this could be meaningfully, reliably or transparently conducted.

2.14 The Ørsted IPs - Walney (UK) Offshore Windfarms Limited

Table 2.14: REP1-063 The Ørsted IPs - Walney (UK) Offshore Windfarms Limited.

Reference	Written Representation Comment	Applicant's response
REP1-063.1	**Introduction** 1.1 This written representation is provided in accordance with Deadline 1 of the examination timetable for the application by Morgan Offshore Wind Farm Limited (the "Applicant") for an Order under the Planning Act 2008 (the "Act") granting Development Consent for the Morgan Offshore Wind Farm (the "Project").	The Applicant notes Ørsted IPs comment.
REP1-063.2	1.2 We represent six owners of operational offshore windfarms in the East Irish Sea (as set out relevant representations RR-005, RR-007, RR-023, RR-032, RR-043, RR-044), who we refer to together as the "Ørsted IPs". This written representation is made on behalf of Walney (UK) Offshore Windfarms Limited ("Walney") (RR -044), one of the Ørsted IPs.	The Applicant notes Ørsted IPs comment. The Applicant has a Statement of Common Ground (SoCG) with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP).
REP1-063.3	1.3 The Ørsted IPs' developments can be seen on Figure 9.4, in Volume 2, Chapter 9 (Other sea users) of the Environmental Statement (APP-027).	The Applicant notes Ørsted IPs comment.
REP1-063.4	1.4 The Ørsted IPs, including Walney, have been engaged in a consultation process with the Applicant in respect of the potential impacts of the Project on the Ørsted IPs' developments. The Ørsted IPs, including Walney, filed relevant representations in respect of the Project and were represented at Issue Specific Hearing 1 ("ISH1") on 10 September.	The Applicant notes Ørsted IPs comment.

Reference	Written Representation Comment	Applicant's response
REP1-063.5	1.5 As outlined in the relevant representations and at ISH1, the Ørsted IPs (including Walney) do not oppose the Project in principle. However, they have concerns regarding the interactions between the Project and their developments which are yet to be resolved. Primarily, the Walney's concerns relate to the effects of the Project on wake loss and wildlife. These are addressed in turn below. The Ørsted IPs' (including Walney's) concerns regarding these matters were briefly presented during ISH1.	The Applicant notes Ørsted IPs comment and has responded to these specific points below. The Applicant also has a Statement of Common Ground (SoCG) with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP). The SoCG covers the following topics of relevance to the Ørsted IPs: • Assessment of effects to existing and proposed infrastructure including wake effects. Assessment of the effects of the Morgan Generation Assets on offshore ornithology and the cumulative impact assessment.
REP1-063.6	**2. Wildlife Impacts/Environmental assessment** 2.1 Given the increasingly complex nature of the existing and proposed development environment in the East Irish Sea, Walney has an interest in ensuring the EIA for the Project accurately assesses the potential effects of the Project on wildlife and identifies appropriate mitigation.	The Applicant considers that it has robustly assessed the potential impacts of the proposed development which is presented in the DCO submission and has, where necessary, identified appropriate mitigation measures.
REP1-063.7	2.2 As discussed during ISH1, the Ørsted IPs, including Walney, consider the Applicant's proposed approach to assessing the in-combination/cumulative effects of the Project (a 'sensitivity' analysis), is flawed. The information contained in EIA and Habitats Regulations Assessment must be complete and current in order for the examining authority and Secretary of State to properly undertake their assessments. If additional information is identified which is relevant to these assessments, it must be properly considered and the assessments must be updated by the Applicant.	Please refer to the S_D1_3 Hearing Summaries Prelim Meeting and ISH1 (PD1-004). The Environmental Impact Assessment (EIA) and Information to support the Appropriate Assessment is evidence based and robust, undertaken in accordance with relevant guidance. A detailed assessment of cumulative and in-combination effects was presented in the Morgan Generation Assets application. Information on other projects, plans or activities which was publicly available in January 2024 (up to three months before the application was submitted, as described in Volume 1, Chapter 5: Environmental impact assessment methodology (APP-012)) was considered in the CEA and in-combination assessment. Since January 2024, new or updated assessment material has been published on projects that had been considered in the cumulative effects assessment (CEA)/in-combination assessment, and new projects not previously considered in the CEA/in-combination assessment have entered the public domain. The Applicant has prepared a review of new or updated project information published up to 27 September 2024. For new projects, these have been screened in accordance with the criteria set out in Volume 3, Annex 5.1: Cumulative effects screening matrix (APP-031) to establish the extent of the potential interaction, whether there is potential for a significant effect, and whether the CEA requires updating. For updated projects, which were considered in the CEA presented with the application, a sensitivity analysis has been carried out to consider if the updated information could alter the conclusions of the CEA and in-combination assessment presented in the application. This aligns with the CEA guidance published by the Planning Inspectorate in September 2024 (The Planning Inspectorate, 2024) which states that: 'Further assessment may be required during the examination

Reference	Written Representation Comment	Applicant's response
		stage for any newly identified 'other existing development and, or approved development' with potential to give rise to significant effects' (The Planning Inspectorate, 2024). If there is no potential for significant effects to arise, no further detailed assessment is required. The information included and reported on within the CEA review provides sufficient information for the Secretary of State to reach a reasoned conclusion under both the EIA and HRA regimes.
REP1-063.8	2.3 The Ørsted IPs, including Walney, have raised concerns regarding the robustness of the Applicant's ornithology and cumulative impact assessment. We understand that Natural England has raised similar concerns regarding the Applicant's approach to these assessments and, in an effort to avoid duplication, we acknowledge that Natural England will be best placed to further address these concerns in the examination process. Issues identified in the Applicant's assessment include, for example, that limited information on how collision risk modelling estimates for other projects have been adjusted for avoidance rate. Additionally, the Applicant's ornithology assessment does not contain annual displacement totals for the project-alone.	The Applicant has provided clarification notes at Deadline 1 to resolve these matters in response to Natural England's Relevant Representations (RR-026). The Applicant will continue to engage with Natural England. The Applicant notes that the Ørsted IPs will defer to Natural England going forwards and as reflected in the SoCG submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP), this matter is 'Not agreed, but not material' and is now closed out between both parties. At Deadline 1 the Applicant submitted S_D1_4.5 Annex 4.5 to Response to Hearing Action Point 15: Offshore Ornithology CEA and In-combination Gap-filling of Historical Projects Note (REP1-010) which is considered to address the concerns raised by Natural England in relation to 'gaps' in the cumulative and in-combination assessments presented within the application. There was general agreement on the approach applied in this clarification note as part of an SNCB meeting on 29 August 2024. The Applicant has provided additional clarification on how cumulative totals have been adjusted to account for more recent evidence in relation to avoidance rates in its responses to Relevant Representations (see the Applicant's response to NRW's Relevant Representation comment RR-027.20 (PD1-017)). The approach applied is identical to that used in the assessments conducted for numerous recent offshore wind farm applications. This includes the Hornsea Project Two offshore wind farm (SMartWind, submitted 2015), Hornsea Three offshore wind farm (Ørsted, submitted 2018) and Hornsea Four offshore wind farm (Ørsted, submitted 2021). Annual displacement totals for the Morgan Generation Assets alone are presented in Table 5.28, Table 5.29, Table 5.31, Table 5.32, Table 5.33 and Table 5.34 in the construction phase and Table 5.36, Table 5.39, Table 5.43, Table 5.46, Table 5.47 and Table 5.48 for the operations and maintenance phase in Volume 2, Chapter 5: Offshore ornithology (APP-023) and for relevant species in section 1.5.3 (Total predicted impact (birds/annum) column of Tables 1.8 to Table 1.45 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098)).

Reference	Written Representation Comment	Applicant's response
REP1-063.9	**3. Energy Yield** 3.1 Due to the proximity of the Project to the Ørsted IPs' (including Walney's) developments, the Ørsted IPs are concerned the Project will interfere with the wind speed and/or direction at their developments and therefore adversely affect energy yields.	The Applicant notes Ørsted IPs comment and that the Ørsted Irish Sea developments are located between 8.1 km (Walney Extension) and 61.6 km (Burbo Bank) from the Morgan Array Area in different directions, as shown in Figure 9.4 in Volume 2, Chapter 9: Other sea users (APP-027).
REP1-063.10	3.2 As canvassed during ISH1, the Ørsted IPs, including Walney, consider this effect must be properly assessed and addressed by the Applicant.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussion at Deadline 1 (S_D1_4.11 Applicants response to wake loss (REP1-016)). The SoCG with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP) summarises both parties' positions on this.
REP1-063.11	3.3 The NPS EN-3 requires that, where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities. The Orsted IPs are not satisfied that such assessment has been properly undertaken here.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussion at Deadline 1 (S_D1_4.11 Applicants response to wake loss (REP1-016)). The Applicant notes that NPS EN-1 recognises that in order for the UK to reach its net zero target by 2050, a dramatic increase in the volume of new large-scale development is required, which will not be possible without some level of residual impacts (paras 3.1.1 and 3.1.2). The NPS directs developers to minimise effects in accordance with the policy set out in Part 4 and Part 5 of EN-1 and the technology specific NPS. 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. Based on the reasons set out in REP1-016, 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. The Applicant maintains that even if such an assessment was required, there is no robust or recognised approach for its undertaking.

Reference	Written Representation Comment	Applicant's response
REP1-063.12	3.4 As recorded in its response to the Walney's relevant representation on this issue (PD1-017), the Applicant relies on compliance with the boundary requirements in TCE's Round 4 Leasing Information Memorandum to justify not carrying out this detailed assessment. The Ørsted IPs, including Walney, do not consider this approach is sufficient – 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.	The Applicant considers that the Ørsted IPs have misinterpreted the Applicant's response in PD1-017. The Applicant noted that the siting of the project was undertaken in accordance with TCE's Round 4 leasing requirements. This is detailed further in section 1.2.4 'Leasing process' of REP1-016. 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 had given its written consent. 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 doing a detailed assessment or for regulating wake effects between sea users in the consenting process.
REP1-063.13	3.5 Additionally, the impacts of the Project on loss of energy generation at the Ørsted IPs' developments is relevant to evaluating the benefits of the Project in terms of emissions reductions and climate change benefits. We consider this assessment must calculate the 'net' benefit – i.e. accounting for renewable energy generation losses arising from impacts to other offshore developers, as well as potential new generation from the Project. It is also a matter of good design.	The Applicant acknowledges Ørsted IPs' concerns about energy loss and net benefit. However, for the reasons set out in REP-016 and REP1-064.17 (above), 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. In terms of good design, 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. Paragraph 2.8.2 directs all offshore wind developments to maximise their capacity within the technological, environmental, and other constraints of the development. The wording for good design is not explicit for reducing emissions and climate change benefits, when in doing so reduces the ability to maximise capacity to meet net zero targets.
REP1-063.14	3.6 As outlined during ISH1, the necessary data and modelling tools to undertake such an analysis is available to the Applicant. Therefore, there are no impediments to the Applicant undertaking this required step. At the current stage of the development of the Project, the Applicant is best placed to understand the realistic scenarios for the Project, which can then be tested against the known positions of the existing assets.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussions at Deadline 1 S_D1_4.11 Applicants response to wake loss (REP1-016)). The Applicant refers Ørsted IPs to section 1.2.6 of REP1-016 as to the reasons why a meaningful, reliable and transparent assessment cannot be undertaken.
REP1-063.15	3.7 In response to action point 26 of the action points arising from ISH1 (EV2-005), the Ørsted IPs reiterate there are a number of industry-recognised wake models which could be used to undertake this assessment.	The Applicant notes that the ExA asked Ørsted IPs to explain the suggested content or/approach to/scope of a potential Wake Loss Assessment (EV2-005). The Applicant cannot see any further evidence from Ørsted IPs explaining how this could be meaningfully, reliably or transparently conducted.

2.15 The Ørsted IPs - Walney Extension Limited

Table 2.15: REP1-064 The Ørsted IPs - Walney Extension Limited.

