

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Applicant's Response to Relevant Representations

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Image of an offshore wind farm

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

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MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Glossary

Term	Meaning
Applicant	Morgan Offshore Wind Limited.
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.
Local Authority	A body empowered by law to exercise various statutory functions for a particular area of the United Kingdom. This includes County Councils, District Councils and County Borough Councils.
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.
Morecambe Offshore Windfarm: Generation Assets	The Morecambe Offshore Windfarm is located in the east Irish Sea approximately 36.3 km (15.5 nm) from the northwest coast of England (when measured from MHWS). The anticipated nominal capacity of the Morecambe Offshore Windfarm is 480 MW.
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 OFFSHORE WIND PROJECT: GENERATION ASSETS

Term	Meaning
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, 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.
Non-statutory consultee	Organisations that an applicant may choose to consult in relation to a project who are not designated in law but are likely to have an interest in the project.
The Northern Wales and Irish Sea Bidding Area	The Northern Wales and Irish Sea Bidding Area was one of four Bidding Areas identified by The Crown Estate through the Offshore Wind Leasing Round 4 process.
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.
Offshore Wind Leasing Round 4	The Crown Estate auction process which allocated developers preferred bidder status on areas of the seabed within Welsh and English waters and ends when the Agreements for Lease (AfLs) are signed.
Project Design Envelope (PDE)	The Project Design Envelope sets out the design assumptions and parameters from which the realistic MDSs are drawn for the Morgan Generation Assets Environmental Impact Assessment (EIA). This is also often referred to as the 'Rochdale Envelope' approach.
Relevant Local Planning Authority	The Relevant Local Planning Authority is the Local Authority in respect of an area within which a project is situated, as set out in Section 173 of the Planning Act 2008. Relevant Local Planning Authorities may have responsibility for discharging requirements and some functions pursuant to the DCO, once made.
Scour protection	Protective materials to avoid sediment being eroded away from the base of the foundations as a result of the flow of water.
the Secretary of State for Business, Energy and Industrial Strategy	The decision maker with regards to the application for development consent for the Morgan Offshore Wind Project.
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.

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Acronyms

Acronym	Description
ADD	Acoustic Deterrent Devices
AEOI	Adverse Effect on Integrity
AfL	Agreement for Lease
AL	Action levels
ALARP	As Low As Reasonably Practicable
ATC	Air Traffic Control
BDMPS	Biologically Defined Minimum Population Scales
BEIS	Department for Business, Energy and Industrial Strategy
CAA	Civil Aviation Authority
CEA	Cumulative effects assessment
CBRA	Cable Burial Risk Assessment
CMS	Construction Method Statement
CRNRA	Cumulative Regional Navigation Risk Assessment
CRM	Collision Risk Modelling
CSIP	Cable specification and installation plan (
DAS	Digital aerial surveys
DCO	Development Consent Order
DIO	Defence Infrastructure Organisation
dML	Deemed Marine Licence
DDV	Drop Down Video
DPPA	Drilling and Production Platform Alpha
EDR	Effective Deterrence Range
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EnBW	Energie Baden-Württemberg AG
EEA	European Economic Area
ES	Environmental Statement
EWG	Expert Working Group
FE	Finite Element
FLCP	Fisheries Liaison and Coexistence Plan
GVA	Gross Value Added
HAT	Highest Astronomical Tide
HF	High Frequency
HPAI	Highly Pathogenic Avian Influenza

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Acronym	Description
HRA	Habitats Regulations Assessments
HVAC	High Voltage Alternating Current
IEMA	Institute for Environmental Management and Assessment
IFP	Instrument Flight Procedures
IMC	Instrument Meteorological Conditions
INNS	Invasive Non-Native Species
IoM	Isle of Man
IPMP	in Principle Monitoring Plan
ISAA	Information to Support Appropriate Assessment
JNCC	Joint Nature Conservation Committee
LAT	Lowest astronomical tide
LCRCA	Liverpool City Region Combined Authority
LSE	Likely Significant Effect
MBES	Multi Beam Echosounder
MCA	Maritime and Coastguard Agency
MCZ	Marine Conservation Zone
MDS	Maximum Design Scenario
MFPO	Manx Fish Producers Organisation
MGN	Marine Guidance Note
MHWS	Mean High Water Springs
MMMP	Marine Mammal Mitigation Protocol
MMO	Marine Management Organisation
MNEF	Marine Navigation Engagement Forum
MOD	Ministry of Defence
MOWF	Morgan Offshore Wind Farm
MPA	Marine Protected Area
MPCP	Marine Pollution Contingency Plan
MSA	Minimum Sector Altitude
MSL	Mean Sea Level
MU	Management Units
NAS	Noise Abatement Systems
NE	Natural England
NFFO	National Federation of Fishermen's Organisations
NINEL	Northern Ireland Herring Larvae Survey
NMS	Noise Mitigation Systems

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Acronym	Description
NPS	National Policy Statement
NRW	Natural Resources Wales
NSIP	Nationally Significant Infrastructure Project
NTS	Non-Technical Summary
NWWT	North West Wildlife Trusts
OFLCP	Outline Fisheries Liaison and Co-Existence Plan
OLS	Obstacle Limitation Surfaces
OSP	Offshore Substation Platform
OTNR	Offshore Transmission Network Review
OWF	Offshore Wind FARM
PADSS	Principal Areas of Disagreement Summary Statement
PAM	Passive Acoustic Monitoring
PDE	Project Design Envelope
PE	Parabolic Equation
PEI	Preliminary Environmental Information
PEIR	Preliminary Environmental Information Report
PINS	Planning Inspectorate
POI	Point of Interconnection
PSA	Particle size analysis
PSR	Primary Surveillance Radar
PTS	Permanent threshold shift
PVA	Population Viability Analysis
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SAR	Search and Rescue
SBES	Single Beam Echosounder
SEL	Sound Exposure Level
SMZ	Scallop Mitigation Zone
SNCB	Statutory Nature Conservation Bodies
SoCC	Statement of Community Consultation
SSCS	Seabed Scour Control Systems
SSSI	Site of Special Scientific Interest
SBP	Sub-bottom Profilers
TCE	The Crown Estate
TMZ	Transponder Mandatory Zone

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Acronym	Description
TSC	Territorial Seas Committee
TTS	Temporary threshold shift
UAV	Unmanned aerial vehicles
UWN	Underwater Noise
UWSMS	Underwater Sound Management Strategy
UXO	Unexploded ordnance
VHF	Very high frequency
VMC	Visual Meteorological Conditions
VMS	Vessel Monitoring System
WSI	Written Scheme of Investigation
WTG	Wind Turbine Generator

Units

Unit	Description
GW	Gigawatt
km	Kilometres
km ²	Kilometres squared
kV	Kilovolt
MW	Megawatt
nm	Nautical miles

1 Applicant's response to Relevant Representations

1.1 Introduction

- 1.1.1.1 Following closure of the relevant representation period under Section 56 of the Planning Act 2008 for the Morgan Offshore Wind farm (the Applicant), the Applicant has taken the opportunity to review each of the Relevant Representations (RRs) received from stakeholders who registered as Interested Parties in the examination.
- 1.1.1.2 Details of the Applicant's response to each of those RRs received are set out in the subsequent sections of this document and its annexes.
- 1.1.1.3 The Applicant has numbered the RRs in line with the Planning Inspectorate's document library, with subsequent paragraph number e.g. RR-001.1, RR-001.2 etc.
- 1.1.1.4 One additional submission has reached the Applicant. As this additional submission was not yet in the Planning Inspectorate's document library the Applicant numbered this additional submission RR-AS-01.
- 1.1.1.5 A total of 120 Relevant Representations were made during the representation period. One additional submission was received by the Applicant. The Applicant provided responses to the 120 Relevant Representations in tables 2.1 to 2.120. The additional submission is addressed in table 3.1.
- 1.1.1.6 Further nine annexes were produced to support the Applicants' responses.
- S_PD_3.1: Annex 3.1 to the Applicant's response to Relevant Representations from Marine Management Organisation (RR-020.58)
 - S_PD_3.2: Annex 3.2 to the Applicant's response to Relevant Representations from Marine Management Organisation (RR-020)
 - S_PD_3.3: Annex 3.3 to the Applicant's response to Relevant Representations from Marine Management Organisation (RR-020.65)
 - S_PD_3.4: Annex 3.4 to the Applicant's Response to Relevant Representation from Natural England and Natural
 - S_PD_3.5: Annex 3.5 to the Applicant's response to Relevant Representations from Natural England (RR-026) and Natural Resources Wales (RR-027):
 - S_PD_3.6: Annex 3.6 to the Applicant's response to Relevant Representations from Natural England (RR-026.E.7)
 - S_PD_3.7: Annex 3.7 to the Applicant's Response to Relevant Representations from Natural England: RR-026.GEN.21
 - Appendix A: Part 1
 - Appendix A: Part 2
 - S_PD_3.8: Annex 3.8 to the Applicant's response to Relevant Representations from Natural England (RR-026)
 - S_PD_3.9: Annex 3.9 to the Applicant's response to Relevant Representation by Natural England (RR-026.B.36)

2 RESPONSES TO RELEVANT REPRESENTATIONS

2.1 Fylde Borough Council

Table 2.1: RR-001 – Fylde Borough Council.

Reference	Relevant Representation Comment	Applicant's response
RR-001.1	As a local authority where the proposal is expected to land its power the council will have a range of interests in the project.	The Applicant notes the response.

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

2.2 Liverpool City Region Combined Authority

Table 2.2: RR-002 – Liverpool City Region Combined Authority.

Reference	Relevant Representation Comment	Applicant's response
RR-002.1	<p>Thank you for consulting the Liverpool City Region Combined Authority (LCRCA) on the Morgan Offshore Wind Farm Generation Assets Development Consent Order (DCO) application. As set out in the LCRCA Climate Action Plan (2023-2028) becoming a net zero City Region and addressing the wider impacts of climate change are key components of our objective to become a globally competitive, environmentally responsible and socially inclusive City Region. The Climate Action Plan is a key element of the Combined Authority's policy framework, not only in supporting our Corporate Plan and the Plan for Prosperity, but also in helping shape the emerging Local Transport Plan and the Spatial Development Strategy. The Metro Mayor has recently committed to reaching net zero carbon by 2035, and a key Mayoral priority is a tripling of offshore wind capacity, with aspirations for expansion into two new offshore fields for installation in the next five years. The LCRCA continue to progress the Mersey Tidal Power project – the UK's most advanced Tidal Energy Scheme, which has the potential to deliver clean, predictable energy for the next 125 years. The proposed Morgan Offshore Wind Farm Generation Assets scheme is therefore in alignment with the objectives of the LCRCA's existing and emerging policy framework and its key priorities. It is also considered that there could be benefits and future opportunities for supply chain, operations and maintenance support from the Liverpool City Region for the proposed Morgan Offshore Wind Farm Generation Assets scheme. Taking into consideration the above, the LCRCA is supportive in principle of the Morgan Offshore Wind Farm Generation Assets scheme.</p>	<p>The Applicant notes your response and is encouraged by the Liverpool City Region Combined Authority Climate Action Plan and net zero commitments.</p> <p>Our proposals will unlock significant economic benefits, both in terms of the jobs we will create and the supply chain opportunities that will be on offer for businesses across the UK.</p> <p>Offshore wind projects bring benefits to local communities, and it is important that the local supply chain contributes to this project too. The Morgan supply chain portal is available on the EnBW bp project website for local companies to pair their skills with the projects' needs. The portals provide access for companies of all sizes to register their interest for future work.</p>

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2.3 Newton with Clifton Parish Council

Table 2.3: RR-003 – Newton with Clifton Parish Council.

Reference	Relevant Representation Comment	Applicant's response
RR-003.1	<p>THE PERCEPTION OF MEMBERS IS THAT THE CURRENT PROPOSAL WILL HAVE SIGNIFICANT DETRIMENTAL, LONG TERM AND POTENTIALLY IRREVERSIBLE ENVIRONMENTAL IMPACT ON NATURAL HERITAGE, INCLUDING LANDSCAPE, AND COASTAL CHARACTER, AND COASTAL COMMUNITIES AND MITIGATING THE ADVERSE IMPACT CANNOT BE ADEQUATELY DEALT WITH BY COMPENSATORY MEASURES. THE PROPOSAL IS LINKED TO THE MORGAN OFFSHORE WIND LIMITED (MORGAN OWL), A JOINT VENTURE BETWEEN BP AND ENERGIE BADENWURTTENBERG AG (ENBW), DEVELOPING THE MORGAN OFFSHORE WIND PROJECT. TWO JOINT VENTURE COMPANIES ARE COLLABORATING TO CONNECT THE WIND FARMS TO THE ELECTRICITY TRANSMISSION NETWORK. COUNCIL HAS PREVIOUSLY SUBMITTED AN OBJECTION AS PART OF THE NON STATUTORY TRANSMISSION ASSETS CONSULTATION STATING IT CANNOT SUPPORT INDICATIVE ONSHORE SUBSTATION SEARCH AREA 1 NOR INDICATIVE ONSHORE SUBSTATION SEARCH AREA 2 AND EXPRESSED CONCERN, AMONG OTHER THINGS, RELATING TO CRITERIA USED TO EVALUATE ENVIRONMENTAL IMPACT E.G. FLOODING & ECOLOGY INCLUDING MAKING ALLOWANCE FOR CLIMATE CHANGE, PROXIMITY TO BUILDINGS AND RESIDENTIAL PROPERTY, PROXIMITY TO ROADS, VISUAL IMPACT & AMENITY, AND CULTURAL HERITAGE.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the</p>

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Reference	Relevant Representation Comment	Applicant's response
		transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.

2.4 BAE Systems Marine Limited

Table 2.4: RR-004 – BAE Systems Marine Limited.

Reference	Relevant Representation Comment	Applicant's response
RR-004.1	Wind turbines cause an obstruction on the approach to Walney Aerodrome for inbound/departing aircraft.	<p>Section 1.9.2 of Volume 2, Chapter 11 Aviation and radar (APP-015) identified a potential significant impact of the Morgan Offshore Wind Project: Generation Assets on instrument flight procedures (IFP) at Walney Aerodrome. The mitigation identified to reduce the residual impact to an acceptable level was an increase to the minimum sector altitude (MSA).</p> <p>The Applicant has engaged with the Aerodrome throughout the pre-application phase (see Table 11.4 in Volume 2, Chapter 11 Aviation and radar (APP-015)) and discussed the results of the impact assessment. Agreement is being sought to raise the impacted MSA to a level that will provide the required minimum of 1,000 ft (300 m) separation over the maximum wind turbine tip height.</p>

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2.5 Barrow Offshore Wind Limited

Table 2.5: RR-005 – Barrow Offshore Wind Limited.

Reference	Relevant Representation Comment	Applicant's response
RR-005.1	<p>Barrow Offshore Wind Limited owns the Barrow Offshore Windfarm, an operational offshore windfarm with a s36 Electricity Act 1989 consent and relevant marine licences ("our Development"). Its proximity to Morgan Offshore Wind Farm ("MOWF") can be seen in MOWF's Environmental Statement (the "ES") (F2.9 at Figure 9.4 and Table 9.8). Our Development does not object to the principle of MOWF however we do at present require to object to certain elements of it where we may wish to participate in the DCO Examination to make representations about the potential impacts on and interactions with our Development and, where appropriate, to secure appropriate mitigations.</p>	<p>The Applicant notes your response.</p> <p>Barrow offshore wind farm is a minimum of 30.1 km from the Morgan Offshore Wind Project: Generation Assets as stated in Table 9.8 of Volume 2, Chapter 9: Other sea users (APP-027).</p> <p>Potential impacts on the Barrow offshore wind farm project operator have been identified and assessed in section 9.9.3 of Volume 2, Chapter 9: Other sea users (APP-027) and has been considered in the cumulative effects screening for each topic where appropriate.</p>
RR-005.2	<p>Concerns were previously highlighted to MOWF via a s48 consultation response and subsequent meeting. Our concerns as raised in the s48 response remain extant and we expect further meaningful engagement to seek to address the issues raised below and previously. We are open to addressing such matters within or outside the Examination process.</p>	<p>Engagement has occurred with Barrow Offshore Wind Limited during the pre-application phase of the Morgan Offshore Wind Project: Generation Assets and will continue as required throughout the examination phase.</p>
RR-005.3	<p>Our Development expects to continue to operate and be maintained in the long-term. It may be upgraded and repowered in future, and will then be decommissioned. Co-existence with our Development must be considered and protected over the long-term – and the acceptability of cumulative and in-combination impacts – must be properly assessed taking into account each of the above stages of our Development's life. Our Development requires that its operations, consents (including conditions), and any stakeholder agreements entered into by it are unaffected by MOWF.</p> <p>Our Development's concerns include the following.</p>	<p>The potential impacts of the Morgan Generation Assets on other sea users, including Barrow offshore wind farm, have been fully assessed for the project alone and cumulatively in Volume 2, Chapter 9: Other sea users (APP-027). The potential cumulative and in-combination impacts of the Morgan Generation Assets, alongside other relevant projects and plans, have been fully assessed in the various topic chapters of the Environmental Statement and HRA. It should be noted that the cumulative and in-combination assessments consider the project information available at the time of the Morgan Generation Assets application, which for Barrow offshore wind farm, includes all existing project consents. Any plans for future upgrading and repowering of Barrow offshore wind farm will be subject to separate consents and/or approvals, and therefore cannot be assessed by the Applicant at this stage. Barrow Offshore Wind Limited will need to carry out its own EIA and HRA for any proposals to extend the project lifetime beyond that originally consented on the basis of the original ES and HRA, and this will need to include consideration of the Morgan Generation Assets in their cumulative/in-combination assessment.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-005.4	<p>Issue One: Following review of the ES, we seek engagement with MOWF to discuss a number of environmental concerns relating to ornithology and the cumulative impact assessment. We are not convinced that the assessments are robust and we require to analyse this further and engage with MOWF.</p>	<p>As set out in Table 9.13 of Volume 2, Chapter 9: Other sea users (APP-027) the Applicant has committed to continued communication with other offshore energy operators to promote and maximise cooperation between parties and minimise both spatial and temporal interactions between conflicting activities.</p> <p>The Applicant has undertaken a robust assessment of all potential impacts on offshore ornithology informed by appropriate data sources from site-specific surveys and detailed desktop studies, in accordance with relevant guidance. The assessment of potential impacts to offshore ornithology is presented in Volume 2, Chapter 5: Offshore ornithology (APP-023).</p> <p>The evidence to inform the baseline and the approach to predicting effects on offshore ornithology were discussed and agreed through an Evidence Plan Process which included an Expert Working Group (EWG) for offshore ornithology as set out in section 4.4 of the Consultation Report (APP-088). To inform the Environmental Statement, site-specific surveys were undertaken, as agreed with the offshore ornithology EWG, across the Morgan Array Area plus a buffer extending up to 10 km (Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053)). Further, and on advice from the offshore ornithology EWG, additional data sources were identified post-scoping that were used to inform the baseline characterisation (Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053)). The Applicant is therefore confident that the assessment of likely significant effects on offshore ornithology presented in Volume 2, Chapter 5: Offshore ornithology (APP-023) is based on the most scientifically robust evidence available and that sufficient precaution is built into the assessment. With respect to potential cumulative or in-combination effects, the assessment has considered all reasonably foreseeable (i.e. those with information in the public domain) projects, plans and activities.</p> <p>As set out in Table 9.13 of Volume 2, Chapter 9: Other sea users (APP-027) the Applicant has committed to continued communication with other offshore energy operators.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-005.5	<p>Issue Two: We believe that MOWF will adversely affect the energy yield of our Development. Due to the proximity outlined in the above-referenced figure and table, we believe that MOWF will interfere with wind speed or direction at our Development causing reduction in energy output. This requires to be properly assessed and appropriately mitigated / compensated.</p>	<p>Volume 2, Chapter 9: Other sea users (APP-027) assesses the potential impacts of the Morgan Generation Assets on offshore energy receptors, including offshore wind farm operators. Barrow offshore wind farm has been identified as an offshore energy receptor in the baseline environment (section 9.5.2.6-15).</p> <p>Volume 2, Chapter 9: Other sea users (APP-027) sets out that NPS EN-3 (paragraph 2.8.196) recognises that offshore wind development will occur in or close to areas where there is other offshore infrastructure. The project boundary requirements in The Crown Estate's (TCE's) Round 4 Information Memorandum specified that no offshore wind projects could be located within 7.5 km of an existing offshore wind farm. As described in section 9.5.2, Table 9.8 and Figure 9.4 of Volume 2, Chapter 9: Other sea users (APP-027), there are no other operational offshore wind farms located within 7.5 km of the Morgan Array Area and therefore the Morgan Generation Assets location adheres to the TCE siting criteria and it was considered that no further assessment was required.</p> <p>The Morgan Array Area has been reduced following the statutory pre-application consultation, as described in Volume 1, Chapter 4: Site selection and consideration of alternatives (APP-011). This has increased the distance from the nearest existing operational offshore wind farm by 0.6 km to 8.1 km, and also increased the distance from a number of other operational offshore wind farms. The distance between the Morgan Array Area and the Barrow offshore wind farm is 30.1 km.</p>

2.6 Blackpool Airport

Table 2.6: RR-006 – Blackpool Airport.

Reference	Relevant Representation Comment	Applicant's response
RR-006.1	Safeguarding the operation of aircraft in and around Blackpool Airport, and the impact of the works on the operation.	<p>The Applicant has engaged with Blackpool Airport throughout the pre-application phase (see Table 11.4 in APP-015).</p> <p>The assessment on Blackpool Airport for Obstacle Limitation Surfaces (OLS) and Instrument Flight Procedures (IFP) considered within Appendix B of Volume 4, Annex 11.1: Aviation and radar technical report of the Environmental Statement (APP-045) concluded that there will be no impact to currently published Blackpool Airport IFP or Minimum Sector Altitude (MSA). The Applicant shared the results of this assessment directly with Blackpool Airport.</p> <p>In December 2023, Blackpool Airport made the Applicant aware that it is currently undertaking a five-year review of its IFPs with inclusion of Morgan Offshore Wind Project: Generation Assets and other proposed plans and projects.</p> <p>The Applicant has agreed with the Airport that it would complete a cumulative effects assessment of the Irish Sea windfarms on its IFP as requested by the Civil Aviation Authority (CAA).</p> <p>The Applicant understands this cumulative assessment will be completed in autumn 2024, and Blackpool Airport will undertake their impact assessment and share the results with the Applicant.</p> <p>The parties will provide an update into the Examination following re-engagement in the autumn.</p>

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2.7 Burbo Extension Ltd

Table 2.7: RR-007 – Burbo Extension Ltd.

Reference	Relevant Representation Comment	Applicant's response
RR-007.1	<p>Burbo Extension Ltd owns the Burbo Bank Extension Wind Farm, an operational offshore windfarm with a Development Consent Order (DCO) and relevant marine licences ("our Development"). Its proximity to Morgan Offshore Wind Farm ("MOWF") can be seen in MOWF's Environmental Statement (the "ES") (F2.9 at Figure 9.4 and Table 9.8). Our Development does not object to the principle of however we do at present require to object to certain elements of it where we may wish to participate in the DCO Examination to make representations about the potential impacts on and interactions with our Development and, where appropriate, to secure appropriate mitigations.</p>	<p>The Applicant notes your response.</p> <p>Burbo Bank Extension is a minimum of 56.0 km from the Morgan Offshore Wind Project: Generation Assets as stated in Table 9.8 of Volume 2, Chapter 9: Other sea users (APP-027).</p> <p>Potential impacts on the Burbo Bank Extension operator have been identified and assessed in section 9.9.3 of Volume 2, Chapter 9: Other sea users (APP-027) and has been considered in the cumulative effects screening for each topic where appropriate.</p>
RR-007.2	<p>Concerns were previously highlighted to MOWF via a s48 consultation response and subsequent meeting. Our concerns as raised in the s48 response remain extant and we expect further meaningful engagement to seek to address the issues raised below and previously. We are open to addressing such matters within or outside the Examination process.</p>	<p>Engagement has occurred with Burbo Extension Ltd during the pre-application phase of the Morgan Offshore Wind Project: Generation Assets and will continue as required throughout the examination phase.</p>
RR-007.3	<p>Our Development expects to continue to operate and be maintained in the long-term. It may be upgraded and repowered in future, and will then be decommissioned. Co-existence with our Development must be considered and protected over the long-term – and the acceptability of cumulative and in-combination impacts – must be properly assessed taking into account each of the above stages of our Development's life. Our Development requires that its operations, consents (including conditions), and any stakeholder agreements entered into by it are unaffected by MOWF. Our Development's concerns include the following.</p>	<p>The potential impacts of the Morgan Generation Assets on other sea users, including Burbo Bank Extension, have been fully assessed for the project alone and cumulatively in Volume 2, Chapter 9: Other sea users (APP-027). The potential cumulative and in-combination impacts of the Morgan Generation Assets, alongside other relevant projects and plans, have been fully assessed in the various topic chapters of the Environmental Statement and HRA. It should be noted that the cumulative and in-combination assessments consider the project information available at the time of the Morgan Generation Assets application, which for Burbo Bank Extension, includes all existing project consents. Any plans for future upgrading and repowering of Burbo Bank Extension will be subject to separate consents and/or approvals, and therefore cannot be assessed by the Applicant at this stage. Burbo Extension Ltd will need to carry out its own EIA and HRA for any proposals to extend the project lifetime beyond that originally consented on the basis of the original ES and HRA, and this will need to include consideration of the Morgan Generation Assets in their cumulative/in-combination assessment.</p> <p>As set out in Table 9.13 of Volume 2, Chapter 9: Other sea users (APP-027) the Applicant has committed to continued communication with other offshore</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-007.4	<p>Issue One: Following review of the ES, we seek engagement with MOWF to discuss a number of environmental concerns relating to ornithology and the cumulative impact assessment. We are not convinced that the assessments are robust and we require to analyse this further and engage with MOWF.</p>	<p>energy operators to promote and maximise cooperation between parties and minimise both spatial and temporal interactions between conflicting activities.</p> <p>The Applicant has undertaken a robust assessment of all potential impacts on offshore ornithology informed by appropriate data sources from site-specific surveys and detailed desktop studies, in accordance with relevant guidance. The assessment of potential impacts to offshore ornithology is presented in Volume 2, Chapter 5: Offshore ornithology (APP-023).</p> <p>The evidence to inform the baseline and the approach to predicting effects on offshore ornithology were discussed and agreed through an Evidence Plan Process which included an Expert Working Group (EWG) for offshore ornithology as set out in section 4.4 of the Consultation Report (APP-088). To inform the Environmental Statement, site-specific surveys were undertaken, as agreed with the offshore ornithology EWG, across the Morgan Array Area plus a buffer extending up to 10 km (Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053)). Further, and on advice from the offshore ornithology EWG, additional data sources were identified post-scoping that were used to inform the baseline characterisation (Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053)). The Applicant is therefore confident that the assessment of likely significant effects on offshore ornithology presented in Volume 2, Chapter 5: Offshore ornithology (APP-023) is based on the most scientifically robust evidence available and that sufficient precaution is built into the assessment. With respect to potential cumulative or in-combination effects, the assessment has considered all reasonably foreseeable (i.e. those with information in the public domain) projects, plans and activities.</p>
RR-007.5	<p>Issue Two: We believe that MOWF will adversely affect the energy yield of our Development. Due to the proximity outlined in the above-referenced figure and table, we believe that MOWF will interfere with wind speed or direction at our Development causing reduction in energy output. This requires to be properly assessed and appropriately mitigated / compensated.</p>	<p>Volume 2, Chapter 9: Other sea users (APP-027) assesses the potential impacts of the Morgan Generation Assets on offshore energy receptors, including offshore wind farm operators. Burbo Bank Extension has been identified as an offshore energy receptor in the baseline environment (section 9.5.2.6-15).</p> <p>Volume 2, Chapter 9: Other sea users (APP-027) sets out that NPS EN-3 (paragraph 2.8.196) recognises that offshore wind development will occur in or close to areas where there is other offshore infrastructure. The project boundary requirements in The Crown Estate's (TCE's) Round 4 Information Memorandum specified that no offshore wind projects could be located within 7.5 km of an existing offshore wind farm. As described in section 9.5.2, Table 9.8 and Figure 9.4 of Volume 2, Chapter 9: Other sea users (APP-027), there</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>are no other operational offshore wind farms located within 7.5 km of the Morgan Array Area and therefore the Morgan Generation Assets location adheres to the TCE siting criteria and it was considered that no further assessment was required.</p> <p>The Morgan Array Area has been reduced following the statutory pre-application consultation, as described in Volume 1, Chapter 4: Site selection and consideration of alternatives (APP-011). This has increased the distance from the nearest existing operational offshore wind farm by 0.6 km to 8.1 km, and also increased the distance from a number of other operational offshore wind farms. The distance between the Morgan Array Area and Burbo Bank Extension is 56.0 km.</p>
RR-007.6	<p>Issue Three: Our Development is implementing appropriate mitigation in relation to potential impacts on the Warton Airfield Primary Surveillance Radar. We require assurance that MOWF will not adversely affect or increase the cost of such mitigation and that, in the event that MOWF makes use of this mitigation, MOWF will contribute to the purchase, installation and maintenance costs.</p>	<p>As described in Volume 2, Chapter 11: Aviation and radar (APP-015), the Ministry of Defence (MOD) in response to the Morgan Generation Assets PEIR stated that they do not envisage an impact to the Warton Primary Surveillance Radar (PSR), therefore potential impact to the Warton PSR was not considered further. The Applicant has since received an objection from the MOD Defence Infrastructure Organisation (DIO) dated 09 August 2024 in relation to the Air Traffic Control (ATC) radar at BAE Warton, and the Applicant is seeking further discussion with the MOD on this matter.</p> <p>The Applicant has no reason to believe that the Morgan Generation Assets might adversely affect or increase the cost of the mitigation put in place by Burbo Extension Ltd related to Warton Aerodrome PSR.</p>

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2.8 Cadent Gas

Table 2.8: RR-008 – Cadent Gas.

Reference	Relevant Representation Comment	Applicant's response
RR-008.1	<p>Representation by Cadent Gas Limited (Cadent) to the Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited Development Consent Orders (DCO).</p> <p>Cadent is a licensed gas transporter under the Gas Act 1986, with a statutory responsibility to operate and maintain the gas distribution networks in North London, Central, East Anglian and North West England. Cadent's primary duties are to operate, maintain and develop its networks in an economic, efficient, and coordinated way. Cadent wishes to make a relevant representation to the DCO in order to protect its position in light of infrastructure which is within or in close proximity to the proposed DCO boundary.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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Reference	Relevant Representation Comment	Applicant's response
		As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.
RR-008.2	Cadent's rights to retain its apparatus in situ and rights of access to inspect, maintain, renew and repair such apparatus located within or in close proximity to the order limits including should be maintained at all times and access to inspect such apparatus must not be restricted. The documentation and plans submitted for the above proposed scheme have been reviewed in relation to impacts on Cadent's existing apparatus located within this area, and Cadent has identified that it will require adequate protective provisions to be included within the DCO to ensure that its apparatus and land interests are adequately protected and to include compliance with relevant safety standards.	The Applicant notes that Cadent Gas Limited has reviewed the documents and plans submitted for the above proposed scheme but assumes that this is in relation to the Transmission Assets for which there is a separate application. The Applicant notes Cadent Gas Limited's comment but understands that there is no Cadent infrastructure within or close proximity to the red line boundary as set out in the Morgan Offshore Wind Project: Generation Assets Order Limits and grid coordinates plan (B2) (APP-081). As such, the Applicant does not consider it necessary to include any protective provisions in the Morgan Generation Assets draft DCO for the protection of Cadent Gas Limited.
RR-008.3	Cadent has low, medium, intermediate and high pressure gas pipelines and associated apparatus located within the order limits which are affected by works proposed, the extent to which is still being assessed and which may require diversions subject to the impact. At this stage, Cadent is not satisfied that the DCO includes all land and rights required to accommodate such diversions as design studies will need to influence these requirements. Cadent will not decommission its existing apparatus and/or commission new apparatus until it has sufficient land and rights in land (to its satisfaction) to do so, whether pursuant to the DCO or otherwise. This is a fundamental matter of health and safety.	The Applicant notes Cadent Gas Limited's comment but understands that there is no Cadent infrastructure within or close proximity to the red line boundary as set out in the Morgan Offshore Wind Project: Generation Assets Order Limits and grid coordinates plan (B2) (APP-081).
RR-008.4	At this stage, Cadent is not satisfied that the tests under section 127 of the PA 2008 can be met. Cadent has experience of promoters securing insufficient rights in land within DCOs for necessary diversions of its apparatus or securing rights for the benefit of incorrect entities. It is important that sufficient rights are granted to Cadent to allow Cadent to maintain its gas distribution network in accordance with its statutory obligations. As a responsible statutory undertaker, Cadent's primary concern is to meet its statutory obligations and ensure that any development does not impact in any adverse way upon those statutory obligations. Adequate protective provisions for the protection of Cadent's statutory undertaking have not yet been agreed but are in discussion between parties. Cadent wishes to reserve the right to make further	The Applicant notes Cadent Gas Limited's comment but assumes that this is in relation to the Transmission Assets for which there is a separate application.

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Reference	Relevant Representation Comment	Applicant's response
	representations as part of the examination process but will seek to engage with the promoter to reach a satisfactory agreement.	

2.9 Corporation of Trinity House of Deptford Strond

Table 2.9: RR-009 – Corporation of Trinity House of Deptford Strond.

Reference	Relevant Representation Comment	Applicant's response
RR-009.1	<p>Dear Sir / Madam, We refer to the above application for development consent. Trinity House is the General Lighthouse Authority for England, Wales, the Channel Islands and Gibraltar with powers principally derived from the Merchant Shipping Act 1995 (as amended). The role of Trinity House as a General Lighthouse Authority under the Act includes the superintendence and management of all lighthouses, buoys and beacons within its area of jurisdiction. Trinity House wishes to be registered as an interested party due to the impact the development may have on navigation within Trinity House's area of jurisdiction. Trinity House is likely to have further comments to make on the application and the draft Order throughout the application process. Please address all correspondence regarding this matter to myself at [REDACTED]@trinityhouse.co.uk and to [REDACTED] at navigation.directorate@trinityhouse.co.uk, Yours faithfully, Russell Dunham ACII Legal Advisor</p>	<p>The Applicant notes your response.</p> <p>The Applicant has engaged with Trinity House throughout the pre-application period, primarily through the Marine Navigation Engagement Forum (MNEF). The MNEF was created early in the pre-application phase as a forum to discuss shipping and navigation matters with stakeholders and met six times between 2021 and 2024 (see section 1.3.1. in the Technical engagement plan (APP-094) for further information).</p> <p>Further, the Applicant has taken into consideration comments from Trinity House in its draft DCO (C1 Draft development consent order APP-005).</p> <p>The Applicant will continue to engage with Trinity House through the Examination period.</p>

2.10 The Crown Estate

Table 2.10: RR-010 – The Crown Estate.

Reference	Relevant Representation Comment	Applicant's response
RR-010.1	The Crown Estate requests to be registered as an Interested Party in the examination of the Morgan Offshore Wind Farm. Our interest in the project is that Morgan Offshore Wind Limited holds an Agreement for Lease from The Crown Estate.	The applicant welcomes and notes the relevant representation.

2.11 Environment Agency

Table 2.11: RR-011 – Environment Agency.

Reference	Relevant Representation Comment	Applicant's response
RR-011.1	Morgan Offshore Wind Project will be located in the Irish Sea, approximately 37km from the north west coast of England. This offshore location is beyond the remit of the Environment Agency, and we have no comment to make regarding this project. The Environment Agency is actively involved in the associated project Morgan and Morecambe Offshore Wind Farms Transmission Assets.	The Applicant welcomes and notes your response.

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2.12 Harbour Energy

Table 2.12: RR-012 – Harbour Energy.

Reference	Relevant Representation Comment	Applicant's response
RR-012.1	Chrysaor Resources (Irish Sea) Limited (a Harbour Energy plc group company) is an Interested Party in the context of the Examination of the development consent order application submitted by the Applicant for Morgan Offshore Windfarm Generation Assets.	The Applicant notes your response.
RR-012.2	Chrysaor Resources (Irish Sea) Limited is the owner of the Millom gas field which is within 3.3nm of the proposed development. The proposed windfarm will, by virtue of its proximity to the Millom field facilities, have a potentially significant detrimental impact upon decommissioning of the Millom field facilities. This detrimental impact arises primarily from restrictions that would apply to helicopter aviation operations during decommissioning, but detrimental impacts may also arise affecting marine operations, platform communications and mutually exclusive simultaneous operations such as piling and diving operations.	<p>The distance between the Morgan Generation Assets and the Millom West platform is 1.6 nm, while the Millom East wellheads are 2.1 nm away. Under proposed new Civil Aviation Authority (CAA) regulations, this will restrict helicopter access to daytime Visual Meteorological Conditions (VMC) only. The potential impact on Harbour Energy helicopter access to support temporary decommissioning operations at Millom West and Millom East is assessed in section 11.9.2 of Volume 2, Chapter 11: Aviation and radar (APP-015). The assessment concluded that access will still be possible for an average of 94.4% of the time, in day VMC. Flights at night and in Instrument Meteorological Conditions (IMC) are not expected to be available, however as the vast majority of flights to Non-Production Installations (NPIs) carrying out decommissioning operations are known to occur during the day, the potential impact is considered to be of minor adverse significance, which is not significant in EIA terms. Further, the potential impact is considered to be logistical, rather than safety related, and Search and Rescue (SAR) flights would not be affected.</p> <p>The potential impact on vessel access to existing offshore energy assets is assessed in section 9.9.3 of Volume 2, Chapter 9: Other sea users (APP-027). It was concluded that as there is no other infrastructure associated with any other offshore energy project within the local other sea users study area, vessel access is not anticipated to be restricted to any existing offshore energy asset. During Section 42 consultation, Harbour Energy requested marine corridors to ensure safe passage and manoeuvring of vessels supporting Harbour Energy activities. The marine corridors requested (radius of 1 nm around the Millom West platform, a 1 nm corridor between the Millom West and DPPA platforms and 500 m each side of the Millom West and Millom East pipelines and subsea cables) are all beyond the local other sea users study area and are therefore beyond the Morgan Array Area.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>Regarding potential for interference with offshore microwave fixed communication links, the Applicant consulted with Harbour Energy during the pre-application stage to identify all Harbour Energy assets in the vicinity of the Morgan Generation Assets. Harbour Energy stated that there were no platforms with microwave communication links installed, with communications facilitated by subsea fibre optics cable (as noted above, subsea cables are all beyond the local other sea users study area). Potential for interference with offshore microwave fixed communication links was scoped out of the assessment presented in Volume 2, Chapter 9: Other sea users (APP-027), as set out in Table 9.6, on the basis of modelling which demonstrated that the Morgan Array Area is located sufficiently far from identified microwave communications links onboard other operator offshore platforms so as not to create a potential adverse impact.</p> <p>The Applicant continues to engage with Harbour Energy to promote and maximise cooperation between parties and minimise both spatial and temporal interactions between conflicting activities.</p>
RR-012.3	Chrysaor Resources (Irish Sea) Limited is committed to cooperating and collaborating with the Applicant to explore acceptable solutions to mitigate these issues.	Based on the conclusions of the assessment, the Applicant does not consider that there is a need for specific mitigation to be provided. However, the Applicant will continue to engage with Chrysaor Resources (Irish Sea) Limited to address its concerns as appropriate.