Reference	Written Representation Comment	Applicant's response
REP1-064.1	**Introduction** 1.1 This written representation is provided in accordance with Deadline 1 of the examination timetable for the application by Morgan Offshore Wind Farm Limited (the "Applicant") for an Order under the Planning Act 2008 (the "Act") granting Development Consent for the Morgan Offshore Wind Farm (the "Project").	The Applicant notes Ørsted IPs comment.
REP1-064.2	1.2 We represent six owners of operational offshore windfarms in the East Irish Sea (as set out relevant representations RR-005, RR-007, RR-023, RR-032, RR-043, RR-044), who we refer to together as the "Ørsted IPs". This written representation is made on behalf of Walney Extension Limited ("WEL") (RR-043), one of the Ørsted IPs.	The Applicant notes Ørsted IPs comment. The Applicant has a Statement of Common Ground (SoCG) with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP).
REP1-064.3	1.3 The Ørsted IPs' developments can be seen on Figure 9.4, in Volume 2, Chapter 9 (Other sea users) of the Environmental Statement (APP-027).	The Applicant notes Ørsted IPs comment.
REP1-064.4	1.4 The Ørsted IPs, including WEL, have been engaged in a consultation process with the Applicant in respect of the potential impacts of the Project on the Ørsted IPs' developments. The Ørsted IPs, including WEL, filed relevant representations in respect of the Project and were represented at Issue Specific Hearing 1 ("ISH1") on 10 September.	The Applicant notes Ørsted IPs comment.
REP1-064.5	1.5 As outlined in the relevant representations and at ISH1, the Ørsted IPs, including WEL, do not oppose the Project in principle. However, they have concerns regarding the interactions between the Project and their developments which are yet to be resolved. Primarily, WEL's concerns relate to the effects of the Project on	The Applicant notes Ørsted IPs comment and has responded to these specific points below. The Applicant also has a Statement of Common Ground (SoCG) with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP). The SoCG covers the following topics of relevance to the Ørsted IPs: • Assessment of effects to existing and proposed infrastructure including wake effects

Reference	Written Representation Comment	Applicant's response
	shipping and navigation, wake loss, wildlife, and radar, which are addressed in turn below. The Ørsted IPs' (including WEL's) concerns regarding these matters were briefly presented during ISH1.	• Assessment of the effects of the Morgan Generation Assets on offshore ornithology and the cumulative impact assessment • The effects of the Morgan Generation Assets on shipping and navigation The effects of the Morgan Generation Assets on two of the Ørsted IPs' radar mitigation for the Warton Airfield Primary Surveillance Radar.
REP1-064.6	**2. Wildlife Impacts/Environmental assessment** 2.1 Given the increasingly complex nature of the existing and proposed development environment in the East Irish Sea, WEL has an interest in ensuring the EIA for the Project accurately assesses the potential effects of the Project on wildlife and identifies appropriate mitigation.	The Applicant considers that it has robustly assessed the potential impacts of the proposed development which is presented in the DCO submission and has, where necessary, identified appropriate mitigation measures.
REP1-064.7	2.2 As discussed during ISH1, the Ørsted IPs, including WEL, consider the Applicant's proposed approach to assessing the in-combination/cumulative effects of the Project (a 'sensitivity' analysis), is flawed. The information contained in EIA and Habitats Regulations Assessment must be complete and current in order for the examining authority and Secretary of State to properly undertake their assessments. If additional information is identified which is relevant to these assessments, it must be properly considered and the assessments must be updated by the Applicant.	Please refer to the S_D1_3 Hearing Summaries Prelim Meeting and ISH1 (PD1-004). The Environmental Impact Assessment (EIA) and Information to support the Appropriate Assessment is evidence based and robust, undertaken in accordance with relevant guidance. A detailed assessment of cumulative and in-combination effects was presented in the Morgan Generation Assets application. Information on other projects, plans or activities which was publicly available in January 2024 (up to three months before the application was submitted, as described in Volume 1, Chapter 5: Environmental impact assessment methodology (APP-012)) was considered in the CEA and in-combination assessment. Since January 2024, new or updated assessment material has been published on projects that had been considered in the cumulative effects assessment (CEA)/in-combination assessment, and new projects not previously considered in the CEA/in-combination assessment have entered the public domain. The Applicant has prepared a review of new or updated project information published up to 27 September 2024. For new projects, these have been screened in accordance with the criteria set out in Volume 3, Annex 5.1: Cumulative effects screening matrix (APP-031) to establish the extent of the potential interaction, whether there is potential for a significant effect, and whether the CEA requires updating. For updated projects, which were considered in the CEA presented with the application, a sensitivity analysis has been carried out to consider if the updated information could alter the conclusions of the CEA and in-combination assessment presented in the application. This aligns with the CEA guidance published by the Planning Inspectorate in September 2024 (The Planning Inspectorate, 2024) which states that: 'Further assessment may be required during the examination stage for any newly identified 'other existing development and, or approved development' with potential to give rise to significant effects' (The Planning Inspectorate, 2024). If there is no potential for significant effects to arise, no further detailed assessment is required. The information included

Reference	Written Representation Comment	Applicant's response
		and reported on within the CEA review provides sufficient information for the Secretary of State to reach a reasoned conclusion under both the EIA and HRA regimes.
REP1-064.8	2.3 The Ørsted IPs, including WEL, have raised concerns regarding the robustness of the Applicant's ornithology and cumulative impact assessment. We understand that Natural England has raised similar concerns regarding the Applicant's approach to these assessments and, in an effort to avoid duplication, we acknowledge that Natural England will be best placed to further address these concerns in the examination process. Issues identified in the Applicant's assessment include, for example, that limited information on how collision risk modelling estimates for other projects have been adjusted for avoidance rate. Additionally, the Applicant's ornithology assessment does not contain annual displacement totals for the project-alone.	The Applicant has provided clarification notes at Deadline 1 to resolve these matters in response to Natural England's Relevant Representations (RR-026). The Applicant will continue to engage with Natural England. The Applicant notes that the Ørsted IPs will defer to Natural England going forwards and as reflected in the SoCG submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP), this matter is 'Not agreed, but not material' and is now closed out between both parties. At Deadline 1 the Applicant submitted S_D1_4.5 Annex 4.5 to Response to Hearing Action Point 15: Offshore Ornithology CEA and In-combination Gap-filling of Historical Projects Note (REP1-010) which is considered to address the concerns raised by Natural England in relation to 'gaps' in the cumulative and in-combination assessments presented within the application. There was general agreement on the approach applied in this clarification note as part of an SNCB meeting on 29 August 2024. The Applicant has provided additional clarification on how cumulative totals have been adjusted to account for more recent evidence in relation to avoidance rates in its responses to Relevant Representations (see the Applicant's response to NRW's Relevant Representation comment RR-027.20 (PD1-017)). The approach applied is identical to that used in the assessments conducted for numerous recent offshore wind farm applications. This includes the Hornsea Project Two offshore wind farm (SMartWind, submitted 2015), Hornsea Three offshore wind farm (Ørsted, submitted 2018) and Hornsea Four offshore wind farm (Ørsted, submitted 2021). Annual displacement totals for the Morgan Generation Assets alone are presented in Table 5.28, Table 5.29, Table 5.31, Table 5.32, Table 5.33 and Table 5.34 in the construction phase and Table 5.36, Table 5.39, Table 5.43, Table 5.46, Table 5.47 and Table 5.48 for the operations and maintenance phase in Volume 2, Chapter 5: Offshore ornithology (APP-023) and for relevant species in section 1.5.3 (Total predicted impact (birds/annum) column of Tables 1.8 to Table 1.45 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098)).
REP1-064.9	**3. Shipping and navigation** 3.1 WEL (along with one other Ørsted IP, Morecambe Wind Limited), has concerns regarding the impact of the Project on shipping and navigation.	The Applicant notes Ørsted IPs comment and has responded to WEL and Morecambe Wind Limited below. The SoCG with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP) also addresses these points.

Reference	Written Representation Comment	Applicant's response
REP1-064.10	3.2 WEL understands, based on the Applicant's assessment and external advice, that the Project will result in a change in the level of risk at its development due to changes in the shipping and navigation environment.	The Applicant has undertaken a comprehensive Navigation Risk Assessment (APP-060), which is fully compliant with the Maritime and Coastguard Agency's Marine Guidance Note 654, and it has concluded that with the proposed mitigation controls in place, the navigation risks caused by the Morgan Generation Assets are reduced to As Low As Reasonably Practicable (ALARP). Consensus was reached on this conclusion with stakeholders (including Ørsted) at the hazard workshop in September 2023 undertaken to inform the Environmental Statement and is reflected within the initial SoCGs with the MCA submitted at Deadline 2 (S_D2_MCA), UK Chamber of Shipping at Deadline 1 (REP1-030) and Trinity House at Deadline 1 (REP1-041). It is noted by the Applicant, that Ørsted were in attendance at the hazard workshop and could have raised views at that juncture if this had been a material concern.
REP1-064.11	3.3 The Applicant has committed in the ES, and recorded in its responses to the relevant representations, to continue engagement with stakeholders on this issue and to implement certain measures to manage increased risks associated with increased project vessel movements, search and rescue incidents and the risk of a marine pollution event, for example.	The Applicant notes Ørsted IPs comment and has committed within Volume 2, Chapter 7: Shipping and navigation (APP-025) to continued engagement with stakeholders through the Marine Navigation Engagement Forum (MNEF) post-consent. This would include engagement on the applicable Plans, and once approved by the MMO in consultation with Trinity House, the MCA and UKHO, as appropriate.
REP1-064.12	3.4 However, WEL consider it must be directly engaged with in respect of the management of risks which impact its development, to ensure that such risks are appropriately mitigated and its consents, agreements, and operations are not adversely affected. WEL considers it should be consulted in respect of and provided with copies of the Marine Pollution Contingency Plan, ERCoP and any Navigational Safety Plan.	The Applicant has undertaken detailed analysis of routing/passage plans for project vessels as presented in the Navigational Risk Assessment (Volume 4, Annex 7.1: Navigational Risk Assessment APP-060). The risks to WEL (and Morecambe Wind Limited for West of Duddon Sands) are understood, assessed and were presented during the Hazard Workshop in September 2023 in the presence of Ørsted IPs. As reported in the NRA (APP-060) and the initial SoCG submitted at Deadline 2 (S_D2_MCA), the MCA are satisfied with these conclusions. The Applicant welcomes ongoing engagement to ensure navigational safety is maintained in the eastern Irish Sea and has committed to continue engagement post-consent with all stakeholders through the MNEF which, as the Ørsted IPs will be aware, includes offshore wind energy developers. The MNEF will be used to update stakeholders on the Morgan Generation Assets and also be used for engagement on shipping and navigation mitigations set out within Table 1.10 and Table 1.42 of the NRA (APP-060). In particular, the MNEF will facilitate the development of the Vessel Traffic Management Plan (secured within the deemed Marine Licences within the draft DCO and in accordance with the Outline Vessel Traffic Management Plan APP-071) to safely manage Morgan Generation Assets construction and operations and maintenance activities and reduce adverse impacts on other marine users, which would include other offshore wind farm operators. The Outline Vessel Traffic Management Plan has been updated at Deadline 2, to include further clarity on the MNEF (S_D2_11).

Reference	Written Representation Comment	Applicant's response
		As mentioned in response to REP1-064.11, the Applicant will engage with relevant Ørsted IPs on applicable Plans once approved by the MMO in consultation with Trinity House, the MCA and UKHO, as appropriate.
REP1-064.13	3.5 WEL notes that it is likely a range of agreements will be reached between the Applicant and other sea users, such as vessel operators. Such agreements have the potential to impact the risks arising from shipping and navigation at WEL's development and how those risks should be assessed. Therefore, it is important that the outcome of discussions regarding any such agreements are transparent, to ensure that the wider implications are understood.	Within the Applicant's response to REP1-064.10, it was noted that the Navigational Risk Assessment (NRA) was comprehensive and included significant engagement with operators. Therefore, the anticipated impacts on passages of vessel operators, and any resulting navigational risks, are well described within the application and available to the Ørsted IPs (Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060)). Ongoing engagement with vessel operators relating to residual concerns do not relate to navigational safety and therefore would not result in any changes in risk to the Ørsted IPs' developments.
REP1-064.14	3.6 WEL notes the discussions during ISH1 regarding the possibility of a DCO requirement providing for a process for engagement with stakeholders on shipping and navigation. WEL will be interested to provide its views on such a requirement, if one is developed.	The Applicant notes that this discussion item from ISH1 was a Hearing Action Point for the Applicant's response. The Applicant has provided its response to this under Hearing Action Point 17 (REP1-005). The Applicant would like to reiterate to Ørsted IPs that the MNEF was established by the Applicant (and other Round 4 developers) in 2021 as a forum for effective communication with shipping and navigation stakeholders on the Morgan Generation Assets. There is no specific requirement for an open forum similar to the MNEF within MGN654 or other primary guidance. The forum is, therefore, not a requirement under guidance post-consent or post-construction. Nor is such a forum typical on other constructed or consented offshore wind farms. The Applicant acknowledges the importance of the commitment to ensure that the appropriate authorities and stakeholders (including existing operational wind energy developers) are informed of works being carried out in waters adjacent to the Morgan Array Area (and other Round 4 projects) and for general project updates, but does not consider that a DCO requirement is necessary or justified. The Outline Vessel Traffic Management Plan has been updated at Deadline 2 to include further details on the MNEF (S_D2_11).
REP1-064.15	**4. Energy Yield** 4.1 Due to the proximity of the Project to the Ørsted IPs' developments (including WEL's), the Ørsted IPs are concerned the Project will interfere with the wind speed and/or direction at their developments and therefore adversely affect energy yields.	The Applicant notes Ørsted IPs comment and that the Ørsted Irish Sea developments are located between 8.1 km (Walney Extension) and 61.6 km (Burbo Bank) from the Morgan Array Area in different directions, as shown in Figure 9.4 in Volume 2, Chapter 9: Other sea users (APP-027).

Reference	Written Representation Comment	Applicant's response
REP1-064.16	4.2 As canvassed during ISH1, the Ørsted IPs, including WEL, consider this effect must be properly assessed and addressed by the Applicant.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussion at Deadline 1 (S_D1_4.11 Applicants response to wake loss (REP1-016)). The SoCG with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP) summarises both parties' positions on this.
REP1-064.17	4.3 The NPS EN-3 requires that, where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities. The Ørsted IPs are not satisfied that such assessment has been properly undertaken here.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussion at Deadline 1 (S_D1_4.11 Applicants response to wake loss (REP1-016)). The Applicant notes that NPS EN-1 recognises that in order for the UK to reach its net zero target by 2050, a dramatic increase in the volume of new large-scale development is required, which will not be possible without some level of residual impacts (paras 3.1.1 and 3.1.2). The NPS directs developers to minimise effects in accordance with the policy set out in Part 4 and Part 5 of EN-1 and the technology specific NPS. 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. Based on the reasons set out in REP1-016, 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. The Applicant maintains that even if such an assessment was required, there is no robust or recognised approach for its undertaking.
REP1-064.18	4.4 As recorded in its response to WEL's relevant representation on this issue (PD1-017), the Applicant relies on compliance with the boundary requirements in TCE's Round 4 Leasing Information Memorandum to justify not carrying out this detailed assessment. The Ørsted IPs, including WEL, do not consider this approach is sufficient – 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.	The Applicant considers that the Ørsted IPs have misinterpreted the Applicant's response in PD1-017. The Applicant noted that the siting of the project was undertaken in accordance with TCE's Round 4 leasing requirements. This is detailed further in section 1.2.4 'Leasing process' of REP1-016. 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 had given its written consent. 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 doing a detailed assessment or for regulating wake effects between sea users in the consenting process.
REP1-064.19	4.5 Additionally, the impacts of the Project on loss of energy generation at the Ørsted IPs' developments is relevant to evaluating the benefits of the Project in terms of emissions reductions and climate change benefits. We consider this assessment must calculate the 'net' benefit – i.e. accounting for renewable energy	The Applicant acknowledges Ørsted IPs' concerns about energy loss and net benefit. However, for the reasons set out in REP-016 and REP1-064.17 (above), 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. In terms of good design, 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,

Reference	Written Representation Comment	Applicant's response
	generation losses arising from impacts to other offshore developers, as well as potential new generation from the Project. It is also a matter of good design.	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. Paragraph 2.8.2 directs all offshore wind developments to maximise their capacity within the technological, environmental, and other constraints of the development. The wording for good design is not explicit for reducing emissions and climate change benefits, when in doing so reduces the ability to maximise capacity to meet net zero targets.
REP1-064.20	4.6 As outlined during ISH1, the necessary data and modelling tools to undertake such an analysis is available to the Applicant. Therefore, there are no impediments to the Applicant undertaking this required step. At the current stage of the development of the Project, the Applicant is best placed to understand the realistic scenarios for the Project, which can then be tested against the known positions of the existing assets.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussions at Deadline 1 S_D1_4.11 Applicants response to wake loss (REP1-016)). The Applicant refers Ørsted IPs to section 1.2.6 of REP1-016 as to the reasons why a meaningful, reliable and transparent assessment cannot be undertaken.
REP1-064.21	4.7 In response to action point 26 of the action points arising from ISH1 (EV2-005), the Ørsted IPs reiterate there are a number of industry-recognised wake models which could be used to undertake this assessment.	The Applicant notes that the ExA asked Ørsted IPs to explain the suggested content or/approach to/scope of a potential Wake Loss Assessment (EV2-005). The Applicant cannot see any further evidence from Ørsted IPs explaining how this could be meaningfully, reliably or transparently conducted.
REP1-064.22	**5. Radar** 5.1 As recorded in its relevant representation WEL (along with another of the Ørsted IPs, Burbo Extension Limited), is implementing appropriate mitigation in relation to potential impacts on the Warton Airfield Primary Surveillance Radar, and is concerned that the Project has the potential to adversely affect or increase the cost of this mitigation. It is noted that the Ministry of Defence ("MoD") has objected to the Project on the grounds of unacceptable impacts on the radar system at BAE Warton (PD1-019).	The mitigation agreed between WEL (and Burbo Extension Limited (BEL)) and BAE Warton/the Defence Infrastructure Organisation (DIO) is a matter for WEL (BEL) and BAE Warton/the DIO only. The Applicant assumes that the necessary agreements are in place between the parties for those specific projects. The Applicant is not aware of any mechanism through which the Morgan Generation Assets could affect any previous or current agreements which may or may not be in place between WEL/BEL and BAE Warton/the DIO. The Applicant responded to the DIO's Written Representation at the Procedural Deadline (S_PD_3 Applicant's Response to Relevant Representations) (PD1-017) and has agreed a Statement of Common Ground (SoCG) with the DIO, submitted at Deadline 1 (REP1-032). The SoCG includes a statement on mitigation for BAE Warton which notes that the parties are engaging on the nature of the mitigation, which is likely to include optimisation of the radar system in place, flight trials and a safety case to the Civil Aviation Authority. The Applicant and the DIO will provide updates through subsequent SoCG at future Examination deadlines.

Reference	Written Representation Comment	Applicant's response
REP1-064.23	5.2 Discussions are ongoing between the parties on this matter, however, a resolution is yet to be reached. It is noted that, in the absence of an agreement between the parties, it is likely that a DCO requirement addressing effects of the Project on the radar system would be necessary. However, it will also be necessary for the ExA and the Secretary of State to be provided with information regarding the deliverability of necessary mitigation.	The need for and terms of any DCO requirement is a matter in discussion between the Applicant and the DIO. Progress towards an appropriate mitigation solution is being made between the Applicant, the DIO and BAE in line with typical processes relating to offshore wind farm interaction with radar assets. As per the response above (REP1-064.22), the Applicant and the DIO are engaging on the nature of the mitigation, and will provide updates through subsequent SoCG at future Examination deadlines.

2.16 West Coast Sea Products Ltd

Table 2.16: REP1-065 West Coast Sea Products Ltd.

Reference	Written Representation Comment	Applicant's response
REP1-065.1	1. Summary WCSP Ltd have been catching and processing Queen Scallops (also King Scallops) in the eastern Irish Sea since 1971, currently employing over 100 people at our processing site and 30 fishermen who rely on the health of the Queen Scallop fishery. We object to the proposal as its area overlaps important Queen Scallop beds of the eastern Irish Sea fishery as well important spawning and nursery ground for this species. Current proposal measures do not go far enough to respect this important fishery. The fishery is one of 4 global Queen Scallop commercial fisheries, therefore Morgan OWF raises significant socioeconomic and market implications and this is especially the case if considered in tandem with the developer's other Mona OWF proposal which will develop on the other most commercially important Queen Scallop beds of the eastern Irish Sea. There are also no mitigation measures proposed to financially compensate Queen Scallop operators for any unforeseen consequences such as short or long-term habitat loss. We consider that the proposal in its current state presents a possible Moderate or Major (leaning towards major) effect.	The Applicant has submitted a Statement of Common Ground (SoCG) with SFF (representing WCSP) at Deadline 2 (S_D2_OF SoCG NIFF, ANIFPO, SFF) which covers the assessment methodology and conclusions of the assessment (alone and cumulatively), along with the mitigation measures and is a point of ongoing discussion (ref: CF.EIA.4 to CF.EIA.7). The Applicant recognises the importance of queen scallop to West Coast Sea Products Ltd (WCSP) and has engaged with them since 2021 to establish the spatial extent of the fleets that operate in this region. Spatial distribution of fishing activity using VMS data, supported by feedback from project-specific consultation and other sources of data (observations from Offshore Fisheries Liaison Officers; Marine Traffic Survey data), highlighted that the west part of the Morgan Array Area is an important queen and king scallop fishing ground for vessels utilising dredges. It is evident that scallop dredge activity and intensity varies by year, which also corroborates with information from fisheries stakeholders, which suggest that the fishery is cyclical over seven-to-eight-year periods. The Applicant has recognised the importance of the fishing activity within this region and has made and significant commitments to facilitate co-existence with existing commercial fishing activity and to minimise disruption as far as possible. The Applicant will continue to constructively engage with the fishing community to ensure concerns are addressed as far as reasonably practicable. The engagement since June 2021 to understand stakeholder requirements for co-existence is summarised in Table 6.4 of Volume 2, Chapter 6: Commercial fisheries (APP-024) and detailed in Appendix G.19 of the Technical Engagement Plan Appendices - Part 5 (Appendix E to L) (APP-093). Engagement will continue throughout the lifetime of the project. The high-level and quality of consultation with commercial fisheries stakeholders to date is recognised in the SoCG (S_D2_OF SoCG NIFF, ANIFPO, SFF) between the Applicant and commercial fisheries stakeholders (ref: CF.EIA.1). The commitment to continue this engagement throughout the lifetime of the project is also captured within the SoCG (ref: CF.EIA.2). Both these discussion points are Agreed. A Fisheries Liaison and Co-existence Plan (FLCP) will be developed by the Applicant through ongoing consultation with fisheries stakeholders, which will be based on the Outline FLCP (APP-065) submitted as part of the Application, and has been updated at Deadline 2 (S_D2_12 Outline Fisheries Liaison Co-existence Plan F02). Specific commitments are set out within Volume 2, Chapter 6: Commercial fisheries (APP-024), J6 Mitigation and monitoring schedule ((APP-076) and the Offshore In-Principle Monitoring Plan (APP-066). An updated version of the Mitigation and monitoring schedule and Offshore In-Principle Monitoring Plan has been submitted at Deadline 2,

Reference	Written Representation Comment	Applicant's response
		to include additional monitoring of queen scallop to validate predictions made within the EIA relating to impacts from the construction of Morgan Generation Assets. The approach to monitoring will be fully developed post-consent and secured in the final offshore monitoring plan. However, monitoring is likely to take the form of pre- and post-construction dredge surveys for up to five years post-construction, to determine changes to queen scallop from baseline conditions based upon annual monitoring results. The monitoring will be cognisant of similar commitments on Mona Offshore Wind Project, and where possible adopt aligned methodologies to ensure a more strategic approach is taken to the monitoring. This will serve to ensure a more comprehensive evidence base is established for these Irish Sea scallop grounds. The additional monitoring of queen scallop is recognised in the SoCG (S_D2_OF) between the Applicant and commercial fisheries stakeholders (ref: CF.OFLCP.T17). This is an ongoing point of discussion. The commitments are designed to enable co-existence as far as possible during all project phases. They include commitments to not close the entire development area during the construction phase, the establishment of a Scallop Mitigation Zone (SMZ), which will be free of wind turbines and offshore substation platforms (a commitment which is a 'first' for offshore wind in the United Kingdom as far as the Applicant is aware) and the orientation and spacing of infrastructure such that fishing can continue within the Morgan Array Area. As a result of these measures, commercial fishing receptor groups will be able to continue fishing within parts of the Morgan Array Area during construction. During the operations and maintenance phase, the measures will provide the space for continued fishing within the Morgan Array Area and allow fishing vessels to transit through the area. Consequently, additional mitigation measures linked to financial compensation are not considered necessary. These commitments to co-existence are recognised in the SoCG (S_D2_OF SoCG NIFF, ANIFPO, SFF) between the Applicant and commercial fisheries stakeholders (ref: CF.OFLCP.P4; CF.OFLCP.P5; CF; OFLCP.P6). CF.OFLCP P4 and P5 are agreed whilst CF.OFLCP.P6 is an ongoing point of discussion. The Applicant engaged with commercial fisheries stakeholders on the commitments set out within the Outline FLCP (APP-065) via a series of meetings in July and September 2024. Based on the feedback from these meetings, the Applicant has updated wording to applicable commitments in the Outline FLCP, in parallel with progressing SoCG with the fisheries stakeholders that also covers the commitments for co-existence and ongoing liaison (Updated Outline FLCP and SoCGs have been submitted by the Applicant at Deadline 2). Following these recent consultation meetings, the Applicant has agreed to refine the wording of two primary measures and added a new primary measure, and four tertiary measures within an updated version of the Outline FLCP. This updated version of the Outline FLCP has been