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2.13 Historic England

Table 2.13: RR-013 – Historic England.

Reference	Relevant Representation Comment	Applicant's response
RR-013.1	Historic England (retaining the formal title of the Historic Buildings and Monuments Commission for England) is the government service championing England's heritage and giving expert, constructive advice. We summarise our representation regarding this proposed project as follows:	The Applicant notes Historic England's role and thanks them for the comments provided. The Applicant has responded to each of Historic England's comments below.
RR-013.2	1. The proposed development array area includes records for 11 wrecks and obstructions recorded by the UK Hydrographic Office (UKHO). Geophysical survey data analysis corroborates five charted UKHO wreck records with five high potential anomalies and five medium potential anomalies, which have been assigned Archaeological Exclusion Zones (AEZs). The Applicant has also identified one UKHO record for a crashed aircraft within the proposed Wind Turbine Generator (WTG) array area, but without corroborating geophysical survey data.	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).
RR-013.3	2. The Applicant has explained that pre-construction site investigation surveys will be undertaken to provide detailed information on seabed conditions, morphology and geology layers, and to identify the presence/absence of any potential obstructions or hazards. The Applicant has also explained that detailed design work for this proposed development has yet to occur although it is anticipated that sand wave clearance will be required to facilitate cable installation and WTG foundations inclusive of piled jackets, suction buckets jackets and/or gravity bases.	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).
RR-013.4	3. The proposed archaeological mitigation programme set out in the submitted Outline Offshore Written Scheme of Investigation for Archaeology [Applicant Document Ref: J14; PINs Ref: APP-069], needs to adequately take account of Principle 6, as detailed in Chapter 3 – Project Description, Table 3.7 [Applicant Document Ref: F 1.3; PINs Ref: APP-010] regarding anticipated micrositing allowance and the use of Gravity Base Foundations (GBFs). In particular, anticipated depth and area of seabed excavation required for installation of GBFs and the use of micrositing and microrouting, as described in National Policy Statement EN-3 (DESNZ, November 2023) as necessary to avoid known and unknown archaeological sites.	<p>The Applicant considers that the Outline offshore written scheme of investigation for archaeology (APP-069) will ensure that any known or as yet unknown significant archaeological sites will be identified and can thereafter be avoided through micrositing.</p> <p>Measures included in the offshore WSI include the use of AEZs, TAEZs, and measures to facilitate continual archaeological involvement in the design and input into specifications for, and archaeological analysis of, any further pre-construction geophysical/geotechnical surveys, together with ROV/diver surveys. This will allow important heritage assets to be avoided so far as practicable.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>The layout of infrastructure is not fixed at this stage and will be determined post-consent. This layout will be approved by the MMO in accordance with the conditions of the deemed Marine Licences (Schedules 3 and 4) of the draft Development Consent Order, which includes provision for up to 125 m of micrositing from nominal centre of structure.</p>
RR-013.5	<p>4. It is apparent from the Environmental Statement that the impact assessment presented in Chapter 8 (marine archaeology and cultural heritage [Applicants Document Ref: F 2.8; PINs Ref: APP-026] relies on embedded mitigation to avoid significant impact and that marine survey works and archaeological analysis and interpretation are to occur post-consent, should permission be secured. It is also important that the Applicant has acknowledged the risk that this project could encounter presently unknown elements of the historic environment. It is therefore important that any subsequent survey campaigns are designed and planned in reference to an archaeological Written Scheme of Investigation (WSI), building on the Outline Offshore WSI for archaeology submitted by the Applicant (as referenced above). We hereby confirm that the production of a scheme specific Offshore WSI is required, as conditioned within the deemed Marine Licences (Schedules 3 and 4) of the draft Development Consent Order [PINs Ref: APP-005].</p>	<p>The Applicant is aware of the risk of encountering presently unknown elements of the historic environment and commits to the production of scheme specific Offshore WSI, as a condition within the deemed Marine Licences (Schedules 3 and 4) of the draft Development Consent Order.</p>
RR-013.6	<p>5. We will provide further comment through our Written Representation as necessary to address matters as relevant to the historic environment to ensure that this project is most appropriately aligned with expectations set out in national policy.</p>	<p>The Applicant acknowledges that further comment will be provided through Written Representations where necessary.</p>

2.14 Hornbies Foundation Charity No 503802

Table 2.14: RR-014 – Hornbies Foundation Charity No 503802.

Reference	Relevant Representation Comment	Applicant's response
RR-014.1	<p>Hornbies Foundation Charity own two farms immediately affected by this development scheme with land proposed to be permanently acquired for a substation site together with permanent easements for a wide cable corridor which will severely affect the running of our two let dairy farms. Hornbies Foundation Charity is specifically set up to provide financial support to Newton Bluecoat School and to support the education of children in the community. The developer has been unable to mitigate the impact of their proposed scheme either during construction and/or the permanent impact and we are concerned that statutory compensation will not be adequate to compensate for the losses due to the scheme. We are concerned over the future health and wellbeing of children in our community and the school during construction and the permanent impact.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.15 Isle of Man Government (Territorial Sea Committee)

Table 2.15: RR-015 – Isle of Man Government (Territorial Sea Committee).

Reference	Relevant Representation Comment	Applicant's response
RR-015.1	<p>The following comments are made on behalf of the Isle of Man Territorial Seas Committee: Environmental Statement Volume 3, Annex 5.2: Transboundary impacts screening 1.1.1.5 It should be noted that the Isle of Man is a Crown Dependency of the UK and not a European Economic Area (EEA) State. Therefore, Regulation 32 of the EIA Regulations does not apply to the Isle of Man. For this reason, it is not considered to be a transboundary consultee for the Morgan Generation Assets. As such, potential impacts upon environmental receptors within the Isle of Man are not considered to be transboundary. Potential impacts upon environmental receptors within the Isle of Man are fully considered in the Environmental Statement (see volume 2, Chapters 1 to 15 of the Environmental Statement). The Isle of Man Government seeks clarification on this determination. It is not clear whether the Isle of Man (as a UK Crown Dependency) is considered 'part of the UK' for this assessment process – and therefore automatically FULLY integrated into the process as if it was part of the UK, or whether the CD status means it is neither UK nor a Transboundary party? Noting 1.7.1.2 below, it's perhaps less about the outcome, but understanding whether Isle of Man interests are properly considered, unequivocally as one or the other, AND NOT because the developer has chosen to include it in the process, but with no formal, or an ambiguous legal status.</p>	<p>The purpose of the Environmental Statement specifically identifying the potential for significant effects on states within the European Economic Area (EEA) is to ensure that the relevant legislative provisions in the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the "EIA Regulations") can be complied with. The purpose is not to assess the environmental effects in a different way depending on whether or not they fall within or out with the UK.</p> <p>In particular, regulation 32 of the EIA Regulations imposes a duty on the Secretary of State to notify an EEA state if it is likely that the development will have significant environmental effects within that state. That is a procedural step in the process intended to allow the EEA State to participate and make representations.</p> <p>For each topic reported on in the Environmental Statement, the Applicant has assessed potential environmental effects on the Isle of Man in the same way as effects within the UK.</p>
RR-015.2	<p>Environmental Statement Chapters Marine Mammals Volume 2, Chapter 4: Marine mammals Page 14 Table 4.5 This PEIR comment relates to the Isle of Man Wildlife Act 1990, not the UK Wildlife and Countryside Act 1981, and sought confirmation that, due to proximity, equivalent treatment of species and sites protected under Manx legislation has been afforded during this EIA process. The apparent misunderstanding of legislation means that clarification on this matter remains outstanding, and should be explicitly provided. Pg. 43, Table 4.10 For consistency, harbour porpoise should also be listed as being protected under Manx Legislation, Wildlife Act 1990, in the 'Conservation Importance' column of Table 4.10 as it has been acknowledged for all other marine mammals, and also at Section 4.5.1.4. Fish and Shellfish Ecology Table 3.32, Pp. 173, 177, 200 Confirmation as to Ørsted Moor Vannin windfarm is required, it appears to be missing from Tier 2?</p>	<p>Marine Mammals:</p> <p>The Applicant acknowledges the Scoping Opinion Comment which states 'The Territorial Seas Committee (TSC) would request that appropriate consideration is given to the species which are protected under the Wildlife Act' refers to the Isle of Man Wildlife Act 1990. The Applicant acknowledges the response in Table 4.5 refers to the UK Wildlife and Countryside Act 1981, but highlights that in paragraph 4.5.1.4 of the Volume 2, Chapter 4: Marine mammals (APP-022) the Applicant specifically states all species of marine mammal are 'protected in Manx waters by the Isle of Man Wildlife Act 1990', which includes harbour porpoise. The Applicant has included within the errata document that the 'Wildlife Act 1990 (Isle of Man)' should have been added to the Conservation Importance column of Table 4.10 to align with other marine mammal species.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>The Applicant confirms that equivalent treatment of species and sites protected under Manx legislation has been afforded during this EIA process, with inclusion of Manx designated sites and protected species throughout Volume 2, Chapter 4: Marine mammals (APP-022) assessment (e.g. with each site and feature listed in Table 4.11 Designated sites and relevant qualifying interests for the marine mammal chapter).</p> <p>Fish and Shellfish Ecology:</p> <p>Based upon the documentation available at the time of writing for the Mooir Vannin Offshore Windfarm (Ørsted, 2023), there was no potential overlap during the construction phases of Mooir Vannin and the Morgan Generation Assets.</p> <p>As such, Mooir Vannin Offshore Windfarm is excluded from the cumulative effects assessment for any impacts associated with the construction phase but is listed under Tier 2 of Table 3.32 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) and assessed within section 3.11 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) for those impacts scoped in for the operation and maintenance and decommissioning phases.</p>
RR-015.3	<p>Commercial Fisheries Technical Report Pg. 4 Table 1.1 As previously noted, the Isle of Man Government remains concerned that these data can adequately represent the spatial distribution of fishing activity in the development area since it only includes >15 m vessels. While acknowledging that other data sources are used, but with lower levels of confidence, it is suggest that medium-term monitoring is included in the project as a mitigation to determine whether the baseline data and impacts are accurate. This may be implied on page 21; 'As per Table 6.37, annual reviews for the first five years of the operations and maintenance phase will be undertaken (Document ref. J10)', however it's not specifically monitoring, which is preferable to review only. Pg 19: 1.4.2.21 Noting that Isle of Man vessels are now (since 2023) engaged in pelagic trawling for herring within Manx waters (as implied at 1.4.2.23). Note also the allocated herring quota is expected to increase on an annual basis over the three years 2023-2026. Similarly for langoustine from 2024. Data sources in several Figures are not indicated, but instead show 'References for all data shown in the maps to be added here'. Figure 1.53: Does not appear to indicate Isle of Man vessels - as they are not Irish, Northern Irish or UK. 1.4.8.11: For information about connectivity and the importance of conservation of spawning grounds see;</p>	<p>It is acknowledged that there is a lack of data for vessels <15 m in length. To ensure that smaller vessels were represented in the baseline, multiple datasets have been collated which capture vessels <15 m in length, such as the scouting potting surveys and marine traffic surveys. Additional king and queen scallop swept area (km²) data and crab, lobster and whelk pot haul data (2017 to 2023) were provided by the Isle of Man Government following statutory consultation. All licenced scallop fishing vessels, regardless of size and country of origin, are required to operate a Vessel Monitoring System (VMS) system in Manx Territorial Waters. The assessment is robust because the additional datasets provide comprehensive coverage of vessels permitted to operate within Manx waters, of all vessel sizes (i.e. including vessels <15 m). This data was incorporated into Volume 2, Annex 6.1: Commercial fisheries technical report (APP-059) and was brought into the commercial fisheries assessment.</p> <p>The increase in allocated herring quota over period 2023-2026 is noted and is presented in section 6.5 of Volume 4, Annex 6.1: Commercial fisheries technical report (APP-059).</p> <p>The point within the Relevant Representation Comment regarding length of cable deployed being related to water depth, not nationality (Chapter 6 ES: Commercial Fisheries Table 6.4, pg. 15) refers to a topic raised by the Manx</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>https://www.frontiersin.org/journals/marine-science/articles/10.3389/fmars.2023.1274136/full</p> <p>Chapter 6 ES: Commercial Fisheries Table 6.4, pg. 15: This is an odd statement, and requires clarification. Deployment of cable relates to depth being fished, not to nationality. As such, any vessel fishing for scallops within the array area at depths around 30-35m would be able to fish between turbines, not just Manx. See also 6.8.1.62. Table 6.7 The is no particular correlation between the fishing techniques and the regulations, rather the practices were developed and adopted by industry then regulation, as appropriate, followed; not the converse.</p> <p>Table 6.38 No Future Monitoring appears to be proposed for Commercial Fisheries. Noting: Pg. 21 The Isle of Man Government considers that a monitoring component, based around specific metrics/parameters, in addition to review of the other data indicated, would provide a more accurate and useful assessment as to whether the assumptions and assessments of commercial fisheries impacts are accurate. This would be expected to be included within the DCO as a condition or as agreed prior to Examination with relevant parties.</p>	<p>Fish Producers Organisation (MFPO) during a statutory consultation meeting held on the Isle of Man in November 2022. More specifically, the discussion related to the proposed distance and orientation of wind turbine placement. The comment relates to the regionally unique method of Otter trawling used by Manx vessels to target Queen scallops. The size and relatively light weight design of this gear allows increased manoeuvrability compared to the other receptors targeting scallops. The Applicant noted this point and responded to the topic within the baseline (Chapter 6 ES: Commercial Fisheries Table 6.4, pg. 15, column 4).</p> <p>We note the reference to Close <i>et al.</i> (2024) regarding king scallop population connectivity with thanks and will ensure this is referenced within future assessments where relevant. The Applicant considers the baseline characterisation for king scallop presented within Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051) to be robust and sufficient to support the assessment presented within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), as it is based upon a variety of peer-reviewed literature and recent stock assessment survey data.</p> <p>With respect to proposed monitoring, as set out in section 1.3.6 of the Outline Fisheries Liaison and Co-Existence Plan (OFLCP) (APP-065), in addition to the significant commitments in the design of the project, the Applicant has committed to annual reviews of VMS data and landings data for the first five years of the operations and maintenance phase. This review will seek to identify whether there are any changes to fishing activity and/or landings of key species within and around the Morgan Array Area and where there is change, to discuss with commercial fisheries stakeholders. The purpose of this commitment is to contribute to the evidence base for commercial fishing activity and to validate the conclusions of the assessment. These annual reviews of fishing activity and landings data have already been committed to within Volume 2, Chapter 6 Commercial fisheries (APP-024). The Applicant would be happy to discuss details about specific metrics/parameters.</p> <p>The Applicant notes the commercial fisheries impact assessment and fish and shellfish impact assessment have not concluded potential for significant effects on scallop grounds, which is supported by existing information on the presence of scallops in existing offshore wind farms during the operation and maintenance phase. Additionally, the Applicant has made commitments to a Scallop Mitigation Zone and other project changes to further reduce the potential for effect.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>The Applicant notes that figure references have not been provided within some of the figures within the commercial fisheries technical report. This is an error and has been addressed within the Applicant's Errata document at the Procedural Deadline.</p>
RR-015.4	<p>Benthic Ecology Noting pg. 128: 2.9.7.8 Many of the vessels used during the construction phase of the Morgan Generation Assets are likely to be from the region, therefore, the introduction of species from outside the region is unlikely. Please note that <i>Ficopotamus enigmaticus</i> has now been recorded on the Isle of Man (as of 2023) https://www.gov.im/media/1380838/isle-of-man-harbours-and-tubeworms-2023.pdf and likely transported from Whitehaven Marina in Cumbria, NW England. As such, the threats from INNS are regional and current. INNS are now a higher priority for the Isle of Man Government, and their potential introduction into Manx waters via offshore developments must be managed appropriately. <i>Didemnum vexillum</i> (carpet sea squirt) and <i>Crepidula fornicata</i> (slipper limpet), as noted on page 128 are particular concerns for the Isle of Man.</p>	<p>The Applicant will be implementing an Environmental Management Plan which will include a Biosecurity Risk Assessment as well as an Invasive Non-Native Species (INNS) Management Plan, which will include actions to minimise the introduction and spread of INNS. These plans will include measures to ensure vessels comply with the International Maritime Organisations ballast water management guidelines, consider the origin of vessels and standard housekeeping measures for such vessels, as well as specific measures to be adopted in the event that a high alert species is recorded. These measures will minimise the risk of the potential introduction and spread of INNS associated with regional vessel movement.</p> <p>These measures are secured through condition 20(1)(e)(vii) of each deemed marine licence within the draft DCO (AS-003).</p>
RR-015.5	<p>Offshore Ornithology We have a particular interest in Manx shearwaters, with a site on the Calf of Man, where a rat eradication project has resulted in a resurgence of the population from their first reappearance being noted about 25 years ago. The ornithological baseline chapter (Volume 4, Annex 5.1) references 'The most recent count of breeding Manx shearwater at the Calf of Man, Isle of Man undertaken in 2014 was 424 breeding pairs'. This is now, of course, very out of date, as the numbers have been increasing year on year. Manx National Heritage, the owners of the site, cite that in 2019 there was an estimated 650 pairs, and that there are now thought to be 1000+. This is clearly still relatively low compared with long-established, predator-free shearwater islands, but shows a consistent recovery and is the closest breeding site to the Morgan proposal site. However, we see that this will not affect their conservation status (international) or impact predictions (as no LSE), so we note it only for clarity and correctness, should further discussions develop regarding Manx shearwaters. With regard to designated sites, we have previously noted that there are Areas of Special Scientific Interest with designated coastal cliff breeding bird interest, including seabirds, which haven't been listed as sites of national interest for ornithology, but we also pointed out that some of our biggest seabird colonies are not currently designated as ASSIs, as this programme is not completed, though they do have the protection of Manx National Heritage byelaws. The applicant has therefore included all of the Manx colonies in coastal sections within the apportioning</p>	<p>We recognise the success of the rat eradication project and the welcome resurgence of the Manx shearwater population on the Calf of man. Impacts on Manx shearwater have been assessed in section 5.9 of Volume 2, Chapter 5: Offshore ornithology (APP-023). The conclusions reached are relevant to all populations of Manx shearwater that may have connectivity with the Morgan Generation Assets.</p> <p>The Applicant welcomes the conclusion from Isle of Man Government that all Manx shearwater colonies on the Isle of Man have been incorporated into Environmental Statement - Volume 4, Annex 5.5 Offshore ornithology apportioning technical report (APP-057).</p> <p>The Applicant also acknowledges the Isle of Man Government's positive comments on the consideration of the Isle of Man population of great black-backed gull, and also on the minimum lower blade tip height, offshore EMP and MPCP.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>chapter on ornithology (Volume 4, Annex 5.5). We are content that a view has been given to these colonies within the Statement, which indicates no LSE. We further note the applicant's consideration of the great black-backed gull impacts with specific regard to the Isle of Man population (one bird per annum), and status on the Isle of Man (IoM red list) which has been accounted for within the Statement. We welcome and note the adopted measures, of a minimum lower blade tip height (air draught) of 34 m above LAT, which raises it above the usual minimum standards, which is expected to result in a reduction of risk to many (lower-flying) seabirds, and the development of an offshore EMP that will include measures to minimise disturbance to rafting birds from transiting vessels and including a MPCP which will include planning for accidental spills, address all potential contaminant releases and include key emergency details.</p>	
RR-015.6	<p>Other Sea Users Manx Utilities owns and operates, through its subsidiary company Manx Cable Company Limited [MCC] the electrical interconnector subsea cable between the Isle of Man and the North West of England. The Isle of Man interconnector [Manx 1], runs between Douglas Head in the Isle of Man and Bispham, Blackpool, and is an essential means of maintaining secure supplies of electricity to the Isle of Man; and therefore must be recognised as part of the Isle of Man Governments Critical National Infrastructure. Approximately 20km of the IOM interconnector is positioned approx. 800 meters from the northern boundary of the Morgan Wind farm [Order Limits and grid co-ordinates plan MRCNS-J3303-RPS-10005]. In addition to the risk of third-party damage during the construction phase, the introduction of fixed structures and associated collector and/or array cables on or buried in the seabed, can through their proximity present an ongoing operational risk to maintenance and repair works over the life of the asset. Considering the interconnector's asset value and strategic importance to the Isle of Man, representation on issues and risks associated with the wind farm have formed part of the early stakeholder's engagement processes with discussions ongoing regarding agreement on proximity of fixed structures from Manx 1; however until a formal "Proximity Agreement" is agreed and signed by both parties, Manx Utilities and the Isle of Man Government strongly requests Interested Party status and continued engagement to ensure adequate representation of our concerns and risks can be considered as appropriate in the examination process.</p>	<p>The Isle of Man interconnector [Manx 1] is identified in the baseline environment presented in Volume 2, Chapter 9: Other sea users (APP-027), where it is noted that a section of the interconnector runs just within and broadly parallel to the north boundary of the local other sea users study area, 830 m to the north of the Morgan Array Area.</p> <p>The potential impact on the Isle of Man interconnector [Manx 1] is assessed within section 9.9.3 of Volume 2, Chapter 9: Other sea users (APP-027), where it is noted that a proximity agreement is anticipated to be negotiated and agreed with Manx Utilities pre construction, to minimise the potential for any impact in accordance with recognised industry good practice. This will ensure close communication and planning between both parties to ensure disruption of activities is minimised.</p> <p>Consultation with Manx Utilities took place throughout the pre-application stage (Consultation Report (APP-088)) and the Applicant has committed to continued communication to promote and maximise cooperation between parties and minimise both spatial and temporal interactions between conflicting activities. A meeting to discuss the proximity agreement took place on the 16th August 2024 and the Applicant shall continue to engage with the Isle of Man TSC on this matter.</p>
RR-015.7	<p>Shipping and Navigation As an Island nation, any significant risk of interference with marine navigation remains a concern to the TSC with regard</p>	<p>The Navigation Risk Assessment (NRA) and Shipping and Navigation Chapter of the Preliminary Environmental Report (PEIR) (April 2023) identified that in</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>to transport to and from the island, and the shipping lanes in our Territorial waters which are used to connect the UK and Ireland. These are strategic, lifeline routes that the Island depends on and it is essential that these are not impacted upon as part of these proposals. The economy of the Island is highly reliant on the regular, safe shipping for its goods, and any deviations from well-established timetables and routes would not support the Island's business community relying on daily deliveries via the Isle of Man Steam Packet Company. The TSC also amplifies the consideration alongside the cumulative impacts from all of the proposed windfarms awarded as part of The Crown Estate's Round 4 project in the Irish sea such as Mona as well as the proposed Moor Vannin windfarm within IOM Territorial waters which will affect strategic lifeline services to the Isle of Man as reflected in Appendix A of the EIA and in particular during weather events that will require the vessels to be weather routed with further additional time to the current weather routes.</p> <p>NOTE - 7.9.4.23 – This states that the Heysham – Douglas normal crossing time is two hours 45 minutes. This should read three hours 45 minutes.</p>	<p>normal and adverse weather conditions, ferries would necessitate deviations around the Morgan Generation Assets Array Area and this would result in greater transit distance, fuel costs, schedule disruptions, and more frequent cancellations to lifeline ferry services. Following the PEIR and Section 42 consultation responses, the Applicant modified the boundaries of the wind farm array area which increased the available searoom to minimise the impacts to ferries and reduced the deviations required (as set out in section 7.9 and 7.11 of Volume 2, Chapter 7: Shipping and navigation (APP-025) and in section 4.11.2 of Volume 1, Chapter 4: Site selection and consideration of alternatives (APP-011)).</p> <p>The Applicant has worked together with the developers of the Mona Offshore Wind Project and Morecambe Offshore Windfarm who also amended the boundaries of their respective projects to increase searoom and reduce the cumulative impacts on ferries. The ferry companies and other key stakeholders have inputted to this process through attendance at navigation simulations and NRA hazard workshops. As a result of these boundary amendments and further commitments to control measures (e.g. development and adherence to an Aids to Navigation Management Plan, Design Plan, an Offshore Environmental Management Plan that includes a Fisheries Liaison and Co-existence Plan, an Offshore Construction Method Statement, which includes a Cable Specification and Installation Plan, a Vessel Traffic Management Plan, an Emergency Response and Cooperation Plan and use of notice to mariners), have been identified, as set out in section 7.8 of Volume 2, Chapter 7: Shipping and navigation (APP-025). These control measures are all secured within the deemed marine licences in Schedule 3 and Schedule 4 of the draft development consent order (DCO). Noting that a residual risk over the baseline remains, the NRA Hazard Workshop concluded that all hazards, previously identified as unacceptable at PEIR, had been reduced to As Low As Reasonably Practicable (ALARP) following the boundary amendments.</p> <p>The Applicant understands that the Isle of Man Steam Packet Company Heysham to Douglas service intersects with the Morgan Array Area. For this service a revised passage plan was developed that would necessitate an additional 1.6 minutes of steaming time per trip in typical weather conditions to accommodate the Morgan Generation Assets alone. On a three hour and 45 minute service, with greater existing operational variation in transit duration and turnaround time, the deviation is not anticipated to result in significant operational impacts for the Morgan Generation Assets alone.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>In periods of adverse weather, a passage around the Morgan Array Area may be required which would necessitate approximately an additional 21.5 minutes of steaming time per trip on top of existing adverse weather delays. This impact was assessed as being of moderate adverse significance due to its impact on Isle of Man Steam Packet Company schedules and operations.</p> <p>The Mooir Vannin Offshore Wind Farm Scoping Report was published in October 2023. Accordingly, the Mooir Vannin Offshore Wind Farm is considered in the cumulative effects assessment as a Tier 2 project, where relevant. An assessment was undertaken of the cumulative effects of the Crown Estate Round 4 Projects with Mooir Vannin Offshore Wind Farm as part of the Volume 4, Annex 7.1: Navigation Risk Assessment (APP-060).</p> <p>The Applicant is committed to further engagement with the Isle of Man Steam Packet Company on the residual impacts throughout the examination phase of the Morgan Generation Assets.</p> <p>Furthermore, Volume 2, Chapter 13: Socio-economics (APP-017) assesses the potential effects of the Morgan Generation Assets on economic, social and tourism receptors. The potential socio-economic impacts on the Isle of Man associated with potential adverse effects on lifeline ferry services have also been considered. No significant adverse effects have been identified. Potential socio-economic impacts on the Isle of Man associated with potential adverse effects on lifeline ferry services were minor adverse for all stages of the project.</p> <p>The focus of the socio-economic assessment considered potential impacts on freight-dependant sectors such as retail and wholesale, construction, and manufacturing, and the passenger-dependant visitor and leisure economy. The Applicant is committed to further engagement with vessel operators on the residual impacts throughout the examination phase of the Morgan Generation Assets.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-015.8	<p>Aviation Request continued engagement to ensure that any offshore wind farms do not compromise the safety of the Island's air travel.</p>	<p>Section 1.9.3 of Volume 2, Chapter 11: Aviation and radar (APP-015) identified a potential significant impact to the Ronaldsway (IoM) Airport Primary Surveillance Radar (PSR) system and published Instrument Flight Procedures (IFP). The Applicant has engaged with the airport throughout the development of the Morgan Generation Assets (see Table 11.4 in APP-015) and discussed the results of the impact assessment.</p> <p>The Applicant is continuing to engage with the Ronaldsway Airport. It is understood by the Applicant, that the Ronaldsway airport have commissioned a third-party review of its surveillance strategy (requirements) for the next 20 years taking on board all applicable proposed offshore and onshore wind farm projects. The results of this study were expected in July 2024. At the last engagement meeting, the Airport explained that it anticipates implementing the results of the surveillance strategy and would be requesting relevant projects to contribute to reach a mutually agreed mitigation solution which will reduce any impact to acceptable levels.</p>

2.16 Isle of Man Steam Packet Company

Table 2.16: RR-016 – Isle of Man Steam Packet Company.

Reference	Relevant Representation Comment	Applicant's response
RR-016.1	Impacts on the Isle of Man lifeline ferry service to the island. Safe navigation and operational impacts posed by the windfarm project.	<p>The Navigation Risk Assessment (NRA) and Shipping and Navigation Chapter of the Preliminary Environmental Impact Report (PEIR) (April 2023) identified that in normal and adverse weather conditions, ferries would necessitate deviations around the Morgan Generation Assets Array Area, and this would result in greater transit distance, fuel costs, schedule disruptions, and more frequent cancellations to lifeline ferry services.</p> <p>Following the PEIR and Section 42 consultation responses, the Applicant modified the boundaries of the wind farm array area which increased the available searoom to minimise the impacts to ferries, and reduced the deviations required (as set out in section 7.9 and 7.11 of Volume 2, Chapter 7: Shipping and navigation (APP-025) and in section 4.11.2 of Volume 1, Chapter 4: Site selection and consideration of alternatives (APP-011)).</p> <p>The Applicant has worked together with the developers of the Mona Offshore Wind Project and Morecambe Offshore Windfarm: Generation Assets who have also amended the boundaries of their respective projects to increase searoom and reduce the cumulative impacts on ferries.</p> <p>The ferry companies and other key stakeholders have inputted to this process through attendance at navigation simulations and NRA hazard workshops. As a result of these boundary amendments and further commitments to control measures (e.g. development and adherence to an Aids to Navigation Management Plan, Design Plan, an Offshore Environmental Management Plan that includes a Fisheries Liaison and Co-existence Plan, an Offshore Construction Method Statement, which includes a Cable Specification and Installation Plan, a Vessel Traffic Management Plan, an Emergency Response and Cooperation Plan and use of notice to mariners), have been identified, as set out in section 7.8 of Volume 2, Chapter 7: Shipping and navigation (APP-025). These control measures are all secured within the deemed marine licences in Schedules 3 and 4 of the Draft development consent order (APP-005). Noting that a residual risk over the baseline remained, the NRA Hazard Workshop concluded that all hazards, previously identified as unacceptable at PEIR, had been reduced to As Low As Reasonably Practicable (ALARP) following the boundary amendments.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>The Applicant understands that the Isle of Man Steam Packet Company Heysham to Douglas service intersects with the Morgan Array Area. For this service a revised passage plan was developed that would necessitate an additional 1.6 minutes of steaming time per trip in typical weather conditions to accommodate the Morgan Generation Assets alone. On a three hour and 45 minute service, with greater existing operational variation in transit duration and turnaround time, the deviation is not anticipated to result in significant operational impacts for the Morgan Generation Assets alone.</p> <p>In periods of adverse weather, a passage around the Morgan Array Area may be required which would necessitate approximately an additional 21.5 minutes of steaming time per trip on top of existing adverse weather delays. This impact was assessed as being of moderate adverse significance due to its impact on Isle of Man Steam Packet Company schedules and operations.</p> <p>The Applicant is committed to further engagement with the Isle of Man Steam Packet Company on the residual impacts throughout the examination phase of the Morgan Generation Assets.</p>

2.17 J.W.Kirkham & Sons, J.W.Kirkham & Sons (Eastham) Ltd

Table 2.17: RR-017 – J.W.Kirkham & Sons, J.W.Kirkham & Sons (Eastham) Ltd.

Reference	Relevant Representation Comment	Applicant's response
RR-017.1	<p>The route of on shore cables 2. The depth of on shore cables (our dykes are 2.5 metres deep) 3. depth of cover above dykes (they are de-silted with an excavator every one to two years) 3. The exact working width of the cable route in specific locations 4. Compensation levels for privately owned land 5. Compensation levels for loss of income from tourism, touring caravan income, holiday home sales etc</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.18 Klosinski Economic Development Ltd

Table 2.18: RR-018 – Klosinski Economic Development Ltd.

Reference	Relevant Representation Comment	Applicant's response
RR-018.1	The proposal's: Socio-economic and supply chain impact. Its impact on navigation.	<p>Socio-economic and supply chain</p> <p>Volume 2, Chapter 13: Socio-economics (APP-017) assesses the potential beneficial economic effects of the Morgan Generation Assets resulting from the potential impact on economic receptors including employment and Gross Value Added (GVA).</p> <p>Volume 4, Annex 13.1: Socio-economics technical impact report (APP-048) which underpins the assessment, takes into account local supply chain impacts.</p> <p>Economic effects in North West England are assessed as minor (beneficial) during the construction, operation and maintenance, and decommissioning phases (not significant in EIA terms).</p> <p>Economic effects in North Wales are assessed as minor (beneficial) during the construction, and decommissioning phases (not significant in EIA terms), and moderate (beneficial) during the operation and maintenance phase (significant in EIA terms).</p> <p>Shipping and navigation</p> <p>The Shipping and Navigation assessment has been undertaken with due regard to the relevant policies of the National Policy Statement as outlined in Section 7.2 of Volume 2, Chapter 7: Shipping and navigation (APP-025). This included impacts to approaches to ports, strategic routes and lifeline ferry services. Impacts described within Section 7.9.3, 7.9.4, 7.11.3 and 7.11.4 of Volume 2, Chapter 7: Shipping and navigation (APP-025) address these impacts.</p> <p>The Navigation Risk Assessment (NRA) and Shipping and Navigation Chapter of the Preliminary Environmental Impact Report (PEIR) (April 2023) identified that in normal and adverse weather conditions, ferries would necessitate deviations around the Morgan Generation Assets Array Area, and this would result in greater transit distance, fuel costs, schedule disruptions, and more frequent cancellations to lifeline ferry services.</p> <p>Following the PEIR and Section 42 consultation responses, the Applicant modified the boundaries of the wind farm array area which increased the available searoom to minimise the impacts to ferries, and reduced the</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>deviations required (as set out in section 7.9 and 7.11 of Volume 2, Chapter 7: Shipping and navigation (APP-025) and in section 4.11.2 of Volume 1, Chapter 4: Site selection and consideration of alternatives (APP-011).</p> <p>The Shipping and Navigation assessment completed as part of the Application (APP-025) concluded that in normal and adverse weather conditions, ferries would necessitate deviations around the Morgan Generation Assets which would result in greater steaming time. For Morgan alone in adverse weather, this could have a significant effect on strategic routes and lifeline ferry services in the eastern Irish Sea, as described within section 7.9 of Volume 2, Chapter 7: Shipping and navigation (APP-025). Cumulatively with other adjacent proposed offshore wind projects, in normal and adverse weather, this could have a significant effect on strategic routes and lifeline ferry services in the eastern Irish Sea, as described within section 7.11 of Volume 2, Chapter 7: Shipping and navigation (APP-025).</p> <p>The Applicant is committed to further engagement with affected operators on the residual impacts throughout the examination phase of the Morgan Generation Assets.</p>

2.19 Maritime and Coastguard Agency

Table 2.19: RR-019 – Maritime and Coastguard Agency.

Reference	Relevant Representation Comment	Applicant's response
RR-019.1	<p>MCA will be responding to the ExA on matters concerning the safety of maritime navigation and maritime Search and Rescue. MCA will provide comments on the Navigation Risk Assessment, Shipping & Navigation chapter of the EIA Report, and the content of the DCO and DML.</p> <p>The main issues for MCA are concerning vessel routeing, vessels' ability for continued safe passage, that risks to all vessels and craft are at an acceptable level, and the project is not at the detriment to the provision of Search and Rescue, and other emergency response.</p>	<p>The Applicant has engaged with MCA throughout the pre-application period, primarily through the Marine Navigation Engagement Forum (MNEF). The MNEF was created early in the pre-application phase as a forum to discuss shipping and navigation matters with stakeholders and met six times between 2021 and 2024 (see section 1.3.1. in the Technical engagement plan (APP-094) for further information). Volume 4, Annex 7.1 Navigational risk assessment (NRA) (APP-060) undertaken to inform the shipping and navigation assessment was undertaken in accordance with relevant MCA guidance and MCA attended the associated cumulative NRA hazard workshop.</p> <p>Further, the Applicant has taken into consideration comments from the MCA in its draft DCO (C1 Draft development consent order APP-005).</p> <p>The Applicant will continue to engage with MCA through the Examination period.</p>

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2.20 Marine Management Organisation

Table 2.20: RR-020 – Marine Management Organisation.