Reference	Written Representation Comment	Applicant's response
		submitted at Deadline 2 (S_D2_12 Outline Fisheries Liaison Co-existence Plan F02). These refinements specifically include: • Use of gear penetration and snagging risks as factors to determine target burial depth – incorporated into Primary Measure 1. • The Applicant has set out limits on cable protection, as assessed Volume 2, Chapter 6: Commercial fisheries (APP-024), as a new Primary Measure 2 to address concerns over the impact of cable protection on fishing activity and the amount of cable protection that can be used. • Infrastructure spacing will be a minimum of 1,400m and will also be aligned with the layout principles detailed in Table 3.7 of the Project Description Chapter (APP-010) – incorporated in Primary Measure 4. • Feedback highlighted the importance of using a Fishing Industry Representative (FIR) identified by the local fishing industry. The Applicant has amended the justification for Tertiary Measure 2 to note that a suitable candidate for the FIR will be identified to the Company Fisheries Liaison Officer (CFLO) by fisheries stakeholders. • Feedback highlighted the importance of using a local Offshore Fisheries Liaison Officers (OFLOs) where possible. Tertiary Measure 5 has been updated by the Applicant to reflect the use of Local OFLOs where possible. • To reduce the potential for cable exposure, Tertiary Measure 10 has been updated to include consideration of likely seabed level change where possible establishing target cable burial depth. • The commitment in Tertiary measure 11 to undertake annual reviews for the first five years of the operations and maintenance phase to review Vessel Monitoring System (VMS) data and landings data, has also been updated to include I-VMS when available. • Additionally, the Applicant has also incorporated a new monitoring commitment in relation to queen scallop (Tertiary measure 17). The refined wording of these measures in the updated Outline FLCP is also captured in the SoCG (S_D2_OF SoCG NIFF, ANIFPO, SFF) between the Applicant and commercial fisheries stakeholders (ref: CF.OFLCP.T1; CF.OFLCP.T2; CF.OFLCP.T3; CF.OFLCP.T4; CF.OFLCP.T5). All these points of discussion are agreed. In summary, the Applicant has made significant design-based commitments and monitoring proposals for scallop activities, 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-based commitments mitigate potential impacts on commercial fisheries as far as reasonably practicable and allow for continued access to fishing

Reference	Written Representation Comment	Applicant's response
		grounds within the Morgan Array Area. The design commitments are further supported by two monitoring proposals that address the residual concerns raised by stakeholders and emphasises the Applicant's confidence in conclusions presented within Volume 2, Chapter 6: Commercial fisheries (APP-024). Fish and Shellfish Ecology: The Applicant acknowledges the extent and distribution of queen and king scallop fishing activity and spawning and nursery grounds within the vicinity of the Morgan Array Area. The available research on queen and king scallop responses to impacts including temporary habitat loss and disturbance, increased suspended sediment concentrations, and long-term habitat loss has been assessed within the fish and shellfish ecology chapter (APP-021), and no significant effects were concluded. Please refer to RR-045.1 in S_-PD_3 Applicant's Response to Relevant Representations (PD1-017). From an ecology perspective, temporary habitat loss/disturbance and long term habitat loss are fully assessed in section 3.9.2 and 3.9.5 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), with particular reference paid to impacts to both scallop species and herring. No significant effects are predicted to either queen scallop or herring as a result of these impacts. Further details are provided in the Applicant's responses to points REP1-065.2 and REP1-065.28 to REP1-065.32 raised by the WCSP.
REP1-065.2	This document initially assesses the proposal in relation to our vessels' 2023 fishing activity for Queen Scallops and we conclude that over 50% of the fishery will be situated within OWF infrastructure in the future between Morgan (and Mona for cumulative considerations). Secondly this document outlines the practical issues of fishing vessels being able to continue fishing in which are poor weather autumn & winter fisheries. Finally with Morgan (and Mona cumulatively) being unique in covering so much of the sandy/gravelly Queen Scallop nursery & fishing grounds, there is a real risk of loss of their habitat and the commercial fishery we rely on, for which the Fish & Shellfish Ecology Chapter unacceptably also dismisses as an impact, rated as minor.	Commercial Fisheries: The Applicant has noted the Written Representation response from the WCSP in REP1-065.2 and REP1-065.3 and acknowledge the conclusion made regarding spatial extent of current queen scallop fishing in relation to the Morgan Array Area. The WCSP comment that the overall cumulative effect with the proposed Mona Offshore wind Project could affect over 50% of activity observed within their 2023 queen scallop data. However, it is noted that the WCSP's conclusions are based on plotted data presented in the Written Representation response, which is not publicly available. The Applicant notes that WCSP's representation (REP1-065) confirms the key observations from previous data provided via consultation with the Applicant. Specifically, the key parts of the Morgan Array where fishing for queen scallop occurs at a high density. With regard to the cumulative assessment, Volume 2, Chapter 6: Commercial fisheries (APP-024) considered the potential loss of fishing grounds from Morgan Generation Assets, Mona Offshore Wind Project, Morecambe Offshore Wind Farm: Generation Assets and Morgan and Morecambe Offshore Wind Project: Transmission Assets during the operational phase. This assessment concluded that whilst the cumulative magnitude of impact would have a regional spatial extent, be of long-term duration and continuous, with low reversibility, a minor adverse impact significance was concluded on the basis that the reduction in access to scallop resulting from the cumulative impact would not lead to more than a 5-10% reduction of the annual value of landings (informed by expert judgement that is based on data analysis, stakeholder feedback, the revised array layouts

Reference	Written Representation Comment	Applicant's response
		presented and how these may affect fishing activity). Paragraph 6.8.1.60 of Volume 2, Chapter 6: Commercial fisheries (APP-024) specifically references the reliance of the 'Scottish west coast scallop' receptor group upon grounds within the Morgan Array Area, stating that this may account for approximately 40% of their total annual value of landings of queen scallop within the Morgan Array Area alone. This importance of queen and king scallop landings to the WCSP and other Scottish scallopers, who form the 'Scottish west coast scallop vessel' receptor group is fully accounted for within Volume 2, Chapter 6: Commercial fisheries (APP-024), which was established through analysis of the latest publicly available VMS data and via extensive engagement that has been conducted since 2021, where the Applicant sought to establish the spatial distribution of the nomadic fleet. Aspects related to the project alone and cumulative assessments are included in the SoCG (S_D2_OF SoCG NIFF, ANIFPO, SFF) between the Applicant and commercial fisheries stakeholders (ref: CF.EIA.5; CF.EIA.6). Both these are ongoing points of discussion. In summary, the Applicant fully recognises the importance of queen scallop to the WCSP and has made significant design-based commitments, and monitoring proposals 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-based commitments mitigate potential cumulative impacts on commercial fisheries as far as reasonably practicable and allow for continued access to fishing grounds within the Morgan Array Area. The design commitments are further supported by two monitoring proposals (as discussed in response to REP1-065.1) that address the residual concerns raised by the WCSP and emphasise the Applicant's confidence in conclusions presented within Volume 2, Chapter 6: Commercial fisheries (APP-024). Relevant aspects of the assessment undertaken, the design-based commitments and monitoring proposals are all detailed in the SoCG (S_D2_OF SoCG NIFF, ANIFPO, SFF) between the Applicant and commercial fisheries stakeholders. The majority of these points are agreed, whilst some remain as point of discussion. <u>Fish and Shellfish Ecology:</u> The impacts to fish and shellfish ecology receptors, including queen scallop, for the impacts of temporary and long-term habitat loss are assessed within section 3.9.2 and 3.9.5 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). The area to the south east of the Morgan Array Area (i.e. outside of the Array Area; Volume 2, Annex 3.1: Fish and shellfish ecology (APP-051); Figure 1.35), is not expected to be subject to disturbance as a result of Morgan Generation Assets and is considered a queen scallop nursery/spawning area which is unfished; spawning and nursery in this area is therefore expected to be unimpeded by the Project. As shown within Figure 1.2 of Volume 4, Annex 2.1: Benthic subtidal ecology technical report (APP-050), broadscale habitat mapping indicates the presence of

Reference	Written Representation Comment	Applicant's response
		coarse and mixed substrate beyond the boundaries of the Morgan Array Area, suggesting that suitable habitat is available within the region adjacent to the Project to support recovery of queen scallop into areas which are subject to temporary habitat loss/disturbance. To validate the predictions made within the ES regarding impacts on scallop, an appropriate scallop monitoring programme commitment is proposed (as discussed in REP1-065.1).
REP1-065.3	2. Current Queen Scallop fishing activity evidence in relation to OWF infrastructure proposals This section provides an initial background of Queen Scallop fishing for 2023 in relation to the Morgan proposal area in the eastern Irish Sea as well as Mona(separate project and application) which requires examination as the two projects collectively by the same developer capture most of the commercial Queen Scallop fishing ground in the eastern Irish Sea. It should be noted that the King Scallop fishery will also be negatively affected by the development but for the purpose of this response, our representation concentrates on the Queen Scallop fishery which we regard as more important in this circumstance. Further evidence on the impact to the King Scallop fishery can be provided on request.	The Applicant refers the WCSP to its response provided in REP1-065.1 and REP1.065.2.
REP1-065.4	The maps below show 2hourly Queen Scallop VMS data for two of our vessels for the year 2023 in relation to Morgan - and Mona importantly for cumulative impact considerations. We do not hold GIS software other than Google Earth to analyse fishing intensity but in terms of spatial data, Morgan shall be situated on approx.. 15% of 2023's fishing activity for Queen Scallops. This % assessment considers that the Scallop Mitigation Zone presented in the coexistence plan in its current form for Morgan will not serve as a true Scallop Mitigation Zone where a vessel skipper would not be affected by OWF infrastructure, therefore our opinion considers the impact to be as high as 15% (note only based on 2023 data). Our explanation for this is based on our understanding that the western triangle SMZ will be bound west along the Isle of Man territorial sea 12nm	The Applicant has noted the Written Representation response from the WCSP and acknowledges the conclusions made with regard to spatial extent of current queen scallop fishing in relation to the Morgan Array Area. The WCSP has commented that approximately 15% of activity observed within the WCSP's 2023 queen scallop data overlaps with the Morgan Array Area. While it is noted that the WCSP's conclusions are based on plotted data that is not publicly available (as highlighted in response to REP1-065.2), spatial distribution of fishing activity using VMS data, supported by feedback from project-specific consultation and other sources of data (observations from Offshore Fisheries Liaison Officers and Marine Traffic Survey data), concurs with this conclusion and aligns with the observation depicted in the WCSP's plotted data that the west part of the Morgan Array Area is an important queen and king scallop fishing ground for vessels utilising dredges (as presented within Volume 6, Annex 6.1: Commercial Fisheries Technical Report (APP-059)). Significant engagement with commercial stakeholders (including the WCSP) was instrumental in the development of the SMZ, where the Applicant has sought to protect the most important queen scallop fishing ground within the Morgan Array Area, as far as reasonably practical. The Applicant acknowledges the WCSP comment regarding the design scenario of the SMZ, where a northwest and southwest alignment of wind turbines surrounding the SMZ is required and the

Reference	Written Representation Comment	Applicant's response
	line and to the south by a row of turbines. The area will be clear within of turbines and substations but the Fisheries co-existence plan indicates that cables will be routed through. This % affected would be reduced if the Scallop Mitigation Zone was perceived more by ourselves to actually compensate better than its current form (discussed in sections ahead).	concern that this may inhibit access for continued fishing activity. In the event that the final array layout requires 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). The Applicant considers this to be sufficient distance between the wind turbines to enable fishing vessels to access the SMZ area to undertake fishing activity. The Applicant notes that scallop fishing has resumed within Moray East Offshore Wind Farm and the spacing 1,128 m apart in the north to south axis and at a distance of 1,547 m apart in the east to west axis, with no SMZ. It is also important to recognise that fishing will be permitted 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 (APP-065)), 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). The Applicant acknowledges the preference of the WCSP for no cables (or cable protection if/where required) within the SMZ and notes this is an ongoing point of discussion within the SoCG (S_D2_OF SoCG NIFF, ANIFPO, SFF (ref: CF.OFLCP.P6)). At this stage in the development process, the final design, including the transmission and electrical system design of Morgan Generation Assets has not yet been completed as it will require inputs from pre-construction site investigation surveys as set out in Section 3.5.2. of Volume 1, Chapter 3: Project Description (APP-010) and selection of key infrastructure such as the wind turbine generator model. Whilst the Applicant has been able to make a commitment to excluding installation of wind turbine generators and offshore substation platforms within the SMZ, it is important that Morgan Generation Assets can be designed with an efficient inter-array and transmission system, which requires the option to place cables and cable protection within the SMZ if required. However, as set out in section 1.3.6 of the Outline FLCP (APP-065), the Applicant has committed to minimising cable installation within the SMZ where possible and where cable routing through the SMZ is required, aligning cables north-south over east-west as far as practically possible to reduce the potential for interaction of the dominant north-south orientated towing patterns followed at this location. The Applicant has also made a commitment to burying cables as far as possible and minimising cable protection where burial is not possible, reducing the potential for gear snagging risks / maintain ability to continue fishing within the Morgan Array Area and SMZ. These commitments also align with the Outline FLCP submitted by the Applicant of the Mona Offshore Wind Project and is considered within the assessment of cumulative effects in Volume 2, Chapter 6: Commercial fisheries (APP-024). The Applicant notes that the Admiralty Mariners Handbook (NP100) and MCA MGN 661 both highlight the risks of deploying towed fishing gear over subsea cables. The Cable Burial Risk