Reference	Relevant Representation Comment	Applicant's response
RR-020.1	Dear Planning Inspectorate, Due to the length of our response and the available word count in this box, the Marine Management Organisation will be emailing our Relevant Representation and Principle Area of Disagreement to the Morgan Generation Planning Inspectorate Team on Wednesday the 10th July. Kind regards, [REDACTED] Marine Licensing Case Officer	The Applicant has responded to each comment made by the Marine Management Organisation (MMO) within the PDF attached alongside the relevant representation on the planning inspectorate website.
RR-020.2	<p>MMO Letter</p> <p>2.1 Major Comments</p> <p>2.1.1 The ES correctly identified that the proposed development is within the North West Offshore Plan Area. The MMO requests that all policies are reviewed within a table to show compliance. This must be produced as the Secretary of State must use the North West Offshore Marine Plan when making planning decisions for the sea, coast, estuaries and tidal waters, as well as developments that impacts these areas, such as infrastructure. The relevant marine plan policies that should be met can be identified using the Explore Marine Plans tool and policy information on the following website: https://www.gov.uk/guidance/explore-marine-plans</p>	<p>The Planning Statement (APP-074) has regard to the relevant policies of the North West Offshore Marine Plan and how the proposed development accords with it. The conclusions throughout the Planning Statement are that the proposed development accords with the plan.</p> <p>The Applicant does not consider it necessary to submit a standalone document setting out policy compliance with marine plan policy, as this information is already included in the Planning Statement.</p>
RR-020.3	2.1.2 Although some marine plan policies are discussed under the relevant chapters to which they relate, the MMO requires the Applicant to detail how the proposed project is compliant with the relevant marine plans by producing a marine plan policy assessment in one document.	Refer to initial response above (RR-020.2)
RR-020.4	<p>3.1 Draft Development Consent Order</p> <p>3.1.1 The MMO has reviewed the draft DCO and provided comments below. The MMO is currently undertaking a detailed review and will produce further comments on the DCO at Deadline 1 and during the course of the examination.</p>	The Applicant has responded to the MMO's initial comments below, and notes that further comments will be submitted through the examination.
RR-020.5	<p>Unexploded Ordnance</p> <p>3.2.1 The MMO would like clarity on whether the investigation of and the detonation of unexploded ordnance (UXO) are included within the licenced activities. These are not part of any of the works orders or set out within the activities of Schedule 3 and 4, however, a draft UXO marine mammal mitigation plan is proposed.</p>	<p>The Applicant can confirm the investigation and detonation of unexploded ordinance is included within the licenced activities. This is authorised by paragraph 2(e) of each deemed marine licence in schedules 3 and 4, which state inter alia:</p> <p><i>"2. Subject to the conditions, this licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable</i></p>

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Reference	Relevant Representation Comment	Applicant's response
		<p><i>marine activities under section 66(1) (licensable marine activities) of the 2009 Act</i></p> <p>...</p> <p><i>(e) site clearance and preparation works including clearance of unexploded ordnance, debris, boulder clearance and the removal of out of service cables and static fishing equipment;"</i></p>
RR-020.6	<p>3.3 Arbitration</p> <p>3.3.1 Article 13 proposes a new enhanced appeals procedure for the applicant should the MMO refuse an application. This appeals procedure is not available for other marine licence holders. The MMO strongly requests that the appeals procedure for the MMO is removed from the DCO.</p>	<p>The Applicant agrees that this article does not need to be included within the draft DCO for the Proposed Development. The Applicant will update the next version of the draft DCO to reflect this.</p> <p>This article has been included in a number of recent DCOs to manage the appeals procedure for the discharge of requirements, rather than dMLs, and it was not the Applicant's intention to apply this to the discharge of dML conditions.</p>
RR-020.7	<p>3.3.2 Appeals are already available to the Applicant in the form of an escalated internal procedure and judicial review (JR), and therefore, the inclusion of any additional appeal mechanism within the DCO and DML is unnecessary. The Marine Licensing (Licence Application Appeals) Regulations 2011 apply a statutory appeal process to the decisions that the MMO makes regarding whether to grant or refuse a licence or conditions which are to be applied to the licence. However, the regulations do not include an appeal process to any decisions the MMO is required to give in response to an application to discharge any conditions of a marine licence issued directly by us. Therefore, if the DCO were to be granted with the proposed appeal process included, this would not be consistent with the existing statutory processes. This amendment would be introducing, and making available to this specific Applicant, a new and enhanced appeal process which is not available to other marine licence holders, creating an unlevel playing field across the regulated community. These proposals go against the statutory functions laid out by parliament. The private nature of the arbitration process does not align with the public functions and duties of the MMO. The removal of the MMO decision-making function, and its placement into the hands of a private arbitration process, is inconsistent with the MMO legal function, powers and responsibilities, which was never intended by Parliament in enacting the 2008</p>	<p>Please refer to initial response above (RR-020.6).</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Act or the 2009 Act. The MMO also considers that arbitration would not be consistent with Annex B of the PINS Guidance Note 11</p> <p>(https://infrastructure.planninginspectorate.gov.uk/legislationandadvice/advice/notes/an11-annex-b/), which states that "the MMO will seek to ensure wherever possible that any deemed licence is generally consistent with those issued independently by the MMO". Inclusion of a different mechanism for determination of disputes in respect of DMLs would not be consistent with Marine Licences issued independently by the MMO.</p>	
RR-020.8	<p>3.3.3 In addition to this, the MMO emphasises that we are an open and transparent organisation that engages actively, and maintains excellent working relationships, with industry and those it regulates. The MMO discharges its statutory responsibilities in a manner which is both timely and robust in order to fulfil the public functions vested in it by Parliament. The scale and complexity of NSIPs creates no exception in this regard, and indeed it follows that where decisions are required to be made, or approvals given, in relation to these developments of significant public interest, only those bodies appointed by Parliament should carry the weight of that responsibility. Since its inception, the MMO has undertaken licensing functions on over 130 DCOs, comprising some of the largest and most complex operations globally. The MMO is not aware of an occasion whereby any dispute which has arisen in relation to the discharge of a condition under a DML has failed to be resolved satisfactorily between the MMO and the applicant, without any recourse to an 'appeal' mechanism.</p>	Please refer to initial response above (RR-020.6).
RR-020.9	<p>3.4 Transfer of Benefit of the Order</p> <p>3.4.1 The MMO understands that Article 7 – Benefit of the Order is drafted in a similar way to previous consents granted by the Secretary of State (SoS), however the MMO has major concerns over the wording.</p>	<p>Article 7 of the draft DCO (AS-003) contains provisions for the transfer or lease of powers under the DCO. As set out in the Explanatory Memorandum (AS-005) these provisions are based on the Model Provisions and the drafting has developed through their inclusion in many offshore wind farm development consent orders.</p> <p>Following the precedent drafting from other offshore wind farm orders article 7(2) provides the transfer or grant of DCO powers to take place with the written consent of the Secretary of State and article 7(5) provides for this transfer or grant to take place without the need for consent in the circumstances specified in the paragraph. Both of these allow for the transfer or grant of powers under the deemed marine licence. Article 7(4) requires the Secretary of State to consult with the MMO before giving consent to the transfer or grant to another person of the benefit of either deemed marine licence.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>Article 7(11) disapplies sections 72(7) and (8) of the Marine and Coastal Access Act 2009 in relation to a transfer or grant of the benefit of the deemed marine licence. The drafting in the draft DCO reflects a long-established precedent regarding the transfer of DCO powers and deemed marine licences that has been endorsed by the Secretary of State many times, including most recently in the Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024. Where a transfer of the deemed marine licence is sought under Article 7(2), the Secretary of State would consider the appropriateness of the party to whom the transfer or grant is proposed and would also take into account any representations made by the MMO before determining whether to grant consent.</p> <p>From the procedural perspective it is important that the DCO and any deemed marine licence can be transferred together using the process set out in Article 7. It is considered important that the timing of any transfer or grant of powers/authorisations under the DCO and dMLs be aligned, as there is considerable overlap between the authorisations and the requirements/conditions. This justifies a departure from the procedure under the Marine and Coastal Access Act 2009. Having deemed the marine licence in the DCO, it is also appropriate that any transfer under the Order include the deemed marine licence as part of the wider transfer – it is one element of the wider order powers and should not be separated out from the authority to construct, operate and maintain the NSIP granted by the Order.</p> <p>The Planning Act 2008 is clear that marine licences may be deemed in a DCO in appropriate areas (s149A) and that a DCO may include such further provisions ancillary to the operation of that dML (s122(3)), including transfer along with the benefit. Section 122(5)(a) and (c) set out that a DCO may “apply, modify or exclude a statutory provision which relates to any matter for which provision may be made in the order” or “include any provision that appears to the Secretary of State to be necessary or expedient for giving full effect to any other provision of the order”. The ability to transfer the dML is related to the deeming and is submitted to be a sensible, expedient part of the wider power to transfer the benefit of the order.</p> <p>There is accordingly no legal barrier to including these provisions in the draft DCO and there is a clear advantage to doing so for the reasons set out above. This has been accepted by the Secretary of State in a number of offshore wind farm DCOs and is well precedented.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-020.10	<p>3.4.2 Article 7(1)-(3) gives the right to permanently transfer the benefits of the DCO including the deemed marine licences (DML) in Schedule 3 and 4 to a third party with the consent of the SoS.</p> <p>Part 2: Article 7(1)-(3)</p> <p>“(1) Subject to this article, the provisions of this Order have effect solely for the benefit of the undertaker.</p> <p>(2) Subject to paragraph (5), the undertaker may with the written consent of the Secretary of State—(a) transfer to another person (the transferee) any or all of the benefit of the provisions of this Order (excluding licence 1 or licence 2) and such related statutory rights as may be agreed between the undertaker and the transferee; and (b) grant to another person (the lessee) for a period agreed between the undertaker and the lessee any or all of the benefit of the provisions of this Order (excluding licence 1 or licence 2) and such related statutory rights as may be so agreed, except where paragraph (6) applies, in which case the consent of the Secretary of State is not required.</p> <p>(3) Subject to paragraph (5), the undertaker may with the written consent of the Secretary of State—(a) where an agreement has been made in accordance with paragraph (2)(a), transfer to the transferee the whole of licence 1 or licence 2 (as appropriate) and such related statutory rights as may be agreed between the undertaker and the transferee; and (b) where an agreement has been made in accordance with paragraph (2)(b), grant to the lessee for the duration mentioned in paragraph (2)(b), the whole of licence 1 or licence 2 (as appropriate) and such related statutory rights as may be so agreed.”</p> <p>The MMO considers that this is a clear departure from the 2009 Act, which would normally require the licence holder (here ‘the undertaker’) to make an application to the MMO for a licence to be transferred. Instead, this provision operates to make the decision that of the undertaker, with the Secretary of State (SoS) providing consent to the transfer, rather than the MMO as the regulatory authority for marine licences considering the merits of any application for a transfer.</p> <p>Parliament has already created a statutory regime for such a process, and it is unclear what purpose the written consent of the SoS actually serves. If the intention is for the undertaker to be able to transfer the benefits under the terms of the DCO outside the established procedures under 2009 Act, the</p>	<p>Please refer to initial response above (RR-020.09).</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>MMO queries why is it considered necessary or appropriate for the SoS to 'approve' the transfer of the DML.</p> <p>It is also unclear what criteria the SoS would be taking in determining whether to approve any transfer, and how this would differ from a consent granted by the MMO under the existing 2009 Act regime.</p> <p>Because of this confusion and potential duplication, it is the position of the MMO that these provisions are removed and that any transfer should be subject to the existing regime under the 2009 Act, with the decision maker remaining the MMO.</p>	
RR-020.11	<p>3.4.3 Article 7(2)(b) and 7(3)(b) gives the right to temporarily transfer the benefits of the DCO (including DML) to a third party.</p> <p>Article 7(2)(b) "grant to another person (the lessee) for a period agreed between the undertaker and the lessee any or all of the benefit of the provisions of this Order (excluding licence 1 or licence 2) and such related statutory rights as may be so agreed, except where paragraph (6) applies, in which case the consent of the Secretary of State is not required."</p> <p>Article 7(3)(b) "where an agreement has been made in accordance with paragraph (2)(b), grant to the lessee for the duration mentioned in paragraph (2)(b), the whole of licence 1 or licence 2 (as appropriate) and such related statutory rights as may be so agreed." The MMO resists the inclusion of this article. Here the written consent of the SoS is not required. The MMO does not recognise that this would create a more streamlined system. Rather, it operates simply to create an additional administrative procedure for marine licences (and one not envisaged by Parliament) and with no clarity in how it will operate.</p>	Please refer to initial response above (RR-020.09).
RR-020.12	<p>3.4.4 The MMO has concerns regarding Article 7(4).</p> <p>Article 7(4) "The Secretary of State shall consult the MMO before giving consent to the transfer or grant to another person of the benefit of the provisions of licence 1 or licence 2." The MMO notes that there is no obligation for the SoS to take into account the views of the MMO when providing its consent. Furthermore, there is no obligation for the MMO to be informed of the decision of the SoS, notwithstanding its impact on the MMO as the licencing</p>	Please refer to initial response above (RR-020.09).

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Reference	Relevant Representation Comment	Applicant's response
	<p>authority. From a regulatory perspective it is highly irregular that a decision to transfer a licence should not be the decision of the regulatory authority in that area (the MMO), but instead should be subject to such a cursory 9 process as is set out in Article 7(1)-(3). The MMO thus resists this change as unworkable. As explained above, Articles 7 (1)-(3) sets out what is effectively a new non-legislative regime for the variation and transfers of marine licences. In support of these provisions, Article 7(11) explicitly disapplies sections 72(7) and (8) of the 2009 Act, which would otherwise govern these procedures.</p>	
RR-020.13	<p>3.4.5 Article 7(11).</p> <p>“Section 72(7) and (8) of the 2009 Act do not apply to a transfer or grant of the benefit of the provisions of licence 1 or licence 2 to another person by the undertaker pursuant to an agreement under this article.” This conflicts with the MMO’s stated position that the DML granted under a DCO should be regulated by the provisions of the 2009 Act, and specifically by all provisions of section 72.</p> <p>Section 72(7)(a) of the 2009 Act permits a licence holder to make an application for a marine licence to be transferred, and, where such an application is approved, for the MMO to then vary the licence accordingly (s. 72(7)(b)). This power that should be retained and used in relation to the DML granted under the DCO and the MMO therefore resists the inclusion of this article 7(11) to disapply these provisions.</p> <p>The key concern held by the MMO is that Article 7 operates to override and/or unsatisfactorily duplicate provision that already exist within the 2009 Act for dealing with variations to marine licences. Such provisions are also inconsistent with the PINS Guidance on how DMLs should operate within a DCO. Advice Note Eleven, Annex B, as referenced in comment 3.3.2, provides that where the undertaker chooses to have a marine licence deemed by a DCO, the MMO, “will seek to ensure wherever possible that any deemed licence is generally consistent with those issued independently by the MMO.” Article 7 as drafted is not in compliance with this guidance.</p>	Please refer to initial response above (RR-020.09).
RR-020.14	<p>3.4.6 The MMO objects to the provisions relating to the process of transferring and/or granting the deemed marine licences set out in the draft DCO at Part 2, Article 7 insofar as these are intended to apply to the MMO and requests paragraphs 7(4), 7(8) and 7 (11) be removed in their entirety, with a clarification added to specifically exclude these provisions from applying to the MMO (with corresponding wording amended in the Deemed Marine Licences).</p>	Please refer to initial response above (RR-020.09).

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Reference	Relevant Representation Comment	Applicant's response
RR-020.15	<p>3.4.7 The MMO is concerned that the procedure proposed represents an unnecessary duplication of the existing statutory regime set out in s72 of the 2009 Act and that it will give rise to significant enforcement difficulties for the MMO. The MMO also considers that it has the potential to prejudice the operation of the system of marine regulatory control in relation to the proposed development. The MMO also regards the proposed procedure as cumbersome, more administratively burdensome, slower and less reliable than the existing statutory regime set out in s72 of the 2009 Act.</p>	<p>Please refer to initial response above (RR-020.09).</p>
RR-020.16	<p>3.4.8 To summarise, the MMO considers that little advantage is gained for the Applicant by these provisions, and the tangible risks and disadvantages that it poses can be avoided by retaining the existing statutory regime in full.</p>	<p>Please refer to initial response above (RR-020.09).</p>
RR-020.17	<p>3.5 Use of 'Maintain' and 'Materially'</p> <p>3.5.1 The MMO strongly considers that the activities authorised under the DCO and DML should be limited to those that are EIA assessed within the ES, and the statement that activities will be limited to those that 'do not give rise to any materially new or materially different environmental effects' should be updated to clarify this.</p>	<p>The Applicant does not consider that the wording within the definition of "maintain" in each deemed marine licence in schedules 3 and 4 of the draft DCO (AS-003) needs to be updated. The purpose of the EIA Regulations is to identify the likely significant environmental effects that will arise from a project. That facilitates the relevant decision maker making an informed decision on the likely effects of the project before they grant or refuse consent. The detail in an Environmental Statement is not intended to be wholly prescriptive. That is not how the EIA regime operates. In undertaking an EIA, a developer has to make certain assumptions about how the project will be undertaken, particularly in respect of the operation and maintenance phase. Key parameters that underpin the assessment will then be included in the terms of the consent granted.</p> <p>In respect of operation and maintenance activities, the use of the word "materially" reflects that the detail of potential maintenance activities included in an Environmental Statement are based on assumptions. The word "materially" gives a limited degree of flexibility, but would not authorise any activities that would give rise to new or different significant effects. That would clearly be outwith the scope of the deemed marine licence. The Applicant therefore considers the existing definition to be appropriate. It is well precedented in DCOs for offshore wind farms, including East Anglia One North Offshore Wind Farm Order 2022, the East Anglia Two Offshore Wind Farm Order 2022, the Norfolk Boreas Offshore Wind Farm Order 2021, the Norfolk Vanguard Offshore Wind Farm Order 2022.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-020.18	3.5.2 The MMO considers that wording should be updated to 'do not give rise to any new or different environmental effects to those assessed in the environmental information'. This also applies to the definition of "maintain"	Please refer to initial response above (RR-020.17).
RR-020.19	3.5.3 The intention behind the EIA legislation is to protect the environment by ensuring that in deciding whether to grant a development consent for a project, and in deciding what conditions to attach to that consent, the decision has full knowledge of what the likely significant environmental effects of the project/development will be. That knowledge then guides the consent process and what conditions, if any, to attach to the consent. Additionally, there is considerable public consultation under the EIA legislation process because the process recognises the importance of local knowledge in environmental decision making.	Please refer to initial response above (RR-020.17).
RR-020.20	3.5.4 The EIA legislation was designed to apply to those plans/projects which could be sufficiently detailed and particularised at the application stage, to allow the consenting decision to be taken in the full knowledge of what the likely significant effects of that plan or project would be. In such circumstances, it would be unnecessary to create a legal obligation under the order which requires the activities to remain within what was assessed within the ES under the EIA legislation. This is because the consent authorises the detailed and well particularised project, assessed in the ES, to be carried out, and, therefore, providing the development is constructed as per the consent, those works would, by default, remain within the parameters of the EIA assessment	Please refer to initial response above (RR-020.17).
RR-020.21	3.5.5 The difficulty identified with assessment of environmental impact, as was discussed in the Rochdale Envelope case, is that to deal with an outline planning case, where the project will flex over time, you need to undertake the assessment at the outline permission stage when there is not enough detail to identify properly what the final design of the project will actually be. In the case of Rochdale, the court was saying things could remain flexible providing the assessment of environmental impact took account of the need for evolution of the project over time and assessed the likely significant effects within clearly defined parameters, and then the consent granted imposed conditions to ensure that the process of evolution kept within the parameters of the assessment of environmental impact. Whilst there might not be an express provision that you can point to in the legislation that says that a project cannot exceed the effects assessed in the assessment, it is implied (or the purpose of EIA would be undermined) and the Rochdale case discusses this.	Please refer to initial response above (RR-020.17).

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Reference	Relevant Representation Comment	Applicant's response
RR-020.22	<p>3.5.6 In this DCO and the DML, the Applicant is wanting flexibility in terms of the design details (both in terms of some of the construction details, and in relation to some of the maintenance activities). Where those design details are not finalised at the application stage, the Applicant is wanting to retain some flexibility and is proposing that the works that can be carried out should be restricted to those which do not give rise to materially new or materially different environmental effects to those assessed in the ES. The concern with this is that the inclusion of the word materially here would allow the undertaker to carry out works whose effects are outside of the likely significant effects assessed in the ES, providing they do not do so materially, that is, in any significant way, greatly, or considerably. This is not what the purpose of the EIA process is, and it runs contrary to the purpose of EIA. In addition, whilst the undertaker is responsible for producing the environmental information and statement on which the EIA decision is based, the appropriate authority is responsible for the EIA consent decision. The inclusion of the word materially means essentially that the undertaker makes the decision as to what is and what is not material. Under EIA legislation it is for the appropriate authority to determine what the likely significant effects will be, and how those should be mitigated.</p>	<p>Please refer to initial response above (RR-020.17).</p>
RR-020.23	<p>3.5.7 The MMO does not consider that it is appropriate to use the word 'material' in these circumstances. If the Applicant wants the flexibility of not being prescriptive about the design from the start, the Order, and the DML granted through it, should restrict works which can be carried out to those which do not give rise to any new or different environmental effects to those assessed in the ES.</p>	<p>Please refer to initial response above (RR-020.17).</p>
RR-020.24	<p>3.6 Schedules 3 and 4 3.6.1 Paragraph 7 of Part 1 which refers the provisions of section 72 should be removed in its entirety.</p>	<p>As set out in more detail above, the Applicant is seeking to disapply sections 72(7) and (8) of the Marine and Coastal Access Act 2009. This paragraph provides clarity that the remainder of that section remains applicable to each dML. Therefore, no amendment is proposed.</p>
RR-020.25	<p>3.6.2 For regulatory certainty and consistency with other DMLs, the MMO proposes that Paragraph 9, Part 1 is amended to state the following: Any amendments to or variations from the approved details, plans or schemes must be in accordance with the principles and assessments set out in the environmental statements. Such agreement may only be given where it has been demonstrated to the satisfaction of the MMO that it is unlikely to will not</p>	<p>The Applicant has reviewed the wording in paragraph 9, Part 1 of each dML and considers that this is substantively the same as that requested by the MMO. Therefore no amendment is considered necessary.</p>

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Reference	Relevant Representation Comment	Applicant's response
	give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.	
RR-020.26	<p>3.7 Determination Dates</p> <p>3.7.1 The MMO strongly considers that it is inappropriate to put timeframes on complex technical decisions of this nature. The time it takes the MMO to make such determinations depends on the quality of the application made, the complexity of the issues, and the amount of consultation the MMO is required to undertake with other organisations to seek resolutions. The MMO's position remains that it is inappropriate to apply a strict timeframe to the approvals the MMO is required to give under the conditions of the DML given this would create disparity between licences issued under the DCO process and those issued directly by the MMO, as marine licences issued by the MMO are not subject to set determination periods.</p>	<p>The Applicant will continue discussions with the MMO about timings for submission of documents for approval in terms of conditions in the deemed marine licence.</p> <p>Including timescales within the conditions of the deemed marine licence provide a degree of certainty to the Applicant when it is discharging conditions to allow works to commence. The timeous discharge of conditions is important to ensure that the Applicant can meet its construction programme.</p> <p>The Applicant notes that it is well precedented in offshore wind DCOs for such timescales to be included in conditions of a deemed marine licence.</p>
RR-020.27	<p>3.7.2 Whilst the MMO acknowledges that the Applicant may wish to create some certainty around when it can expect the MMO to determine any applications for an approval required under the conditions of a licence, and whilst the MMO acknowledges that delays can be problematic for developers and that they can have financial implications, the MMO stresses that it does not delay determining whether to grant or refuse such approvals unnecessarily. The MMO makes these determinations in as timely a manner as it is able to do so. The MMO's view is that it is for the developer to ensure that it applies for any such approval in sufficient time as to allow the MMO to properly determine whether to grant or refuse the approval application.</p>	<p>Please refer to initial response above (RR-020.26).</p>
RR-020.28	<p>3.8 Additional Conditions</p> <p>3.8.1 Condition 13(3) uses the following wording: "13(3) An operations and maintenance plan substantially in accordance with the outline offshore operations and maintenance plan" The MMO requests that the word 'substantially' is removed from this condition as it is not required.</p>	<p>The Applicant considers that the word 'substantially' is a reasonably qualifying term to include in this sub-paragraph. It reflects the fact that the final offshore operations and maintenance plan may not fully align with the outline version submitted with the application (e.g. additional measures could be added to reflect updates to the project) but must be broadly in the same terms. Ultimately, the MMO will retain control on whether or not the terms of the final plan submitted to it are acceptable.</p> <p>As such, no amendment to this sub-paragraph is proposed.</p>
RR-020.29	<p>3.8.2 Maintenance of the Authorised Scheme</p> <p>Condition 13(4) refers to activities being carried out with accordance with a plan. MMO assumes that this plan is the operations and maintenance plan referenced in 13(3) however the DML contains a number of plans. MMO</p>	<p>The Applicant will update condition 13(4) of the next version of the draft DCO as suggested.</p>

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	<p>requests that the wording is amended making it explicit for the avoidance of doubt. For example: All operations and maintenance activities must be carried out in accordance with the approved plan approved under sub-paragraph (3).</p>	
RR-020.30	<p>3.8.3 Notifications and Inspections</p> <p>Should the undertaker become aware that any of the information on which the granting of this licence was based was materially false or misleading, the undertaker must notify the MMO of this fact in writing as soon as is reasonably practicable. The undertaker must explain in writing what information was materially false or misleading and must provide to the MMO the correct information.</p> <p>The MMO, in addition to being informed of cable damage, destruction and decay further requires a notification of cable repair. The MMO has provided the following wording for condition 15(11):</p> <p>The undertaker must ensure that the MMO, the MMO Local Office, local fishermen's organisations, and the Source Data Receipt Team at the UKHO Taunton, Somerset, TA1 2DN (sdr@ukho.gov.uk) are notified within five days of each instance of cable repair, replacement or protection replenishment activity.</p>	<p>The Applicant will update the condition in the deemed marine licence in the next version of the draft DCO that is submitted during the Examination to reflect this request.</p>
RR-020.31	<p>3.8.4 Adaptive Management</p> <p>MMO requests that the following conditions be added to the post-construction monitoring and surveys condition (condition 29 of Schedules 3 and 4) to allow the applicant to provide potential solutions when reviewing the results of monitoring, to be discussed with the MMO and Statutory Nature Conservation Bodies (SNCB).</p> <p><i>“(6). In the event that the reports provided to the MMO under sub-paragraph (3) identify a need for additional monitoring, the requirement for any additional monitoring will be agreed with the MMO in writing and implemented as agreed.”</i></p> <p><i>“(7). In the event that monitoring reports provided to the MMO under sub-paragraph (3), identifies impacts which are beyond those predicted within the Environmental Statement/Habitat Regulations Assessment, adaptive management/mitigation may be required. An Adaptive Management/Mitigation Plan to reduce effects to within what was predicted within the Environmental Statement/Habitat Regulations Assessment, unless otherwise agreed in writing by the MMO, must be submitted alongside the monitoring reports submitted under sub-paragraph (3), including timelines and associated monitoring to test</i></p>	<p>The Applicant notes that a similar condition was included within the recently granted Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024 following a recommendation by the Examining Authority on that application. That recommendation related specifically to concerns raised about the impact of that project on sensitive habitats and species. The Environmental Statement has not identified any likely significant environmental effects that would require ecological post-construction monitoring or need for potential adaptive management beyond that already included in condition 29. The Applicant does not consider any amendment to this condition to be necessary.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p><i>effectiveness. This plan must be agreed with the MMO in consultation with the relevant SNCBs to reduce effects to a suitable level for this project. Any such agreed or approved adaptive management/mitigation should be implemented and monitored in full. In the event that this adaptive management/mitigation requires a separate consent, the Applicant shall apply for such consent.</i></p> <p>The conditions ensure that all parties are clear what is required if the monitoring shows higher impacts than predicted during the assessment stage.</p>	
RR-020.32	<p>3.8.5 Provisions on Variations and Approvals</p> <p>With respect to any condition which requires the licensed activities to be carried out in accordance with the plans, protocols or statements approved under this licence, the approved details, plan or scheme are taken to include any amendments that may subsequently be approved in writing by the MMO. Subsequent to the first approval of those plans, protocols or statements provided, it has been demonstrated to the satisfaction of the MMO that the subject matter of the relevant amendments does not give rise to any materially new or materially different environmental effects to those assessed in the environmental information.</p>	<p>The Applicant considers that this is secured by paragraph 9 of each of deemed marine licence within schedules 3 and 4 of the draft DCO (AS-003).</p>
RR-020.33	<p>3.9 Conditions to Remove</p> <p>3.9.1 Force Majeure</p> <p>The MMO does not consider that this provision is necessary as section 86 of the 2009 Act provides a defence for action taken in an emergency in breach of any licence conditions. The MMO requires justification or rationale as to why this provision is considered necessary.</p>	<p>This condition and section 86 of the Marine and Coastal Access Act 2009 serve slightly different purposes.</p> <p>This condition imposes a duty on the undertaker to notify the MMO of the circumstances of such a deposit. This ensures that the MMO is provided with that information. Section 86 of the 2009 Act does not contain any such duty. It simply acts as a defence in the event a person is charged with an offence.</p>
RR-020.34	<p>4 Environmental Statement (ES)</p> <p>4.1 General Comments</p> <p>4.1.1 The MMO has focused its review on the following chapters of volume 1 and volume 2 of Morgan Offshore Wind Project: Generation Assets Environmental Statement (ES). However, the MMO has also reviewed the accompanying reports in Volume 3 and relevant technical reports in Volume 4 where required: Volume 1, Chapter 1: Introduction</p> <p>Volume 1, Chapter 3: Project Description</p> <p>Volume 2, Chapter 1: Physical Processes</p> <p>Volume 2, Chapter 2: Benthic Subtidal Ecology</p>	<p>This is noted by the Applicant. The Applicant has responded to all comments raised by the MMO.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Volume 2, Chapter 3: Fish and Shellfish Ecology</p> <p>Volume 2, Chapter 4: Marine Mammals</p> <p>Volume 2, Chapter 5: Offshore Ornithology</p> <p>Volume 2, Chapter 6: Commercial Fisheries 4.1.2</p> <p>An up-to-date schedule including specific timings and dates for each of the proposed works must be provided to the MMO. The MMO must be further informed of any updates, or changes to the schedule, prior to the commencement of the works, to ensure an effective inspection can occur.</p>	
RR-020.35	<p>4.2 Coastal Processes 4.2.1 The MMO has noted that three potential impacts have been scoped out of the ES. These are: changes to bathymetry due to depressions left by jack-up vessels; changes to sediment transport due to depressions left by jack-up vessels; and scour of seabed sediments during the construction and operations and maintenance phases.</p>	<p>This is noted by the Applicant.</p>
RR-020.36	<p>4.2.2 The MMO notes that there have been discussions with Natural England (NE) and other stakeholders over the exclusion of scour impacts from the ES. Whilst it is acceptable for it to be scoped out, the MMO requires clarity on why this is. The MMO recommends that a discussion at the ES stage of the qualitative magnitude of scour in comparison to the volumes of scour protection proposed should be provided. Whilst secondary scour is discussed in Section 1.9.5 of Volume 2, chapter 1, there are no estimations of extents, which the MMO recommends adding.</p>	<p>The impact assessment presented in Volume 2, Chapter 1: Physical processes (APP-013) was undertaken by application of the maximum design scenario in line with the agreed methodology outlined in Volume 1, Chapter 5 Environmental impact assessment methodology (APP-012). In terms of potential changes to wave climate, tidal flow and sediment transport regimes this included to provision of scour protection for all foundation types and locations. The volume and extent of scour protection material outlined within Volume 1, Chapter 3: Project description (APP-010) is based on conservative values. For example, scour protection is extended to 3.5 times the external diameter of the structure and the scour protection height of 2.5 m includes a 10% contingency. The maximum volume and extent of scour protection material outlined within Volume 1, Chapter 3: Project description (APP-010).</p> <p>The assessment of impacts with scour protection absent was therefore scoped out, and this was with the agreement of NE and other stakeholders through scoping and consultation via the EWG. It is noted that consented OWF developments such as Awel y Môr and Hornsea Three undertook a similar approach to that adopted for Morgan Generation whereby scour protection was included as standard within modelling studies and impact assessments as part of the in-built mitigation.</p> <p>The need and potential extent of scour protection measures will be dependent on the foundation type, geometry and location (i.e. seabed and hydrographic conditions). At the detailed design stage the magnitude of potential scour in relation to the proposed measures will be balanced. Secondary scour has been</p>

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		<p>assessed within the context of impacts to sediment transport and sediment transport pathways due to presence of infrastructure in section 1.9.5 of Volume 2, Chapter 1: Physical processes (APP-013) for the operations and maintenance phase. Where scour protection measures are to be furnished, they will be subject to engineering design to ensure they minimise as much as practical the occurrence of scour. Therefore, any residual/secondary scour would be very localised and of negligible magnitude; typically confined to within a few metres of the direct footprint of that scour protection material. The detail of design and construction will be outlined within the Offshore Construction Method Statement (CMS) developed in consultation with MMO and construction cannot commence until the CMS is submitted and approved by the MMO.</p>
RR-020.37	<p>4.2.3 The MMO requests that scour be considered in terms of the potential impacts it may have on sediment pathways, and additionally, the downstream impacts of scour or the use of scour protections (with secondary scour). An understanding of the qualitative impacts of scour and use of scour protection methods should be presented in a similar way to how secondary scour is discussed in the report. This would be highly beneficial to the ES and would help appease any concerns over scour impacts.</p>	<p>Morgan Generation Assets are located within an area of active sediment transport which may reduce the equilibrium scour depth as there is a consistent sediment supply. The seabed mobility study undertaken for the Morgan Generation Assets (ABPmer, 2023) observed that in practice, the actual scour depth that might develop (without the provision of scour protection) is likely to be less than the theoretical equilibrium (unconstrained) values, due to the thickness of erodible sediment present being typically less than the predicted full equilibrium depth of scour. Although this situation may limit the depth of the scour hole, as sediment supply is not available at the lee of the structure the scour hole may become further elongated. In this circumstance the seabed characteristics would also be altered within the vicinity of the structures i.e. from the Holocene sediments currently on the seabed to the Irish Sea Formation below. Please refer to the previous comment RR-020.36 for further detail regarding the assessment of scour potential.</p> <p>The detail of design and construction will be outlined within the Offshore Construction Method Statement (CMS) in consultation with MMO, with scour protection measures being subject to engineering design to ensure they minimise as much as practical the occurrence of scour. The exact parameters will be site specific and related to both the infrastructure type and scour protection approach, e.g. separate filter and armour layers, provision of a falling apron, or a composite solution. The site specific metocean data and seabed surveys provide appropriate data for designing suitable measures.</p> <p>It is also recognised that with the application of conservative volumes and extents of scour protection (as noted in the previous comment RR-020.36) have been applied within the context of physical processes and have been assessed in Volume 2, Chapter 1: Physical processes (APP-013). Ultimately</p>

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		the need, volume and extent may be reduced during the detailed design process as provision of excess quantities or oversizing of scour protection material can prove less effective.
RR-020.38	4.2.4 Table 1.7 of volume 2, chapter 1, lists the desktop review of existing studies and datasets which the MMO considers to be appropriate and recent in timelines. Table 1.8 also summarises site-specific surveys which have been undertaken between 2021 and 2022, which includes Metocean surveys and multibeam backscatter. The MMO would expect such data sources to be included and consider it to be a good data source.	The Applicant welcomes and notes your response that the studies listed in Table 1.7 of Volume 2, Chapter 1: Physical processes (APP-013) are appropriate and have been undertaken in recent timelines. The Applicant has included these surveys and studies listed in Table 1.7 and Table 1.8 within the Environmental Impact Assessments and the Applicant is pleased the MMO consider these to be good data sources.
RR-020.39	<p>4.3 Dredge, Disposal and Chemical Use</p> <p>4.3.1 The MMO notes that ballast for the gravity bases, as referenced in document J12, is to potentially include rock gravel crushed concrete aggregate high density rocks or possibly dredged sand or other seabed material from site preparation at each gravity base location within the Morgan Array Area. The MMO advises that any decommissioning plan provided should have a clear strategy for how such materials are to be recovered and re-used or disposed.</p>	The Applicant notes your response. A draft of the decommissioning plan for the Morgan Generation Assets will be submitted with the decommissioning programme prior to construction commencing. The decommissioning plan and programme will be updated during the Morgan Generation Assets lifespan to take account of changing good practice and new technologies. The scope of the decommissioning works would be determined by the relevant legislation and guidance at the time of decommissioning.
RR-020.40	4.3.2 The MMO considers that appropriate chemical contaminant analysis has been undertaken across the array area, as outlined in Volume 4, Annex 2.1, Appendix F.	The Applicant notes and welcomes the response.
RR-020.41	4.3.3 Document J6, 'Mitigation and Monitoring Schedule', indicates that there are no overall significant effects noted in terms of physical processes regarding monitoring cables and their burial status, however the MMO notes that this will be secured by means of the Offshore in Principle Monitoring Plan via a condition in the DML. Mitigation and monitoring should include notification to the regulator where there is potential for chemicals used in the construction operation maintenance and decommissioning of the offshore windfarm to have a pathway to the marine environment. This must include those chemicals used within closed systems that require frequent top up, and full details of the risk and justification for use of chemicals must be provided. The MMO advises that monitoring should consider: impacts to sediment transport and sediment transport pathways due to cable burial, and presence of infrastructure and associated potential impacts to physical features and bathymetry; future changes in sediment movements on the burial of cables; potential fisheries impacts, including the cables and their burial status with annual reviews for the first five years of the operational phase (and review VMS data to relate to	<p>In relation to monitoring of the cables and their burial status, as set out in the Mitigation and monitoring schedule (APP-076), no significant effects have been identified for physical processes and therefore no specific monitoring is recommended beyond routine inspections of inter-array and interconnector cables to ensure the cables are buried to an adequate depth and not exposed. The deemed marine licences within the draft Development Consent Order (AS-003) includes a condition requiring an offshore construction method statement to be submitted to and approved by the MMO prior to commencement of construction, which is to include details of cable monitoring including details of cable protection which includes a risk based approach to the management of unburied or shallow buried cables over the project lifetime. Monitoring of cables and their burial status is also secured through the monitoring plan required as a condition in the deemed marine licences within the draft Development Consent Order (AS-003).</p> <p>An Offshore Environmental Management Plan will be developed post-consent, to include details of a chemical risk assessment, that shall include information</p>

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	fishing). However, detailed comments can be provided once the plans are produced following the production of the final scheme design.	regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance.
RR-020.42	4.3.4 Volume 1, Chapter 3, section 3.5.8 details scour protections for foundations, and their justification. An option is for the use of concrete mattresses with linked polypropylene rope lattice, and artificial fronds mattresses made of continuous lines of overlapping buoyant fronds consisting of polypropylene or similar. The frond lines are secured to a polyester webbing mesh base that is itself secured to the seabed by a weighted perimeter or anchors pre-attached to the mesh base. The section states that Seabed Scour Control Systems (SSCS) Frond Mats installed in the North Sea in 1984 remain in place today and have required no maintenance since being deployed, as the mats are designed not to degrade with time (SSCS, 2022). The MMO is considering the risks of placing plastic infrastructure into the marine environment should the infrastructure degrade. The MMO is also aware that the final design of these frond mattresses will be detailed in the Offshore Construction Method Statement that will be submitted to and approved by the MMO prior to commencement of the development.	The Applicant acknowledges the MMOs consideration of the risks associated with the introduction of plastic infrastructure. The selection of scour protection methods, where required, will be evaluated and further considered post-consent in the Offshore Construction Method Statement, focusing on both engineering and suitability and environmental recoverability. The Offshore Construction Method Statement will be developed through consultation with the MMO and is secured in Condition 20(1)(d) of Schedule 4 of C1 Draft development consent order (AS-003).
RR-020.43	4.3.5 The MMO considers that is not clear from sections 1.5.1.15 to 1.5.1.21 of Volume 4, Annex 2.1 whether the methods used for the preparation of the trace heavy metals for analysis are suitable for the results to be compared to the UK action levels, OSPARs background assessment concentrations, or Canadian quality standards. Therefore, the comments on levels of contaminants cannot wholly be accepted, as depending on the extraction method, the concentration level in the sample will vary. The MMO advises that information on extraction methods should be provided in the ES, ensuring that only methods matching those used to determine the relevant sediment quality guideline be followed.	<p>Samples collected for trace metal analysis were stored in glass jars that had been pre-cleaned with the appropriate solvents, as required in the MMO guidance on 'Marine Licensing: sediment analysis and sample plans' (MMO, 2023). The samples were also stored frozen in line with the requirements of the same MMO guidance.</p> <p>Trace metal analyses was undertaken by the MMO validated laboratory SOCOTEC UK Limited via Aqua-regia extraction followed by inductively coupled plasma-mass spectrometry (ICP-MS) analysis, following the MMO-certified method and the MMO specification (MMO, 2018). This method was used for samples acquired in the environmental baseline surveys in 2021 and 2022 and is aligned with the methodology suitable for comparison with UK action levels.</p> <p>Aqua regia extraction of As, Cd, Cr, Cu, Hg, Ni, Pb and Zn was carried out. Approximately 1 g of air-dried and ground (particle size <118 µm) sample was digested for one hour with aqua regia. Once cooled the extract was filtered before being analysed. Analysis was performed by ICP-MS and quantified by comparing the results against a 5-point calibration curve for each target analyte. The calibration used standards sourced from traceable material and</p>

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		<p>ranges could be extended beyond 5 µg/g-by dilution. Methods were statistically controlled using both process and instrument quality control samples. Both are sourced independently from the solution used to calibrate the method. Instrument and process blank solutions are also run at regular intervals (with each batch) to monitor potential sources of contamination.</p> <p>The metals As, Cd, Cr, Cu, Hg, Ni, Pb and Zn were determined by ICP-MS. The spectrometer was calibrated using seven different concentrations of matrix-matched standards made from dilutions of 10 g/l spectroscopic standard solutions. Target analyte concentrations were measured by direct comparison to the internal standard with the nearest mass ionisation properties, to take into account changes in plasma conditions as a result of matrix differences between standards and samples.</p> <p>The ICP-MS method detected the following metals above the described limits of detection:</p> <ul style="list-style-type: none"> Arsenic (0.5 µg/g) Cadmium (0.04 µg/g) Chromium (0.5 µg/g) Copper (0.5 µg/g) Nickel (0.5 µg/g) Lead (0.5 µg/g) Zinc (2 µg/g) Mercury (0.01 µg/g). <p>Quality control consisted of running full method blanks together with one in-house reference material or certified reference material where required, and one duplicate sample per batch of twenty samples. Instrument performance was monitored by the use of instrument blanks, continuing calibration checks and independent calibration checks. Instrument and process blank solutions were also run at regular intervals (with each batch) to monitor potential sources of contamination.</p> <p>The methodology adopted is aligned with the methodology suitable for comparison of the results against the relevant UK sediment quality guidelines (i.e. UK/Cefas action levels).</p> <p>Recent studies have been revising these action levels (AL) with the goal of reducing the range of concentrations falling between AL1 and AL2 and minimising the number of samples requiring ad hoc decisions; however, no</p>

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		policy has been made yet based on recommendations from these studies. As a result of this, the results were compared to multiple guidelines/standards (ALs as well as the Canadian threshold effect level and probable effect level) to determine the level of contamination.
RR-020.44	<p>4.4 Benthic Ecology</p> <p>4.4.1 The MMO raised previous comments concerning the Preliminary Environmental Information Report (PEIR) with regard to the cumulative impact of the Morgan Offshore Windfarm and the introduction of artificial structures into areas of predominantly soft sediments leading to increased risk of introduction and spread of Invasive Non-Native Species (INNS). The MMO has noted that Table 2.32 in volume 2, chapter 2 of the ES includes an assessment of the potential impacts from INNS at each of the construction, operation and maintenance, and decommissioning phases of the proposed development.</p>	The Applicant notes this response.
RR-020.45	4.4.2 The MMO has no concerns regarding the scoping out of accidental pollution during construction, operations and maintenance, and decommissioning due to the commitment to implement industry good practice standards (International Convention for the Prevention of Pollution from Ships), and adherence to the plans set out in the Environmental Monitoring Plan and Marine Pollution Contingency Plan. The likelihood of an accidental spill is therefore low, and the measures put in place will act to prevent an increase in the magnitude of any spill.	The Applicant notes this response and welcomes the MMOs agreement that the likelihood of accidental spill is low and the measures put in place will prevent an increase in the magnitude of any spill.
RR-020.46	4.4.3 Recent research has shown that antifouling paint particles fundamentally alter sediment microbial communities (Tagg et al. 2024), and the input of paint flakes from Wind Turbine Generator (WTG) maintenance is likely to be highly localised and persistent over the lifetime of the Project. The MMO advocates for the monitoring of a subset of WTGs to assess the prevalence/abundance of paint flakes in surrounding sediments and suggest that an assessment of surficial sediment bound paint flakes should be considered in pre- and post-construction monitoring so that a robust assessment can be made of the sediment bound paint flakes before and after construction.	The impact associated with accidental pollution during construction, operations and maintenance and decommissioning was scoped out of the Environmental Statement for benthic ecology receptors following agreement from stakeholders in the scoping opinion. Additionally, the risk associated with pollution is proposed to be managed through measures set out in the Offshore Environmental Management Plan (EMP) and Marine Pollution Contingency Plan (MPCP). Therefore, no further assessment or monitoring of this impact has been proposed.
RR-020.47	4.4.4 The MMO notes that no specific monitoring has been proposed to test the predictions made within the impact assessment regarding benthic ecology receptors. However, the MMO acknowledges that an Offshore in Principle Monitoring Plan (document J11) has outlined associated monitoring that may offer indirect assessment. The MMO recommends that the post-construction assessment of wind turbine generator foundations includes sample collection,	Monitoring related to undertaking maintenance activities is outlined in the Offshore in-principle monitoring plan (APP-066). Any suitable DDV data available from this monitoring will be reviewed for the identification of INNS in accordance with the INNS Management Plan which will be included in the Offshore EMP (subject to data quality).

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	in addition to seabed imagery, to identify Invasive Non-Native Species accurately in the attached macroinvertebrate assemblage.	No further INNS monitoring is proposed as no significant effect from INNS was predicted within the Environmental Statement, therefore further monitoring is not considered to be required.
RR-020.48	<p>4.5 Fish Ecology</p> <p>4.5.1 One of the concerns the MMO raised at PEIR stage was the approach to the underwater noise (UWN) assessment, including the modelling and evidence base used to inform the assessment for behavioural responses to hearing sensitive fish, such as herring and cod. The MMO raised several clarifications relating to maximum design scenario (MDS) for the project upon which much of the UWN impact assessment was based.</p>	The Applicant notes this response.
RR-020.49	4.5.2 The MMO notes that the project design envelope has been refined since PEIR. The use of monopile foundations for both turbines and Offshore Platforms (OSPs) has been removed following geophysical and geotechnical surveys and studies. Tables 3.10 to 3.12 in Volume 1 Chapter 3 now state the MDS for piling activities is now a maximum of 96 turbines and four OSPs.	The Applicant notes this response.
RR-020.50	4.5.3 The MMO has identified inconsistencies between the MDS outlined in the project design (Volume 1, Chapter 3), and MDS used to inform the impact assessment in the fish ecology chapter (Table 3.18 and Table 3.32, Volume 2, chapter 3). MMO requests that clarification is provided on the comments presented in points 4.5.4 to 4.5.6.	<p>It should be noted that the Maximum Design Scenario (MDS) presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) has been selected from the project design envelope. For each of the impacts assessed within the topic chapters, the MDS is identified from the range of potential options for each parameter to identify the scenario with the maximum effect for a particular impact and receptor topic. This approach ensures that the scenario with the maximum potential for effect is assessed for each specific impact to ensure future design finalisation falls within the envelope assessed. Volume 1, Chapter 3: Project description (APP-010) presents the maximum design parameters for the Morgan Generation Assets, however each of these parameters does not necessarily reflect the realistic worst case scenario that has been applied for each individual topic.</p> <p>Clarification has been provided on the specific inconsistencies highlighted in points 4.5.4 to 4.5.6.</p>
RR-020.51	4.5.4 Table 3.11 in Volume 1, Chapter 3 states that the pin diameter for pin piled jacket turbine foundations to be 5.5 metres (m) instead of the 3.8m diameter stated in the impact assessment in the fish ecology chapter (Volume 2, chapter 3). The MMO considers that this undermines the confidence in the	The maximum pin pile diameter considered for the Morgan Generation Assets is 5.5 m, as outlined within Volume 1, Chapter 3: Project description (APP-010). Underwater sound modelling presented in Volume 1, Annex 3.1: Underwater sound technical report (APP-028) was based upon the greatest pin pile diameter of 5.5 m. The results of this modelling were used to inform

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	<p>modelling presented in Figures 3.4 to 3.7 (Volume 2, chapter 3), as the UWN contours indicating the range of impact will be larger for larger piles.</p>	<p>section 3.9.3 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) to assess the potential for injury and behavioural effects to fish and shellfish receptors over spatial ranges. All contours and impact ranges presented within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) are based upon a 5.5 m diameter pile (see paragraph 3.9.3.23) with full details of the modelling undertaken presented within Volume 1, Annex 3.1: Underwater sound technical report (APP-028). The MDS for fish and shellfish ecology receptors for the impact of underwater sound from piling is based upon the greatest number of piling events (i.e., days of piling) and therefore uses the scenario with the most piles, which is based upon a pile diameter of 3.8 m (see below to demonstrate the difference in pile numbers between the two OSP options queried). However, the Applicant notes that 5.5m is the maximum pile diameter given in Volume 1, Chapter 3: Project description (APP-010) and is what has been used in the modelling of underwater sound injury ranges. The fish and shellfish ecology assessment has presented the MDS in terms of number of piles, but used 5.5 m impact ranges. Therefore, the assessment is highly precautionary and conservative, and in reality, impacts will be well within the MDS which has combined the worst temporal scenario with larger pile diameters. The piling scenario which resulted in the greatest temporal effect (114 days) was found to be for installing:</p> <p>64 x 4-legged jacket wind turbine foundations (1 x pile per leg), resulting in 256 x 3.8 m diameter pin piles, and a piling duration of 64 days;</p> <p>10 x gravity base foundations, each requiring 15 piles for ground strengthening, resulting in 10 x 15 x 4 m diameter pin piles and a piling duration of 38 days;</p> <p>and</p> <p>4 x 4-legged jacket OSP foundations (3 x piles per leg), resulting in 48 x 3.5 m diameter pin piles and a piling duration of 12 days.</p> <p>Volume 1, Chapter 3: Project description (APP-010) presents the maximum design parameters for the Morgan Generation Assets, however each of these parameters does not necessarily reflect the realistic worst case scenario that has been applied for each individual topic. It is necessary to consider all design options against the realistic worst case scenario to define the MDS for each impact in turn.</p>
RR-020.52	<p>4.5.5 The MMO is of the opinion that the number of pins required to secure the OSPs has been underestimated. This is evidenced in the inconsistency between the information contained within Table 3.18 of Volume 2, chapter 3, and Table 3.12 of Volume 1, Chapter 3. The MDS in Table 3.18 is quoted as</p>	<p>It should be noted that the Maximum Design Scenario (MDS) presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) has been selected from the project design envelope. For each of the impacts assessed within the topic chapters, the MDS is identified from the range of potential options for</p>

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	<p>being four OSPs with four-legged jacket foundations, requiring three piles per leg, leading to a total of 48 piles. However, the MMO identified in Table 3.12 the MDS for OSPs uses a six-legged jacket foundation requiring three piles per leg. The MMO calculates this resulting in a total of 72 piles being required as opposed to the 48 identified. Table 3.18 in Volume 2, Chapter 3 also states the pin pile diameter to be 3.8m whereas Table 3.12 in the project design section (Volume 1, Chapter 3) states that pin piles are 5.5m in diameter.</p>	<p>each parameter to identify the scenario with the maximum effect for a particular impact and receptor topic, in this case the piling duration. The approach to assessment (based on CIEEM, 2019; and updates from CIEEM, 2022), including the MDS approach, was summarised during Benthic Ecology, Fish and Shellfish Ecology and Physical Processes Expert Working Group (EWG) meeting 2 (29 November 2022), and EWG meeting 3 (14 March 2023). Meeting minutes are provided in the Technical engagement plan appendices Part 2 (Appendix B; APP-090).</p> <p>Volume 1, Chapter 3: Project description (APP-010) presents the maximum design parameters for the Morgan Generation Assets, however each of these parameters does not necessarily reflect the realistic worst case scenario within the bounds of the project design envelope that has been applied for each individual topic. The MDS for the OSPs for the impact of underwater sound during the construction phase impacting fish and shellfish receptors within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) is:</p> <p>4 x 4-legged jacket OSP foundations (3 x piles per leg), resulting in 48 x 3.5 m diameter pin piles and a piling duration of 12 days.</p> <p>When considering a 6-legged jacket OSP foundation as referenced in Volume 1, Chapter 3: Project description (APP-010), this is based upon a single OSP foundation resulting in 18 piles (1 x jacket foundation, 6 x legs and 3 x pin piles per leg = 18 pin piles in total), whereas the defined MDS is based upon four 4-legged jacket foundations resulting in a greater number of piles to be installed (4 x jacket foundations, each with 4 x legs, and 3 x pin piles per leg = 48 pin piles) and therefore a greater duration of piling. The MDS therefore represents the worst case scenario from the range of options within the bounds of the project design envelope.</p> <p>The piling scenario which resulted in the greatest temporal effect (114 days) was found to be for installing:</p> <p>64 x 4-legged jacket wind turbine foundations (1 x pile per leg), resulting in 256 x 3.8 m diameter pin piles, and a piling duration of 64 days.</p> <p>10 x gravity base foundations, each requiring 15 piles for ground strengthening, resulting in 150 x 4 m diameter pin piles and a piling duration of 38 days.</p> <p>4 x 4-legged jacket OSP foundations (3 x piles per leg), resulting in 48 x 3.5 m diameter pin piles and a piling duration of 12 days.</p> <p>With regards to the pile diameters modelled and assessed, please refer to the Applicant's response to RR-020.51.</p>

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RR-020.53	<p>4.5.6 The temporal MDS for the duration of piling also appears to be incorrect. In the project description Volume 1, Chapter 3, the installation duration for a single pin pile is stated to be 6.5 hours per pile under the jacket piling scenario. No installation duration is cited in the project description for pin piles under the gravity base scenario. However, in Table 3.18 of the fish ecology chapter (Volume 2, Chapter 3), the average piling duration is up to 4.5 hours piling per pile for jackets, and up to 4 hours piling per pile for gravity base piles. The MMO has therefore reached the conclusion that the estimates for both the number of hours of piling per day, and the cumulative number of hours/days of piling required to install all piles, are likely to be inaccurate.</p>	<p>It should be noted that the MDS presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) and project description outlined in Volume 1, Chapter 3: Project description (APP-010) are both selected from the overall PDE, but the MDS will differ slightly depending on the impact being assessed, as the impact-specific MDS is derived from a range of engineering scenarios to identify the scenario with the maximum effect for a particular impact and receptor topic, in this case the piling duration under the impact of underwater sound during the construction phase impacting fish and shellfish receptors. Volume 1, Chapter 3: Project description (APP-010) presents the greatest scale for all design parameters, however each of these does not necessarily reflect the MDS when applied to a specific impact.</p> <p>The MDS for fish and shellfish ecology receptors for the impact of underwater sound from piling is based upon the greatest number of piling events (i.e., days of piling) and therefore uses the scenario with the most piles, which is based upon a pile diameter of 3.8 m (see below to demonstrate the difference in pile numbers between the two OSP options queried).</p> <p>The installation duration for a single pin pile presented within Volume 1, Chapter 3: Project description (APP-010) represents the maximum duration for a single pin pile of the maximum diameter considered within the Project Design Envelope (i.e. 5.5 m), however when this is considered in the context of the number of piles associated with the range of engineering scenarios within the PDE, the total piling duration for a 5.5 m diameter pile is less than for a scenario with more piles of a smaller diameter (i.e. 3.8 m) which each take less time to install (i.e. 4.5 hours per pile).</p> <p>For example, 256 x 3.8 m diameter pin piles resulting from 64 x 4-legged jacket wind turbine foundations with an average of 4.5 hours piling per pin pile equates to piling over a 64-day period.</p> <p>Whereas 181 x 5.5 m diameter pin piles resulting from 45 x 4-legged jacket wind turbine foundations with an average of 6.5 hours piling per pin pile equates to piling over a period of 57 days.</p> <p>The temporal MDS for piling under the impact of underwater sound during the construction phase impacting fish and shellfish receptors in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) is:</p> <p>64 x 4-legged jacket wind turbine foundations (1 x pile per leg), resulting in 256 x 3.8 m diameter pin piles, and a piling duration of 64 days (based on an average of 4.5 hours of piling per pin pile).</p>

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		<p>10 x gravity base foundations, each requiring 15 piles for ground strengthening, resulting in 150 x 4 m diameter pin piles and a piling duration of 38 days (based on an average of 4 hours of piling per pin pile).</p> <p>4 x 4-legged jacket OSP foundations (3 x piles per leg), resulting in 48 x 3.5 m diameter pin piles and a piling duration of 12 days (based on an average of 4.5 hours of piling per pin pile).</p>
RR-020.54	<p>4.6 Underwater Noise and Fish Ecology</p> <p>4.6.1 The MMO requests that a number of clarifications are required in relation to the UWN modelling presented within Volume 2, Chapter 3. The MMO advises that the clarifications requested in points 4.6.2 to 4.6.5 are presented in a technical addendum to the ES. MDS should clearly be presented in relation to the full extent of piling works and the clarifications required of UWN modelling in relation to herring and cod should also be presented.</p>	<p>Please see responses by the Applicant to points 4.5.3 to 4.5.6, and 4.6.2 to 4.6.5 to address these concerns.</p>
RR-020.55	<p>4.6.2 The MMO notes that the thresholds for mortality and potential mortal injury, recoverable injury, and temporary threshold shift (TTS) have been presented correctly as per the pile driving threshold guidelines described by Popper et al. (2014), in Tables 3.23 and 3.25 of Volume 2, Chapter 3. It is therefore unclear why the thresholds described by Popper et al. (2014), have not been presented in Figures 3.10 and 3.11 of Volume 2, Chapter 3 and instead, thresholds of 145 decibels (dB) for TTS, 163 dB for recoverable injury and 166 dB for mortality and potential mortal injury have been modelled for group 3 and 4 fish with high hearing sensitivity. Thresholds of 145 dB, 163 dB and 166 dB do not relate to the hearing capabilities in fish and are markedly lower to those described by Popper et al. (2014) for the same effects. The MMO requests that modelling outputs are amended to present the range of impact from UWN based on the thresholds for Group 3 and 4 fish with high hearing sensitivity for mortality and potential mortal injury (207 cumulative sound exposure level (SEL_{cum})), recoverable injury (203 SEL_{cum}), and TTS (186 SEL_{cum}) as per the pile driving threshold guidelines described by Popper et al. (2014).</p>	<p>The contour decibel levels presented in Figure 3.8, 3.9, 3.10 and 3.11 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) are derived from the contours generated for the single strike sound exposure level (SEL_{ss}) metric to provide a representation of the relevant cumulative sound exposure level (SEL_{cum}) thresholds. This is based upon the injury ranges (Temporary Threshold Shift; TTS, recoverable injury and mortality) outlined within Table 3.22, 3.23 and 3.24 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) for Group 3 and 4 fish, drawn directly from Volume 3, Annex 3.1: Underwater sound technical report (APP-028). The SEL_{ss} contour values are included within Figure 3.8, 3.9, 3.10 and 3.11 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) for transparency.</p>
RR-020.56	<p>4.6.3 The MMO raised previous concerns at PEIR stage due to the use of the 160 dB re 1µPa SPL_{pk} (peak sound pressure level) threshold for modelling behavioural responses in herring with no citation for this threshold and no justification or evidence was provided as to what this threshold is based on. UWN monitoring within the ES has been carried out based upon both 135 dB single strike exposure level (SEL_{ss}) re 1 µPa².s and 160 dB re 1µPa SPL_{pk} thresholds. At several points throughout the ES (Volume 2, Chapter 3) it is</p>	<p>The position regarding the use of the 160 dB re 1µPa SPL_{pk} metric is noted by the Applicant. Modelled contours for both SPL_{pk} (160 dB re 1µPa SPL_{pk}) and SEL_{ss} (135 dB re 1µPa².s SEL_{ss}) are presented for herring to support the assessment of behavioural effects in section 3.9.3 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). The assessment is underpinned by the worst case or maximum ranges of behavioural contours which stem from the highly precautionary 135 dB re 1µPa².s SEL_{ss} metric; and the assessment has</p>

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	<p>approximated that 135 dB re 1μPa².s SEL_{ss} and 160 dB re 1μPa SPL_{pk} are roughly equivalent however, the MMO considers that this is not accurate. The relation between the two metrics is highly contextual and any "conversion" is subject to various uncertainties, although empirical relationships have been proposed for piling noise (e.g., Lippert et al., 2015). Using this later example, 160 dB SPL_{pk} is roughly equivalent to 143 dB SEL_{ss}. The MMO does not believe that it is entirely appropriate to apply such conversions to noise thresholds as this further removes them their relevant biological context.</p>	<p>therefore resulted in the prediction of a moderate adverse effect to herring during the spawning period for the Morgan Generation Assets alone and cumulatively with other projects and plans.</p> <p>The suggestion of applying a 160 dB re 1μPa SPL_{pk} sound level for determining behavioural effects in herring is based upon studies by Doksaeter <i>et al.</i> (2012) and McCauley <i>et al.</i> (2000). Doksaeter <i>et al.</i> (2012) studied the effects of impulsive sonar sources, with behavioural reactions by herring reported to sounds at 168 dB re 1μPa SPL_{pk}. McCauley <i>et al.</i> (2000) studied the effects of impulsive air guns upon a range of species, and reported, behavioural reactions by the clupeid, Perth herring <i>Nematalosa vlaminghi</i> and other species above 156-161 dB re 1μPa².s mean squared pressure. These studies are referenced within section 3.9.3 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021).</p> <p>The following has been added to the Applicant's errata document:</p> <p>The inclusion of references to 135 dB re 1μPa².s SEL_{ss} and 160 dB re 1μPa SPL_{pk} being roughly equivalent are included in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) in error and should be disregarded; this statement is not reflected in the assessment outcomes and specific assessment content, and does not change the conclusions of the assessment. As outlined above within the Applicant's response to this point, the assessment outcomes are based upon the maximum extent of behavioural contours presented, which are derived from the highly precautionary 135 dB re 1μPa².s SEL_{ss} contours, shown in Figure 3.6 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021).</p>
RR-020.57	<p>4.6.4 Table 3.19 in Volume 2, Chapter 3 outlines that where concurrent piling is to take place, the maximum hammer energy of 3000 Kilojoules (kJ) will be used and where single event piling is taking place, the maximum hammer energy will be 4,400 kJ. This is reflected in Figure 3.4 (Volume 2, Chapter 3) where the SEL_{cum} for concurrent piling using a hammer energy of 3000 kJ has been modelled relative to the herring spawning grounds around the Isle of Man. Figure 3.6 (Volume 2, Chapter 3) shows the SEL_{ss} UWN contours for single point piling using a hammer energy of 4,400 kJ relative to the herring spawning grounds around the Isle of Man. In both figures, herring spawning grounds are indicated by aggregated Northern Ireland Herring Larvae Survey (NINEL) larval density data for the years 2012 to 2021. Both figures show that the UWN contour for 135 dB fully overlaps with the high intensity herring spawning grounds in the southeast of the Isle of Man, and partially overlap with the high intensity herring spawning grounds in the north and northeast of the</p>	<p>The Applicant confirms that the maximum hammer energy assessed for concurrent piling within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) is 3,000 kJ, and for single piling is 4,400 kJ.</p> <p>The Applicant acknowledges the risk of adverse effects to herring spawning at the Douglas Bank spawning ground off the east and northeast coasts of the Isle of Man, particularly in the southern part of this ground with regards to piling during the herring spawning period. This is reflected in the precautionary prediction of a potential moderate adverse effect to herring at the Douglas Bank spawning ground during the spawning season concluded in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) for the Morgan Generation Assets alone, which is significant in EIA terms.</p> <p>As a result of this predicted potential significant effect to herring, the Applicant has committed to development of an Underwater Sound Management Strategy</p>

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	<p>Isle of Man. As outlined in the PEIR, the 135 dB threshold, as per Hawkins et al. (2014), is considered an appropriate precautionary threshold for modelling behavioural responses in herring at their spawning ground. Based on Figures 3.4 and 3.6 (Volume 2, Chapter 3), project piling works could have potentially significant impacts on herring spawning if piling was to occur during their spawning season (September to October, inclusive), including disrupting the migration and aggregation of adult herring at the spawning grounds and interfering with their ability to spawn when ready. The MMO has therefore deemed it necessary to place a seasonal restriction on piling in order to protect spawning herring and their eggs and larvae during the spawning season.</p>	<p>(UWSMS), an Outline of which is provided with the Application (APP-068). The purpose of this strategy is to apply the mitigation hierarchy, from design refinement to the application of additional measures, where required (such as temporal management, or the application of additional measures such as Noise Abatement Systems; NAS, pending forthcoming policy changes), with stakeholder input to manage the effects of underwater sound to non-significant levels to ensure no residual significant effect.</p> <p>The UWSMS is secured as a condition of the deemed marine licence(s) within the draft Development Consent Order (AS-003).</p> <p>The Applicant requires flexibility in the design and construction methods at this stage, due to ongoing design refinement and uncertainties. It would not be considered appropriate to apply a blanket restriction, when the final design parameters and construction programme may not require the implementation of additional mitigation measures.</p> <p>The UWSMS is a consistent approach to a Site Integrity Plan (North Sea)/Piling Strategy (Scotland) and will be developed with stakeholder engagement and will require approval from the MMO prior to any construction activities commencing. This approach is endorsed within NPS EN-3 (paragraph 2.8.135).</p> <p>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.</p> <p>The UWSMS will be based upon the final design and construction programme and is therefore considered a robust and proportionate measure to manage the impacts of underwater sound to ensure effects to herring during their spawning season are not significant, thereby avoiding the need to condition a seasonal restriction under the DCO.</p>
RR-020.58	<p>4.6.5 Following the review of the PEIR, the MMO requested that a detailed assessment for the impacts of underwater noise from piling using the most recent evidence/data for Atlantic cod, including the potential impacts to eggs and larvae, should be undertaken. Further modelling was requested for the SPLpk of 207 dB for eggs and larvae following a worst-case scenario. This recommendation was in line with MMO's previous recommendations for</p>	<p>The Applicant has responded to this comment within Annex 3.1_Morgan Gen_Response to RR-020_MMO_FSF_4.6.5</p>

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	<p>projects of a similar nature in the Irish Sea, for example, the Walney Extension Offshore Wind Farm (OWF) had a piling restriction during the cod spawning season to ensure any significant impacts to cod were mitigated. This does not appear to have been modelled specifically, however modelling of UWN emissions in relation to high and low intensity cod spawning grounds has been presented in Figures 3.5, 3.11 and 3.14 (Volume 2, Chapter 3). Clarification is required on the threshold modelled in Figure 3.11, and the hammer energy modelled in Figure 3.14, which is lower than the stated maximum. Figure 3.5 presents SPLpk noise contours for every 5 dB increment for a 4,400 kJ hammer energy at the north modelled location, which is in the middle of the high intensity cod spawning ground, however some clarification of this figure is also needed regarding the diameter of the pile used in the modelling (as per comment 4.6.4). The project falls entirely within the high intensity cod spawning grounds. Cod is a hearing specialist (has a swim bladder involved in hearing) and is highly vulnerable to noise disturbances (Popper et al., 2014), therefore the impact ranges for mortality and potential mortal injury, recoverable injury, TTS, startle response, and possible moderate to strong avoidance are likely to fall entirely or mostly within the spawning grounds. Clarifications requested in points 4.5.3 and 4.6.1 are required so that impacts to cod can be appropriately assessed. Pending clarifications on the UWN modelling for cod, the MMO considers that a seasonal piling restriction is likely to be necessary to protect gathering and spawning adult cod, and their eggs and larvae, will be necessary during the spawning season (January to April inclusive).</p>	
RR-020.59	<p>4.6.6 Due to the uncertainties in the UWN modelling and assessments presented in Volume 2, Chapter of the ES, the MMO is precautionarily requesting that seasonal piling restrictions be implemented to prevent significant disruption to spawning cod and herring, and their eggs and larvae, during their sensitive spawning seasons (please see points 4.6.4 and 4.6.5). The use of noise abatement technologies during piling operations at the Morgan Array could reduce the range of impact from UWN sufficiently that UWN emissions from piling will not overlap with the spawning grounds of cod and herring. In this way, and providing that suitably accurate and detailed modelling is presented, it may be possible to refine the MMO's request of a temporal piling restriction. Given the availability of effective alternatives to unmitigated piling and the range of noise abatement options, unmitigated pile driving cannot be justified on the basis that there are no realistic alternatives. It should also be noted that, given the expansion of OWF in the Irish Sea through the development of the Morgan, Mona, and Morecambe OWFs in the next few</p>	<p>Please see response to RR-020.58 within Annex 3.1_Morgan Gen_Response to RR-020_MMO_FSF_4.6.5.</p> <p>Further as outlined within Annex 3.1_Morgan Gen_Response to RR-020_MMO_FSF_4.6.5 and in the outline UWSMS (APP-068), the application of sound abatement (noise abatement systems (NAS)) is one of a number of potential measures which will be considered and investigated as part of the UWSMS to manage the potential cumulative effects of underwater sound from piling on spawning cod to non-significant levels.</p> <p>Underwater sound modelling presented in Volume 3, Annex 3.1: Underwater sound technical report (APP-028), and the results of which presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) include standard mitigation measures applied to piling only (i.e. soft-starts, ramp-ups) and assessed the "worst case scenario" under the design envelope/maximum design scenario approach. Further investigation will be undertaken through</p>

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Reference	Relevant Representation Comment	Applicant's response
	years, noise abatement should be considered in order to minimise the cumulative impact of UWN emissions from piling through the region.	development of the UWSMS post-consent to fully assess and determine additional measures, if required, such as in-line mitigation systems or external NAS (pending forthcoming policy changes), following the application of the mitigation hierarchy. The UWSMS will be developed with stakeholder input, and the final UWSMS will be subject to approval by the MMO prior to the commencement of piling.
RR-020.60	4.6.7 The MMO notes that the modelling presented in Figures 3.4 and 3.6 (Volume 2, Chapter 3) present unmitigated piling scenarios. Given the availability of effective alternatives to unmitigated piling, such as noise abatement measures to reduce noise at source, unmitigated pile driving cannot be justified on the basis that there are no realistic alternatives. Noise abatement measures would reduce the range of potential impact from UWN on sensitive species and habitats, an issue which is especially pressing given the wider context of the current expansion of offshore wind developments in the Irish Sea. To ensure adequate preparations are made and potential delays avoided, the MMO recommends planning for noise abatement measures at the earliest opportunity and to incorporate such measures. The implementation of adequate noise abatement strategies may also remove the need for seasonal piling restrictions, providing that the range of impact from UWN in relation to spawning cod and herring is adequately reduced.	<p>As outlined in the Outline Under Water Sound Management Strategy (APP-068)), NAS is one of a number of measures which will be considered as part of the UWSMS to manage the cumulative effects of underwater sound from piling on spawning herring and cod (and other relevant species) to non-significant levels.</p> <p>Underwater sound modelling presented in Volume 3, Annex 3.1: Underwater sound technical report (APP-028), and the results of which presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) include standard mitigation measures applied to piling only (i.e. soft-starts, ramp-ups) and assessed the realistic “worst case scenario” under the design envelope/maximum design scenario approach.</p> <p>Further investigation will be undertaken through development of the UWSMS post-consent to fully assess and determine additional measures, if required, such as in-line mitigation systems or external NAS, following forthcoming policy and the application of the mitigation hierarchy.</p> <p>With regards to seasonal restrictions, please refer to responses to RR-020 for items 4.6.4 (RR-020.57), 4.6.5 (RR-020.58) and 4.6.6 (RR-020.59) which outline the Applicant's position.</p>
RR-020.61	4.6.8 The MDS used in the cumulative assessment for UWN impacts to fish is the same as that presented in Table 3.18 (Volume 2, Chapter 3). It should be noted that the clarifications outlined in 4.6.2 to 4.6.3 will also apply to the cumulative scenarios. The MMO has also noted a number of minor issues within the cumulative effects assessment methodology (Volume 2, Chapter 3, Section 3.11) section which are required to be clarified before the assessment can be accepted. More details are found in points 4.6.9 and 4.6.10.	The Applicant notes this response and has provided further clarification to the points below.
RR-020.62	4.6.9 Scenarios 1 and 3 of the cumulative effects assessment (Volume 2, Chapter 3, Section 3.11) appear to be the same and it is not clear how these scenarios are different. Both scenarios take the Morgan Generation Assets together with the Morgan and Morecambe OWF Transmission Assets.	Scenario 1 of the CEA is an assessment of cumulative effects of the Morgan Generation Assets combined with the Morgan and Morecambe Offshore Wind Farms: Transmission Assets.

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		<p>Scenario 3 is an assessment of those projects in Scenario 1, along with the projects and plans outlined under each of the three Tiers.</p> <p>This is outlined within assessments presented for Scenarios 1 and 3 in section 3.11 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021).</p>
RR-020.63	<p>4.6.10 Repeated reference is made to the installation of monopiles in the cumulative assessment for UWN effects on fish. However, the option of using monopiles as a base for OSPs and turbines has been removed from the Morgan OWF design envelope, the Applicant has previously indicated that the design envelope for the Morgan and Morecambe Transmission Assets has been updated to include no elements which require piling. It appears that an incorrect maximum hammer energy has also been stated (5,500 kJ rather than the updated maximum hammer energy of 4,400 kJ).</p>	<p>Throughout the cumulative effects assessment within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), references to monopiles relate to the Morgan and Morecambe Offshore Wind Farms: Transmission Assets, Morecambe Offshore Windfarm: Generation Assets and Awel y Môr Offshore Wind Farm, based upon information available within the public domain at the time of Application submission.</p> <p>Information for Morgan and Morecambe Offshore Wind Farms: Transmission Assets and Morecambe Offshore Windfarm: Generation Assets is based upon the design information contained within their respective Preliminary Environmental Information Reports (Morecambe Offshore Windfarm Ltd., 2023; Morgan and Morecambe (Offshore Wind) Transmission Assets; 2023), and information for Awel y Môr Offshore Wind Farm was drawn from the Environmental Statement (RWE, 2023). At the time of writing, piling of monopiles was included within the Morgan and Morecambe Offshore Wind Farms: Transmission Assets Preliminary Environmental Information Report.</p> <p>All references to the Morgan Generation Assets in the CEA underwater sound assessment within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) are based upon installation of 454 x pin piles with a maximum hammer energy of up to 4,400 kJ, as outlined within Table 3.35 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021).</p>
RR-020.64	<p>4.6.11 It is clear from Table 3.31 (Volume 2, Chapter 3) that the years 2026 to 2029 will be a period of significant development in the Irish Sea with no less than four offshore wind projects being installed. Serious concerns remain as to the impact on fish receptors from cumulative UWN arising from the various OWF projects described in Sections 3.10 and 3.11 of the fish ecology chapter (Volume 2, Chapter 3). The MMO is of the opinion that mitigation measures and careful scheduling are necessary to reduce the impacts to fish which have spawning grounds in the region. The MMO recommends that the cumulative impact range contours are presented, for all the projects discussed in the cumulative impact assessment, as a figure to help better visualise any potential cumulative impacts between OWF projects.</p>	<p>As each project has undertaken underwater sound modelling independently, utilising different parameters (which are not fully elucidated within each Application), it is not possible to replicate this modelling within a single figure, and therefore requires qualitative assessment when interpreting the potential for enhanced areas of ensonification. As such, the Applicant has undertaken a detailed review of the modelling undertaken for each relevant project alone (i.e. those which may be constructing at the same time as the Morgan Generation Assets) to determine the potential for increased areas of ensonification overlapping defined spawning habitat, particularly for herring and cod. This has been qualitatively interpreted to reach a precautionary conclusion. The Applicant considers that this has been sufficiently and precautionarily assessed within the CEA and for sound-sensitive species, cod and herring, has resulted in a predicted moderate adverse effect, which is significant in EIA terms.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>Based upon this predicted effect, the Applicant has committed to development of an Underwater Sound Management Strategy (secured as a condition of the deemed marine licence(s) within the Draft Development Consent Order (AS-003), an outline of which is provided with the Application (APP-068). The purpose of this strategy is to apply the mitigation hierarchy, from design refinement to the application of additional measures, where required and in line with forthcoming policy changes, with relevant stakeholder input to manage the effects of underwater sound to non-significant levels.</p>
RR-020.65	<p>4.6.12 The UWN modelling presented includes contours for each 5 dB increment. When these graduating contours are overlaid onto the spawning and nursery grounds maps from Coull et al. (1998) and Ellis et al. (2012), the figures become overloaded with information which affects ease of interpretation. The MMO recommend that these figures should be kept as simple as possible. The spawning and nursery grounds maps from Coull et al. (1998) and Ellis et al. (2012) need to be included on UWN modelling figures. However, the UWN contours which are of consequence to the assessment should be the only ones presented, namely: the thresholds for Group 3 and 4 fish with high hearing sensitivity for mortality and potential mortal injury (207 SELcum); recoverable injury (203 SELcum); and, TTS (186 SELcum) as per the pile driving threshold guidelines described by Popper et al. (2014). For the purpose of modelling behavioural responses in herring and other hearing sensitive fish at their spawning ground, a threshold of 135dB (SELss), based on research by Hawkins et al. (2014), is recommended by MMO. UWN contours for this threshold should also be presented on the relevant figures as appropriate. Presenting fewer, more relevant, UWN contours will make the modelling presented much clearer.</p>	<p>The Applicant has responded to this comment within Annex 3.3 _Morgan Gen_Response to RR-020_MMO_FSF_4.6.12.</p>
RR-020.66	<p>4.7 Habitat Suitability Assessments for Herring and Sandeel</p> <p>4.7.1 The MMO is content that the seabed sediments within the Morgan Array Area are generally not high value as herring spawning habitat based on the classification of habitat suitability for herring presented in Figure 2 (Volume 2, Chapter 3). Both site specific and supporting particle size analysis (PSA) data characterise sediments as being 'unsuitable' as herring spawning habitat. However, Figure 3.2 (Volume 2, Chapter 3) shows that outside and to the north of the Morgan boundary, there is an area where broadscale seabed sediment data classifies the habitat as 'preferred' Sandy Gravel. Although there is no PSA data for this area to ground-truth this characterisation, these sediments are overlapped by both high and low intensity spawning grounds for herring, according to Coull et al. (1998). Although herring may not be actively spawning</p>	<p>The Applicant notes this response. The proximity to herring spawning grounds has been considered in the impact assessment for the project alone and cumulatively with other projects and plans in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) for all relevant impacts. The assessment considers the potential for impacts to occur within the fish and shellfish ecology study area, which encompasses areas of suitable spawning habitat outside of the direct footprint of project infrastructure and the Morgan Generation Assets Array Area, and outside of the mapped spawning grounds.</p> <p>It should be noted however that broadscale habitat data, particularly within such a dynamic area which has been found to reflect a mosaic of habitats rather than large extents of a specific habitat (see habitat mapping for the site-specific surveys in Volume 4, Annex 2.1: Benthic subtidal ecology technical</p>