Reference	Written Representation Comment	Applicant's response
		Assessment (CBRA) that will be undertaken by the Applicant once final cable positions are known will aim to mitigate this risk via highlighting any areas where burial to target depth may not be possible and cable protection may be required. This will enable commercial fishing activity to continue over suitably buried cable infrastructure within the Morgan Array area. In summary, the Applicant developed the SMZ to mitigate a moderate adverse impact on scallop receptors at the PEIR stage, and by including the SMZ in the final assessment, the significance of effect was reduced to minor adverse. The Applicant has made significant design-based commitments and monitoring proposals 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-based commitments mitigate potential impacts on commercial fisheries as far as reasonably practicable and allow for continued access to fishing grounds within the Morgan Array Area. The design commitments are further supported by two monitoring proposals (as discussed in response to REP1-065.1) that address the residual concerns raised by the WCSP and emphasise the Applicant's confidence in conclusions presented within Volume 2, Chapter 6: Commercial fisheries (APP-024). Relevant aspects of the design based commitments and monitoring proposals are all detailed in the SoCG (S_D2_OF SoCG NIFF, ANIFPO, SFF) between the Applicant and commercial fisheries stakeholders. The majority of these points are agreed, whilst some remain as point of discussion.
REP1-065.5	The cumulative impact of Morgan is further increased in a future scenario with Mona and Morgan both in construction and eventual operation shows that an additional 38% of 2023's VMS data shall fall within Mona. Again the Scallop Mitigation Zone for Mona which shall comprise of a 3km wide corridor, has been indicated by the developer in the Co-Existence plan for that project will not be absent cable routing through the Scallop Mitigation Zone. Therefore for this reason the Scallop Mitigation Zone for Morgan will not reduce the effect the windfarm shall have on queen Scallop vessel operations as likely anticipated. The overall cumulative effect is that 53% of Queen data for 2023 shall fall within the Morgan and Mona OWF proposal areas. With just over half the Queen Scallop fishery being subject to spatial squeeze, this will result in increased pressure and displacement in other areas affecting the health balance of this fishery.	The Applicant has submitted a SoCG with SFF (representing WCSP) at Deadline 2 (S_D2_OF SoCG NIFF, ANIFPO, SFF) which covers the assessment methodology and conclusions of the assessment (alone and cumulatively), along with the mitigation measures and is a point of ongoing discussion (ref: CF.EIA.4 to CF.EIA.7). The Applicant has noted the Written Representation response from the WCSP and acknowledges the conclusions made regarding spatial extent of current queen scallop fishing in relation to the Morgan Array Area, where the WCSP commented that the overall cumulative effect with the proposed Mona Offshore wind Project could affect over 50% of activity observed within their 2023 queen scallop data. The Applicant refers the WCSP's to its response provided in REP1-065.2 where this matter is discussed in detail. The Applicant refers the WCSP to its response provided in REP1-065.4, where it expresses confidence that potential cable routing or footprint of any cable protection within the SMZ will not compromise the purpose or effectiveness of the SMZ in maintaining access to important queen scallop fishing grounds.

Reference	Written Representation Comment	Applicant's response
REP1-065.6	Should the applicant consider designating a more effective Scallop mitigation Zone deserving of the Scallop industry's needs to operate then the overall cumulative effect would be reduced from 53% to possibly 20-25%.	The Applicant acknowledges the WCSP's comment regarding the design scenario of the SMZ and the potential cumulative effect with the proposed Mona Offshore wind Project. The Applicant refers the WCSP to its response provided in REP1-065.2 and REP1-065.4 respectively, where these matters are discussed in detail.
REP1-065.7	2 x Figures provided - refer to West Coast Sea Products Written Representation.	The Applicant acknowledges the plotted figures of their 2023 queen scallop data that is provided in the WCSP's Written Representation response. The Applicant refers the WCSP to its response provided in REP1-065.2, where the overall cumulative effect with the proposed Mona Offshore Wind Project is discussed in detail. While it is noted that the WCSP's figures are based on plotted VMS data that is not publicly available (as highlighted in response to REP1-065.2), spatial distribution of fishing activity using VMS data, supported by feedback from project-specific consultation and other sources of data (observations from Offshore Fisheries Liaison Officers and Marine Traffic Survey data), concurs with illustrated fishing patterns and aligns with the observation depicted in the WCSP's plotted data that the west part of the Morgan Array Area is an important queen and king scallop fishing ground for vessels utilising dredges (as presented within Volume 6, Annex 6.1: Commercial Fisheries Technical Report (APP-059)). Significant engagement with commercial stakeholders (including the WCSP) was instrumental in the development of the SMZ, where the Applicant has sought to protect the most important queen scallop fishing ground within the Morgan Array Area, as far as reasonably practical.
REP1-065.8	3. Impact of infrastructure & significance of effects. Page 142-159 of Chapter 6: Commercial Fisheries outline that there will be only a negligible-minor effect on Scottish west coast vessels, i.e. us as a receptor, associated with a variety of impacts Morgan OWF will impose cumulatively. This is arrived at by the ES with a reliance on the coexistence plan that will deliver as a plan to revert fishing access to near-baseline conditions. We do not agree this scoring and we are of the opinion that there will be a moderate or major effect on our operations. As outlined in Section 2 above there is a risk of 53% of our ground facing access issues or habitat loss and therefore for "Displacement of fishing activity into other areas" for instance to be rated as negligible is a significant underscore of this impact. Further justification of our disagreement with the	The Applicant has submitted a SoCG with SFF (representing WCSP) at Deadline 2 (S_D2_OF SoCG NIFF, ANIFPO, SFF) which covers the assessment methodology and conclusions of the assessment (alone and cumulatively), along with the mitigation measures and is a point of ongoing discussion (ref: CF.EIA.4 to CF.EIA.7). The Applicant has noted the Written Representation response from the WCSP and acknowledges the conclusions made with regard to spatial extent of current queen scallop fishing in relation to the Morgan Array Area. Where the WCSP concluded that the overall cumulative effect with the proposed Mona Offshore wind Project could affect over 50% of activity observed within their 2023 queen scallop data. The Applicant refers the WCSP to its response provided in REP1-065.2, where the overall cumulative effect with the proposed Mona Offshore Wind Project is discussed in detail. The WCSP's disagreement in assessment conclusions within Volume 2, Chapter 6: Commercial fisheries (APP-024) is noted by the Applicant. The Applicant refers WCSP to its response in REP1-065.9.

Reference	Written Representation Comment	Applicant's response
	commercial fisheries chapter is provided in the table below.	
REP1-065.9	Refer to table in West Coast Sea Products WR.	The Applicant notes that WCSP disagree with assessment conclusions in Volume 2, Chapter 6: Commercial fisheries (APP-024) and acknowledges that WCSP instead predict five potential effects to be of moderate / major adverse significance on the 'Scottish west coast scallop vessels' receptor group, which would be significant in EIA terms. The assessment conclusions take into account the importance of the king and queen scallop fishing activity within this region and the significant commitments to facilitate co-existence and minimise disruption as far as possible, as described in full detail in REP1-065.1. The Applicant has committed to include additional monitoring of queen scallop. The approach to monitoring will be fully developed post-consent and secured in the final offshore monitoring plan. However, monitoring is likely to take the form of pre- and post-construction dredge surveys for up to five years post-construction, to determine changes to queen scallop from baseline conditions based upon annual monitoring results. The monitoring will be cognisant of similar commitments on Mona Offshore Wind Project, and where possible adopt aligned methodologies to ensure a more strategic approach is taken to the monitoring. This will serve to ensure a more comprehensive evidence base is established for these Irish Sea scallop grounds. The Applicant has made significant design-based commitments and monitoring proposals for 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-based commitments mitigate potential impacts on commercial fisheries as far as reasonably practicable and allow for continued access to fishing grounds within the Morgan Array Area. The design commitments are further supported by a two monitoring proposals that address the residual concerns raised by the WCSP and emphasises the Applicant's confidence in conclusions of minor adverse or less (which is not significant in EIA terms) presented within Volume 2, Chapter 6: Commercial fisheries (APP-024). The Applicant has submitted a SoCG with SFF (representing WCSP) at Deadline 2 (S_D2_OF SoCG NIFF, ANIFPO, SFF) which covers the assessment methodology and conclusions of the assessment (alone and cumulatively), along with the mitigation measures and is a point of ongoing discussion (ref: CF.EIA.4 to CF.EIA.7).
REP1-065.10	3.1 Outline Fisheries Liaison and Co-Existence Plan Through consultation with the applicant, a co-existence plan has been presented to support the application. This includes a set of measures which would help to accommodate Queen and King Scallop fishing as much as possible in the situation where offshore windfarm	The Applicant acknowledges the support given to commitments outlined within the Outline FLCP (APP-065). The Applicant has submitted a SoCG with SFF (representing WCSP) at Deadline 2 (S_D2_OF SoCG NIFF, ANIFPO, SFF) which covers the commitments detailed within the Outline FLCP and most positions apart from the SMZ (ref: CF.OFLCP.P6) commitment are agreed.

Reference	Written Representation Comment	Applicant's response
	infrastructure is constructed on scallop grounds in this area. For instance, the applicant has included a number of measures which we support such as north-south rows of wind turbine generators and cable routing with 1400m spacing. This supports the general movement of fishing vessels in this area which tow north to south with the tides. Within Morgan the western extents are fished and the eastern extents are considered nursery fishing ground which is left unfished by ourselves. The proposals also include a Scallop Mitigation Zone which has the intention of leaving as much free access as possible for the western fished area within the proposal area.	
REP1-065.11	The Scallop Mitigation Zone is presented as a triangle which is a sufficient area which correlates with the bulk of the fishing data we provided through previous consultation with the developer. The proposals and Coexistence plan however contains details which reveal that it will not be an effective SMZ and fishing vessels will encounter practicalities which will affect safety and fishing access. The flaws identified with the SMZ are as such which fishing businesses such as ourselves find difficult to agree with as being a true SMZ : - 1. Rows of WTGs along the northwest and southwest perimeters of the Scallop Mitigation Zone 2. Associated WTG Interconnecting cables along the perimeter of the SMZ 3. Probable routing of cables through the SMZ	The Applicant acknowledges the WCSP's following comments regarding the design scenario of the SMZ: 1. where a northwest and southwest alignment of wind turbines surrounding the SMZ is required and how this may inhibit access for continued fishing activity. The Applicant refers the WCSP to its response in REP1-065.4, where this is discussed in detail. 2. the preference of the WCSP for no cables (or cable protection if/where required) or wind turbines along the perimeter of the SMZ. The Applicant refers the WCSP to its response in REP1-065.4, where this is discussed in detail. 3. the preference of the WCSP for no cables (or cable protection if/where required) within the SMZ. The Applicant refers the WCSP to its response in REP1-065.4, where this is discussed in detail. The Applicant maintains that the spacing of 1,400 m is more than sufficient for pelagic vessels to continue to fish within the array area (and scallop mitigation zone). The Applicant has submitted a SoCG with WCSP at Deadline 2 (S_D2_OF SoCG NIFF, ANIFPO, SFF) which covers the commitments detailed within the Outline FLCP and the SMZ (ref: CF.OFLCP.P6) is an ongoing point of discussion.
REP1-065.12	Our concerns over the nature of the SMZ are further shown in the map below which in the view of fishing businesses such ourselves will present a 'fishing on a postage stamp' scenario in the future.	Refer to response provided for REP1-065.7.

Reference	Written Representation Comment	Applicant's response
REP1-065.13	Refer to West Coast Sea Products WR for figure.	The Applicant acknowledges the WCSP's figure illustrating their preferences for the design scenario of the SMZ, which is in relation to REP1-065.12 above. The Applicant refers WCSP to its response in REP1-065.4, where their comments are discussed in detail.
REP1-065.14	On paper it could be perceived as a substantial sacrifice of the proposal area by the developer, however the finer details are clear that it is going to present a fishing access issue. We have no issues with WTG infrastructure along the east perimeter of the SMZ as this was to be expected; however the SMZ as presented at the moment will affect fishing and flowing connectivity with the ground and tows to the south.	The Applicant acknowledges the WCSP's design preferences for the SMZ and accepts that wind turbines along the east perimeter of the SMZ is not a cause for concern. The Applicant refers WCSP to its response in REP1-065.4, where their comments regarding the design scenario of the SMZ are discussed in detail.
REP1-065.15	Analysis of WTG row positioning between points 1 – 3 and points 3 – 2 of the diagram will inflict the following fishing challenges. In terms of points 1 and 3, this is a prolific fishing area for Queen and King Scallops along the Isle of Man territorial sea limit. There is however further concern for continuity of fishing between points 3 and 2 as a row of turbines along this perimeter would cut existing Queen and King Scallops tows in half where vessels at the present would be fishing north to south in and out of the Morgan area. This is emphasized and explained by the plotter screenshot below:	The Applicant acknowledges the comment raised regarding the northwest and southwest alignment of wind turbines surrounding the SMZ (cited via points 1 to 3 and 3 to 2 in their figure, respectively) and how this may inhibit access for continued fishing activity. The Applicant refers the WCSP to its response in REP1-065.4, where this is discussed in detail.
REP1-065.16	Refer to West Coast Sea Products WR for figure.	The Applicant acknowledges the figure included in the WCSP's Written Representation response and notes the comment is in relation to the northwest and southwest alignment of wind turbines surrounding the SMZ and dominant north-south orientated towing patterns followed at this location. The Applicant refers the WCSP to its response in REP1-065.4, where this is discussed in detail.
REP1-065.17	This flaw has been experienced by the Scallop fishing industry this year fishing within Seagreen OWF where good fishing tows along favourable contours have been cut in half by ill thought WTG placing and cable routing. With Seagreen OWF this was a serious missed opportunity and flaw which presents a safety issue for fishing vessels operating for life. A second flaw of this proposal concerns that the presence of WTGs along the perimeter will reduce the prominence of the SMZ by potentially 8%. For example, our fishing vessel in	The Applicant acknowledges the views of WCSP on the perceived impact the Seagreen OWF had on fishing tows. The Applicant acknowledges the views of WCSP in regard to WTGs and cable routing on the perimeter of the SMZ. However, as set out in Table 1.2 of the Outline FLCP (S_D2_12 Outline Fisheries Liaison Co-existence Plan F02), the Applicant has committed to minimising cable installation within the SMZ where possible and where 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. Where cables are required to be routed through the SMZ and a portion of those cables require cable protection there would be a reduction in the total area of the SMZ. However, due to the small