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	<p>within the Morgan Array area, there will be herring spawning taking place across the active spawning ground in the vicinity of the project.</p>	<p>report; APP-050) should be interpreted with caution, due to the high degree of interpolation applied.</p>
RR-020.67	<p>4.7.2 The broadscale seabed sediment data presented in Figure 3.3 (Volume 2, Chapter3) shows that the Morgan Array area overlies a matrix of preferred marginal, as well as some unsuitable, sediment types for sandeel. The MMO highlighted within the PEIR that this characterisation is supported by site-specific PSA data. Given there is mixed potential for sandeel to be inhabiting sediments within the array area, the MMO recommends that the habitat suitability assessment is strengthened, either by presenting a 'heat' map following the MarineSpace method for sandeel or by incorporating the additional data layers used in the MarineSpace method into the current sandeel habitat suitability assessment.</p>	<p>The Applicant notes this position, however disagrees that mapping of further data layers will strengthen or increase the resolution of the habitat suitability assessment presented within Figure 3.2 and Figure 3.3 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), given the "patchiness" of the substrate noted across the Morgan Generation Assets during site-specific surveys undertaken in 2021 and 2022 (please refer to Volume 4, Annex 2.1: Benthic subtidal ecology technical report for a full description of seabed habitats encountered; (APP-050)). This is supported by the variation evident in broadscale seabed substrate mapping, although, given the broadscale nature (and necessary high degree of interpolation) this is less reflective of the fine scale variability in substrate composition.</p> <p>The Applicant outlined the proposed approach to sandeel substrate suitability assessment as a post-meeting note in the meeting minutes from Benthic Ecology, Fish and Shellfish Ecology and Physical Processes Expert Working Group (EWG) 04 (11 July 2023; E3: Consultation report; (APP-088)):</p> <p>Presentation of site-specific survey particle size analysis (PSA) data; each sampling point will be classified as preferred/marginal/unsuitable based upon the proportions of fines, sands and gravels. Data points will be displayed with EMODnet Folk Classification polygons for preferred and marginal substrates for sandeel spawning and mapped high and low intensity sandeel spawning and nursery grounds from Ellis <i>et al.</i> (2012).</p> <p>Presentation of site-specific survey PSA data alongside regional PSA data extracted from the Cefas OneBenthic tool; each sampling point will be classified as preferred/marginal/unsuitable based upon the proportions of fines, sands and gravels. Data points will be displayed with EMODnet Folk Classification polygons for preferred and marginal substrates for sandeel spawning and mapped high and low intensity sandeel spawning and nursery grounds from Ellis <i>et al.</i> (2012).</p> <p>These are presented within section 1.7 of Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051).</p> <p>Furthermore, item 18 of the Agreement Log for the Benthic Ecology, Fish and Shellfish Ecology and Physical Processes EWG (E3 Consultation Report (APP-088)) sought agreement from stakeholders on:</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>The characterisation of sandeel potential is sufficient to inform the EIA with the caveat that PSA data is presented for the Environmental Statement to allow for data cross-checking by stakeholders and that additional PSA sample data is extracted from the Cefas OneBenthic tool for the project region to provide a wider context regarding substrate suitability.</p> <p>Feedback received from stakeholders following EWG 04 (11 July 2023; E3: Consultation report; (APP-088)) stated:</p> <p>Natural England: "Natural England broadly agrees with the approach for characterisation of potential sandeel habitation and spawning." (Agreed)</p> <p>Cefas: "Applied to both herring and sandeel substrate suitability: using additional sources to support the substrate classification such as Cefas' OneBenthic tool to extract more PSA data from the region (where available) to provide characterisation beyond the surveyed areas." (Under discussion).</p> <p>Site-specific survey PSA data is presented within Volume 4, Annex 2.1: Benthic subtidal ecology technical report (APP-050).</p> <p>As the Cefas recommendations to incorporate additional regional PSA data from the OneBenthic tool has been actioned within the figures and interpretative text presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) and Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051), no further action is proposed.</p>
RR-020.68	<p>4.7.3 The MMO requested at the PEIR stage that the habitat suitability assessment should be adapted to include 'heat' maps of potential herring spawning habitat and potential sandeel habitat following methods described by MarineSpace (2013a) and (2013b), and updated versions of these methods are now available as per Reach et al. (2023) and Kyle-Henney et al. (2023). MMO notes that an adequate 'heat' map for herring using a Kernel density map of aggregated NINEL herring larval data, has been provided. For sandeel, the MMO recommends producing two layered maps to accompany the habitat suitability assessment, the first of which presents sediment classes for sandeel across the region with site-specific and wider regional PSA data overlaid to clearly present the availability and suitability of habitat for sandeel in the vicinity of the array. The second of these layered maps should present the spawning and nursery grounds for sandeel as per Coull et al. (1998) and sandeel presence data derived from the OneBenthic Portal to provide an indication of sandeel presence in the region.</p>	<p>The Applicant notes the feedback regarding herring spawning habitat heat mapping with thanks.</p> <p>The Applicant thanks the MMO for raising the updated methods for herring and sandeel habitat suitability assessment; these will be referenced for future studies.</p> <p>The Applicant outlined the proposed approach to sandeel substrate suitability assessment as a post-meeting note in the meeting minutes from Benthic Ecology, Fish and Shellfish Ecology and Physical Processes Expert Working Group 04 (11 July 2023; Consultation report (APP-088)); no further feedback was received regarding this approach:</p> <p>Presentation of site-specific survey particle size analysis (PSA) data; each sampling point will be classified as preferred/marginal/unsuitable based upon the proportions of fines, sands and gravels. Data points will be displayed with EMODnet Folk Classification polygons for preferred and marginal substrates</p>

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		<p>for sandeel spawning and mapped high and low intensity sandeel spawning and nursery grounds from Ellis <i>et al.</i> (2012).</p> <p>Presentation of site-specific survey PSA data alongside regional PSA data extracted from the Cefas OneBenthic tool; each sampling point will be classified as preferred/marginal/unsuitable based upon the proportions of fines, sands and gravels. Data points will be displayed with EMODnet Folk Classification polygons for preferred and marginal substrates for sandeel spawning and mapped high and low intensity sandeel spawning and nursery grounds from Ellis <i>et al.</i> (2012).</p> <p>These are presented within section 1.7 of Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051). These are broadly aligned with the information requested by the MMO and provide the same resolution from a characterisation perspective of the two figures requested, therefore no further action is proposed.</p> <p>Furthermore, item 18 of the Agreement Log for the Benthic Ecology, Fish and Shellfish Ecology and Physical Processes EWG (E3 Consultation Report (APP-088)) sought agreement from stakeholders on:</p> <p>The characterisation of sandeel potential is sufficient to inform the EIA with the caveat that PSA data is presented for the Environmental Statement to allow for data cross-checking by stakeholders and that additional PSA sample data is extracted from the Cefas OneBenthic tool for the project region to provide a wider context regarding substrate suitability.</p> <p>Feedback received from stakeholders following EWG 04 (11 July 2023; Consultation report (APP-088)) stated:</p> <p>Natural England: "Natural England broadly agrees with the approach for characterisation of potential sandeel habitation and spawning." (Agreed)</p> <p>Cefas: "Applied to both herring and sandeel substrate suitability: using additional sources to support the substrate classification such as Cefas' OneBenthic tool to extract more PSA data from the region (where available) to provide characterisation beyond the surveyed areas." (Under discussion).</p> <p>Site-specific survey PSA data is presented within Volume 4, Annex 2.1: Benthic subtidal ecology technical report (APP-050).</p> <p>As the Cefas recommendation to incorporate additional regional PSA data from the OneBenthic tool has been actioned within the figures and interpretative text presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) and</p>

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RR-020.69	<p>4.7.4 The MMO notes that the table of key species (Table 3.11, Volume 2, Chapter 3) indicates there are no herring spawning grounds overlapping the boundary of the array area, however the aggregated herring larvae density presented in Figure 3.4 (Volume 2, Chapter 3) clearly indicates an active herring spawning ground located within 10km of the boundary. The MMO raised at the PEIR stage that this table (3.11) presents a narrow reflection of spawning and nursing activity in the area surrounding the array and given the mobility of fish. The MMO considers that it is not an appropriate spatial scale against which to screen the presence of spawning and nursery grounds. The MMO recommends the table of key species (Table 3.11, Volume 2, Chapter 3) should be amended to reflect the presence of spawning and nursery grounds within the study area (i.e., the wider Irish Sea region), rather than only presenting those which overlap the project boundary.</p>	<p>Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051), no further action is proposed</p> <p>The baseline characterisation presented within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) provides a summary of the detailed characterisation undertaken within Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051), therefore presents key considerations only.</p> <p>As such, Table 3.11 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) specifically considers those spawning and nursery grounds (derived from Coull <i>et al.</i>, 1998 and Ellis <i>et al.</i>, 2012) which directly overlap the Morgan Generation Assets, however full characterisation presented within Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051) considers the full fish and shellfish assemblage within the fish and shellfish ecology study area. This has been fully considered within the assessment (Volume 2, Chapter 3: Fish and shellfish ecology; APP-021) for those species carried forwards as Important Ecological Features, and for herring, has resulted in a predicted potential moderate adverse effect to herring spawning at the Douglas Bank spawning ground within the reported spawning period due to the impact of underwater sound from piling, both for the project alone and cumulatively with other projects and plans.</p> <p>The only mapped fish spawning ground within close proximity to the fish and shellfish ecology study area not included within Table 3.11 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) is that for hake <i>Merluccius merluccius</i>. Hake is however noted within Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051) as a species recorded during the International Bottom Trawl Survey (IBTS; paragraph 1.4.1.10) and is further discussed in paragraphs 1.4.1.16 and 1.4.1.17. The spawning period for hake is also considered within Table 1.4 of Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051). Further, the status of hake as a Species of Principal Importance in England and Wales is referenced in paragraph 1.12.3.1. The above results in ensuring that hake is included as an Important Ecological Feature under "Other demersal species" within Table 1.10 of Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051), and Table 3.14 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021).</p> <p>This demonstrates that the baseline characterisation is not centred just on the presence of spawning and nursery grounds which directly overlap the Morgan Generation Assets, and that Table 3.11 of Volume 2, Chapter 3: Fish and</p>

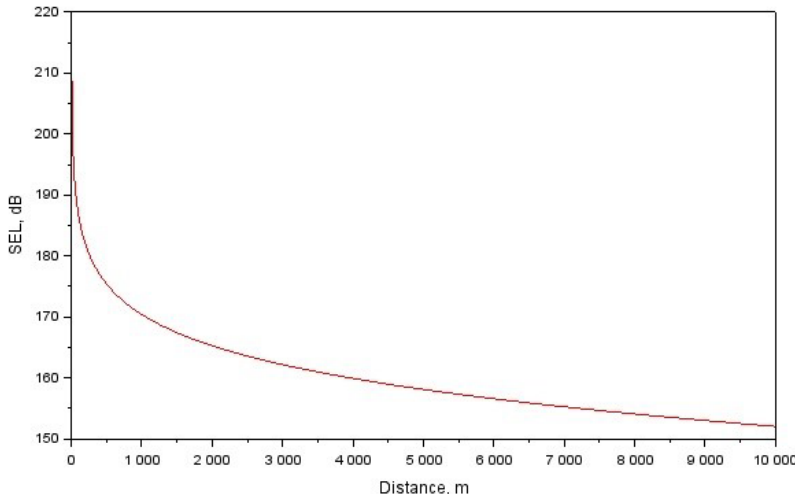
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		shellfish ecology (APP-021) forms just a small part of the characterisation undertaken. No further action is proposed.
RR-020.70	4.7.5 The impacts scoped into the assessment (Table 3.7 Volume 2, Chapter 3) (Annex 7.1) are consistent with those scoped in at PEIR stage. The MMO has previously recommended that long-term alterations should be considered as permanent, as the worst-case scenario is that scour protection and foundation infrastructure is not removed following project decommissioning. This would represent a permanent alteration to the habitat during and beyond the project's lifetime. The MMO recommends that this is revised.	Within the decommissioning assessment for the impact of long term habitat loss for fish and shellfish ecology receptors within section 3.9.5 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), paragraph 3.9.5.31 states that long term habitat loss is considered to represent permanent habitat loss, following a precautionary approach. This is reflected in defining the magnitude of impact for long term habitat loss in the decommissioning phase in paragraph 3.9.5.33, which notes the permanent nature of the impact. No action is proposed by the Applicant.
RR-020.71	4.7.6 The MMO is content with impacts which have been scoped out of further assessment detailed in Table 3.8 (Volume 2, Chapter 3).	The Applicant notes and welcomes this response.
RR-020.72	4.7.7 The MMO is of the opinion that the evidence and data sources used to inform the desk-based assessment are generally appropriate for this purpose and are consistent with those used to support other applications of a similar scale and nature.	The Applicant notes and welcomes this response.
RR-020.73	4.8 Shellfish Ecology 4.8.1 The MMO has no comments to make in relation to receptors which have been scoped out and not considered within the ES with regards to shellfish ecology as detailed in Table 3.8. Volume 2, Chapter 3.	The Applicant notes and welcomes this response.
RR-020.74	4.8.2 The MMO notes that no mitigation measures are included for shellfish. The MMO considers this to be appropriate as no impacts were identified as causing a significant negative impact on shellfish.	The Applicant notes and welcomes this response.
RR-020.75	4.8.3 The MMO considers that there are no outstanding concerns in relation to this application in relation to shellfish.	The Applicant notes and welcomes this response.
RR-020.76	4.9 Underwater Noise 4.9.1 The MMO considers that the relevant potential impacts of underwater noise on marine receptors have been scoped in. Comments on Volume 3, Annex 3.1 Underwater sound technical report (document reference F3.3.1)	The Applicant notes and welcomes this response.
RR-020.77	4.9.2 The report includes a detailed presentation of the acoustical properties of the sediments that were allegedly used for the calibration of the propagation	The attenuation term (alpha, hereafter referred to as α_{dB}) in the Weston model is defined in units of dB per radian, and is derived from the acoustical

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Reference	Relevant Representation Comment	Applicant's response
	<p>modelling, with the depth variability according to various geological layers (Table 1.23). The MMO advises that the Weston model used for calculating the propagation loss in Table 1.22 does not explicitly include a variability with depth of the sediment acoustic properties, but instead condenses these into a single parameter, namely the seabed bottom loss (the parameter α in Table 1.22 formulae, which is distinct from the attenuation coefficients in Table 1.23). The MMO considers that it is not clear how this parameter α was calculated or estimate based on the properties of Table 1.23 and request further clarification on this matter.</p>	<p>properties of the top layer of the seabed. Therefore the water and sediment sound speed, densities and attenuation coefficient (α_s in dB per wavelength) are inputs to the Weston model in order to determine α_{dB} using standard acoustic theory (e.g. Ainslie 2010; Harrison & Nielsen 2007; Lurton 2010). The attenuation term α_{dB} can be calculated as:</p> $\alpha_{dB} = \frac{\alpha_s}{\pi} \frac{\rho_s c_w^2}{\rho_w c_s^2 \sin^3 \theta_c}$ <p>Where ρ_s and ρ_w are the densities of the sediment and water respectively, c_s and c_w are the sound speeds in the sediment and water respectively, and θ_c is the critical angle.</p> <p>Additional layers are used in the source level determination modelling. This source modelling used a hybrid Finite Element (FE) model and Parabolic Equation (PE) modelling approach, the PE model being used for the back-calculation of equivalent sound pressure levels and pressure time series at a (virtual) distance of 1 m from the pile centre. The FE model uses the sound speeds and densities from Table 1.23, whilst the PE modelling also uses the attenuation coefficients. Full details are provided in Appendix A of Volume 3, Annex 3.1: Underwater Sound Technical Report (APP-028).</p> <p>The water and sediment sound speed, densities and attenuation coefficients in Table 1.23 are also used in the calibration of the site specific Weston Energy Flux sound propagation model. In order to carry out this calibration, the model results were compared against the results from the Parabolic Equation solver (Collins, 1991; Jensen, 1994) and the Normal Mode solver (Jensen, 1994; Pedersen and Keane, 2016).</p>
RR-020.78	<p>4.9.3 There is mention of the calibration of the Weston model (paragraph 1.8.2.2 of Volume 3, Annex 3.1). The adjustments and calibration represent an in-depth level of technical detail which are specific to the chosen propagation model. However, what is important is the end result of this process, namely the actual predictions of the propagation loss model, which serve both as a basis for modelling the various noise levels and impact ranges and to compare against data from future noise monitoring. The MMO requests that these are included in the form of plots of received levels versus range, for chosen transects. Alternatively, map plots of the SELss would also display the spatial variability of the noise levels.</p>	<p>A figure showing the received SEL against the distance from the source has been provided in response to comment 4.9.4 below. Map plots showing the spatial variation of the SELss are provided within the marine ecology chapters (Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) and Volume 2, Chapter 4: Marine Mammals (APP-022)).</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-020.79	4.9.4 As previously requested at PEIR stage, the MMO requests that a received level versus range curve/plot for a given transect be provided in Volume 3, Annex 3.1.	<p>Please see below Figure 1 showing the received SEL against distance from the source.</p>  <p>Figure 1: Plot showing the relationship between distance and received SEL for the north transect, for the maximum piling energy of 4,400 kJ.</p>
RR-020.80	4.9.5 The MMO agrees with the conclusions from paragraph 1.7.4.12, in relation to concurrent piling, in that minimum separation between two piling sources will likely result in higher noise levels around these piling locations, while maximising the source separation will reduce the overlap of the impacted areas around these two locations. However, the relevant measure of the potential impacts is the total impacted area around both piling locations, and the interplay of these two antagonistic effects is complex. This makes it difficult to establish a priori which source separation distance maximises this total impacted area. More comments are provided in 4.9.6 – 4.9.8.	The Applicant has provided a response to this comment in Annex 3.2_Morgan Gen Response to RR-020_MMO_UWS_4.9.5 TO 4.9.9.
RR-020.81	4.9.6 The MMO considers that as relevant noise levels are relatively low and consequently the impacted areas are large, the area overlap can be the dominant factor. Therefore, maximum separation often results in the largest	The Applicant has provided a response to this comment in Annex 3.2_Morgan Gen Response to RR-020_MMO_UWS_4.9.5 TO 4.9.9.

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Reference	Relevant Representation Comment	Applicant's response
	total impacted area. In the case of the injury effects, it is less clear by how much the effect range will increase when having the two sources in close proximity, and whether the corresponding injury area is greater than the sum of the individual injury areas when assuming a large source separation	
RR-020.82	4.9.7 The MMO compared the SELcum results for marine mammals and the concurrent pin pile installation at 3,000 kJ (Table 1.41) against corresponding results for the single pin pile installation (Table 1.35). The MMO observes that the area for the concurrent piles scenario is slightly less than twice the area for a single pile scenario. This suggests a scenario with maximum separation between sources may result in a larger permanent threshold shift (PTS) total area. The MMO is therefore of the opinion that the worst case could potentially be a one of the 'intermediate' separation of sources when there could be a significant summation of the noise levels from the two sources but without a large overlap of their effected areas.	The Applicant has provided a response to this comment in Annex 3.2_Morgan Gen Response to RR-020_MMO_UWS_4.9.5 TO 4.9.9.
RR-020.83	4.9.8 The point made in 4.9.7 is evidenced to a greater extent in the case of SELcum Temporary Threshold Shift (TTS) impacts. The low frequency cetaceans (LF) predicted impact range for the concurrent piling scenario (Table 1.41) is only slightly larger than the corresponding range for a single pile (Table 1.35) (40.1km versus 37.7km, or about 5% increase) which means that the total TTS impact area from two piles at maximum separation will likely exceed the TTS area of the concurrent scenario that was assumed to be the worst case.	The Applicant has provided a response to this comment in Annex 3.2_Morgan Gen Response to RR-020_MMO_UWS_4.9.5 TO 4.9.9.
RR-020.84	4.9.9 The MMO cautions against the assumption that the limited selection of concurrent scenarios (two scenarios representing minimum and maximum piling location separation) considered within the Underwater Sound Technical Report (Volume 3, annex 3.1) would capture the worst-case scenario in a defined manner. Additionally, the MMO considers that if only two scenarios are considered, then it is recommended that a full investigation of all potential impacts is conducted and then the worst case is decided and reported accordingly.	The Applicant has provided a response to this comment in Annex 3.2_Morgan Gen Response to RR-020_MMO_UWS_4.9.5 TO 4.9.9.
RR-020.85	<p>4.10 Offshore Ornithology</p> <p>4.10.1 The MMO defers to NE as SNCB, and supports any comments raised in relation to the Ornithology. The MMO will continue to be part of the discussions relating to securing any mitigation and monitoring or other conditions required within the DMLs.</p>	The response is noted by the Applicant.

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Reference	Relevant Representation Comment	Applicant's response
RR-020.86	<p>4.11 Commercial Fisheries</p> <p>4.11.1 It is likely that there will be an impact to fishing operations and to other legitimate users of the sea, as temporary exclusion zones will be in force around the worksite for the duration of any proposed works. This could result in temporary restrictions of access to fishing grounds or navigation routes. The MMO notes the inclusion of such safety zones within ES Volume 2: Chapter 6: Commercial Fisheries.</p>	<p>Potential impacts on commercial fisheries receptors due to the use of/presence of safety zones/temporary exclusion zones have been assessed within Volume 2, Chapter 6: Commercial fisheries (APP-024). The application and temporary use of safety zones/exclusion zones will be in accordance with the Safety zone statement (APP-106) that is secured through the Outline fisheries liaison and co-existence plan (APP-065).</p>
RR-020.87	<p>4.11.2 The MMO defers to the National Federation of Fishermen's Organisations along with standalone representatives on matters of commercial fisheries. The MMO will continue to be part of the discussions relating to securing any mitigation, monitoring or other conditions required within the DMLs</p>	<p>The Applicant notes the MMO's response. The Applicant is working to facilitate co-existence with existing commercial fishing activity and minimise disruption as far as is practicably possible. Early and extensive engagement was established with the NFFO and other fisheries stakeholders in June 2021 to understand stakeholder requirements for co-existence and will continue throughout the lifetime of the project. A Fisheries Liaison and Coexistence Plan is being developed by the Applicant through ongoing consultation with fisheries stakeholders. An outline of this plan has been included with the Application (APP-065).</p>
RR-020.88	<p>4.12 Shipping and Navigation</p> <p>4.12.1 The MMO defers to the Maritime and Coastguard Agency and Trinity House on matters of shipping and navigation and supports any comments raised. The MMO will continue to be part of the discussions relating to securing any mitigation, monitoring or other conditions required within the DMLs.</p>	<p>The Applicant notes this response and confirms that it has engaged extensively with the MCA throughout the pre-application period and will continue to engage with the MCA through the Examination period.</p>
RR-020.89	<p>4.13 Marine Archaeology and Cultural Heritage</p> <p>4.13.1 The MMO defers to Historic England (HE) on matters of marine archaeology and supports any comments raised. The MMO will continue to be part of the discussions relating to securing any mitigation, monitoring or other conditions required within the DMLs</p>	<p>This is noted by the Applicant.</p>
RR-020.90	<p>4.14 Seascape, Landscape and Visual Resources</p> <p>4.14.1 The MMO defers to NE as the SNCB, along with HE and the Local Planning Authorities on matters of Seascape, Landscape and Visual Resources and supports any comments raised. The MMO will continue to be part of the discussions relating to securing any mitigation and monitoring or other conditions required within the DMLs.</p>	<p>This is noted by the Applicant.</p>
RR-020.91	<p>5 Other Application Documents</p>	<p>This is noted by the Applicant.</p>

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Reference	Relevant Representation Comment	Applicant's response
	5.1 Outline Marine Mammal Mitigation Protocol (MMMP)	
RR-020.92	5.1.1 It is noted that Section 1.8.2.3 of the MMMP (J17) refers to noise abatement systems (NAS) being required for high order (HO) detonation for UXO sizes larger than 130kg. The MMO advises that NAS will be required for all HO clearance events regardless of UXO size. The MMO therefore recommends that this is clear in the MMMP and UWSMS.	<p>The Applicant notes the advice from the MMO and will follow any available published guidelines on noise abatement including the use of NAS, in the development and finalisation of the Outline underwater sound management strategy (UWSMS) (APP-068). The Final UWSMS will be finalised and agreed with the MMO post consent, prior to commencement of construction. For example, the Applicant notes the pending noise policy paper from Defra, announced at the MMO workshop, 13 March 2024, with our marine mammal specialists in attendance and will consider the noise policy paper when published.</p> <p>The Applicant maintains that the primary and tertiary measures put forward in the Outline MMMP (APP-072) were considered to be effective to reduce injury up to the realistic maximum of 130 kg and therefore no further mitigation was necessary.</p> <p>Table 4.33 of Volume 2, Chapter 4: Marine mammals (AS-010) shows that for high order clearance of 130 kg UXO, PTS could occur out to a maximum of 8,045 metres (for harbour porpoise) (based upon the modelling and assessment from peer reviewed models as detailed in Volume 3, Annex 3.1: Underwater sound technical report of the Environmental Statement)). Paragraph 4.9.3.16 subsequently sets out that based on the conservative swim speed applied in the marine mammal assessment (1.5 m/s for harbour porpoise) (APP-022), a total of 89 minutes of deterrence activities would ensure that animals were clear of the risk (PTS) zone. Furthermore, Figure 1.3 of the Outline MMMP (APP-072) provides an example of a sequence of events for implementing primary and tertiary measures, to ensure that animals were clear of the risk (PTS) zone. The Applicant highlights 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) within the Draft DCO (Draft Development Consent Order AS-003) and Outline MMMP (APP-072)), in consultation with relevant stakeholders including NRW, and will consider the balance between allowing an animal time to move away from the injury zone and reducing unnecessary additional noise which may cause disturbance.</p> <p>However, the use of Noise Abatement Systems (NAS) as a secondary mitigation technique will be considered post consent, once further details of the size and type of UXO are available (following detailed site investigation surveys) and the need for this option will be discussed with stakeholders as part of the final UWSMS (in accordance with the Outline UWSMS (APP-068)). The Applicant has made a commitment to considering the use of NAS as part</p>

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Reference	Relevant Representation Comment	Applicant's response
		of further mitigation options in the UWSMS if required (i.e. there remains a residual significant effect even with the inclusion of primary and tertiary measures adopted) and such measures will be discussed and agreed with stakeholders for the development of the final UWSMS. The UWSMS (APP-068) is a live document which will be updated through discussions with stakeholders, and, if NAS is required, will include this detail clearly in the final MMMP and UWSMS.
RR-020.93	<p>5.2 Underwater Sound Management Strategy (UWSMS)</p> <p>5.2.1 Section 1.6.2.4 of the UWSMS (J13) refers to the MMMP (J17) which details the primary and tertiary mitigation which mitigates impacts up to a clearance of 130kg. However, for UXO sizes larger than 130kg the use of further sound abatement measures may be considered as an option and refined post-consent as part of the final UWSMS. As per point 5.1.1 NAS (Bubble curtain) will be required for all HO clearance events regardless of the UXO size. MMO recommend that this is made clear in the UWSMS.</p>	The Applicant notes the response and recommendation to use NAS for all high order clearance events. The Applicant refers the MMO to the response to RR-020.92, which details the Applicant will follow any published guidelines on noise abatement at the time the UWSMS (APP-068) is finalised. The UWSMS (APP-068) is a live document which will be updated through discussions with stakeholders, and if there is a requirement to use NAS, the Applicant will include this detail clearly in the final UWSMS (and the final MMMP), which will be discussed with stakeholders and agreed with MMO prior to commencement of construction.
RR-020.94	<p>5.3 Outline Fisheries Liaison and Coexistence Plan</p> <p>5.3.1 The MMO welcomes and notes that an Offshore Fisheries Liaison Officer (OFLO) will be appointed, alongside a Company FLO and a Marine Coordinator for Morgan OWF.</p>	The Applicant notes and welcomes the MMO's response.
RR-020.95	5.3.2 Advice should be sought via the FLO when the timetable of works is known so that the local industry can provide real-time advice.	The Applicant notes and accepts the MMO's response. Proposed measures for fisheries liaison at all project phases, are presented in the Outline fisheries liaison and co-existence plan (APP-065). A Fisheries Liaison and Coexistence Plan is being developed by the Applicant through ongoing consultation with fisheries stakeholders.
RR-020.96	5.3.3 The MMO would note that the MMO will not act as arbitrator in regard to compensation and will not be involved in discussions on the need for or amount compensation being issued. This needs to be made clear within the Outline Fisheries Liaison and Coexistence Plan.	The Applicant notes the MMO's response. The Final FLCP will ensure this point is made clear.
RR-020.97	<p>5.4 Outline Offshore Written Scheme of Investigation (WSI)</p> <p>5.4.1 The MMO defers to HE on the Outline Offshore WSI and supports any comments raised. The MMO will continue to be part of the discussions relating to any conditions within the DML.</p>	This response is noted by the Applicant.

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Reference	Relevant Representation Comment	Applicant's response
RR-020.98	<p>5.5 Habitats Regulations Assessment</p> <p>5.5.1 The MMO defers to and supports NE as SNCB regarding the derogation case proposed</p>	<p>The Applicant notes that the MMO defers to and supports NE as SNCB, however, the applicant has not proposed a derogation case and no derogation is needed. The Information to Support Appropriate Assessment (ISAA) concluded there would be no Adverse Effect on Integrity (AEol) on any European sites as a result of the Morgan Generation Assets alone or in-combination with other plans and projects. Furthermore, there has been no indication that a derogation case would be required through the Evidence Plan process and discussions with Expert Working Groups, for example please see the minutes of the Morgan and Mona Evidence Plan Offshore Ornithology meeting 7 (08/12/2023) in D.8.1 Technical engagement plan appendices Part 4 (Appendix D) (APP-092). Therefore, a derogation case is not required.</p>
RR-020.99	<p>5.5.2 The MMO will keep a watching brief on these documents and would ask for any compensation requirements to be included within the DCO at this stage to ensure all parties have reviewed the wording, should the Secretary of State be minded to include compensation.</p>	<p>The Applicant is not proposing to submit any documents for compensation requirements within the DCO because a derogation case is not required. The results of the ISAA concluded there would be no Adverse Effect on Integrity (AEol) on any European sites as a result of the Morgan Generation Assets alone or in-combination with other plans and projects. Furthermore, there has been no indication that a derogation case would be required through the Evidence Plan process and discussions with Expert Working Groups, for example please see the minutes of the Morgan and Mona Evidence Plan Offshore Ornithology meeting 7 (08/12/2023) in D.8.1 Technical engagement plan appendices Part 4 (Appendix D) (APP-092). Therefore, no derogation case nor compensatory measures will need to be progressed.</p>
RR-020.100	<p>5.6 Marine Conservation Zone Screening Report</p> <p>5.6.1 The MMO defers to and supports NE as SNCB regarding impacts to Marine Conservation Zones for the Project.</p>	<p>The Applicant notes this response.</p>
RR-020.101	<p>5.6.2 The MMO will keep a watching brief on this document and discussions in relation to MCZs and would remind the Applicant that any mitigation secured through these assessments will need to be included within the conditions on the DML.</p>	<p>The Applicant notes this response. The Marine Conservation Zone (MCZ) screening report (APP-101) concludes that the construction, operation and maintenance and decommissioning of the Morgan Generation Assets is unlikely to have the potential to directly or indirectly affect the interest features of any MCZ. The Applicant notes that Natural England, in their Relevant Representation RR-026.18, agree with the Applicant's MCZ screening conclusions. Based on this conclusion the Applicant does not consider mitigation measures necessary.</p>

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2.21 Moir Vannin Offshore Wind Farm Limited
Table 2.21: RR-021 – Moir Vannin Offshore Wind Farm Limited.

Reference	Relevant Representation Comment	Applicant's response
RR-021.1	Moor Vannin Offshore Wind Farm Limited is the developer of the proposed Moor Vannin Offshore Wind Farm, which holds a grid connection offer and an Agreement for Lease (AfL) with the Isle of Man Government ("our Project").	The Applicant notes the response.
RR-021.2	We submitted a Scoping Report to the IoM Government in 2023 and are preparing to submit an Application for Marine Infrastructure Consent in 2025. Our proximity to Morgan Offshore Wind Farm ("MOWF") can be seen in MOWF's Environmental Statement ("ES") (F1.4) Section 4.2.2.	<p>The Applicant is aware of the publication of the Moor Vannin Offshore Wind Farm Scoping Report on 18 October 2023, which resulted in the Applicant amending the status of the Moor Vannin Offshore Wind Project from 'Tier 3' to 'Tier 2' in relevant cumulative effects assessments, as set out for example under section 9.10 and Table 9.15 of Volume 2, Chapter 9: Other sea users (APP-027).</p> <p>The Applicant notes that the Moor Vannin Offshore Wind Farm is a minimum of 4.8 km (2.5 nm) from the Morgan Generation Assets as set out in Table 9.8 of Volume 2, Chapter 9: Other sea users (APP-027).</p>
RR-021.3	We do not object to the principle of MOWF. We do, however, wish to participate in the DCO Examination to make representations about the potential impacts on and interactions with our Project and, where appropriate, to secure appropriate mitigations.	The Applicant notes the response.
RR-021.4	High-level concerns were previously highlighted to MOWF via a consultation response. Our concerns as raised in the response remain extant and we expect further meaningful engagement to seek to address the issues raised below and previously. We are open to addressing within or outside the Examination process, and have met with representatives of MOWF and Mona Offshore Wind Farm in 2024 to discuss potential mitigations (radar and shipping and navigation) and opportunities (Landfall and Grid connection and Net Gain) for alignment. MOWF should take into account all of our Project's information and engage appropriately with us as both projects' applications progress.	Engagement has occurred with Moor Vannin Offshore Wind Farm Limited during the application phase of the Morgan Generation Assets project as detailed in the Consultation report (APP-088) and will continue as required throughout the Examination phase.
RR-021.5	MOWF must ensure the accuracy of cumulative and in-combination assessments to ensure impacts are properly understood and appropriately mitigated to facilitate effective co-existence.	For the Morgan Generation Assets cumulative effects assessment (CEA), a tiered approach has been adopted consistent with the Planning Inspectorate's Advice Note Seventeen. This approach provides a framework for placing relative weight on the potential for each project/plan included in the CEA to ultimately be realised, based upon the project/plan's current stage of maturity and certainty in the project's parameters. The tiered approach is set out in Volume 1, Chapter 5: Environmental impact assessment methodology (APP-

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Reference	Relevant Representation Comment	Applicant's response
		<p>012), and acknowledges that there is a decreasing level of detail likely to be available between projects in Tier 1 and Tier 3. All cumulative effects assessments are therefore based on the most up to date information at the point of application.</p> <p>As noted above, the Mooir Vannin Offshore Wind Farm is considered as a 'Tier 2' project in relevant cumulative effects assessments of the Morgan Generation Assets Environmental Statement on the basis that a Scoping Report was available at the point of application.</p> <p>The Mooir Vannin Offshore Wind Farm has also been considered within appendix D of the Cumulative Regional Navigation Risk Assessment (CRNRA), presented within Volume 4, Annex 7.1: Navigational risk assessment (APP-060) and within the cumulative effects assessments in Volume 2, Chapter 7: Shipping and navigation (APP-025), where appropriate.</p>
RR-021.6	<p>Our Project's concerns include: Issue one: The ES highlights impacts on wildlife, including potential significant project-alone and in-combination impacts on ornithology (F2.5). We further note in relation to offshore ornithology, that quantifiable impacts on Isle of Man colonies are not presented for project alone or within the Cumulative Effects Assessment (CEA). Assessment is lacking for annual displacement totals - limited information is provided on how impacts are calculated, especially for displacement where annual total is excluded from displacement matrices. This creates uncertainty in relation to the reliability of the assessment outcomes and totals attributable to Morgan Generation Assets, and furthermore, creating difficulties quantifying the impacts for the cumulative EIA and in-combination HRA for Mooir Vannin. The impact of our Project must be accounted for by MOWF and appropriate mechanisms must be put in place to facilitate co-existence and allow co-ordination to reduce potential cumulative or in-combination impacts.</p>	<p>Volume 2, Chapter 5: Offshore ornithology (APP-023) does not identify any significant impacts on offshore ornithological receptors as a result of impacts associated with the Morgan Generation Assets alone or cumulatively with other plans and projects. Similarly, HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) does not identify any adverse effects on qualifying features of SPAs as a result of impacts associated with the Morgan Generation Assets alone or in-combination with other plans and projects.</p> <p>Within Volume 2, Chapter 5: Offshore ornithology (APP-023), assessments have been conducted against the relevant regional population for each species which incorporates, where relevant and in line with the methodology described, Isle of Man colonies. Relevant designated sites on the Isle of Man that may be impacted by the Morgan Generation Assets are identified in Volume 4, Annex 5.1 Offshore ornithology baseline characterisation. Within Volume 2, Chapter 5 Offshore ornithology (APP-023), no significant impacts, from the project alone or cumulatively with other plans or projects, are identified for any of the designated sites listed. Breeding season apportioning values for non-SPA colonies have been included in Appendix A of Volume 4, Annex 5.5 Offshore ornithology apportioning technical report (APP-057) which incorporates, where relevant and in line with the methodology described, Isle of Man colonies.</p> <p>Annual displacement impacts have been assessed in Volume 2, Chapter 5: Offshore ornithology (APP-023) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) for all relevant receptors. Annual displacement</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>impacts have been calculated by summing seasonal displacement impacts as indicated in relevant tables in section 5.9 of Volume 2, Chapter 5: Offshore ornithology (APP-023). In addition, seasonal displacement matrices have been presented for all species in Volume 4, Annex 5.2 Offshore ornithology displacement technical report (APP-053). Because annual displacement impacts are calculated by summing seasonal displacement impacts, and because displacement and mortality rates could differ between seasons, the production of an annual displacement matrix is not considered best practice, and not recommended by UK SNCB guidance (JNCC <i>et al.</i>, 2022). This issue has not been raised by statutory consultees.</p> <p>There are currently no impact estimates for the Moir Vannin offshore wind farm which is at the scoping stage and, following the approach taken in numerous other offshore wind farm assessments, Moir Vannin has been allocated into a lower tier in the cumulative assessment. This allocation reflects the uncertainty associated with the impacts and likely development of the project at this stage and follows the general principles defined in UK SNCB guidance (Parker <i>et al.</i>, 2022).</p>
RR-021.7	<p>Issue two: The ES highlights extensive impacts on shipping and navigation (F2.7). Section 7.11 identifies multiple potential cumulative impacts in-combination with the Moir Vannin Offshore Wind Farm Project (incl. impacts to commercial operators including strategic routes to lifeline ferries, impact on vessel to vessel collision risk, and impact on collision risk to vessels). For all of these impacts the Applicant does not propose any mitigation and concludes "It is therefore assumed that potential cumulative impacts will be addressed by Moir Vannin Offshore Wind Farm through the planning process". Moir Vannin Offshore Wind Farm does not consider it appropriate to defer all mitigation for cumulative impacts in this way. We would, however welcome the opportunity for meaningful engagement with the Applicant.</p>	<p>The Applicant notes that Moir Vannin Offshore Wind Farm is located 2.5 nm (4.8km) to the north of the Morgan Array Area. Moir Vannin Offshore Wind Farm have been consulted as part of the Marine Navigation Engagement Forum (MNEF) and attended the hazard workshop as set out in Volume 4, Annex 7.1: Navigational risk assessment (APP-060).</p> <p>As identified within section 7.11 of Volume 2, Chapter 7: Shipping and navigation (APP-025), the Applicant's Cumulative Effects Assessment (CEA) concluded that cumulatively with the Mona Offshore Wind Project, the Morgan and Morecambe Offshore Wind Farms: Transmission Assets and the Morecambe Offshore Windfarm (without Moir Vannin Offshore Wind Farm), all impacts on navigational safety have been reduced to As Low As Reasonably Practicable (ALARP) but that there are some residual significant effects on ferry routes. However, additional significant cumulative effects on navigational safety were identified due to the proximity to the Scoping Boundary of the Moir Vannin Offshore Wind Farm Project, as highlighted with Appendix D of the Cumulative Regional Navigation Risk Assessment (Appendix E within Volume 4, Annex 7.1: Navigational risk assessment (APP-060)).</p> <p>As stated in section 7.11 of Volume 2, Chapter 7: Shipping and navigation (APP-025) and described in the Moir Vannin Offshore Wind Farm Scoping Report, it is expected that a CEA (which will include shipping and navigation)</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>will be prepared by Moir Vannin Offshore Wind Farm Limited on the basis of their proposed development parameters which will accompany their development application in 2025 to the Isle of Man Government. As stated within the Moir Vannin Offshore Wind Farm Scoping Report, this assessment will be undertaken in line with the MCA's Marine Guidance Note (MGN) 654 and will therefore establish safe sea room between the Morgan Array Area and Moir Vannin Offshore Wind Project.</p> <p>The Applicant has committed within Volume 2, Chapter 7: Shipping and navigation (APP-025) to continue engagement with all stakeholders through the MNEF which includes offshore wind energy developers.</p>
RR-021.8	<p>Issue Three: It is anticipated that there may be a requirement to put in place appropriate mitigation in relation to potential impacts on primary surveillance radar. Chapter F2.11 identifies significant cumulative impacts on aviation PSR systems in-combination with Tier 1, 2 and 3 projects. It is not clear how the mitigation within section 11.9.3 will be applied to reduce cumulative impacts. With regards to Ronaldsway (IoM) Airport specifically, information on the potential mitigation methods refers to the use of additional MultiLAT sensors to reduce project-alone impacts. However, it is not clear how this would be implemented to contribute to mitigation of cumulative impacts.</p>	<p>Section 11.10 of Volume 2, Chapter 11: Aviation and radar (APP-015) concluded moderate significant cumulative effects on primary surveillance radar. Project specific mitigation has been identified that would remove the contribution of the Morgan Offshore Wind Project: Generation Assets to the cumulative effect. This mitigation will likely include, but not be restricted to, current stakeholder PSR optimisation, PSR blanking or MultiLAT (Secondary Surveillance) in combination with the employment of a single, or multiple (to cover individual development) Transponder Mandatory Zone (TMZ). It is likely that operational wind farms included in the CEA are already mitigated against the effect to aviation radar, reducing the significance of any cumulative effects, and it is expected that other contributing projects will also be required to implement similar or co-operative mitigation solutions. The Applicant is continuing to engage with the relevant stakeholders on potential effects on radar.</p> <p>However, in February 2024, the Airport position changed to commissioning a third-party review of its surveillance strategy (requirements) for the next 20 years taking on board all applicable proposed offshore and onshore wind farm projects. The results of this were expected in summer 2024. At the last engagement meeting, the Airport explained that it anticipates implementing the results of the surveillance strategy and requesting relevant projects to contribute to reach a mutually agreed mitigation solution which will reduce any impact to acceptable levels.</p>

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2.22 Morecambe Offshore Windfarm Ltd

Table 2.22: RR-022 – Morecambe Offshore Windfarm Ltd.

Reference	Relevant Representation Comment	Applicant's response
RR-022.1	Morgan is one of the three Round 4 proposed offshore wind farms (together with the Mona and Morecambe projects) located in close vicinity to each other in the Irish Sea. The Environmental Statement for the Morecambe Generation Assets DCO application (which was accepted for examination on 27 June 2024) has identified a number of potential cumulative impacts in combination with Morgan Generation Assets, broadly covering ornithology, marine mammals, shipping and navigation, aviation and commercial fisheries.	The Applicant notes the potential for cumulative impacts with the Morecambe Offshore Windfarm Generation Assets broadly covering ornithology, marine mammals, shipping and navigation, aviation and commercial fisheries and will engage with Morecambe Offshore Windfarm Ltd through the Examination phase.
RR-022.2	It may also be appropriate to have co-operation or co-existence agreement(s) between the projects. Additionally, pursuant to a direction issued by the Secretary of State on 4 October 2022 under section 35 of the Planning Act 2008, the Morecambe and Morgan projects are progressing a joint development consent application for the transmission infrastructure required to convey the electricity generated by each project to shore and onwards to the existing National Grid substation at Penwortham. This application is being submitted later in 2024.	The Applicant will engage with Morecambe Offshore Windfarm Ltd through the Examination phase.
RR-022.3	Morecambe Offshore Windfarm Ltd is supportive in principle of the Morgan Generation Assets DCO application and would like to register an interest, based on the possible need to provide more information to inform and support the Morgan Offshore Wind Project Generation Assets examination.	The Applicant notes the response.

2.23 Morecambe Wind Limited

Table 2.23: RR-023 – Morecambe Wind Limited.

Reference	Relevant Representation Comment	Applicant's response
RR-023.1	<p>ScottishPower Renewables (WoDS) Ltd and Orsted West of Duddon Sands (UK) Ltd jointly own West of Duddon Sands Windfarm and Morecambe Wind Limited, which holds the generation licence. West of Duddon Sands is an operational offshore windfarm with a s36 Electricity Act 1989 consent and relevant marine licences ("our Development"). Its proximity to Morgan Offshore Wind Farm ("MOWF") can be seen in MOWF's Environmental Statement (the "ES") (F2.9 Figure 9.4 and Table 9.8). Our Development does not object to the principle of MOWF however we do at present require to object to certain elements of it where we may wish to participate in the DCO Examination to make representations about the potential impacts on and interactions with our Development and, where appropriate, to secure appropriate mitigations.</p>	<p>The Applicant notes your response.</p> <p>West of Duddon Sands is a minimum of 15.4 km from the Morgan Offshore Wind Project: Generation Assets as stated in Table 9.8 of Volume 2, Chapter 9: Other sea users (APP-027).</p> <p>Potential impacts on the West of Duddon Sands project operator have been identified and assessed in section 9.9.3 of Volume 2, Chapter 9: Other sea users (APP-027) and has been considered in the cumulative effects screening for each topic where appropriate.</p>
RR-023.2	<p>Concerns were previously highlighted to MOWF via a s48 consultation response and subsequent meeting. Our concerns as raised in the s48 response remain extant and we expect further meaningful engagement to seek to address the issues raised below and previously. We are open to addressing such matters within or outside the Examination process.</p>	<p>Engagement has occurred with Morecambe Wind Limited during the pre-application phase of the Morgan Offshore Wind Project: Generation Assets and will continue as required throughout the examination phase.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-023.3	<p>Our Development expects to continue to operate and be maintained in the long-term. It may be upgraded and repowered in future, and will then be decommissioned. Co-existence with our Development must be considered and protected over the long-term – and the acceptability of cumulative and in-combination impacts – must be properly assessed taking into account each of the above stages of our Development's life. Our Development requires that its operations, consents (including conditions), and any stakeholder agreements entered into by it are unaffected by MOWF. Our Development's concerns include the following.</p>	<p>The potential impacts of the Morgan Generation Assets on other sea users, including West of Duddon Sands, have been fully assessed for the project alone and cumulatively in Volume 2, Chapter 9: Other sea users (APP-027). The potential cumulative and in-combination impacts of the Morgan Generation Assets, alongside other relevant projects and plans, have been fully assessed in the various topic chapters of the Environmental Statement and HRA. It should be noted that the cumulative and in-combination assessments consider the project information available at the time of the Morgan Generation Assets application, which for West of Duddon Sands, includes all existing project consents. Any plans for future upgrading and repowering of West of Duddon Sands will be subject to separate consents and/or approvals, and therefore cannot be assessed by the Applicant at this stage. Morecambe Wind Limited will need to carry out its own EIA and HRA for any proposals to extend the project lifetime beyond that originally consented on the basis of the original ES and HRA, and this will need to include consideration of the Morgan Generation Assets in their cumulative/in-combination assessment.</p> <p>As set out in Table 9.13 of Volume 2, Chapter 9: Other sea users (APP-027) the Applicant has committed to continued communication with other offshore energy operators to promote and maximise cooperation between parties and minimise both spatial and temporal interactions between conflicting activities.</p>
RR-023.4	<p>Issue One: Following review of the ES, we seek engagement with MOWF to discuss a number of environmental concerns relating to ornithology and the cumulative impact assessment. We are not convinced that the assessments are robust and we require to analyse this further and engage with MOWF.</p>	<p>The Applicant has undertaken a robust assessment of all potential impacts on offshore ornithology informed by appropriate data sources from site-specific surveys and detailed desktop studies, in accordance with relevant guidance. The assessment of potential impacts to offshore ornithology is presented in Volume 2, Chapter 5: Offshore ornithology (APP-023).</p> <p>The evidence to inform the baseline and the approach to predicting effects on offshore ornithology were discussed and agreed through an Evidence Plan Process which included an Expert Working Group (EWG) for offshore ornithology as set out in section 4.4 of the Consultation Report (APP-088). To inform the Environmental Statement, site-specific surveys were undertaken, as agreed with the offshore ornithology EWG, across the Morgan Array Area plus a buffer extending up to 10 km (Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053)). Further, and on advice from the offshore ornithology EWG, additional data sources were identified post-scoping that were used to inform the baseline characterisation (Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053)). The Applicant is therefore confident that the assessment of likely significant effects on offshore</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>ornithology presented in Volume 2, Chapter 5: Offshore ornithology (APP-023) is based on the most scientifically robust evidence available and that sufficient precaution is built into the assessment. With respect to potential cumulative or in-combination effects, the assessment has considered all reasonably foreseeable (i.e. those with information in the public domain) projects, plans and activities.</p>
RR-023.5	<p>Issue Two: The ES highlights extensive impacts on shipping and navigation and commits to stakeholder engagement (F2.7 at 7.14.1.1). We require to be involved in such engagement to ensure that our consents, agreements, and operations are not adversely affected by MOWF.</p>	<p>The Applicant notes that West of Duddon Sands is located 8.3 nm to the east of the Morgan Generation Assets. Orsted (which is a part-owner of Morecambe Wind Limited) have been consulted as part of the Marine Navigation Engagement Forum (MNEF) and attended the hazard workshop as set out in Table B.1, Appendix B of Volume 4, Annex 7.1: Navigational risk assessment (APP-060).</p> <p>The Applicant has assessed the potential impacts of the Morgan Generation Assets on navigational risk for all marine users within the shipping and navigation study area presented in Volume 4, Annex 7.1: Navigational risk assessment (APP-060). It was concluded that all hazards had been reduced to As Low As Reasonably Practicable or Broadly Acceptable (as per section 1.9.8 of Volume 4, Annex 7.1: Navigational risk assessment (APP-060)).</p> <p>The Applicant has committed within Volume 2, Chapter 7: Shipping and navigation (APP-025) to continue engagement with all stakeholders through the Marine Navigation Engagement Forum (MNEF) which includes offshore wind energy developers.</p>
RR-023.6	<p>Issue Three: We believe that MOWF will adversely affect the energy yield of our Development. Due to the proximity outlined in the above-referenced figure and table, there is the potential for MOWF to interfere with wind speed or direction at our Development causing reduction in energy output. This requires to be properly assessed and appropriately mitigated / compensated.</p>	<p>Volume 2, Chapter 9: Other sea users (APP-027) assesses the potential impacts of the Morgan Generation Assets on offshore energy receptors, including offshore wind farm operators. West of Duddon Sands has been identified as an offshore energy receptor in the baseline environment (section 9.5.2.6-15).</p> <p>Volume 2, Chapter 9: Other sea users (APP-027) sets out that NPS EN-3 (paragraph 2.8.196) recognises that offshore wind development will occur in or close to areas where there is other offshore infrastructure. The project boundary requirements in The Crown Estate's (TCE's) Round 4 Information Memorandum specified that no offshore wind projects could be located within 7.5 km of an existing offshore wind farm. As described in section 9.5.2, Table 9.8 and Figure 9.4 of Volume 2, Chapter 9: Other sea users (APP-027), there are no other operational offshore wind farms located within 7.5 km of the Morgan Array Area and therefore the Morgan Generation Assets location</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>adheres to the TCE siting criteria and it was considered that no further assessment was required.</p> <p>The Morgan Array Area has been reduced following the statutory pre-application consultation, as described in Volume 1, Chapter 4: Site selection and consideration of alternatives (APP-011). This has increased the distance from the nearest existing operational offshore wind farm by 0.6 km to 8.1 km, and also increased the distance from a number of other operational offshore wind farms. The distance between the Morgan Array Area and West of Duddon Sands is 15.4 km.</p>

2.24 National Federation of Fishermen's Organisations
Table 2.24: RR-024 – National Federation of Fishermen's Organisations.

Reference	Relevant Representation Comment	Applicant's response
RR-024.1	<p>The National Federation of Fishermen's Organisation (NFFO) represents the interests of commercial fishing businesses in England and Wales. We are registering as an interested party for this project as we feel that there are potential impacts to the commercial fisheries in the proposed area. Please treat this submission of an Interested Party as a response from both the NFFO and Welsh Fishermen's Association (WFA_CPC). The WFA-CPC are members of the NFFO and have concerns as well as our other regional members.</p>	<p>The Applicant notes the NFFO's response.</p>
RR-024.2	<p>Commercial fisheries have existed in the proposed region for generations, both UK and EU fleets, and are already faced with extensive spatial restrictions such as existing offshore wind developments, offshore cables, Marine Protected Areas and legislative restrictions in the region. Further displacement of commercial fishing in the region will result in 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.</p>	<p>Potential impacts on all commercial fisheries receptors via displacement of fishing activity into other areas have been assessed in section 6.8.3, Volume 2, Chapter 6: Commercial fisheries (APP-024). Limiting displacement, enabling co-existence and indeed, co-location was a key aim for the Applicant. This ambition underpins the Applicant's commitments to not close the entire development area during construction, the scallop mitigation zone (SMZ) and the orientation and spacing of infrastructure. 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 adopted as part of the Morgan Generation Assets such as the SMZ, minimum infrastructure spacing of 1,400 m and roughly north-to-south alignment of wind turbine rows (as set out in APP-065), will provide the space for continued fishing within the Morgan Array Area, and fishing vessels will be able to transit through this area.</p>
RR-024.3	<p>As with many responses the NFFO generate to wind farm applications, we have concerns about the lack of contemporary and site-specific data presented in the fish and shellfish ecology assessments, and a lack of focus on key commercial species that have a range that overlaps with the development area, specifically shellfish.</p>	<p>This response is acknowledged by the Applicant.</p> <p>The baseline characterisation for fish and shellfish ecology presented within Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051) is based upon a range of information sources, both historic and contemporary, including:</p> <ul style="list-style-type: none"> Published peer-reviewed literature (including standard information sources such as Coull et al., 1998 and Ellis et al., 2012) Long-term scientific data collection studies (e.g. the Northern Irish Groundfish Survey, with data considered up to the year 2022; ICES, 2022)

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Reference	Relevant Representation Comment	Applicant's response
		<p>Stock assessment reports and surveys</p> <p>Commercial landings data (largely to support informing areas of shellfish importance)</p> <p>Historic fish surveys within the project region (acknowledging that the methods did not specifically target shellfish species, although the Applicant is aware that species such as queen scallop are targeted by means of otter trawling in the region by some vessels)</p> <p>Site-specific survey data for substrate composition, habitat characterisation and ad-hoc observations of fish or shellfish species within recovered samples or subsea imagery</p> <p>Regional substrate composition data available from the Cefas OneBenthic tool to further support habitat characterisation and substrate suitability for certain species (such as herring and sandeel).</p> <p>Whilst it is acknowledged that certain studies used as standard to inform fish and shellfish ecology spawning and nursery grounds (such as Coull et al., 1998 and Ellis et al., 2012) and the use of historic fish ecology surveys may be considered outdated, these are cross-referenced against ongoing time-series data (such as from the Northern Irish Groundfish Survey) recent stock assessment reports (e.g. Bloor et al., 2019, Delargy et al., 2019) and other recent published literature (such as Campanella and van der Kooij, 2021) to confirm the continued applicability of these information sources.</p> <p>A detailed characterisation of the shellfish reported to be present within the defined fish and shellfish ecology study area is presented within Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051); this technical report also draws upon the baseline characterisation for commercial fisheries presented in Volume 4, Annex 6.1: Commercial fisheries technical report (APP-059) to ensure species of commercial importance are captured within the ecology characterisation and carried through to the assessment presented within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), through defining key species as Important Ecological Features.</p>
RR-024.4	<p>Data presented from surveys to characterise sediment composition is presented as the correct methodology for sampling fish and shellfish, an incorrect assumption. Data has been presented from other wind farm projects and used to interpret impacts of the Morgan Transmission Assets project, often from surveys that have not used the correct methodology for the assumptions made.</p>	<p>The Applicant provides this response in relation to the Morgan Generation Assets which is the subject of DCO application number EN010136. It is acknowledged within paragraph 1.3.2.4 of Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051) that sediment grab sampling and drop-down video are not specifically designed to target fish and shellfish species, and that observations from these methods should be considered opportunistic and incidental. Sediment particle size analysis is considered the</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>most appropriate approach to determine areas of suitable habitat for substrate-specific species, such as herring and sandeel, where defined substrate preferences can be interpreted from the data collected.</p> <p>Data limitations are also presented within section 3.5.9 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021).</p> <p>The baseline characterisation for fish and shellfish ecology presented within Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051) is based upon a range of information sources, both historic and contemporary. Coull et al. (1998), Ellis et al. (2012) and other such studies are typically used to inform baseline characterisation for fish and shellfish ecology (particularly the distribution of mapped spawning and nursery grounds). Results from historic fish and shellfish surveys are also used to indicate potential species presence. The Applicant acknowledges that due to the dates that these studies were undertaken, they may be considered outdated when considered alone, and the methods from historic fish and shellfish surveys may not be consistent with current fishing activity. To ensure continued applicability of these information sources, these are cross-referenced against ongoing time-series data (such as from the Northern Irish Groundfish Survey) recent stock assessment reports (e.g. Bloor et al., 2019, Delargy et al., 2019) and other recent published literature (such as Campanella and van der Kooij, 2021).</p> <p>The Applicant is therefore confident that the baseline characterisation presented within Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051) and the assessment presented within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) are robust and representative of the fish and shellfish ecology present, and the potential impacts to fish and shellfish ecology receptors as a result of the Morgan Generation Assets both alone and cumulatively with other projects and plans.</p>
RR-024.5	<p>The assumption of commercial fisheries, specifically mobile gear, being able to return to the area post construction is used to reduce the impacts assessed. However, there is little evidence from current operational wind farms that mobile gear has returned to activity levels similar to pre-construction. Whilst there is some evidence of mobile gear operating in wind farms, this is only at the single vessel level and not at a fleet level. We feel that the assumption of no displacement effects observed during construction for all the different fishing gear sectors is vastly underestimated, assessed as negligible on all occasions. The only justification for this seems to be they can disperse into other areas. This is not the case, especially in areas such as this, with</p>	<p>Potential impacts on all commercial fisheries receptors via loss/reduced access to fishing grounds and/or displacement of fishing activity into other areas have been assessed in Volume 2, Chapter 6 Commercial fisheries of the Environmental Statement (APP-024).</p> <p>The conclusions of this assessment remain valid. The assessment considered evidence of fishing activity in other OWF sites during the construction and operational phases.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>extensive existing offshore developments, alongside legislative and conservation restrictions and two other wind farm developments being constructed in the region. Displacing a diverse fishing fleet into an already crowded marine space will have an impact on those fishing businesses.</p>	
RR-024.6	<p>We welcome the development of a Fisheries Liaison and Co-existence Plan and see this as an integral and important step to minimise and if needed mitigate impacts on the region's fisheries. However, we feel that a Statement of Common Ground will be needed to ensure that the fisheries concerns, that to date have not been accounted for in the assessment, are considered during the decision to consent the Morgan Generation Assets project.</p>	<p>The Applicant acknowledges the support of an Outline Fisheries Liaison and Co-existence Plan. The Applicant will look to progress a Statement of Common Ground with NFFO as requested by the ExA, ensuring that ongoing concerns are further discussed during the examination process.</p> <p>The ExA has requested a Statement of Common Ground with several fisheries organisations who have listed as an interested party. The Applicant requests that this process is carried out as appropriate with other interested parties with overlapping interests (for example the Scottish Fishermen's Federation) to make better use of resources.</p>

2.25 **NATS**

Table 2.25: RR-025 – NATS.

Reference	Relevant Representation Comment	Applicant's response
RR-025.1	<p>NATS have been engaged with the applicant pre-submission and have concerns regarding the impact to our radar infrastructure which carries the risk of degrading our ability to provide a safe and expeditious air traffic service in the area.</p>	<p>The Applicant has engaged with NATS regarding the projects' impacts on the primary surveillance radars at Lowther Hill and St Anne's, as detailed in the Environmental Statement - Volume 2, Chapter 11 Aviation and radar (APP-015).</p> <p>The Applicant is working to facilitate co-existence with aviation and radar receptors to minimise disruption as far as is practicably possible. Early engagement was established with NATS in 2021 and will continue throughout the examination phase of the project.</p> <p>Following our most recent meeting on 5th June 2024, NATS have issued the Applicant with a draft Mitigation and Service Contract (MSC), which is currently under review by the Applicant.</p> <p>Requirement 4 (St Anne's and Lowther Hill Primary Surveillance Radar) of the draft Development Consent Order [APP-005] secures that a radar mitigation scheme for the primary surveillance radars at Lowther Hill and St Anne's must be approved by the Secretary of State prior to operation of any wind turbine generators. The Applicant's preference is that the MSC is agreed prior to the close of Examination as this will then obviate the Requirement 4. The Applicant is working with NATS towards the agreement of this commercial MSC.</p>

2.26 Natural England

Table 2.26 RR-026 – Natural England.

Reference	Relevant Representation Comment	Applicant response
RR-026.GEN.1	<p>Part 1 – Overview of Representations</p> <p>1. Scope of Natural England’s Advice</p> <p>1.1 Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.</p> <p>1.2 Natural England’s remit extends to the territorial sea adjacent to England, up to the 12 nautical mile limit from the coastline. The Examining Authority should note that pursuant to an authorisation made by the JNCC under the Natural Environment and Rural Communities Act 2006, Natural England is authorised to exercise the JNCC’s functions as a statutory consultee in respect of applications for offshore renewable energy installations in offshore waters (0-200nm) adjacent to England.</p> <p>1.3 This application is included in that authorisation and, therefore, Natural England will be providing statutory advice in respect of that delegated authority. However, JNCC retains responsibility as the statutory advisors for European offshore marine sites that are located outside the territorial sea and UK internal waters (i.e. more than 12nm offshore) and continues to provide Natural England advice on the significance of any potential impacts on interest features of those sites.</p>	<p>The Applicant welcomes Natural England’s representation and Natural England’s role and remit is noted.</p>
RR-026.GEN.2	<p>2.1 These representations contain a summary of what Natural England considers to be the main nature conservation, landscape and related issues with regards the Development Consent Order (DCO) application, as well as the Deemed Marine Licences (DML) contained therein and indicate the principal submissions that it wishes to make at this point.</p>	<p>The Applicant notes Natural England’s comments on the application and has provided responses to each point raised by Natural England.</p>
RR-026.GEN.3	<p>2.2 In the interests of issue resolution Natural England has combined Relevant Representation and Written Representations within this response. This is to provide the detail on all issues as early as possible to allow more time for discussion and resolution. If required and appropriate Natural England will develop these points through further Written Representations or in response to Examiner’s questions.</p>	<p>The Applicant thanks Natural England for providing Relevant Representations and Written Representations and shall continue to engage with Natural England on relevant matters.</p>

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Reference	Relevant Representation Comment	Applicant response
RR-026.GEN.4	2.3 Owing to the relatively short consultation period to review the Applicant's submission documents, coupled with the complexity of the project development scenarios, Natural England may wish to revise our advice or add additional points. This may also arise if further information about the project becomes available. Therefore, we reserve the right to bring such matters to the Examining Authority's attention.	The Applicant notes that Natural England may wish to advise or add additional points to the representations provided.
RR-026.GEN.5	2.4 Natural England wishes to bring to the Examining Authority's attention our concerns regarding the anticipated overlapping timetable for Morgan: Generation Assets Project and the application submission and then Examination for the Morecambe: Generation Assets Project and Morgan and Morecambe: Transmission Assets Project. We highlight case teams are the same for all projects and we, therefore, kindly request that, if/where possible, Examination deadlines for the projects are staggered as much as possible to allow sufficient time for our case team to provide the best possible advice and responses to the Examining Authority and the Applicant.	The Applicant notes the request from Natural England to the Examining Authority.
RR-026.GEN.6	2.5 Please note that at Deadline 1 Natural England will submit a Risk and Issues log which will incorporate the comments we have made in this representation and track their resolution throughout the examination process. It is anticipated that this will continue to be submitted alongside our submissions during Examination and will reflect any progress in issue resolution following the Relevant Representations.	The Applicant notes that Natural England will submit a Risk and Issues Log at deadline 1 to track issue resolution throughout the Examination.
RR-026.GEN.7	2.6 Natural England intends to provide further detailed advice to the Offshore in Principal Monitoring Plan [APP-066] at Deadline 1 or next most suitable deadline, allowing time for further information to be provided by the Applicant to inform potential monitoring requirements. Natural England is mindful of the recent decision for the Sheringham and Dudgeon Extension Project (SADEP). While some of the key decisions are reflected in our advice to the Development Consent Order (DCO), once our full review of the decision is complete, further advice reflecting the DCO may be provided at the earliest opportunity.	The Applicant notes that Natural England intends to submit further advice on the Offshore In Principal Monitoring Plan.
RR-026.GEN.8	2.7 Natural England are keen to continuously improve our input into Examinations and would therefore welcome any feedback on our approach.	This is noted by the Applicant.
RR-026.GEN.9	Part 1 – Overview of Representations 3. Engagement with the Applicant	The Applicant thanks Natural England for their advice throughout the pre-application stage of the project.

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Reference	Relevant Representation Comment	Applicant response
	<p>3.1 Natural England has been working with the Applicant to provide pre-application advice and guidance on Morgan Generation Offshore Wind Farm (OWF) project since 2021. The Evidence Plan Process (EPP) has included monthly project progress meetings, expert working group (EWG) meetings, and steering group meetings. To assist developers, Natural England has produced a series of documents to provide 'Offshore Wind Marine Environmental Assessments: Best Practice Advice for Evidence and Data Standards' for developments in English inshore and offshore waters. During the pre-application process we have advised that developers follow our Best Practice Advice and other guidance through the application and consenting process.</p>	
RR-026.GEN.10	<p>3.2 Natural England has also been working with the Marine Management Organisation (MMO), and the Centre for the Environment, Fisheries and Aquaculture Science (CEFAS) to provide coordinated advice in relation to each of our remits.</p>	<p>The Applicant thanks Natural England for their coordinated advice throughout the pre-application stage of the project.</p>
RR-026.GEN.11	<p>3.3 At appropriate points in the Examination, Natural England will undergo discussions with the Applicant to seek to resolve these concerns and agree outstanding matters. We will update on progress via our Risk & Issues Log.</p>	<p>The Applicant welcomes the Risk and Issues Log prepared by Natural England and looks forward to further discussions with Natural England to resolve any concerns and to reach agreement on any outstanding matters.</p>
RR-026.GEN.12	<p>Part 1 – Overview of Representations</p> <p>4. Structure of Natural England’s Relevant Representations</p> <p>4.1 The representations in Part II provide Natural England’s statutory advice. They are set out as follows:</p> <ul style="list-style-type: none"> • Section 5 identifies the designated sites and natural features potentially affected by this application. • Section 6 sets out the key outstanding environmental concerns which Natural England would like the Examining Authority to consider, through a colour-coded Principal Areas of Disagreement Summary Statement (PADSS). • Section 7 – Detailed Advice Appendices - Natural England’s detailed technical advice, where more detailed explanation of issues has been considered relevant, can be found in the technical Appendices A to G. These will include additional considerations beyond those raised in the PADSS that warrant consideration in the Examination. 	<p>The Applicant thanks Natural England for outlining the structure of their Relevant Representations.</p>

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Reference	Relevant Representation Comment	Applicant response
RR-026.GEN.13	4.2 Natural England advises that the matters set out in Part II of our relevant representations will require consideration by the Examining Authority as part of the examination process. The Examining Authority may wish to ensure that the matters set out in these relevant representations are addressed as part of the Examining Authority's first set of questions to ensure the provision of information early in the examination process.	The advice provided by Natural England is noted by the Applicant.
RR-026.GEN.14	4.3 Throughout our advice, Natural England will be using colour coding to denote the level of potential risk or significance of impact associated with our comments. Full details of this are provided in Table 4.1. [Table 4.1 Natural England's risk rating with colour].	The colour coding used by Natural England is noted and welcomed by the Applicant.
RR-026.GEN.15	4.4 Within Section 6 of these Relevant Representations we have assigned a broad risk rating to each row of the PADSS to indicate the level of our concern. For each of the Appendices in Section 7 we provide a summary of the main concerns associated with the thematic area in question, followed by a table of detailed advice setting out all the salient issues we have identified. In both tables we have used the colour coding to give an indication of the level of risk associated with each of the points we raise.	The risk rating and colour coding used by Natural England is noted and welcomed by the Applicant.
RR-026.GEN.16	Part 2 – Natural England's Advice 5. The Natural Features Potentially Affected by this Application 5.1 Natural England highlight that due to the location of Morgan Generation OWF, designated sites from the other UK devolved administrations are screened into the assessment. We highlight that Natural England are the relevant Statutory Nature Conservation Body (SNCB) to consult on impacts to English sites, but we cannot advise on sites located in Wales, Scotland or Northern Ireland. Therefore, the relevant SNCB should be consulted for advice on designated sites pertaining to their organisational remits.	The Applicant notes the remit of Natural England and has engaged with other relevant Statutory Nature Conservation Bodies (SNCBs) where required.
RR-026.GEN.17	5.2 The English designated sites and interest features included within Table 5.1 are those which may be significantly affected by the proposed project, based on the information provided to date. It should be noted that this list may change if new evidence emerges during the Examination. Links have been provided to the citation, conservation objectives and supplementary advice for designated nature conservation sites. We have provided links, as these are large and live documents which are updated on a regular basis to incorporate the most up to date evidence. To avoid potentially out of date or	The Applicant notes the links provided in Table 5.1 of Natural England's Relevant Representation (RR-026) for the most recent information on the English designated sites listed and the Applicant will utilise these links throughout the examination process.

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Reference	Relevant Representation Comment	Applicant response
	inaccurate documents being referred to during the Examination we recommend that the links are utilised.	
RR-026.GEN.18	5.3 In relation to SPAs, SACs and Ramsar sites, on the basis of the information submitted, Natural England 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 sites in Table 5.1.	The Applicant is confident that a robust assessment has been undertaken in relation to the designated sites listed in Table 5.1, in HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) and maintains the conclusions that no adverse effects on integrity are predicted for any SPA or SAC as a result of the Morgan generation Assets alone or in-combination with other plans or projects. The applicant notes that NE 'are in general agreement with the Applicant that their project-alone impacts are low'. However, noting SNCBs concerns raised pre- and post-application with respect to the potential contribution of historical projects to the offshore ornithology Cumulative Effects Assessments (CEAs) and in-combination assessment for the Morgan Generation Assets, the Applicant is engaging with SNCBs on the proposed methodology and the Applicant will produce a technical note regarding the 'gap-filling' exercise in accordance with the SNCB Advice Note at Deadline 1.
RR-026.GEN.19	5.4 Protected Species – We advise that since the Morgan Generation OWF is located entirely offshore, consideration should be given to the need for European Protected Species (EPS) licences in relation the marine species. We highlight that the Marine Management Organisation (MMO) is responsible for wildlife licensing of activity in English waters. Further standing advice on marine EPS can be found on the MMO's website.	The Applicant thanks Natural England for their advice. The Applicant has previously been engaging with the MMO during the pre-application stage and shall continue to engage with the MMO throughout the Examination.
RR-026.GEN.20	5.5 Should the DCO be granted, Natural England advises the Applicant progresses with a licence application at the earliest opportunity.	This is noted by the Applicant.
RR-026.GEN.21	<p>Other matters relating to Natural England's remit</p> <p>Seascape, Landscape and Visual Impact Assessment (SLVIA) – Natural England has engaged with the Applicant and provided advice on SLVIA throughout the pre-application and Preliminary Environmental Information Report (PEIR). Natural England has no major remaining concerns on the impact the proposal will have on SLVIA receptors. However, there are some outstanding issues which we would expect to be updated and addressed in the final application as follows:</p> <ul style="list-style-type: none"> 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 	<p>Please see Annex 3.7_Morgan Gen_Response to RR-026_Natural England_SLVIA for the Applicants response regarding Seascape, Landscape and Visual Assessment. Please also see Annex 3.7_Morgan Gen_Response to RR-026_Natural England_SLVIA_Appendix A Part 1 and Annex 3.7_Morgan Gen_Response to RR-026_Natural England_SLVIA_Appendix A Part 2.</p> <p>With regards to the CEA comment the Applicant has set out its position in more detail in its response to Annex 1, please refer to Annex 3.8_Morgan Gen_Response to RR-026_Natural England_Annex 1.</p>

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Reference	Relevant Representation Comment	Applicant response
	<p>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.</p> <ul style="list-style-type: none"> Cumulative Effect Assessment (CEA) – During the early stages of pre-application engagement, Natural England raised concerns around the proposed separate Development Consent Order (DCO) applications for ‘Generation Assets’ and ‘Transmission Assets’ (Please also see Annex 1 of this cover letter). Whilst supportive of the sharing of transmission assets to reduce environmental impacts, we advised that consideration was required by the relevant parties to consider how the National Grid ‘Coordinated Approach’ can be implemented and robustly consented to ensure that OWF projects impacts can be considered and consented holistically, the risk of stranded assets can be avoided, and that offshore windfarm energy can be delivered in a timely manner. Additionally, we advised that the Environmental Statement (ES) should be in a position to consider the project as a whole and this should be reflected in the CEA. <p>We note that across the relevant topic areas, the Applicant has undertaken a CEA which considers three scenarios: Scenario 1: Morgan Generation Assets plus Morgan and Morecambe Offshore Wind Farms: Transmission Assets. Scenario 2: Morgan Generation Assets plus Morgan and Morecambe Offshore Wind Farms: Transmission Assets and the Morecambe Offshore Windfarm Generation Assets. Scenario 3: Morgan Generation Assets plus Morgan and Morecambe Offshore Wind Farms: Transmission Assets alongside all other projects, plans and activities using a ‘tiered’ approach.</p> <p>Natural England welcome the Applicant’s approach and efforts to address our concerns relating to the CEA. We advise that we are broadly content that this approach but maintain several concerns with related to the wider issue of the ‘coordinated approach’ and stranded assets as outlined in Annex 1.</p>	
RR-026.GEN.22	<p>Cumulative Effect Assessment (CEA)</p> <p>During the early stages of pre-application engagement, Natural England raised concerns around the proposed separate Development Consent Order (DCO) applications for ‘Generation Assets’ and ‘Transmission Assets’ (Please also see Annex 1 of this cover letter). Whilst supportive of the sharing of transmission assets to reduce environmental impacts, we advised that consideration was required by the relevant parties to consider how the National Grid ‘Coordinated Approach’ can be implemented and robustly</p>	<p>The Applicant has set out its position in more detail in its response to Annex 1, refer to Annex 3.8_Morgan Gen_Response to RR-026_Natural England_Annex 1. The Applicant notes that Natural England welcomes the approach and efforts taken by the Applicant. The Applicant disagrees with the remaining issues raised by Natural England that the approach could result in a stranded asset.</p>

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Reference	Relevant Representation Comment	Applicant response
	<p>consented to ensure that OWF projects impacts can be considered and consented holistically, the risk of stranded assets can be avoided, and that offshore windfarm energy can be delivered in a timely manner. Additionally, we advised that the Environmental Statement (ES) should be in a position to consider the project as a whole and this should be reflected in the CEA.</p> <p>We note that across the relevant topic areas, the Applicant has undertaken a CEA which considers three scenarios:</p> <p>Scenario 1: Morgan Generation Assets plus Morgan and Morecambe Offshore Wind Farms: Transmission Assets.</p> <p>Scenario 2: Morgan Generation Assets plus Morgan and Morecambe Offshore Wind Farms: Transmission Assets and the Morecambe Offshore Windfarm Generation Assets.</p> <p>Scenario 3: Morgan Generation Assets plus Morgan and Morecambe Offshore Wind Farms: Transmission Assets alongside all other projects, plans and activities using a ‘tiered’ approach.</p> <p>Natural England welcome the Applicant’s approach and efforts to address our concerns relating to the CEA. We advise that we are broadly content that this approach but maintain several concerns with related to the wider issue of the ‘coordinated approach’ and stranded assets as outlined in Annex 1.</p>	
RR-026.GEN.23	<p>6. Principal Areas of Disagreement Summary Statement (PADSS)</p> <p>This PADSS should be read in conjunction with the Appendices of these Relevant Representations, which provide further detail on the areas of disagreement as well as other areas of disagreement which require resolution. For ease of reference, we have added a RAG rating for each principal area.</p>	<p>The Application thanks Natural England for providing the PADSS table. The Applicant has provided responses to all points raised by Natural England within the Appendices of the Natural England Relevant Representations and Written Representations.</p>
RR-026.GEN.24	<p>7. Detailed Advice Appendices</p> <p>Natural England’s detailed advice, where more detailed explanation of issues has been considered relevant, can be found in the following Appendices:</p> <ul style="list-style-type: none"> • Appendix A – Development Consent Order, Deemed Marine Licence • Appendix B – Offshore Ornithology • Appendix C – Marine Mammals • Appendix D – Physical Processes • Appendix E – Fish and Shellfish Ecology 	<p>This is noted by the Applicant.</p>

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Reference	Relevant Representation Comment	Applicant response
	<ul style="list-style-type: none"> • Appendix F – Benthic Subtidal Ecology • Appendix G – Other Plans 	

Responses to questions relevant to DCO and Marine Licence (Natural England Appendix A)

Reference	Relevant Representation	Applicant response
RR-026.A.1	<p>Appendix A – DCO and dML</p> <p>In compiling this response, the following documents have been considered:</p> <ul style="list-style-type: none"> • [APP-005] C1 Draft development consent order; • [APP-006] C2 Explanatory memorandum; • [APP-010] F1.3 Project description 	This is noted by the Applicant.
RR-026.A.2	<p>1. Natural England's Advice and Recommendations</p> <p>A summary of Natural England's key concerns in relation to the draft Development Consent Order (DCO) and deemed Marine Licences (dMLs) is set out in Table 1. Our detailed advice and recommendations are presented in further detail in Table 2.</p>	The Applicant notes Natural England's comments in relation to the DCO and dMLs and has provided responses to each point raised by Natural England.
RR-026.A.3	<p>Table 1 Summary of Key Issues – Development Consent Order (DCO) and Deemed Marine Licence (dML)</p> <p>A1 Summary of Key Concerns</p> <p>The DCO and dMLs do not accurately capture all the required maximum parameters of the proposed works. Important metrics such as the maximum area and volume of scour and cable protection and the number and size of Unexploded Ordnance (UXOs) that can be detonated have not been included.</p> <p>Natural England's Recommendations to Resolve Issues.</p> <p>The Applicant should update the DCO and dMLs to ensure the maximum parameters of all important metrics are appropriately secured.</p>	<p>The Applicant will update the next version of the draft DCO and dMLs to include maximum volumes of scour protection in the relevant tables detailing parameters (Schedule 2, Table 1; Schedule 3, Part 2, Table 2; Schedule 4, Part 3, Table 3).</p> <p>The Applicant does not consider it necessary to specify the number and size of unexploded ordnance that can be detonated under the terms of the dMLs. 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. The Applicant has undertaken an assessment based on a realistic worst case scenario, with proposed mitigation and post-consent controls in place to mitigate any potential impacts.</p> <p>Condition 23 of each dML sets out that no removal or detonation of unexploded ordnance can take place until various documents are submitted to and approved by the MMO, including a method statement for UXO clearance and a marine mammal mitigation protocol. In addition, condition 22 of each dML sets out that no piling activities or detonation of unexploded ordnance must commence until an underwater sound</p>