Reference	Written Representation Comment	Applicant's response
	Seagreen OWF this year (2024) operated at a maximum safe distance of 135m when fishing adjacent to inter array cables. Therefore in the case of Morgan we consider that between points 1 – 3 – 2 : a length of 17.5 km x 135 m = 8% of the SMZ area with an access issue, particularly the case if the developer only buries to 0.5m where they will likely become exposed. A third flaw of the SMZ is the co-existence plan's probability that cables will be routed through the SMZ. The fishable area within the SMZ will be some 4km x 4km approximately and if cables are routed through then this defeats the purpose of a coexistence arrangement / allocation of peace of mind access for fishing vessels. Furthermore Section 1.1.1.36 suggests that the SMZ shall be further 'refined' which we interpret that that this will be further adjusted to the detriment of fishing access opportunities in this crucial western area of the proposal area. Furthermore there is nothing to say that the developer will not introduce two rows of WTGs along the perimeter of the SMZ. This section also (similar to the Mona proposal) states that "cables and cable protection are not excluded from this area". This is wholly unacceptable to us as a measure to present in a coexistence plan and appears to offer the minimum to the Queen Scallop fishing industry.	footprint of cable protection, it is not expected to affect the purpose or effectiveness of the SMZ for providing continued access the queen scallop ground. Should cables need to be routed through the SMZ, it is highly unlikely that their entire length would need to be protected. Indeed, the 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. 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 of the SMZ would not reduce the purpose or effectiveness of the SMZ for providing continued access to the core queen scallop ground. Section 1.3.6 of the updated Outline FLCP (S_D2_12 Outline Fisheries Liaison Co-existence Plan F02) states that there shall be a single row of wind turbines positioned along the perimeter of the SMZ, the final boundary of the SMZ shall be subject to 'minor' refinements. The Applicant has submitted a SoCG with SFF (representing WCSP) at Deadline 2 (S_D2_OF SoCG NIFF, ANIFPO, SFF) which covers the commitments detailed within the Outline FLCP and the SMZ (ref: CF.OFLCP.P6) is an ongoing point of discussion.
REP1-065.18	Another measure of the coexistence plan which is disappointing is with regards to the commitment to 0.5m burial. Our knowledge of this area is that the seabed is gravelly & sandy and sufficient cable burial should not be an issue in our opinion. The ambition and aim for 0.5m presents a real risk to fishing vessels continuing to operate in this area as cables buried to such a depth will just re-surface and become exposed quickly on commencement of fishing and with the area being a naturally dynamic moving sea bed. There is further vast evidence of shallow buried cables nearby (10miles southeast) at Gwynt y Mor OWF (commissioned 2015) of a similar seabed substrate, whereby in 2021 a notice	As described within Volume 1, Chapter 3: Project Description (APP-010), all subsea cables will be buried below the seabed wherever possible and protected with a hard-protective layer (such as rock or concrete mattresses) where adequate burial is not achievable. A cable burial risk assessment (CBRA) will inform cable burial depth, which will be dependent on ground conditions as well as external risks. Where required, cables will typically be buried to the following depths (depending on the outcome of the cable burial risk assessment): Interconnector cables to a target burial depth of 1 m, with a maximum burial depth of 3 m and minimum depth of 0.5 m and Inter-array cables to a target burial depth of 2 m, with a maximum burial depth of 3 m and minimum depth of 0.5 m. The maximum percentage of interconnector cable route requiring cable protection is 20. The maximum percentage of the inter-array cable route requiring cable protection is 10%.

Reference	Written Representation Comment	Applicant's response
	to mariners was issued, including the statement "a significant number of array cable exposures are still being reported. Due to the mobile nature of the seabed within the wind farm boundary these cable exposures are subject to change and may develop in areas where there were none previously"1. Should Morgan be constructed, it is inevitable that cables only buried 0.5m would become exposed quickly following construction. Exposed lengths would not only be unsafe to fish/tow over but they may encroach on corridors within the area which are left to fish. Should the development go ahead, the developer should be committing to a deeper burial depth of say 1.5-3m.	The CBRA will be undertaken post-consent. The Applicant notes the cable exposures at other offshore wind farms within the east Irish Sea and for other UK projects which have been raised by the WCSP. The Morgan Generation Assets has committed to monitoring of cables and their burial status to reduce snagging risk, which will be included in the Offshore CMS. Within the Outline FLCP (APP-065) the Applicant has also committed to 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. The Applicant has submitted a SoCG with SFF (representing WCSP) at Deadline 2 (S_D2_OF SoCG NIFF, ANIFPO, SFF) which covers the commitments detailed within the Outline FLCP and most positions apart from the SMZ (ref: CF.OFLCP.P6) commitment are agreed.
REP1-065.19	In general the Coexistence Plan has intentions of a solution for the fishing industry. There are aspects and measures we support such as 1400m turbine spacing, north to south inter array cable routing and avoidance of protection to a minimum. We however cannot support the application on the basis of the Scallop Mitigation Zone. The coexistence plan contains too many caveats which we perceive puts the developer's interests before respecting the interests of Queen Scallop fishermen who have operated within the Morgan proposal area for over 50 years. As it stands we anticipate the proposal to have a moderate or major effect on our operations and the next section justifies this in slightly more detail. The proposal would be slightly more warming to us in terms of predicted impact if the following measures were included / modified within the application: -	As per the responses provided in REP1-065.1., REP1-065.2., REP1-065.4., REP1-065.17. and REP1-065.18., the Applicant has made significant design-based commitments and monitoring proposals for commercial fisheries stakeholders. These commitments represent the limit of what can be reasonably committed to at this stage of the design process. The Applicant will continue to work with the fisheries organisations (through the OFLCP) post consent as the design process evolves to ensure that the iterative approach to design continues, The Applicant has submitted a SoCG with SFF (representing WCSP) at Deadline 2 (S_D2_OF SoCG NIFF, ANIFPO, SFF) which covers the commitments detailed within the Outline FLCP and most positions apart from the SMZ (ref: CF.OFLCP.P6) commitment are agreed.

Reference	Written Representation Comment	Applicant's response
REP1-065.20	• A commitment to bury cables to a greater depth than at present of 0.5m. Also to reflect the relevant method of fishing carried out in this area, we would also request that Scallop dredging over trawl surveys are carried out following burial/completion. This would ascertain successful burial and safety for fishing vessels. • Commitment to removal of northwest and southwestern WTGs bounding the SMZ Scallop Mitigation Zone • The document suggests the Scallop Mitigation Zone is indicative and will be refined which makes us further cautious about what the end result shall be. There needs to be a real commitment in this regard. • A commitment to not take cables through the Scallop Mitigation Zone.	The Applicant refers the WCSP to its response above in REP1-065.19. The Applicant has submitted a SoCG with SFF (representing WCSP) at Deadline 2 (S_D2_OF SoCG NIFF, ANIFPO, SFF) which covers the commitments detailed within the Outline FLCP and most positions apart from the SMZ (ref: CF.OFLCP.P6) commitment are agreed.
REP1-065.21	If the recommendations are adopted as above we would envisage the overall negative effect on us as a receptor would be greatly reduced. Essentially Morgan OWF would be directly adjacent to the most important fishing grounds and would not interfere with access the interconnecting grounds to the south.	The Applicant notes WCSP's position and refers the WCSP to its response above in REP1-065.19.
REP1-065.22	3.2 Other practicality considerations Weather The Commercial fisheries chapter and coexistence plan does not necessarily factor enough in the impact that poor weather will have on decision making fishing vessel skippers. From experience, most skippers will only enter windfarms to fish when the weather conditions are ideal. The Morgan project area is situated on top of autumn and winter Queen and King Scallop fisheries as dictated by the seasonality of the product, i.e. fished when yields are at their peak in the autumn and winter months. As a result fishery management strategies and closed seasonal seasons have been in implemented for years accordingly to account for this seasonality. We expect Morgan to have a High level of magnitude on us a receptor as presently	The Applicant has assessed the potential impacts of the Morgan Generation Assets on navigational safety for fishing boats within Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060). This included risk to vessels engaged in fishing within the Morgan Array Area and fishing vessels on transit passing adjacent to or through the Morgan Array Area and included consideration of adverse weather conditions. The risk of collision and allision with wind turbines or offshore substation platforms, as well as vessels operating within or adjacent to the Morgan Array Area was identified as part of Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060). These were discussed during the hazard workshop undertaken in September 2023, which was attended by representatives from fishing organisations (Anglo Northern Irish Fish Producers Organisation (ANIFPO) and SWFPA) and these hazards were scored as Medium Risk – Tolerable if As Low As Reasonably Practicable (ALARP). Section 1.8.5 of Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060) discusses impacts to fishing, noting issues surrounding "Spatial Squeeze" and reflected the levels of fishing activity detected as part of the vessel traffic surveys reported in Section 1.6 of Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060). These hazards recognised that causes could include the presence of infrastructure and therefore reduced sea room, adverse weather conditions and

Reference	Written Representation Comment	Applicant's response
	skippers will fish in slightly poorish weather, however will be hesitant to enter during the same conditions with the hazards imposed by a windfarm. This would be the case with the Scallop mitigation Zone presented in the Co-Existence plan whereby there would be an opportunity to fish in the parcel presented, however with rows of turbines along the northwest and southwest perimeter of the SMZ and factoring tide and weather into this, would result in safety issues. Essentially our fishermen are of the opinion that although Morgan at present would enable a SMZ and a parcel of sea to fish, there is the crucial hazard of rows of WTGs along the perimeter of the SMZ. Rather than being an OWF they can fish alongside / adjacent to, they would still view it as having to enter the OWF to start fishing and in any given moderate sea state, would be nervous about safety of the vessel. We would like to point out at the present that fishing vessels can fish this area during poor weather in the autumn and winter months both for King and Queen Scallops when the yields are at their highest and subsequently the value of the product.	increased vessel traffic amongst others. On the basis that crews of fishing vessels are trained, the vessels are equipped with navigational equipment and the spacing between Morgan Generation Assets infrastructure exceeds the spacing of other offshore wind farms in the UK, these risks were determined to be ALARP. Similar conclusions were reached within the Cumulative Regional Navigation Risk Assessment presented in Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060). The SoCG with the MCA submitted at Deadline 2 supports these conclusions (S_D2_MCA SoCG MCA). As per response to REP1-065.1, the Applicant would like to remind the WCSP that the minimum separation distance of 1,400 m between wind turbines, was developed in direct consultation with the fishing industry and has been previously welcomed by the WCSP (as detailed in detailed in Appendix G.19 of the Technical Engagement Plan Appendices - Part 5 (Appendix E to L) (APP-093).
REP1-065.23	General navigation: We have concerns about the proposal's impacts on navigation and also cumulatively in mind of other windfarm proposals in the east Irish Sea. From our experience of fishing in Seagreen Windfarm this year for King Scallops the fishing vessel skipper, in addition to concentrating on fishing had to secure the safety of the vessel in terms of : - 1. Other fishing vessels operating within the 'alley ways' between the cable routing between WTGs 2. Other normal marine traffic 3. Windfarm survey vessels on site at the time – overtrawl 4. Guard vessels 5. Anchored Acoustic monitoring equipment 6. Wind turbine generators 7. Inter-array cables	The Applicant has assessed the potential cumulative impacts of the Morgan Generation Assets with other Tier 1 and Tier 2 projects on navigational safety for fishing boats within the CRNRA in Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060). This included the anticipated effects of the Morgan Generation Assets on fishing activity caused by the presence of the infrastructure, cables and Morgan Generation Assets vessels. The CRNRA concludes that the cumulative risk of collision and allision with the Morgan Generation Assets, Mona Offshore Wind Project and Morecambe Generation Assets would be Tolerable and ALARP with proposed mitigation measures. Appendix D of the CRNRA (APP-060) noted that with the addition of the Scoping Boundary of the Mooir Vannin Offshore Wind Farm, unacceptable risks of collision and allision would result for passages between the Morgan Array Area and Mooir Vannin Offshore Wind Farm. The Applicant notes that Mooir Vannin Offshore Wind Farm Limited are undertaking their own shipping and navigation assessment in line with MGN654 and expects appropriate mitigation to be put in place to address these hazards.