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Reference	Relevant Representation	Applicant response
		<p>management strategy for those activities, which accords with the outline underwater sound management strategy, has been submitted to and approved in writing by the MMO in consultation with the relevant statutory nature conservation body.</p> <p>The Applicant considers that these controls are suitable to mitigate impacts of UXO clearance to avoid significant environmental effects. The Applicant considers this a reasonable approach to authorise the necessary UXO clearance, whilst mitigating its potential impacts.</p>
RR-026.A.4	<p>Table 1 Summary of Key Issues – Development Consent Order (DCO) and Deemed Marine Licence (dML) A2 Summary of Key Concerns The pre-construction documentation required under the dMLs condition 20 is to be provided four months prior to commencement. Due to the increasing complexity of construction of large offshore works, four months is no longer considered an appropriate period.</p> <p>Natural England’s Recommendations to Resolve Issues. The Applicant should amend the dMLs to allow for documents to be submitted at least six months prior to commencement.</p>	<p>The Applicant will discuss with Natural England and the MMO the timescales included in the dML conditions for approval of pre-construction documentation.</p>
RR-026.A.5	<p>Table 1 Summary of Key Issues – Development Consent Order (DCO) and Deemed Marine Licence (dML) A3 Summary of Key Concerns There is no condition requiring an updated Offshore Operations and Maintenance Plan (OOMP) be submitted for approval. It is a standard requirement for offshore wind dMLs that the OOMP be updated and resubmitted. Further to this, the condition should also secure that no cable protection should be deployed later than 10 years post construction. Permission for any further cable protection works after that time should be sought through a new Marine Licence. This is a standard position of Natural England, see Annex 1 of the Benthic Ecology appendix for our position paper.</p> <p>Natural England’s Recommendations to Resolve Issues. The Applicant should update the dMLs to include an appropriate requirement to provide an updated OOMP, and to secure the maximum period of ten years post construction for deployment of cable protection.</p>	<p>The Applicant considers that the need to submit an operations and maintenance plan is already suitably secured.</p> <p>Condition 13(3) of each deemed marine licence within schedules 3 and 4 of the draft DCO require that:</p> <p><i>“(3) An operations and maintenance plan substantially in accordance with the outline offshore operations and maintenance plan must be submitted to the MMO for approval in writing at least four months prior to commencement of the operation of licensed activities and must provide for review and resubmission every three years during the operational phase.”</i></p> <p>Sub paragraph (4) requires that all operation and maintenance activities must be carried out in accordance with the approved plan.</p>

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Reference	Relevant Representation	Applicant response
RR-026.A.6.	<p>Table 1 Summary of Key Issues – Development Consent Order (DCO) and Deemed Marine Licence (dML) A4 Summary of Key Concerns The monitoring conditions included within the dMLs do not secure any ecological monitoring.</p> <p>Natural England’s Recommendations to Resolve Issues. Monitoring of benthic, ornithological and marine mammals should be secured through appropriate conditions.</p>	<p>In respect of benthic receptors, no significant effects were predicted in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020). As the EIA was undertaken on the basis of assessing maximum design parameters and applying the precautionary principle, no monitoring is considered to be required to test the assessment within the Environmental Statement.</p> <p>The Applicant has not proposed monitoring for marine mammals, on the basis that with the implementation of adopted measures, the risk of injury can be fully mitigated and that the effect of disturbance, for all impacts was concluded to be not significant in EIA terms. This does not preclude noise monitoring of the first four piled foundations to allow comparison against predictions for received sound levels as presented in Volume 3, Annex 3.1: Underwater sound technical report (APP-028).</p> <p>In respect of ornithology, the impacts predicted for the Morgan Generation Assets alone are either not significant or do not represent an adverse effect on the integrity of any associated SPAs. The impacts predicted are very small in numerical terms and it will therefore be difficult to define monitoring options that have the statistical robustness to address conditions pertaining to monitoring that may be included in the dML. The Applicant does not consider post-construction monitoring to be necessary.</p>
RR-026.A.7.	<p>Table 1 Summary of Key Issues – Development Consent Order (DCO) and Deemed Marine Licence (dML) A5 Sched. 2 Para 2 (2). Summary of Key Concerns This table lists the main parameters of the proposed development. However, this table does not include the maximum volume of scour protection. It also does not include the maximum area and volume of cable protection. These parameters have been included in most OWF DCOs and detail the limits of the works assessed within the Environmental Statement (ES). It should be noted that both area and volume of hard substrate is required as both metrics are relevant to the quantification of potential impacts, and the Applicant should be limited to the maximums assessed within the ES. We also note the tables do not include the maximum numbers of UXOs to be detonated. Due to the sensitivity of Marine Mammal and some fish species to the detonation of explosives and that the placement of explosives to detonate UXOs within the marine environment is a licensable activity in it’s own right, the maximum number of such detonations and the maximum size of the UXO to be removed should be secured within the DCO and dMLs.</p>	<p>The Applicant will update the next version of the draft DCO and dMLs to include maximum volumes of scour protection in the relevant tables detailing parameters (Schedule 2, Table 1; Schedule 3, Part 2, Table 2; Schedule 4, Part 3, Table 3).</p> <p>The Applicant does not consider it necessary to specify the number and size of unexploded ordinance that can be detonated under the terms of the dMLs. 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. The Applicant has undertaken an assessment based on a realistic worst case scenario, with proposed mitigation and post-consent controls in place to mitigate any potential impacts.</p> <p>Condition 23 of each dML sets out that no removal or detonation of unexploded ordnance can take place until various documents are submitted to and approved by the MMO, including a method statement for UXO clearance and a marine mammal mitigation protocol. In addition,</p>

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Reference	Relevant Representation	Applicant response
	<p>Natural England’s Recommendations to Resolve Issues. The Applicant should update Table 2 to include scour protection and cable protection area and volumes. The updates should also include maximum number and size of UXOs to remove using high order detonations. A similar issue arises within Tables 2 and 3 in Schedules 3 and 4, for brevity we will not repeat our comment but would request these tables also be corrected.</p>	<p>condition 22 of each dML sets out that no piling activities or detonation of unexploded ordnance must commence until an underwater sound management strategy for those activities, which accords with the outline underwater sound management strategy, has been submitted to and approved in writing by the MMO in consultation with the relevant statutory nature conservation body.</p> <p>The Applicant considers that these controls are suitable to mitigate impacts of UXO clearance to avoid significant environmental effects. The Applicant considers this a reasonable approach to authorise the necessary UXO clearance, whilst mitigating its potential impacts.</p>
RR-026.A.8	<p>Table 1 Summary of Key Issues – Development Consent Order (DCO) and Deemed Marine Licence (dML) A6 Sched 2 and 4 Part 2 Condition 10. Summary of Key Concerns The condition sets out the maximum parameters of the project within the dMLS. However, Natural England notes that the maximum Hammer Energy is not provided. The maximum hammer energy is a key metric for the potential impact on marine mammals and fish. It has been included as a standard limit in most recent offshore wind farm application, please see East Anglia One North, East Anglia 2, Boreas or Vanguard DCOs. It is essential that the maximum hammer energy assessed within the ES is secured through condition as it is a key metric on the impacts.</p> <p>Natural England’s Recommendations to Resolve Issues. The Applicant should update the dMLS to include the maximum hammer energy that may be used. This should be presented as a maximum for each different foundation type (monopile, pin pile etc).</p>	<p>The Applicant will amended condition 20(1)(d)(iii) of each deemed marine licence in schedules 3 and 4 of the draft DCO to secure that piling methods are specified and submitted for approval as part of the construction method statement. As the contents of this document must accord with the construction methods assessed in the environmental statement, which include piling, the submission and approval of this document will deal with the maximum hammer energies and ensure they do not exceed those assessed in the Environmental Statement. Condition 21 requires that the licensed activities are constructed in accordance with the approved documents. An additional condition to secure this limit is therefore unnecessary.</p>
RR-026.A.9.	<p>Table 1 Summary of Key Issues – Development Consent Order (DCO) and Deemed Marine Licence (dML) A7 Sched. 3 and 4 Part 2 Condition 20 (a). Summary of Key Concerns Natural England notes that the micro-siting required here is only for the micro-siting around archaeological interest features. We would note that micro-siting around features of conservation importance, such as reef of Annex I quality, is a standard mitigation. This has been included on all recent offshore wind farm consents. Please see East Anglia One North and East Anglia two for recent examples.</p> <p>Natural England’s Recommendations to Resolve Issues.</p>	<p>The Applicant notes that that Morgan Array Area does not spatially overlap with the boundary of any European marine site (i.e. SAC or SPA) or any other MPA (including MCZs). No Annex I habitats were recorded within the Morgan Array Area and therefore no Annex I habitats have the potential to be directly affected by the Morgan Generation Assets. Annex I low resemblance stony reef was recorded at two stations within the Morgan Array Area Zone of Influence. The assessment of potential indirect effects to this habitat in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) concluded, however, that significant effects will not occur. Similarly, the assessment of impacts to all other benthic habitats present within the Morgan Generation Assets in Volume 2, Chapter 2:</p>

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Reference	Relevant Representation	Applicant response
	<p>We recommend that the requirement to consider micro siting around features of conservation importance is secured within the dMLs.</p>	<p>Benthic subtidal ecology (APP-020) concluded that significant effects will not occur. On the basis, a condition to micro-site specifically for features of conservation importance would be disproportionate to the potential impacts which are not significant. As such, the Applicant does not consider it necessary to amend the condition in the dMLs.</p>
RR-026.A.10	<p>Table 1 Summary of Key Issues – Development Consent Order (DCO) and Deemed Marine Licence (dML) A8 Sched. 3 and 4 Part 2 Condition 20. Summary of Key Concerns Natural England notes that this condition does not include a requirement to submit an updated offshore operations and maintenance plan (OOMP). We would note that a condition covering the operations and maintenance activity is a standard condition of most offshore wind farms, further that an outline OOMP is included as a definition but not referred to in any condition. It is important that the plan be appropriately updated at time of construction and resubmitted to the MMO as enforcing body, and that the relevant SNCB is consulted on the final plan prior to its approval. Further we would note that Natural England’s standard position is that cable protection may only be deployed on a licence up to ten years after construction. This is due to the natural variability of the marine environment and the potential for important ecological habitats to appear over time.</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England recommends that a condition to secure an updated OOMP be included and that it stipulates that cable protection may only be deployed under this consent for a period of ten years post construction. See Annex 1 of the Benthic Ecology appendix for our position paper.</p>	<p>The Applicant considers that the need to submit an operations and maintenance plan is already suitable secured.</p> <p>Condition 13(3) of each deemed marine licence within schedules 3 and 4 of the draft DCO require that:</p> <p><i>“(3) An operations and maintenance plan substantially in accordance with the outline offshore operations and maintenance plan must be submitted to the MMO for approval in writing at least four months prior to commencement of the operation of licensed activities and must provide for review and resubmission every three years during the operational phase.”</i></p> <p>Sub paragraph (4) requires that all operation and maintenance activities must be carried out in accordance with the approved plan.</p>
RR-026.A.11.	<p>Table 1 Summary of Key Issues – Development Consent Order (DCO) and Deemed Marine Licence (dML) A9 Sched. 3 and 4 Part 2 Condition 21. Summary of Key Concerns This condition secures that pre-construction plans must, except where stated otherwise, be submitted four months prior to construction. Due to the increased complexity of constructing such large offshore projects, it is no longer appropriate for these documents to be provided just four months prior to construction as additional time is often needed to agree on the required mitigation. We would note that East Anglia Two and East Anglia One North provided six months.</p>	<p>The Applicant will discuss with Natural England and the MMO the timescales included in the dML conditions for approval of pre-construction documentation.</p>

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Reference	Relevant Representation	Applicant response
RR-026.A.12.	<p>Natural England’s Recommendations to Resolve Issues. Natural England advises that this condition be amended to require the pre-construction documentation six months prior to commencement of construction.</p> <p>Table 1 Summary of Key Issues – Development Consent Order (DCO) and Deemed Marine Licence (dML) A10 Sched. 3 and 4 Part 2 Condition 22. Summary of Key Concerns Natural England notes that the Underwater Sound Management Strategy will need to be supplied for both piling and UXO detonation. A minimum of two documents for each licence. Further we note that the timing requirement is limited to three months prior to the activity, for piling we refer to comment A5 regarding the need for further time. However, this mitigation strategy is required due to the potential for in combination impacts and it is important that the document not be provided too early to ensure that information on other works is as up to date as possible prior to sign off of the plan. Therefore, Natural England requests the condition require the plans to be submitted no later than 6 months and no sooner than 9 months prior to the activity.</p> <p>Natural England’s Recommendations to Resolve Issues. The Applicant should amend the condition to include the required timings.</p>	<p>The Applicant notes the comment from Natural England, but considers that the specification of timings in the manner suggested is too prescriptive to be included within the relevant condition of the dMLs.</p> <p>The Applicant will submit the underwater sound management strategy at a point where it is considered suitably developed to be approved by the MMO in consultation with Natural England. This will be following any further survey required and engagement with the relevant stakeholders.</p> <p>As such, the Applicant does not consider it necessary to amend the condition in the dMLs.</p>
RR-026.A.13	<p>Table 1 Summary of Key Issues – Development Consent Order (DCO) and Deemed Marine Licence (dML) A11 Sched 3 and 4 Part 2 Conditions 27-29. Summary of Key Concerns These conditions detail and secure the required monitoring for the development. However, they do not include any of the ecological monitoring required, except the during construction piling monitoring. Please see East Anglia Two and East Anglia One North for examples. We would expect benthic surveys, ornithological surveys and marine mammal surveys to be secured.</p> <p>Natural England’s Recommendations to Resolve Issues. The Applicant should update the monitoring conditions to secure the ecological monitoring requirements.</p>	<p>In respect of benthic receptors, no significant effects were predicted in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020). As the EIA was undertaken on the basis of assessing maximum design parameters and applying the precautionary principle, no monitoring is considered to be required to test the assessment within the Environmental Statement.</p> <p>The Applicant has not proposed monitoring for marine mammals, on the basis that with the implementation of adopted measures, the risk of injury can be fully mitigated and that the effect of disturbance, for all impacts was concluded to be not significant in EIA terms. This does not preclude noise monitoring of the first four piled foundations to allow comparison against predictions for received sound levels as presented in Volume 3, Annex 3.1: Underwater sound technical report (APP-028).</p> <p>In respect of ornithology, the impacts predicted for the Morgan Generation Assets alone are either not significant or do not represent an adverse effect on the integrity of any associated SPAs. The impacts predicted are very small in numerical terms and it will therefore be difficult</p>

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Reference	Relevant Representation	Applicant response
		to define monitoring options that have the statistical robustness to address conditions pertaining to monitoring that may be included in the dML. The Applicant does not consider post-construction monitoring to be necessary.

Response to Relevant Representation relating to Offshore Ornithology (Natural England Appendix B)

Reference	Relevant Representation	Applicant response
RR-026.B.1	<p>In formulating these comments, the following documents have been considered:</p> <ul style="list-style-type: none"> • [APP-010] F1.3 Volume 1, Chapter 3: Project description • [APP-012] F1.5 Volume 1, Chapter 5: Environmental impact assessment methodology • [APP-023] F2.5 Volume 2, Chapter 5: Offshore ornithology • [APP-053] F4.5.1 Environmental Statement - Volume 4, Annex 5.1 Offshore ornithology baseline characterisation • [APP-054] F 4.5.2 Volume 4, Annex 5.2: Offshore ornithology displacement technical report • [APP-055] F 4.5.3 Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report • [APP-056] F 4.5.4 Volume 4, Annex 5.4: Offshore ornithology migratory bird collision risk modelling technical report • [APP-057] F 4.5.5 Volume 4, Annex 5.5: Offshore ornithology apportioning technical report • [APP-058] F 4.5.6 Volume 4, Annex 5.6: Offshore ornithology PVA technical report • [APP-096] E1.1 HRA stage 2 Information to Support an Appropriate Assessment (ISAA) Part 1: Introduction • [APP-098] E1.3 HRA Stage 2 information to support an appropriate assessment flight speeds Part Three: Special Protection Areas (SPA) and Ramsar Site assessments • [APP-099] E1.4 HRA Stage 1 Screening Report • [APP-100] E1.5 HRA integrity matrices 	The Applicant notes Natural England's comment and the documents used for the representation.
RR-026.B.2	<p>Table 1 Summary of Key Issues – Offshore Ornithology B1 - Summary of Key Concerns Cumulative Effects Assessment (CEA) methodology</p>	The Applicant has presented an approach that goes beyond that presented for any previous offshore wind farm application, quantifying the impacts for projects where quantitative project-specific information is

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Reference	Relevant Representation	Applicant response
	<p>Natural England do not consider the CEA to be sufficiently robust. Throughout the Expert Working Group (EWG) process, and in our review of the Applicants Preliminary Environmental Information Report (PEIR), Natural England have highlighted the risks associated with the deficiencies of the projects cumulative and in-combination assessments. This is due to the lack of quantitative consideration of some historic projects.</p> <p>The Statutory Nature Conservation Bodies (SNCBs) i.e. Natural England (NE), Natural Resources Wales (NRW) and JNCC supplied bespoke advice to all R4 Irish Sea projects in October 2023 (Annex 1). We note that the Applicant has not followed this advice. Instead, historic projects without quantified impacts have been considered qualitatively. Thus, we consider there to be a high level of uncertainty in the Applicants assessments. Natural England also highlight inconsistencies in figures used for some projects compared to those in other assessments (e.g. Mona Offshore Wind Farm (OWF)). Further, it is of note that Morecambe OWF have recently submitted their application to PINS, detailing two full years of baseline data collection. Only the first year of data was collected and analysed at the Preliminary Environmental Information Report (PEIR) stage, this is now outdated.</p> <p>Natural England's Recommendations to Resolve Issues.</p> <p>To address the data gaps in the cumulative and in-combination assessments, Natural England advise that the method previously supplied to the Applicant (Annex 1) remains our preferred approach. However, we recognise that for most assessments the legitimate risk of impact on integrity judgements is relatively low. To enhance confidence in the assessments we recommend that the Applicant aligns their qualitative approach to historic projects with that proposed by the Morecambe OWF (PINS doc ref: EN010121-000242-5.1.12 Chapter 12 Offshore Ornithology.pdf(planninginspectorate.gov.uk)). Natural England have not yet conducted a complete technical review, but currently consider this approach to be a useful screening method. We note that further investigation of data gaps as originally advised may still be required in some cases.</p> <p>Natural England 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. This is important both with respect to historic projects and the Round 4 projects themselves, especially as these projects are in examination simultaneously and the impact estimates may be considered subject to change. Natural England</p>	<p>available and, where such data are not available, considering any available qualitative project-specific information. In doing so, the Applicant has included information for all projects that may act cumulatively/in-combination with the Morgan Generation Assets. The Applicant has not assumed that the impact from any project is zero and has discussed the likely impact associated with projects for which quantitative information is unavailable throughout the cumulative and in-combination assessments in Volume 2, Chapter 5: Offshore ornithology (APP-023) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098), respectively.</p> <p>The assessments have been undertaken based on the best evidence available, combining modelling with professional judgement. The assessments have been taken in line with the process undertaken on other offshore wind farms. Based on that approach, robust and precautionary conclusions have been reached in in Volume 2, Chapter 5: Offshore ornithology (APP-023) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098). This matter is not unique to the Morgan Generation Assets with the Secretary of State having recently granted consent for the Awel y Môr offshore wind farm, which is located just to the south of the Morgan Generation Assets and was not required to provide quantified CEA data for all historic projects. This is also applicable to every other offshore wind farm project in UK waters with the Secretary of State having granted consent despite impacts for some projects not having been quantified within cumulative and in-combination assessments.</p> <p>The Applicant undertook a collaboration exercise with the Applicant's for the Mona and Morecambe offshore wind farms. This process was complete in time for the Morgan and Morecambe applications and as a result the values used for other projects in the respective cumulative assessments should be comparable.</p> <p>However, noting SNCBs concerns raised pre- and post-application with respect to the potential contribution of historical projects to the offshore ornithology Cumulative Effects Assessments (CEAs) and in-combination assessment for the Morgan Generation Assets, the Applicant is engaging with SNCBs on the proposed methodology and the Applicant will produce a technical note regarding the 'gap-filling' exercise in accordance with the SNCB Advice Note at Deadline 1.</p>

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	<p>consider this a compelling reason to adopt SNCB advice throughout the assessments to ensure consistency and early acceptance of each projects assessments.</p>	
RR-026.B.3	<p>Annex 1 Proposed methodology for ‘gap-filling’ the Irish Sea R4 cumulative & in-combination assessments</p> <p>At present, Natural England do not consider that AEOI can be ruled out beyond reasonable scientific doubt for several species/SPA combinations at Round 4 Irish Sea projects. This is due, in part, to a lack of appropriate consideration of impacts arising from pre-existing OWFs. This presents a clear consenting risk and would ideally be resolved prior to examination. Natural England consider that some estimate of impact must be attributed to all projects screened in to cumulative and in-combination assessments to reduce or eliminate this risk which arises in some cases simply from a lack of provision of relevant information.</p>	<p>Please see response to comment RR-026.B.14 regarding Cumulative Effects Assessment (CEA) methodology.</p>
RR-026.B.4	<p>A basic approach is suggested to generate indicative numbers for currently ‘unknown’ displacement and collision impact estimates, depending on the level of data available for the relevant projects. It is acknowledged that the approach detailed below is flawed. However, the intention is simply to enable an informed expert judgement to be made on the likelihood of risk with respect to AEOI, and thus the necessity of assessing this risk in more detail.</p>	<p>The Applicant considers that the information presented in Volume 2, Chapter 5: Offshore ornithology (APP-023) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) allows for an informed expert judgment to be made in respect of AOEI without introducing further uncertainty with the derivation of a numerical assessment in the absence of site specific data. The Applicant will continue to engage with stakeholders to address this issue.</p>
RR-026.B.5	<p>It is of note that some OWFs screened into the assessments may be nearing end-of-life with limited (or no) overlap with the proposed project. It would be appropriate to consider timelines and determine if any of these sites can be screened out.</p>	<p>A number of projects have been excluded from the cumulative and in-combination assessments (e.g. Barrow, Rhyl Flats, North Hoyle and Arklow Bank Phase 1) as their project lifetimes do not overlap with the Morgan Generation Assets. In addition, there are a number of other projects for which quantitative information is unavailable that will be nearing the end of their consented lifetime at the start of the Morgan Generation Assets construction and/or operations and maintenance phase (e.g. Gwynt y Môr, Ormonde, Robin Rigg, Walney 1&2 and West of Duddon Sands) and therefore the associated impacts will not persist across the lifetime of the Morgan Generation Assets.</p>
RR-026.B.6	<p>Where it is necessary to ‘gap-fill’ for a particular development, the following methods are proposed.</p>	<p>Please see responses to previous comments in relation to this topic (e.g. RR-026.B.2).</p>

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Reference	Relevant Representation	Applicant response
RR-026.B.7	<p><u>Displacement</u></p> <p>1. Review the submitted environmental statement. It is accepted that displacement mortality estimates may not be presented. However, if there is abundance data, utilise this to populate project-specific displacement matrices for relevant species. We also suggest review of the Round 4 plan-level HRA to determine if any suitable estimates are presented therein.</p> <p>If no abundance data available...</p> <p>2. Use a nearby windfarm with a published estimate of mortality arising from displacement as a proxy. Scale this estimate according to the relative area of the two arrays and appropriate buffers.</p>	<p>The Applicant has followed the first step presented for all projects for which suitable abundance data are available.</p> <p>The Applicant does not consider the second step to be appropriate, as it is considered to introduce a considerable level of uncertainty that may undermine any associated assessments.</p>
RR-026.B.8	<p><u>Collision</u></p> <p>1. Review the submitted environmental statement. It is accepted that collision mortality estimates may not be presented. However, if there is abundance data, utilise this to run project-specific CRMs according to current best practice for relevant species. We also suggest review of the Round 4 plan-level HRA to determine if any suitable estimates are presented therein.</p> <p>If no abundance data available...</p> <p>2. Use a nearby windfarm with a published estimate of mortality arising from collision as a proxy. Scale this estimate according to the relative number of turbines in the two arrays. The difference in the turbine specifications should be considered to determine if this method is likely to over or underestimate impact.</p>	<p>The Applicant has followed the first step presented for all projects for which suitable abundance data are available.</p> <p>The Applicant does not consider the second step to be appropriate, as it is considered to introduce a considerable level of uncertainty that may undermine any associated assessments.</p>
RR-026.B.9	<p>In the absence of any relevant site-specific data for a given development from which estimates of displacement or collision mortality can be derived, Natural England consider that the relatively clustered nature of OWFs in the Irish Sea lends itself to the alternative approach of using a site within a 'cluster' as the proxy to base the scaling of impacts upon. This could be carried out for multiple sites simultaneously if the same proxy is used.</p>	<p>The Applicant considers the approach presented in Volume 2, Chapter 5: Offshore ornithology (APP-023) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) provides the information necessary to inform assessments however will continue to engage with Natural England to address this matter.</p>
RR-026.B.10	<p>If >1 nearby sites to a given development requiring "gap-filling" have data, the most appropriate proxy site according to location, data quality & comparability should be selected. Alternatively, consideration of multiple sites could be discussed further.</p>	<p>Please see response to previous comments (e.g. RR-026.B.2). The Applicant intends to engage with Natural England with the aim of resolving this issue.</p>

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Reference	Relevant Representation	Applicant response
RR-026.B.11	If, having generated estimates as detailed above, the total impacts lead to cumulative and/or in-combination increases in baseline mortality of >1% it will be necessary to undertake a more rigorous assessment of estimated impacts at projects where gap-filling has been necessary.	Please see response to previous comments (e.g. RR-026.B.2). The Applicant intends to engage with Natural England with the aim of resolving this issue.
RR-026.B.12	We suggest further engagement with relevant SNCBs on this point if required.	Please see response to previous comments (e.g. RR-026.B.2). The Applicant intends to engage with Natural England with the aim of resolving this issue.
RR-026.B.13	If a more rigorous assessment is considered necessary, the best available bird density estimates and known array footprint + buffers and consented turbine parameters should be used to generate refined project specific assessments of displacement and collision mortality. If baseline characterisation data are not available for a given “gap-filling” project, MERP, strategic VAS of OWF areas, or the recent Welsh Atlas data could be considered (links and references available on request).	Please see response to previous comments (e.g. RR-026.B.2). The Applicant intends to engage with Natural England with the aim of resolving this issue.
RR-026.B.14	<p>Table 1 Summary of Key Issues – Offshore Ornithology</p> <p>B2 Summary of Key Concerns</p> <p>Collision Risk Modelling (CRM), displacement assessments and subsequent apportioning</p> <p>Natural England have outstanding concerns relating to both the Collision Risk Modelling (CRM) and displacement assessments and subsequent apportioning undertaken by the Applicant which we consider currently preclude any consideration of the conclusions drawn by the Applicants assessments.</p> <ul style="list-style-type: none"> • It is not clear that appropriate flying bird density data has been derived for consideration in CRM (for detailed comment, see NE Ref: B19). • It appears that CRM results using the Applicants preferred flight speed parameters, which Natural England consider inappropriate, have been progressed through to the apportioning stage of the assessments (for detailed comments, see NE Ref: B23, B32). • Specific displacement and mortality rates of auks, rather than the SNCB advised ranges, have been used for assessment in step 1 of the Applicants HRA integrity test (for detailed comment, see NE Ref: B48). <p>As the Applicant has elected to undertake multiple assessments using a mixture of SNCB advised and their own preferred parameters, it is frequently difficult to review the assessments.</p>	Please see responses to specific comments associated with these matters (e.g. RR-026.B.57, RR-026.B.63 and RR-026.B.74).

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Reference	Relevant Representation	Applicant response
	<p>Natural England’s Recommendations to Resolve Issues. Natural England advise that greater clarity and transparency is required on the results of assessments, and how these are used in later stages (e.g. apportioning), especially those using various CRM parameters. Furthermore, we consider that the full range of SNCB advised displacement and mortality rates must be considered when apportioning impacts. We would highlight that Natural England will only base our advice on assessments that follow SNCB guidance. It is not currently clear that such assessments are available. The Applicant should update the assessments as required. We note that this process may also necessitate updates to the Applicants screening for cumulative and in-combination assessments.</p>	
RR-026.B.15	<p>Project Parameters - Documents Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-023] F2.5 Volume 2, Chapter 5: Offshore ornithology</p> <p>Table 1 Summary of Key Issues – Offshore Ornithology Natural England’s Position on Worst Case Scenario or Scenarios B3 APP-023], Table 5.25 The minimum lower blade tip height of 34 m above Lowest Astronomical Tide (LAT). The worst-case scenario ‘air gap’ is usually stated as blade tip height above Highest Astronomical Tide (HAT).</p> <p>Natural England’s Recommendations to Resolve Issues. The Applicant should present the air gap above HAT to facilitate comparison with other projects and the required minimum air gap of 22m relative to HAT.</p>	The minimum air gap at HAT would be 26 m.
RR-026.B.17	<p>Baseline Characterisation - Document Used: [APP-053] F4.5.1 Volume 4, Annex 5.1: Offshore ornithology baseline characterisation</p> <p>Table 1 Summary of Key Issues – Offshore Ornithology Survey Data Acquisition, B4, [APP-053], Table A.2 Copy paste error. Table A.2 is titled the same as previously presented table.</p> <p>Natural England’s Recommendations to Resolve Issues. Update table title for clarity.</p>	Table title should be “Raw count data for the Morgan Offshore Ornithology survey area between April 2022 and March 2023”. This has been noted in the Applicant’s errata document.
RR-026.B.18	<p>Table 1 Summary of Key Issues – Offshore Ornithology Survey Data Acquisition, B5, [APP-053] Natural England are satisfied that appropriate baseline data has been</p>	The Applicant welcomes this response that the appropriate baseline data has been gathered for the purposes of ornithological impact assessment.

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Reference	Relevant Representation	Applicant response
	<p>gathered for the purposes of ornithological impact assessment.</p> <p>Natural England's Recommendations to Resolve Issues. N/A</p>	
RR-026.B.19	<p>Table 1 Summary of Key Issues – Offshore Ornithology Data Gaps B6 [APP-053], 1.3.2 Recent seabird population trends section does not consider the impacts of Highly Pathogenic Avian Influenza (HPAI) in the region.</p> <p>Natural England's Recommendations to Resolve Issues. Natural England suggest that HPAI and the impacts on seabirds in the region should be borne in mind when considering the Applicants impact assessment. Any impacts of Offshore Wind Farms (OWFs) may be more acute against a backdrop of stochastic events resulting in elevated levels of mortality. (Guidance in Annex 2).</p>	<p>The effect of Highly Pathogenic Avian Flu has been considered within the assessments presented in line with Natural England's guidance presented here. Please see paragraph 5.6.2.4 of in Volume 2, Chapter 5: Offshore ornithology (APP-023) and assessments for individual species in section 5.9.</p>
RR-026.B.20	<p><u>Annex 2</u> <u>Highly Pathogenic Avian Influenza (HPAI) outbreak in seabirds and Natural England advice on impact assessment (specifically relating to offshore wind) September 2022</u></p> <p>1. We are currently unclear what the short, medium and long-term effects of the 2022 HPAI outbreak will be on seabird colony abundance and vital rates (productivity and survival), though impacts at some English colonies in 2022 were likely substantial (e.g. emerging indications of estimates include adult mortality in ~50% of the UK's only roseate tern colony at Coquet Island SPA, and ~10% of Sandwich terns at the North Norfolk Coast SPA). We do not know the extent of population resilience – for instance, how many non-breeding birds might replace adults dying from HPAI in 2022 in future breeding seasons.</p>	<p>Please see response to comment RR-026.B.19.</p>
RR-026.B.21	<p>2. We expect HPAI to remain a threat to UK breeding seabirds (and terrestrial species of birds, especially perhaps wintering waterbirds) for the foreseeable future. It will take several years for data to be gathered on abundance, mortality and productivity, so we will need to work with imperfect knowledge in the interim.</p>	<p>Please see response to comment RR-026.B.19. The Applicant notes that the HPAI outbreak persisted for three years, generally affecting different species in each year. Response RR-026.B.19 also highlights the document which outlines how the Applicant has considered HPAI in the assessments presented.</p>
RR-026.B.22	<p>3. The species understood to be of greatest relevance for imminent impact assessment of offshore wind farms in England are black-legged kittiwake,</p>	<p>Please see response to comment RR-026.B.19. Of the species mentioned, assessments have been conducted for kittiwake, gannet,</p>

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	Sandwich tern, northern gannet, great black-backed gull, common guillemot and razorbill.	great black-backed gull, guillemot and razorbill. Sandwich tern was not identified as a key receptor in relation to the Morgan Generation Assets in either 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).
RR-026.B.23	4. We expect seabird data collected prior to summer 2022 (approx. June) to remain a valid representation of 'typical' seabird distribution and density, as this was before mass mortality events began to take place. (At this point, we assume affected colonies will recover in the short or long term, depending on available recruits to colonies, scale of further outbreak, and other factors). Data collected at sea from summer 2022 onwards will need discussion with Natural England, to understand how the species and colonies of concern, and their density at sea at certain times, may have been affected by HPAI. We welcome engagement with developers actively engaged in data collection through the Evidence Plan process.	Please see response to comment RR-026.B.19.
RR-026.B.24	5. Implications for data collection planned for projects beyond Round 4 will largely be site and species-specific, and we recommend careful interpretation of results in consultation with Natural England. As the duration and severity of the epidemic is unknown and evidence will continue to accumulate over time, an iterative approach seems likely to be required.	Please see response to comment RR-026.B.19.
RR-026.B.25	6. Broadly, we expect any changes in abundance at colonies to be reflected proportionately in the at sea data. That is, it is reasonable to assume distribution patterns will remain broadly similar, but densities to change accordingly.	Please see response to comment RR-026.B.19.
RR-026.B.26	7. This assumption means that the scale of impact is likely to remain in proportion to the size of the colony. For instance, if a population were reduced by 10% then we would expect 10% fewer collisions. However, where a population has been significantly depleted, it should be considered whether an equivalent level of impact would have greater implications for the newly reduced population.	Please see response to comment RR-026.B.19.
RR-026.B.27	8. This would also reflect the likely need to ensure that the sea areas that support SPA (Special Protection Area) seabird colonies provide suitable conditions to restore populations where HPAI impacts have reduced population sizes, rather than simply maintain them. Natural England will aim to provide conservation advice that reflects any such changes.	Please see response to comment RR-026.B.19.