Reference	Written Representation Comment	Applicant's response
REP1-065.24	The current co-existence plan does offer greater scope for coexistence compared to Seagreen on paper; however we expect that the 0.5m burial target will be disastrous. This would result in our vessels and others having little confidence to tow over the cables, and subsequently lead to a heightened navigation risk with more vessels operating in a squeezed area. The plotter screen taken from one of our fishing vessels (below) this year within Seagreen shows the reality of a fishing vessel operating between cable routing and highlights the squeezing and therefore heightened risk of collision between fishing vessels competing for a smaller area. In context of Morgan, the all important SMZ area which covers the bulk of the current fishable area will probably have cables running through it as indicated by the submitted coexistence plan as well as rows of WTGS to the northwest and southwest of the SMZ. As discussed in the previous section, with poorer weather factored in and fishing vessels desperate to catch in peak season in the Irish Sea in the run up to the busy Christmas market, this risk is even more significant. We have reviewed the Navigation section of the EIA the significance of this effect seems to be downplayed	The shipping and navigation assessment was undertaken with a Maximum Design Scenario (Table 7.16 of Volume 2, Chapter 7: Shipping and navigation (APP-025)) with 390 km of the length of inter-array cables buried to a minimum depth of 0.5 m which would greatly reduce the risk of snagging of fishing gear. Where cables are not sufficiently buried, the Morgan Generation Assets would address this with additional mitigation. With mitigations proposed by the Morgan Generation Assets in place, the risk of snagging of fishing gear was assessed as minor adverse in Section 7.9.11 of Volume 2, Chapter 7: Shipping and navigation (APP-025). The assessment also considered the influence of adverse weather conditions on vessel safety and navigational risk and is included as a relevant cause in the appropriate hazards within in Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060).
REP1-065.25	Refer to West Coast Sea Products WR for figure.	The Applicant refers the WCSP to its response above in REP1-065.24.
REP1-065.26	The Morgan proposal also raises concerns for transiting to and from ports such as Kirkcudbright when not fishing and also during emergency situations, e.g. airlifting of casualties, engine failure scenarios. This is particularly the case in terms of the cumulative impact of up to a total of 4 offshore wind farms proposed for the Irish Sea within current navigation routes between the fishing grounds and Kirkcudbright.	An assessment of impacts to Search and Rescue was undertaken in Section 7.9.6 of Volume 2, Chapter 7: Shipping and navigation (APP-025) in compliance with Maritime and Coastguard Agency requirements in MGN654 Annex 5. The assessment concluded that with commitments to two lines of orientation and minimum spacing between wind turbines and offshore substation platforms, safe and effective Search and Rescue could still be conducted within and around the Morgan Generation Assets, and other cumulative adjacent projects.

Reference	Written Representation Comment	Applicant's response
REP1-065.27	The Morgan proposal area in combination with Mona will also create a squeezing and competing of space between the two windfarms, more so in the vicinity of the Isle of Man to Liverpool ferry route directly south of Morgan. We have concerns that there will be an increased collision risk with other marine traffic whilst trying to fish in area which will be squeezed further.	The Applicant has assessed the potential cumulative impacts of the Morgan Generation Assets with the Mona Offshore Wind Project on navigational safety for fishing boats within the CRNRA in Volume 4, Annex 7.1: Navigational Risk Assessment (APP-060). The CRNRA concludes that the cumulative risk of collision and allision between the Morgan Generation Assets and Mona Offshore Wind Project would be Tolerable and ALARP with proposed mitigation measures. Six nautical miles of sea room was shown to be sufficient space to manage the risk of collision and allision, including with representative fishing activity, through navigation simulations with ferry operators and at the hazard workshop with attendees from the fishing communities and commercial operators.
REP1-065.28	4. Fish and Shellfish Ecology As a receptor which will be directly impacted by Morgan, we are of the opinion that access to fish is of course one moderate or major impact, however may not be as concerning to us as the potential for Queen Scallop habitat loss. This is particularly the case since the Morgan proposal area covers unfished juvenile Queen Scallop nursery ground to the east.	The Applicant notes WCSP comments over queen scallop habitat loss. The available research on queen and king scallop responses to impacts including temporary habitat loss and disturbance, increased suspended sediment concentrations, and long term habitat loss has been assessed within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), with these species included specifically as important ecological features and their higher sensitivity to each impact considered in the conclusion. For each impact (both alone and cumulatively), the overall assessment concluded no significant impact (minor adverse significance) in all project phases. To ensure scallop are not significantly impacted, an appropriate scallop monitoring programme commitment is proposed (refer to the Outline FLCP; APP-065). Impacts to queen scallop from temporary habitat loss/disturbance and the potential for impacts on queen scallop from deposits of resuspended sediments during construction are presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), sections 3.9.2 and 3.9.4 respectively. Due to the nature of the sediment disturbance and the relatively rapid reintegration of disturbed sediments into the existing sediment transport regime (see Volume 2, Chapter 1: Physical processes; APP-013 and Volume 4, Annex 1.1: Physical processes technical report; APP-033), suitable sediment is anticipated to be available to support spat settlement and habitation by queen scallop following cessation of construction activities, as outlined in paragraph 3.9.2.19 onwards in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). Areas subject to resettlement of significant thicknesses of suspended sediments during construction activities are expected to be close to the source, with this sedimentary material reintegrated into the sediment transport regime within a few tidal cycles. This reduces the potential for long term changes to the substrate/habitat composition with regards to queen scallop as discussed within paragraph 3.9.4.16 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). Further details of the modelled deposition of suspended sediments are presented within Volume 2, Chapter 1: Physical processes (APP-013) and Volume 4, Annex 1.1: Physical processes technical report (APP-033).

Reference	Written Representation Comment	Applicant's response
		The Applicant's commitment to scallop monitoring will also provide the appropriate mechanism to validate predictions made within the ES as well as providing an opportunity to increase the evidence base on such matters.
REP1-065.29	Of Doc ref F2.3, page 201 we strongly disagree with Table 3.37 , that the cumulative effect on Queen and King Scallop biomass / habitat loss will be "minor adverse", and such an assessment without any science is simply an assumption. It is furthermore concluded that there will be no ongoing monitoring required with regard to the effect that the project shall have on fish and shellfish. We view this as seriously irresponsible as there is simply no science to what impact a windfarm development is on Queen Scallops, let alone probably the largest Queen Scallop commercial fishery in Europe.	Refer to response provided for REP1-065.28. The Applicant has submitted a SoCG with SFF (representing WCSP) at Deadline 2 (S_D2_OF SoCG NIFF, ANIFPO, SFF) which covers the assessment methodology and conclusions of the assessment (alone and cumulatively), along with the mitigation measures and is a point of ongoing discussion (ref: CF.EIA.4 to CF.EIA.7).
REP1-065.30	Windfarms have been developed on King Scallop beds around the UK as we have fished in and have shown survivability. King Scallops however are a different species and so far in the short term, their sensory structures appear to have shown to resist the effects of EMPS, construction noise, turbine vibrations etc; however there is no science / no one knows yet what wind farms will have one Queen Scallops. The coexistence plan makes an effort to leave a portion of the Queen Scallop ground within Morgan free of development, however we have serious concerns that the disturbance and alteration to the seabed to the east shall detrimentally affect the unfished areas considered as nursery/spawning fishing ground by the fishermen. The following risks are as such : - • Cable burial and change of substrate no longer supporting congregations of Queen Scallops and commercially viable levels • Fixed Turbine disturbance to currents altering plankton distribution and larval dispersal over the Queen Scallop grounds, as indicated as a possible effect by Barbut et al., 2020; • Local tidal energy losses of turbines and resulting	The Applicant notes WCSP comments on queen scallop and differences with King scallop. Temporary habitat loss/disturbance associated with the Morgan Generation Assets (including that associated with cable burial) is assessed within section 3.9.2 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), and the effects of sediment deposition as a result of increases in suspended sediments and associated deposition are assess within section 3.9.4 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). Please refer to paragraph 3 to 5 of the Applicant's response to points 24 and 25 of WCSP representation for further details regarding temporary habitat loss/disturbance and the assessment of suspended sediments and associated deposition. The area located to the south east of the Morgan Array Area (i.e. outside of the Array Area) is not expected to be subject to disturbance as a result of the Project, and is considered a queen scallop nursery/spawning area which is unfished; spawning and nursery in this area is therefore not expected to be impacted by the Project (Volume 2, Annex 3.1: Fish and shellfish ecology (APP-051); Figure 1.35). As shown within Figure 1.2 of Volume 4, Annex 2.1: Benthic subtidal ecology technical report (APP-050), broadscale habitat mapping indicates the presence of coarse and mixed substrate beyond the boundaries of the Morgan Array Area, suggesting that suitable habitat is available within the region adjacent to the Project to support recovery of queen scallop into areas which are subject to temporary habitat loss/disturbance. To ensure scallop are not significantly impacted, an appropriate scallop monitoring programme commitment is proposed (please refer to the Outline FLCP for details; APP-065). Modelling presented within Volume 4, Annex 1.1: Physical processes technical report (APP-033), and assessed within Volume 2, Chapter 1: Physical processes (APP-013) concluded up to a maximum of 20% of the tidal current within 50 m of each installed structure may be negligibly

Reference	Written Representation Comment	Applicant's response
	sedimentation effects (Gill A.B et al., 2020) • Fixed turbines & cable rock dumping creating artificial reefs encouraging invasive species such as starfish to explode in population (Gill A.B et al., 2020)	adversely affected, which is not significant in EIA terms. This highlights the predicted localised nature of hydrodynamic effects of installed infrastructure, suggesting minimal disruption to the distribution of plankton and the dispersal of queen scallop larvae. Tidal energy has been assessed within Volume 2, Chapter 1: Physical processes (APP-013) as impacts to the tidal regime due to the presence of infrastructure, with no significant effect predicted (negligible adverse). This suggests that sedimentation as a result of any localised reductions in tidal energy will be likewise highly localised to the immediate vicinity of introduced infrastructure resulting in no significant effects. In addition, modelling of the distribution of increased suspended sediments and associated sediment deposition as a result of the Morgan Generation Assets is presented in Volume 4, Annex 1.1: Physical processes technical report (APP-033), demonstrating the localised sedimentation predicted in areas of sediment disturbance and discharge. Further this modelling predicts that any sedimentation as a result of construction activities at the Morgan Generation Assets will be rapidly integrated into the existing sediment transport regime within a few tidal cycles, resulting in no significant effect. The increased risk of introduction and spread of invasive non-native species is fully assessed within section 2.9.7 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020). The assessment predicted a minor adverse significance of effect to existing habitats which is not significant in EIA terms, with management of the potential for invasive non-native species through undertaking a Biosecurity Risk Assessment and implementing an Invasive Non-native Species Management Plan (refer to Table 2.17 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020). The impact of colonisation of introduced artificial hard substrates (such as cable protection and other project infrastructure) is assessed within section 2.9.6 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) with regards to changes in benthic habitats and species composition and in section 3.9.7 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). The assessment predicted a minor adverse significance of effect which is not significant in EIA terms. These conclusions were reached based upon the localised nature of the effect, which is expected to be restricted to the immediate vicinity of introduced hard substrates. With regard to this concern, the Applicant can confirm to SFF that it has committed to utilise engineering surveys and review any suitable monitoring data for the identification of invasive non-native species (INNS) and colonisation of hard structures (subject to data quality) (see the updated Offshore In-Principle Monitoring Plan (IPMP) submitted at Deadline 2) and section 2.9.12 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020)). The Applicant's commitment to scallop monitoring will also provide the appropriate mechanism to validate predictions made within the ES as well as providing an opportunity to increase the evidence base on such matters.

Reference	Written Representation Comment	Applicant's response
REP1-065.31	Due to the risks identified above to the Queen Scallop habitat, which are evidenced by what has been observed in other offshore windfarms and literature we cannot support the minor adverse scoring provided in the Fish and Shellfish Ecology chapter.	The Applicant notes WCSP representation. As outlined in response to points REP1-065.28, and REP1-065.30 raised by WCSP, current scientific evidence and site-specific modelling studies have been referenced to inform the assessment presented within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). The assessment resulted in predictions of non-significant effects to king and queen scallop, due to the localised nature of the effects and the highly dynamic hydrodynamic and sediment transport regimes which suggest that temporary habitat changes through seabed disturbance and deposition of suspended sediments will be short-lived, with rapid reintegration into the existing regimes following the cessation of disturbance activities in any given area. The monitoring identified by the Applicant will serve to validate predictions made within the ES as well as providing an opportunity to increase the evidence base on such matters.
REP1-065.32	Further research should be undertaken before a potential catastrophe could occur in altering the Queen Scallop habitat which we rely on. Across the UK many windfarms have been constructed on shallow banks that support King Scallop dredging; of these the King Scallops are recruited from other areas of unfished seabed. Mona (and Morgan) proposals would be unique as they would capture the sandy gravelly ground where both spawning of Queen Scallops occurs and where they are recruited and subsequently fished year after year.	The Applicant notes WCSP representation. The Applicant considers its assessment to be robust based on the evidence available, and the monitoring commitments made will serve to validate predictions made within the ES and provide an opportunity to increase the evidence base on such matters. Please refer to the Applicant's response to point REP1-065.30 of WCSP representation (paragraph 3) for further details regarding areas of importance for queen scallop nursery and spawning. Impacts to queen scallop habitat through seabed disturbance and the deposition of suspended sediments are predicted to be short-lived, with disturbed sediments rapidly reintegrated into the existing sediment transport regime and redistributed, with any longer term sediment changes as a result of sedimentation predicted to be highly localised within the immediate vicinity of installed infrastructure.
REP1-065.33	References RWE Renewables UK Ltd: 2021. Gwynt y Môr Offshore Wind Farm Marine Coordinator Notice To Mariners Barbut, L., B. Vastenhoud, L. Vigin, S. Degraer, F.A. Volckaert, and G. Lacroix. 2020. The proportion of flatfish recruitment in the North Sea potentially affected by offshore windfarms. ICES Journal of Marine Science 77(3):1,227–1,237, Gill et al. (2020) Setting the Context for Offshore Wind Development Effects on Fish and Fisheries KIS-ORCA website: The Risks of Fishing near Cables & Renewable Energy Structures	The Applicant notes the references provided by WCSP with thanks.

2.17 The Ørsted IPs - Ørsted Burbo (UK) Limited

Table 2.17: REP1-066 The Ørsted IPs - Ørsted Burbo (UK) Limited.

Reference	Written Representation Comment	Applicant's response
REP1-066.1	**1. Introduction** 1.1 This written representation is provided in accordance with Deadline 1 of the examination timetable for the application by Morgan Offshore Wind Farm Limited (the "Applicant") for an Order under the Planning Act 2008 (the "Act") granting Development Consent for the Morgan Offshore Wind Farm (the "Project"). 1.2 We represent six owners of operational offshore windfarms in the East Irish Sea (as set out relevant representations RR-005, RR-007, RR-023, RR-032, RR-043, RR-044), who we refer to together as the "Ørsted IPs". This written representation is made on behalf of Ørsted Burbo (UK) Limited ("Burbo") (RR-032), one of the Ørsted IPs. 1.3 The Ørsted IPs' developments can be seen on Figure 9.4, in Volume 2, Chapter 9 (Other sea users) of the Environmental Statement (APP-027). 1.4 The Ørsted IPs, including Burbo, have been engaged in a consultation process with the Applicant in respect of the potential impacts of the Project on the Ørsted IPs' developments. The Ørsted IPs, including Burbo, filed relevant representations in respect of the Project and were represented at Issue Specific Hearing 1 ("ISH1") on 10 September. 1.5 As outlined in the relevant representations and at ISH1, the Ørsted IPs, including Burbo, do not oppose the Project in principle. However, they have concerns regarding the interactions between the Project and their developments which are yet to be resolved. Primarily, Burbo's concerns relate to the effects of the Project on wake loss and wildlife. These are addressed in turn below. The Ørsted IPs' (including Burbo's) concerns	The Applicant notes Ørsted IPs comments. The Applicant has a Statement of Common Ground (SoCG) with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP). The SoCG covers the following topics of relevance to the Ørsted IPs: • Assessment of effects to existing and proposed infrastructure including wake effects • Assessment of the effects of the Morgan Generation Assets on offshore ornithology and the cumulative impact assessment.

Reference	Written Representation Comment	Applicant's response
	regarding these matters were briefly presented during ISH1.	
REP1-066.2	**2. Wildlife Impacts/Environmental assessment** 2.1 Given the increasingly complex nature of the existing and proposed development environment in the East Irish Sea, Burbo has an interest in ensuring the EIA for the Project accurately assesses the potential effects of the Project on wildlife and identifies appropriate mitigation.	The Applicant considers that it has robustly assessed the potential impacts of the proposed development which is presented in the DCO submission and has, where necessary, identified appropriate mitigation measures.
REP1-066.3	2.2 As discussed during ISH1, the Ørsted IPs, including Burbo, consider the Applicant's proposed approach to assessing the in-combination/cumulative effects of the Project (a 'sensitivity' analysis), is flawed. The information contained in EIA and Habitats Regulations Assessment must be complete and current in order for the examining authority and Secretary of State to properly undertake their assessments. If additional information is identified which is relevant to these assessments, it must be properly considered and the assessments must be updated by the Applicant.	Please refer to the S_D1_3 Hearing Summaries Prelim Meeting and ISH1 (PD1-004). The Environmental Impact Assessment (EIA) and Information to support the Appropriate Assessment is evidence based and robust, undertaken in accordance with relevant guidance. A detailed assessment of cumulative and in-combination effects was presented in the Morgan Generation Assets application. Information on other projects, plans or activities which was publicly available in January 2024 (up to three months before the application was submitted, as described in Volume 1, Chapter 5: Environmental impact assessment methodology (APP-012)) was considered in the CEA and in-combination assessment. Since January 2024, new or updated assessment material has been published on projects that had been considered in the cumulative effects assessment (CEA)/in-combination assessment, and new projects not previously considered in the CEA/in-combination assessment have entered the public domain. The Applicant has prepared a review of new or updated project information published up to 27 September 2024. For new projects, these have been screened in accordance with the criteria set out in Volume 3, Annex 5.1: Cumulative effects screening matrix (APP-031) to establish the extent of the potential interaction, whether there is potential for a significant effect, and whether the CEA requires updating. For updated projects, which were considered in the CEA presented with the application, a sensitivity analysis has been carried out to consider if the updated information could alter the conclusions of the CEA and in-combination assessment presented in the application. This aligns with the CEA guidance published by the Planning Inspectorate in September 2024 (The Planning Inspectorate, 2024) which states that: 'Further assessment may be required during the examination stage for any newly identified 'other existing development and, or approved development' with potential to give rise to significant effects' (The Planning Inspectorate, 2024). If there is no potential for significant effects to arise, no further detailed assessment is required. The information included and reported on within the CEA review provides sufficient information for the Secretary of State to reach a reasoned conclusion under both the EIA and HRA regimes.

Reference	Written Representation Comment	Applicant's response
REP1-066.4	2.3 The Ørsted IPs, including Burbo, have raised concerns regarding the robustness of the Applicant's ornithology and cumulative impact assessment. We understand that Natural England has raised similar concerns regarding the Applicant's approach to these assessments and, in an effort to avoid duplication, we acknowledge that Natural England will be best placed to further address these concerns in the examination process. Issues identified in the Applicant's assessment include, for example, that limited information on how collision risk modelling estimates for other projects have been adjusted for avoidance rate. Additionally, the Applicant's ornithology assessment does not contain annual displacement totals for the project-alone.	The Applicant has provided clarification notes at Deadline 1 to resolve these matters in response to Natural England's Relevant Representations (RR-026). The Applicant will continue to engage with Natural England. The Applicant notes that the Ørsted IPs will defer to Natural England going forwards and as reflected in the SoCG submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP), this matter is 'Not agreed, but not material' and is now closed out between both parties. At Deadline 1 the Applicant submitted S_D1_4.5 Annex 4.5 to Response to Hearing Action Point 15: Offshore Ornithology CEA and In-combination Gap-filling of Historical Projects Note (REP1-010) which is considered to address the concerns raised by Natural England in relation to 'gaps' in the cumulative and in-combination assessments presented within the application. There was general agreement on the approach applied in this clarification note as part of an SNCB meeting on 29 August 2024. The Applicant has provided additional clarification on how cumulative totals have been adjusted to account for more recent evidence in relation to avoidance rates in its responses to Relevant Representations (see the Applicant's response to NRW's Relevant Representation comment RR-027.20 (PD1-017)). The approach applied is identical to that used in the assessments conducted for numerous recent offshore wind farm applications. This includes the Hornsea Project Two offshore wind farm (SMartWind, submitted 2015), Hornsea Three offshore wind farm (Ørsted, submitted 2018) and Hornsea Four offshore wind farm (Ørsted, submitted 2021). Annual displacement totals for the Morgan Generation Assets alone are presented in Table 5.28, Table 5.29, Table 5.31, Table 5.32, Table 5.33 and Table 5.34 in the construction phase and Table 5.36, Table 5.39, Table 5.43, Table 5.46, Table 5.47 and Table 5.48 for the operations and maintenance phase in Volume 2, Chapter 5: Offshore ornithology (APP-023) and for relevant species in section 1.5.3 (Total predicted impact (birds/annum) column of Tables 1.8 to Table 1.45 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098)).
REP1-066.5	**3. Energy Yield** 3.1 Due to the proximity of the Project to the Ørsted IPs' developments (including Burbo's), the Ørsted IPs are concerned the Project will interfere with the wind speed and/or direction at their developments and therefore adversely affect energy yields.	The Applicant notes Ørsted IPs comment and that the Ørsted Irish Sea developments are located between 8.1 km (Walney Extension) and 61.6 km (Burbo Bank) from the Morgan Array Area in different directions, as shown in Figure 9.4 in Volume 2, Chapter 9: Other sea users (APP-027).
REP1-066.6	3.2 As canvassed during ISH1, the Ørsted IPs, including Burbo, consider this effect must be properly assessed and addressed by the Applicant.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussion at Deadline 1 (S_D1_4.11 Applicants response to wake loss (REP1-016)). The SoCG with Ørsted IPs which has been submitted at Deadline 2 (S_D2_O IP SoCG Orsted IP) summarises both parties' positions on this.

Reference	Written Representation Comment	Applicant's response
REP1-066.7	3.3 The NPS EN-3 requires that, where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities. The Ørsted IPs are not satisfied that such assessment has been properly undertaken here.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussion at Deadline 1 (S_D1_4.11 Applicants response to wake loss (REP1-016)). The Applicant notes that NPS EN-1 recognises that in order for the UK to reach its net zero target by 2050, a dramatic increase in the volume of new large-scale development is required, which will not be possible without some level of residual impacts (paras 3.1.1 and 3.1.2). The NPS directs developers to minimise effects in accordance with the policy set out in Part 4 and Part 5 of EN-1 and the technology specific NPS. 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. Based on the reasons set out in REP1-016, 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. The Applicant maintains that even if such an assessment was required, there is no robust or recognised approach for its undertaking.
REP1-066.8	3.4 As recorded in its response to Burbo's relevant representation on this issue (PD1-017), the Applicant relies on compliance with the boundary requirements in TCE's Round 4 Leasing Information Memorandum to justify not carrying out this detailed assessment. The Ørsted IPs, including Burbo, do not consider this approach is sufficient – 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.	The Applicant considers that the Ørsted IPs have misinterpreted the Applicant's response in PD1-017. The Applicant noted that the siting of the project was undertaken in accordance with TCE's Round 4 leasing requirements. This is detailed further in section 1.2.4 'Leasing process' of REP1-016. 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 had given its written consent. 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 doing a detailed assessment or for regulating wake effects between sea users in the consenting process.
REP1-066.9	3.5 Additionally, the impacts of the Project on loss of energy generation at the Ørsted IPs' developments is relevant to evaluating the benefits of the Project in terms of emissions reductions and climate change benefits. We consider this assessment must calculate the 'net' benefit – i.e. accounting for renewable energy generation losses arising from impacts to other offshore developers, as well as potential new generation from the Project. It is also a matter of good design.	The Applicant acknowledges Ørsted IPs' concerns about energy loss and net benefit. However, for the reasons set out in REP-016 and REP1-064.17 (above), 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. In terms of good design, 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. Paragraph 2.8.2 directs all offshore wind developments to maximise their capacity within the technological, environmental,

Reference	Written Representation Comment	Applicant's response
		and other constraints of the development. The wording for good design is not explicit for reducing emissions and climate change benefits, when in doing so reduces the ability to maximise capacity to meet net zero targets.
REP1-066.10	3.6 As outlined during ISH1, the necessary data and modelling tools to undertake such an analysis is available to the Applicant. Therefore, there are no impediments to the Applicant undertaking this required step. At the current stage of the development of the Project, the Applicant is best placed to understand the realistic scenarios for the Project, which can then be tested against the known positions of the existing assets.	The Applicant notes Ørsted IPs comment and submitted its response to the ISH1 discussions at Deadline 1 S_D1_4.11 Applicants response to wake loss (REP1-016)). The Applicant refers Ørsted IPs to section 1.2.6 of REP1-016 as to the reasons why a meaningful, reliable and transparent assessment cannot be undertaken.
REP1-066.11	3.7 In response to action point 26 of the action points arising from ISH1 (EV2-005), the Ørsted IPs reiterate there are a number of industry-recognised wake models which could be used to undertake this assessment.	The Applicant notes that the ExA asked Ørsted IPs to explain the suggested content or/approach to/scope of a potential Wake Loss Assessment (EV2-005). The Applicant cannot see any further evidence from Ørsted IPs explaining how this could be meaningfully, reliably or transparently conducted.

3 REFERENCES

CIEEM (2022) Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine.

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

Howell Marine Consulting (2023) Offshore Wind Industry Council Pathways to Growth Strategic Monitoring Workshop: Workshop report and next steps. Available: https://howellmarine.co.uk/project/offshore-wind-strategic-monitoring/. Accessed 11 October 2024.

The Planning Inspectorate (2024) Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment. Available: https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-cumulative-effects-assessment. Accessed: October 2024.