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RR-026.B.28	9. Given the significant uncertainties about the health and resilience of seabird colonies introduced by HPAI, Natural England is likely to further emphasise the need to continue with a risk-based approach to its advice on additional impacts from development, particularly where populations have been significantly impacted. This is to ensure that the impacts of HPAI are not compounded by those from development. 219. This approach is also likely to be taken to compensation discussions. We are likely to recommend that the nature, scope and scale of compensatory measures reflect the uncertainties around population trends, recovery and resilience introduced by HPAI.	Please see response to comment RR-026.B.19.
RR-026.B.29	10. We need much more data, and urgently need all concerned with seabird conservation and related developments to fund monitoring of key variables at important colonies, so that collectively we can make best decisions about impact and its effects in the face of the threat from HPAI.	Please see response to comment RR-026.B.19.
RR-026.B.30	11. Natural England will shortly publish its advice to Defra underpinning an English Seabird Conservation and Recovery Plan, which includes direct recommendations for seabird recovery, some relating to disease as well as seabird monitoring.	Please see response to comment RR-026.B.19.
RR-026.B.31	12. We must work collectively to ensure that seabird populations are made more resilient to the type of catastrophic event caused by HPAI. This includes delivering the actions relating to feeding, breeding and survival as outlined in Natural England's recommendations to Defra in the England Seabird Conservation and Recovery Plan.	Please see response to comment RR-026.B.19.
RR-026.B.32	Table 1 Summary of Key Issues – Offshore Ornithology Data Gaps B7 [APP-053], Table 1.19 Table is not supplied in full. Natural England's Recommendations to Resolve Issues. The Applicant should provide the complete table in an updated assessment.	The table contains all data. The table caption is incorrect and should not include reference to model-based abundance estimates. Only design-based abundance estimates were calculated for lesser black-backed gull as the abundance of the species was too low for MRSea modelling to be carried out. This has been noted in the Applicant's errata document.
RR-026.B.33	Table 1 Summary of Key Issues – Offshore Ornithology Data Gaps B8 [APP-053], Section 1.4 Table 1.13 Connectivity with designated sites method is incomplete. Furthermore, Table 1.13 details "Designated sites at which kittiwake is a qualifying feature with which there is connectivity with the Morgan Generation Assets." However, only the breeding season is considered here – connectivity outside of the breeding season has not been considered.	Volume 4, Annex 5.1 Offshore ornithology baseline characterisation utilises connectivity in the breeding season as part of the process for identifying Valued Ornithological Receptors. The breeding season is when breeding seabirds are most constrained, due to the necessity to provision young, with birds able to exploit much larger areas outside of this period. This section is not intended to be a repeat of the screening exercise undertaken for the project to identify designated sites, rather it is

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	<p>Natural England’s Recommendations to Resolve Issues. It is apparent from the other submitted documents that the Applicant has followed SNCB advice to use the Biologically Defined Minimum Population Scales (BDMPS) to identify connectivity with seabird populations in the non-breeding season(s). This should be detailed here, and throughout the application, for clarity and consistency.</p>	<p>intended to identify those receptors that are of importance at the Morgan Generation Assets. Volume 4, Annex 5.1 Offshore ornithology baseline characterisation therefore does not require reference to BDMPS populations in this section however, reference to BDMPS populations is included, for example, when considering reference populations which are used to identify the importance of the population of each species recorded during site-specific surveys.</p>
RR-026.B.33	<p>Table 1 Summary of Key Issues – Offshore Ornithology Data Gaps B9 [APP-053], 1.5.1.40 The Applicant states, “The Morgan Generation Assets are not in the foraging range or directly overlapping with any SPA at which little gull is a qualifying feature.” Natural England agree, but note consider it highly likely that little gulls observed at the project will also be using the nearby Liverpool Bay SPA. Furthermore, it is of note that a relatively high population within the project study area was estimated in January 2023 (159 birds).</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England welcome that the Applicant has taken little gull forward for further assessment. We consider it highly likely that the birds recorded by the Applicants baseline surveys are part of the Liverpool Bay SPA population, and it would be appropriate for the assessment to consider the implications of this.</p>	<p>The Applicant has given due consideration to little gull in the HRA Stage 1 Screening Report (APP-099) and identified no LSE for all SPAs at which the species is a qualifying feature.</p> <p>Little gull has been considered in all seasons of relevance to the species, namely migratory seasons and the non-breeding season. In migratory seasons the approach taken follows the approach to screening for this species used in screening exercises for previous offshore wind farms. The approach uses the migratory corridor for little gull from WWT Consulting and MacArthur Green (2014) was used to identify connectivity, with no connectivity identified between the species and the Morgan Generation Assets. In non-breeding seasons, connectivity is identified based on direct overlap between an SPA and the Morgan Generation Assets. The Morgan Generation Assets is 10 km from the Liverpool Bay SPA and therefore no connectivity was identified.</p>
RR-026.B.34	<p>Table 1 Summary of Key Issues – Offshore Ornithology Analysis, Modelling and Reporting B10 [APP-053], 1.2.3.9 The Applicant states, “All bird behaviours (flying and sitting) were included in this analysis. Therefore, an assumption is made that flying and sitting birds do not differ in their distributions within the Morgan Offshore Ornithology Array Area survey area.” Natural England question if this is a safe assumption for the key species. While we agree with the approach for modelling spatial distribution of birds, this assumption may ultimately preclude the modelled density data being used for Collision Risk Modelling (CRM), which only considers densities of flying birds.</p> <p>Natural England’s Recommendations to Resolve Issues. See comment relating to the calculation of densities of flying birds for use in CRM (NE Ref: B19). Natural England advise that it may be necessary to use the design-based</p>	<p>Aerial survey data provide a quick snapshot of bird behaviour. Any bird within the surveyed area may be flying or sitting at any point in time. If the analysis considered flying birds as a separate model, there is a much higher opportunity for random chance to come into play and cause anomalies, leading to a reduction in statistical robustness. For example, a disturbance could cause all birds to flush and be in flight in one location. This would be a poor reflection of average behaviour in that location. Thus, modelling all behaviours and then calculating the fraction of all birds of that species in flight for that survey leads to more robust estimates.</p> <p>As identified in Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053), the Morgan Generation Assets do not appear to be of significant importance for any species, with no evidence of any hotspots for particular behaviours. In many cases, the number of birds</p>

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	<p>density estimates for CRM unless the Applicant’s approach can be demonstrated to accurately describe the densities of flying birds within the array area.</p>	<p>precludes the presentation of certain descriptive statistics. The approach applied by the Applicant is therefore considered valid.</p>
<p>RR-026.B.35</p>	<p>Table 1 Summary of Key Issues – Offshore Ornithology Analysis, Modelling and Reporting B11 [APP-053], 1.2.3.21 The Applicant states, “The correction factors applied to sitting guillemot, razorbill, and puffin were based on JNCC (2013), which assumed that 24.3% of guillemot, 17.4% of razorbill, and 14.2% of puffin are underwater when digital aerial imagery is captured, leading to correction factors of 1.311, 1.211 and 1.165 respectively. Availability bias correction factors were only applied to estimates of abundance of birds sitting on the sea surface and were not applied to seabirds in flight.” However, Natural England do not believe that a correction factor for puffin is supported by the reference.</p> <p>Natural England’s Recommendations to Resolve Issues. Please clarify the source of the correction factor for puffin and confirm that it is appropriate to apply this correction factor to sitting birds only.</p> <p>Natural England advise that if the time spent underwater is as a proportion of all time (i.e. not only time on the water) then the application of a correction factor should reflect this.</p>	<p>The reference for the availability bias correction factor used for puffin is Spencer (2012) as applied in similar analyses on other offshore wind farm projects. The Applicant also notes that the values used correspond with advice provided by the EWG as part of the second EWG meeting (see Technical engagement plan appendices Part 4 (Appendix D) (APP-092)).</p>
<p>RR-026.B.36</p>	<p>Table 1 Summary of Key Issues – Offshore Ornithology Analysis, Modelling and Reporting B12 [APP-053], 1.3.3.9 Calculation of the total regional breeding population - Despite engagement on this issue through the EWG including the provision of detailed SNCB advice (Annex 3), the Applicant has persisted with calculating regional populations using a method that the SNCBs do not agree with.</p> <p>We note and agree that, excepting Manx shearwater and gannet, the Applicants preferred regional populations are smaller, and therefore could be considered “more precautionary” in terms of impact assessment against them. Natural England highlight that throughout the submitted documents the Applicant frequently criticises or characterises specific aspects of SNCB advice or best practice guidance as being too precautionary, often proposing an alternative approach. Thus, it is somewhat confusing that SNCB guidance which would result in reductions to project alone impacts is not adopted.</p> <p>Furthermore, we would highlight the value in considering SNCB advice</p>	<p>The Applicant has prepared a clarification note to address this comment, see Annex 3.9_Morgan Gen_Offshore ornithology Regional Populations Clarification Note.</p> <p>The Applicant has conducted assessments that utilise the best available evidence, providing robust assessments that are considered to accurately characterise the risk posed to offshore ornithological receptors by the Morgan Generation Assets without unnecessarily or excessively over-estimating impacts. In some cases, evidence that has not been captured in SNCB advice is identified. Where this is considered to represent the best available evidence, this evidence has been incorporated into the assessments presented. This means that there can be differences between the SNCB and Applicant’s positions. In this case, Natural England accept that their recommended approach to calculating regional populations is not perfect and have commissioned a project to further explore the estimation of breeding season reference populations.</p>

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	<p>holistically and urge caution in specific critiques of elements of that guidance considered in isolation (e.g. see NE Ref: B23, B32 relating to the Applicant's review of flight speed parameters in CRM).</p> <p>Critically, we note the fundamental problem with the projects definition of regional populations being incompatible with cumulative assessments, in which case the SNCB method is adopted. Thus, impacts are being assessed against two different regional populations for no apparent benefit.</p> <p>Natural England's Recommendations to Resolve Issues. While we accept that the project conclusions will be unchanged, Natural England continue to advise that it would be preferable for the SNCB method (supplied as written advice to the EWG) to be adopted. This ensures consistency with other projects, as well as within the project for the alone and cumulative assessments.</p> <p>We welcome consideration of the SNCB advised regional population figures for Manx shearwater and gannet in the project alone assessments, and for all species in the cumulative assessment.</p>	<p>The Applicant has applied Natural England's recommended approach in the cumulative assessment where the zone of influence of all cumulative projects is much larger and the reference population must therefore also be larger to account for the total population of birds that may interact with all cumulative projects. However, for the project alone assessment, the population of birds that may be affected by the project is much smaller with birds being constrained due to the necessity to provision young during this period. Where the metapopulation is significantly larger than the reference population affected by an individual project, this risks large impacts being identified as insignificant when in fact impacts are significant for individual colonies for which the project is within foraging range. For example, if a project were located adjacent to a seabird breeding colony, a large collision risk estimate could be predicted. This collision risk estimate could represent a significant proportion of the adjacent breeding colony. However, if there are a further 20 breeding colonies in the metapopulation, it is assumed that the project affects all 20 populations thus diluting the impact. This would suggest that the impact is not as significant as would be suggested by using a regional population comprising only birds for which the project is within foraging range. The Applicant has also given consideration to national and international populations elsewhere in the assessment, where relevant.</p> <p>The Applicant is unaware of the approach recommended by Natural England having ever been applied for an offshore wind farm in the UK. The risk with this approach is that the proportion of the baseline mortality of the relevant populations represented by the impact will be significantly under-estimated, leading to a false appraisal of significance within the assessment.</p>
RR-026.B.37	<p><u>Annex 3</u> <u>NE and NRW interim advice regarding demographic rates, EIA scale mortality rates and reference populations for use in offshore wind impact assessments</u></p> <p>NE and NRW interim advice regarding demographic rates, EIA scale mortality rates and reference populations for use in offshore wind impact assessments</p> <p>Overview Recent discussions between Natural England (NE), Natural Resources Wales (NRW), and several developers regarding EIA scale seasonal</p>	<p>Please see response to comment RR-026.B.36. The Applicant notes that previous offshore wind assessments have generally applied an approach to defining regional populations in the breeding season that incorporate the foraging range of each species. The Applicant is not aware of an application having followed Natural England's approach.</p>

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	<p>reference populations and 1% baseline mortality thresholds for EIA scale assessments have highlighted inconsistencies in approaches and issues with some of the underlying data. In response NE/NRW have formulated the following interim recommendations around these issues to assist projects with assessments and by providing a consistent approach to all projects, reduce the risk of these issues complicating upcoming Examinations. Some of this material has already been provided in response to individual queries.</p>	
RR-026.B.38	<p>It would be beneficial for all parties to reflect the advice prior to Applications being submitted, however we recognise that for some developers, submission timescales may mean it is challenging to incorporate this advice. We recommend case-specific discussions with NE/NRW case teams to establish the best way forward.</p>	<p>This is noted by the Applicant.</p>
RR-026.B.39	<p>Issues Identified We are now aware of several incorrect default immature survival rates within the NE/JNCC PVA tool, which may influence baseline PVA models and stable age class proportions used in the calculation of population level weighted mean mortality rates that inform 1% baseline mortality thresholds. The Marine Industry Group (MIG) birds subgroup have recently commissioned a project to review and update the demographic rates provided by Horwill & Robinson (2015) and we anticipate the outcomes of this work will be available in spring 2024. However, we wanted to make developers and their consultants aware of the incorrect values and provide an interim solution.</p>	<p>The Applicant welcomes this matter being brought to its attention although notes that the species highlighted for which this matter is relevant are not the focus of PVAs produced as part of the assessments for the Morgan Generation Assets.</p>
RR-026.B.40	<p>NE advice for estimating seasonal reference populations for EIA, particularly during the breeding season, which underpin maximum annual population numbers, has also been questioned by several projects. We would like to take this opportunity to clarify our position and provide a standard set of numbers which we advise should be used for EIA scale assessments.</p>	<p>The Applicant welcomes this clarification being brought to its attention.</p>
RR-026.B.41	<p><u>Demographic rates for use in calculating weighted mean survival/mortality rates for EIA and for PVAs</u> Several of the default global immature survival rates provided in the JNCC/NE PVA tool are incorrect as they represent compound values, across immature age classes, taken from Horwill & Robinson (2015), rather than age specific values. This issue has been identified for common tern, northern fulmar, razorbill, Atlantic puffin, and Arctic skua. We have corrected the compound rates in Table 1 below, and we recommend that these rates</p>	<p>The Applicant welcomes this matter being brought to its attention whilst noting that PVAs have not been required for these species as part of the assessments for the Morgan Generation Assets.</p>

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	should ideally be used wherever the respective default values would have been for PVA or calculation of weighted mean mortality rates.	
RR-026.B.42	The associated standard deviations (SDs) presented alongside these default survival rate estimates will also be incorrect and some do not have a default SD provided in the PVA tool. Here our advice is to use a proxy based on data for the same species where we have an age-specific survival rate or, noting the PVA tool does not allow a blank or zero SD, to use a very small value (i.e. 0.001)). [Table 1 - Suggested corrections to immature survival rates provided as default values in NE/JNCC PVA tool]	The Applicant welcomes this matter being brought to its attention whilst noting that PVAs have not been required for these species as part of the assessments for the Morgan Generation Assets.
RR-026.B.43	We note that this issue may explain some of the poor baseline PVA model validation that has been reported for some species such as razorbill and Atlantic puffin and will also have influenced mean weighted survival rates used to generate 1% baseline mortality thresholds for EIA for respective species.	The Applicant welcomes this matter being brought to its attention whilst noting that PVAs have not been required for these species as part of the assessments for the Morgan Generation Assets.
RR-026.B.44	Whilst we note that a project to review and update demographic rates is currently underway, in the interim, we advise that current projects (e.g. Extensions, Round 4 and Celtic Sea FLOW demonstrator projects) use the above rates for relevant species in EIA scale assessments and for relevant PVAs, as the best available evidence.	The Applicant welcomes this matter being brought to its attention whilst noting that PVAs have not been required for these species as part of the assessments for the Morgan Generation Assets.
RR-026.B.45	<p><u>Mortality rates for use in EIA scale assessments</u></p> <p>NE/NRW have used the corrected survival rates provided above, in combination with other demographic rate data from Horswill & Robinson (2015), to derive stable age structures from PVA models. The proportions of birds in each age-class were used to weight associated survival rates which were then summed to generate a weighted mean survival rate for use in the calculation of 1% natural baseline mortality thresholds for use in EIA for key species. Table 2 shows a worked example for black-legged kittiwake using a productivity rate of 0.69 from Horswill & Robinson (2015), and the listed survival rates in Table 2, to inform a deterministic PVA model run using the JNCC/NE PVA tool to derive the proportions of each age class in a stable population. [Table 2 - Worked example of the calculation of a weighted mean mortality rate for use in EIA scale assessments for black-legged kittiwake].</p>	The Applicant welcomes this matter being brought to its attention whilst noting that PVAs have not been required for these species as part of the assessments for the Morgan Generation Assets.

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RR-026.B.46	Where there is insufficient demographic data to derive a weighted mean (i.e. insufficient age specific survival rate data), the adult survival rate was used as this is precautionary (i.e. resulting in a lower mortality rate and associated 1% baseline mortality threshold). Table 3 below provides our recommended mortality rates for use in EIA scale assessments. [Table 3 - Suggested productivity and mortality rates to use when estimating 1% baseline natural mortality rate thresholds for EIA. For any species not listed, please consult NE or NRW].	The Applicant welcomes this matter being brought to its attention whilst noting that PVAs have not been required for these species as part of the assessments for the Morgan Generation Assets.
RR-026.B.47	EIA scale reference populations NE and NRW acknowledge that it remains difficult to define populations for EIA scale assessments where there are likely to be varying degrees of mixing and connectivity over different spatial scales in different seasons. However, we currently recommend use of the largest appropriate spatial scale during the non-breeding season, when birds are generally expected to represent a mix from the included colonies. The colonies within the defined region may also be subject to impacts during the breeding season, contributing to cumulative impact totals. Thus, we consider it is not appropriate to consider project alone impacts on a different/reduced spatial scale which might be related to specific colony connectivity that is generally considered for HRA.	Please see response to comment RR-026.B.36.
RR-026.B.48	Based on this logic, NE and NRW currently recommend the following estimation of EIA reference populations in each season based on Biologically Defined Minimum Population Sizes (BDMPS) derived in Furness (2015). The maximum seasonal population should be used for EIA scale assessment when considering the population level effects of annual project alone and cumulative impacts	Please see response to comment RR-026.B.36.
RR-026.B.49	For the breeding season, the reference population should consider the breeding population located within the relevant regional BDMPS defined in Furness (2015) that the project sits within plus non- breeders and immature birds. The population is likely to originate from a much wider range of colonies (not just SPA colonies) and may include young immature birds spending the summer in their wintering area as well as immatures loosely associated with local colonies (Furness 2015). As there is a lack of evidence to support calculations of the number of juveniles, immatures and non-breeding birds that remain in their wintering areas into the breeding season, the breeding population should be derived from the relevant BDMPS tables	Please see response to comment RR-026.B.36. The approach recommended by Natural England incorporates all immature birds associated with a colony. This represents a significant over-estimate as it is known that only a proportion of immature birds return to natal waters with this proportion increasing as birds approach age at first breeding (e.g. Coulson, 2011; Furness, 2015; Wernham <i>et al.</i> , 2002).

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	<p>in Appendix A of Furness (2015) by summing the adult and immature population estimates for all colonies that sit within the relevant regional BDMPS. Please see Tables 4 and 5 below for worked examples for northern gannet for 'UK western waters' and Atlantic puffin for 'UK North Sea and Channel waters'.</p> <p>[Table 4 - Worked example of the calculation of the northern gannet 'UK western waters' breeding season reference population (all information taken from Appendix A: Tables 15 or 17 of Furness (2015))].</p> <p>[Table 5 - Worked example of the calculation of the Atlantic puffin 'UK North Sea and Channel' breeding season reference population calculation (all information taken from Appendix A: Table 68 of Furness (2015))].</p>	
RR-026.B.50	<p>Furness (2015) provides non-breeding/migration BDMPS population estimates which we advise should be considered when defining the maximum BDMPS population for EIA scale assessments. Table 6 below sets out the seasonal BDMPS population estimates for each species and highlights the largest BDMPS values that should be used in the calculation of 1% baseline natural mortality thresholds for annual project alone and cumulative assessments.</p> <p>[Table 6 -Species seasonal BDMPSs per relevant BDMPS region, with largest seasonal BDMPS for use in annual assessments highlighted yellow. For any species not listed, please consult NE or NRW]</p>	<p>The Applicant has used the BDMPS populations presented in Furness (2015) for the non-breeding seasons of relevance to each species. Throughout the assessments presented the Applicant has used the largest BDMPS population to assess annual impacts.</p>
RR-026.B.51	<p>Whilst we note that the data included in Furness (2015) is outdated, we currently advise that we do not consider it appropriate to mix contemporary colony specific population estimates with historic population estimates within the BDMPS report as changes at one colony may be offset or compounded by those at others. The SNCBs are currently exploring potential funding opportunities to update the BDMPS report to address this issue. We also acknowledge that the above approach and values provided in Table 5 have limitations (including a lack of evidence to support calculations of the number of juveniles, immatures and non-breeding birds that remain in their wintering areas into the breeding season), nevertheless we currently consider it represents best-practice given the available evidence.</p>	<p>The Applicant welcomes this matter being brought to its attention whilst noting within the seasonal regional populations used, it conformed with the advice given and has not mixed contemporary and historic population data.</p>
RR-026.B.52	<p>References Furness, R.W. (2015) Non-breeding season populations of seabirds in UK waters: Population sizes for Biologically Defined Minimum Population Scales (BDMPS). Natural England Commissioned Reports, Number 164.</p>	<p>The Applicant notes this comment.</p>

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	Horswill, C. & Robinson, R.A. (2015) Review of Seabird Demographic Rates and Density Dependence. JNCC Report No. 552. JNCC, Peterborough.	
RR-026.B.53	<p>Environmental Impact Assessment - Document Used:</p> <ul style="list-style-type: none"> • [APP-023] F2.5 Volume 2, Chapter 5: Offshore ornithology • [APP-054] F 4.5.2 Volume 4, Annex 5.2: Offshore ornithology displacement technical report • [APP-055] F 4.5.3 Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report • [APP-057] F 4.5.5 Volume 4, Annex 5.5: Offshore ornithology apportioning technical report • [APP-058] F 4.5.6 Volume 4, Annex 5.6: Offshore ornithology PVA technical report 	The Applicant notes this comment.
RR-026.B.54	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B13 [APP-023]</p> <p>Natural England consider that the Applicant have identified the key pressures, impacts and receptors.</p> <p>Natural England’s Recommendations to Resolve Issues. N/A</p>	The Applicant welcomes agreement on this approach, that the Applicant has identified the key pressures, impacts and receptors.
RR-026.B.55	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B14 [APP-023] 5.10.1.7</p> <p>The Applicant states, “It should be noted that the Arklow Bank Phase 1, Barrow, North Hoyle and Rhyl Flats are currently operational however, the operational consents for these projects expires before the Morgan Generation Assets become operational. These projects are therefore discounted from the CEA as there is no temporal overlap between the operational phases of these projects and the Morgan Generation Assets.”</p> <p>Natural England’s Recommendations to Resolve Issues.</p> <p>Natural England highlight that if these historic projects are re-powered, or maintained beyond current operational consents, those projects would require a consent from the relevant authority, and thus, would themselves produce new cumulative assessments that include the impacts of Morgan OWF. In that context, the Applicant’s proposed approach is acceptable.</p>	The Applicant welcomes agreement on this approach.
RR-026.B.56	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B15 [APP-054] 1.3.2 Table 1.3</p>	The Applicant welcomes agreement on this approach. For collision risk, the Applicant has provided assessments that consider the whole annual

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	<p>Natural England do not agree with the approach of allocating March to the pre-breeding season for kittiwake. This should be March to August inclusive, i.e. including all migratory months also defined as 'breeding season'. However, we do not consider it necessary to assess displacement for kittiwake in any case and agree with the breeding seasons defined for all other species in Table 1.3.</p> <p>Natural England's Recommendations to Resolve Issues. We suggest double-checking that the breeding season months used for the kittiwake displacement assessment are acceptable to JNCC and any other relevant interested parties.</p>	<p>cycle, assessing these against the largest regional population, following Natural England advice. These assessments are unaffected by the seasonal definitions defined.</p> <p>The Applicant will seek further engagement with JNCC to discuss the matter.</p>
RR-026.B.57	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B16 [APP-055] 1.3.2.1</p> <p>Natural England note that the Applicant states, "Collision risk modelling was undertaken using the Stochastic Collision Risk Model (sCRM) developed by Marine Scotland (McGregor et al., 2018)..". However, upon Natural England requesting the input/output log files for review (by email on 07/05/24) we were informed by the Applicant (by email on 21/05/24) that, "collision risk modelling was run in R using an adapted version of the sCRM code so there are no input/output log files." And further, "The information that the ornithologists may need to run the sCRM is available in the CRM technical report."</p> <p>It therefore appears that the methods described in the submitted documents do not accurately describe those implemented by the Applicant to undertake CRM.</p> <p>Natural England's Recommendations to Resolve Issues. The Applicant should clarify and confirm the method used for CRM and update the submitted documents to reflect this. Regardless of the method used, clarification is required on the bird density data considered. 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.</p> <p>Natural England would also further highlight our comments on the derivation of bird in flight density data by using the proportions of flying birds across the</p>	<p>The bird density used for collision risk modelling is provided in Table 1.5 of Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report (APP-055) and allows for the CRM to be validated. The confidence intervals presented in Table 1.5 reflect the distribution of values and can therefore be expected to provide the same answer as a modelling process using bootstrapped values.</p>

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	entire survey area. We reiterate that we do not currently consider the method appropriate for deriving densities of flying birds for CRM (NE Ref: B19).	
RR-026.B.58	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B17 [APP-055] 1.3.3 Table 1.3 Natural England note that the great black-backed gull bird length SD has been updated since the provision of draft advice and agreement on the parameters to be used during the EWG engagement process.</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England are content with the parameters used for the assessment. However, we suggest that if the Applicant undertakes any further CRM the EWG is consulted to confirm the latest guidance is followed.</p>	The Applicant welcomes agreement on this approach and confirm that the EWG will be consulted if the Applicant undertakes any further CRM.
RR-026.B.59	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B18 [APP-055] Table 1.4 Lower blade tip height above lowest astronomical tide (LAT) 34m and the air gap at mean sea level (MSL) 30m are presented in the table presenting the ‘maximum design scenario’. A -4m tidal offset from MSL is also detailed. Natural England are not clear on the input parameters used for CRM. While we are unsure of the exact method used (see NE Ref: B16), we believe the air gap at highest astronomical tide (HAT) is the usual input data.</p> <p>Natural England’s Recommendations to Resolve Issues. The Applicant should confirm and detail the air gap at HAT within the MDS.</p>	<p>Whilst HAT has been presented in the assessments for previous offshore wind farms, the model works by assuming that all data is collected at MSL. The Applicant can confirm the model has been parameterised to ensure the model uses MSL.</p> <p>Lower blade tip height at HAT is 26 m.</p>
RR-026.B.60	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B19 [APP-055] 1.3.4.4 Natural England do not consider it appropriate to use the proportion of birds in flight across the entire surveyed area (array+10km buffer) to estimate the proportions of birds in flight within the array area only, and thus calculate the densities of flying birds that will be considered by CRM. This is because bird behaviour over the whole survey area may not be representative of that in the array area. Especially when considering a 10km buffer it is possible that certain species may utilise different areas of the site for different behaviours, e.g., foraging, transiting, loafing. We do not consider the sample size of birds in the array area to be an issue, or justification for the Applicants approach.</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England advise that abundance and density estimates (with</p>	<p>The Applicant welcomes the agreement that design-based and model-based are similar.</p> <p>The Applicant is preparing a clarification note on this point which will be submitted for Deadline 1.</p>

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	<p>associated CIs) of birds on the water and in flight should be calculated separately using design-based methods. For CRM, these densities of birds in flight should be an accurate representation of the data collected within the array area specifically.</p> <p>Thus, given the uncertainties around the proportions of birds in flight from the model-based density estimates, we advise design-based density estimates of flying birds within the array area should be used in preference.</p> <p>However, in the first instance we recommend a basic analysis to determine if the proportion of birds in flight in the array only is broadly comparable to that across the entire survey area. This may give some comfort that the Applicants approach is appropriate, or alternatively, that further investigation or use of design-based estimates is required.</p> <p>Natural England consider the primary value of MRSea to be the production of spatial distribution outputs, which can help facilitate array planning and mitigation to reduce impacts on ornithological receptors. Due to the pooling of flying and sitting birds in that modelling, it may prove preferable to use the density data derived using design-based methods to undertake CRM. The Applicant has demonstrated that their model-based and design-based density estimates (for all behaviours combined) are similar.</p>	
RR-026.B.61	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B20 [APP-055] 1.3.4.5</p> <p>The Applicant states, "... if MRSea generated a density of 10 black-legged kittiwake per km² in the Morgan Array Area for all behaviours, and there were a total of 2,000 black-legged kittiwake in the raw data for the Morgan Array Area, 600 of which were in flight. The density of flying birds in the Morgan Array Area would then be calculated as $600/2000 * 10 = 3$ kittiwake per km²." Natural England assume the worked example refers to 2000 birds in the total survey area, not the array?</p> <p>Natural England's Recommendations to Resolve Issues.</p> <p>The Applicant should review the worked example text and edit if necessary. See also NE Ref: B21 for comment on this method.</p>	<p>The Applicant notes that Natural England are correct. The worked example should read as follows:</p> <p>"... if MRSea generated a density of 10 black-legged kittiwake per km² in the Morgan Array Area for all behaviours, and there were a total of 2,000 black-legged kittiwake in the raw data for the Morgan <u>Survey</u> Area, 600 of which were in flight. The density of flying birds in the Morgan Array Area would then be calculated as $600/2000 * 10 = 3$ kittiwake per km²."</p> <p>This has been noted in the Applicant's errata document.</p>
RR-026.B.62	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B21 [APP-055] 1.3.4.6 Table 1.5</p> <p>The Applicant states, "There were two density estimates for each calendar</p>	<p>Averaging monthly values was proposed by the Applicant as part of the second EWG meeting (18/2/2022) (included in "Offshore ornithology collision risk assessment technical note for the Evidence Plan Offshore</p>

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	<p>month as the digital aerial surveys spanned 24 monthly samples across two years. Under the assumption that overdispersion does not vary much among years, each of the two monthly estimates and confidence limits were averaged. This approach was taken as opposed to generating separate outputs for each aerial survey, because ultimately those outputs would need to be averaged to generate an average impact, resulting in the same outcome.”</p> <p>Natural England advise that this methodology does not follow best practice guidance. Further, we do not consider it appropriate to take an average of confidence limits</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England advises the following approach for deriving mean abundance and density estimates, and their associated SDs and CIs when bootstrapping is used (applicable to model- or design-based estimates).</p> <ol style="list-style-type: none"> 1. Apportioning (unidentified birds or behaviours) and application of correction factors (e.g. for availability bias) should be applied to model- or design-based bootstrap sample estimates for each survey. 2. The resultant overall abundance distributions from the samples should be used to derive the means, SDs and CIs. 3. If a mean, SD and CIs are required based on two or more surveys (e.g. from two peak abundance estimates within a season or two densities of birds in flight in a calendar month), the relevant corrected bootstrap samples should be pooled to provide a single sample from which to draw the estimates. <p>The Applicant should present an updated assessment in line with this advice.</p>	<p>Ornithology Expert Working Group” (see Technical engagement plan appendices Part 4 (Appendix D) [APP-092])). In response to this, Natural England supported and welcomed the use of MRSea.</p> <p>The methodology used by the Applicant and that recommended by Natural England will not change the central values used for impact assessments. 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 Natural England the confidence intervals used by the Applicant still provide a measure of confidence around the central value. The use of Natural England’s recommended method 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.</p>
RR-026.B.63	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B22 [APP-055] Section 1.4 Tabulated CRM results are presented for a range of avoidance rates and flight speeds.</p> <p>Natural England highlight that the estimates calculated using SNCB advised parameters should be progressed through all stages of the assessment. Natural England will not consider the results of assessments using the Applicant’s preferred parameters or alternative approaches when considering</p>	<p>A range of collision risk estimates have been progressed through all stages of the assessments presented with this incorporating the collision risk estimates calculated using the parameters advocated by Natural England.</p>

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	<p>the assessment conclusions on impact significance or the potential for AEol.</p> <p>Natural England's Recommendations to Resolve Issues. Natural England advise that impacts estimated using the SNCB advised approach must be considered for apportioning, when calculating increases in baseline mortality, and in any subsequent PVA.</p> <p>For clarity, Natural England request that the results of CRM arising from the SNCB advised flight speed and avoidance rates are highlighted in updated tables.</p>	
RR-026.B.64	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B23 [APP-055] Section 1.5.1</p> <p>The Applicant presents a review of evidence relating to seabird flight speeds, the current SNCB guidance on flight speeds for use within CRM and presents the results of CRM using the SNCB advised and the Applicants preferred flight speeds. Natural England advises that the evidence presented by the Applicant was considered in the formulation of SNCB advice on CRM parameters. Guidance on flight speed is acknowledged by the SNCBs as requiring update and 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. However, in the meantime and in-lieu of any site or region specific evidence, we continue to advise that the rates set out in SNCB guidance are followed.</p> <p>Natural England are not persuaded that the use of flight speeds derived by Skov et al (2018) as proposed is appropriate. Further, we urge general caution when proposing alternative parameters due to the methods used to define avoidance rates. The calculation of avoidance rates involves a comparison of how many collisions are predicted by the model, in the absence of avoidance and using given parameters, with real-world collision data collected from wind farms. If the model parameters are changed so that fewer collisions are predicted in the absence of avoidance, then a lower avoidance rate may also be warranted - the smaller the gap between predicted (without avoidance) and observed collisions, the lower the avoidance rate.</p> <p>Natural England's Recommendations to Resolve Issues. Natural England advise that the results of CRM undertaken using SNCB</p>	<p>As discussed in Volume 4, Annex 5.3 Offshore ornithology collision risk modelling technical report (APP-055) the flight speed data presented in both Alerstam (2007) and Pennycuick (1987) are fundamentally flawed, do not represent bird behaviour offshore and have associated sample sizes that would not be considered robust in any scientific analysis. The use of these values significantly undermines any assessment based on resultant collision risk estimates. The presence of a value for any parameter should not necessitate it's use when data of far greater quality are available. Previous criticisms of the Skov <i>et al.</i> (2018) flight speeds are valid however, these criticisms apply to the flight speed data in Alerstam (2007) and Pennycuick (1987) to a much greater extent.</p> <p>It is considered that the use of more robust flight speeds (i.e. from Skov <i>et al.</i>, 2018) creates no more uncertainty than the incorporation of flight speeds of significantly lower data quality into the currently recommended avoidance rates.</p> <p>A range of collision risk estimates have been progressed through all stages of the assessments presented, with the calculations of both the Applicant's preferred parameters and the collision risk estimates calculated using the parameters advocated by Natural England presented.</p>

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Reference	Relevant Representation	Applicant response
	<p>advice is clearly highlighted in submitted documents to aid clarity and to allow SNCBs to provide advice. It must also be clear throughout the Examination that these impact estimates are being fully considered at all stages of the assessment process.</p> <p>If the Applicant wishes to retain their review of evidence and proposed updates to flight speed parameters, a full consideration of the implications of this should be reflected within that review i.e. that other parameters may also need to be recalculated.</p>	
RR-026.B.65	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B24 [APP-055] 1.5.2</p> <p>The Applicant states that “it is considered that the species-specific rate, specifically for herring gull, lesser black-backed gull and great black-backed gull, represents the best available evidence for use in collision risk modelling.” Natural England reiterate the advice provided through the EWG, that we do not currently consider the use of species-specific rates to be appropriate for CRM. In short, this is because the paucity of offshore, species-specific data undermines the confidence we can place in species-specific rates at this stage. Further, some of the high value collision data collected offshore could not confirm specific species identifications, so there is more data to inform grouped rates in some cases.</p> <p>Natural England’s Recommendations to Resolve Issues.</p> <p>Natural England advise that the results of CRM undertaken using SNCB advice is clearly highlighted in submitted documents to aid clarity. It is especially important that it is these impact estimates that have been considered later in the assessment process.</p> <p>Again, we highlight that the estimates calculated using SNCB advised parameters should be progressed through all stages of the assessment.</p>	<p>One of the main purposes of the Ozsanlav-Harris <i>et al.</i> (2023) paper was to incorporate new datasets into the calculation of avoidance rates. One of these datasets, the ORJIP BCA study, represents one of the largest (if not the largest) datasets on bird avoidance behaviour in the offshore environment.</p> <p>It is not considered that the use of species-specific avoidance rates results in any further uncertainty associated with resulting collision risk estimates than the use of grouped avoidance rates. The exclusion of species-specific avoidance rates from assessments is contrary to Natural England’s position on other aspects of offshore wind farm assessments where much wider ranges are recommended to account for uncertainty. As there is uncertainty with grouped avoidance rates due to the inclusion of onshore data and data for other species it stands to reason that the use of species-specific avoidance rates should be encouraged to show the true range of uncertainty. There are differences between the species-specific avoidance rates, especially when comparing great black-backed gull and the two other large gull species (herring gull and lesser black-backed gull) and this therefore suggests that the behaviour of these species is different and provides a good justification for the use of species-specific avoidance rates. Cook <i>et al.</i> (2021), the precursor to Ozsanlav-Harris <i>et al.</i> (2023), suggests that a minimum of ten sites may be used as an arbitrary threshold sample size to inform the selection of species-specific avoidance rates over group-specific estimates. The species-specific rates calculated for all species in Ozsanlav-Harris <i>et al.</i> (2023) reaches this threshold for all species except kittiwake. The EWG has recommended that the all gull rate be used for kittiwake. The all gull rate is calculated using data from all species of gull, many of which exhibit different flight behaviour than kittiwake and may therefore not reflect the behaviour of kittiwake, a much more marine-based species, than all other</p>

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Reference	Relevant Representation	Applicant response
RR-026.B.66	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B25 [APP-055] Natural England welcome the consideration of migratory birds and impact estimates derived by CRM. We note the low levels of predicted impact from the project alone relative to the contributing populations. While there is no discussion of the results, or conclusions drawn within the document, Natural England are satisfied that the project alone will not result in any significant level of impact to migratory birds.</p> <p>Natural England’s Recommendations to Resolve Issues. N/A</p>	<p>gulls for which data is available. Irrespective of the discussion above, collision risk estimates calculated using Natural England’s recommended parameters have been progressed through all stages of the assessments presented.</p> <p>The Applicant agrees with Natural England’s conclusion that the project alone will not result in any significant level of impact to migratory birds.</p>
RR-026.B.67	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B26 [APP-057] 1.2.3.3 - 1.2.3.7W The Applicant has used Seabird 2000 colony counts for apportioning breeding birds to colonies, rather than the more recent Seabirds Count census. The relevant data was published in October 2023 and therefore was available for the assessment.</p> <p>Seabird 2000 data is now dated, and in many cases does not represent the current situation with respect to breeding seabirds in the region of concern. For example, the Applicant uses a Manx shearwater population of 332 (166 AOS) for Lundy. The population reported in the latest count data is 11,008 (5504 AOS).</p> <p>We welcome that SPA colony apportioning has been undertaken using recent data in a second step but note that the overall proportion of birds apportioned to those SPAs is still derived from the Seabird 2000 data, with those birds being re-distributed according to relative population changes at the SPAs. We do not consider this approach to be appropriate as it is temporally mismatched and does not utilise the best available evidence.</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England advise that the best available evidence is used. In the case of apportioning to colonies in the breeding season, we consider that this is</p>	<p>Assessments for offshore wind farms are undertaken across an extended period. The apportioning for the project was undertaken in October 2023 before the publication of the Seabirds Count dataset (16 November 2023; https://jncc.gov.uk/our-work/seabirds-count/). However, the Applicant is preparing a clarification note which will compare apportioning for the two datasets and will be submitted for Deadline 1.</p> <p>At the time, the Seabird 2000 dataset represented the best available evidence. The approach taken by the Applicant has been applied as part of the apportioning process for multiple projects and was formulated to account for the temporal mismatch between data for all colonies and data for SPA colonies, which are generally counted on a more regular basis. The approach incorporates two stages. The first apportionments impacts to all colonies (SPA and non-SPA) using Seabird 2000 data. Following this the proportion of the impact applicable to SPA populations is re-apportioned using the most recent count for each SPA colony which, for the Morgan Generation Assets, was, in some cases data from the Seabirds Count as published on the Seabird Monitoring Programme database. In other cases the data used would have been more recent. The Applicant welcomes agreement on the approach in the non-breeding season.</p>

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	<p>the latest Seabirds Count data. This data represents the most relevant and recent concurrent reference point for all UK colonies. The Applicant should present an updated assessment using Seabirds Count data.</p> <p>For apportioning in the non-breeding season, the Applicants approach remains appropriate.</p>	
RR-026.B.68	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B27 [APP-057] 1.3.4.11, 1.2.3.14, Table 1.5</p> <p>The Applicant has followed a method developed by Hornsea Project Two to undertake kittiwake age apportioning. Natural England reiterate the SNCB advice provided to the EWG, that we do not agree with the use of this method. The method uses survival rates and the proportion of birds aged as one year old in the baseline survey data to calculate the proportions of adult birds that are actually second or third year (assumed non-breeding) birds. Natural England consider this method problematic.</p> <ul style="list-style-type: none"> • It is not clear if the proportion of birds aged as one-year old is representative of the ‘juvenile birds’ present. These birds can be aged as such (due to distinctive plumage features) on initial fledging and into their ‘first summer’ the following year (when they are in fact, second year birds). Those cohorts are subject to different survival rates. • The juvenile survival rates (0-1 year) given in Horswill & Robinson (2015) are extremely dated and from a single North Sea colony (Coulson & White, 1959). It is highly uncertain that they are applicable here. <p>Natural England’s Recommendations to Resolve Issues.</p> <p>Natural England advise a more appropriate approach for age-apportioning kittiwakes in the breeding season would be to simply use the 84.11% of adults recorded in the Morgan site-specific DAS data.</p> <p>Alternatively, given the general uncertainty around the value of ageing data for kittiwakes we advise the Applicant should take a precautionary approach and assume all birds present in the breeding season are adults for the purposes of impact assessment.</p>	<p>The methodology used for Hornsea Two has been applied incorporating site-specific data from the Morgan Generation Assets. 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 by both the Applicant and Natural England.</p> <p>As discussed in Volume 4, Annex 5.5: Offshore ornithology apportioning technical report (APP-057), the approach applied is ecological valid whilst remaining precautionary and is still highly likely to return an immature proportion that is an under-estimate (and therefore over-estimate the adult proportion).</p> <p>To assume that 100% of the kittiwake present at the Morgan Generation Assets are adults does not represent a precautionary approach, rather it represents an ecologically invalid approach that does not use the best available evidence as it is well documented that immature kittiwake visit natal waters during the breeding season (e.g. Coulson, 2011) and will therefore be present at the Morgan Generation Assets. Therefore, based on survival rates, it was estimated that the 84.11% of kittiwakes recorded as adults in the Morgan site-specific DAS data actually comprised 13.57% two year old birds, 11.59% three year old birds and 58.95% adults.</p>
RR-026.B.69	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B28 [APP-057] 1.2.3.15</p> <p>The Applicant considers that, “To include any impacts occurring on any sabbatical birds within that apportioned to those individuals of the species breeding at a colony, would likely overestimate the effects to these</p>	<p>As discussed in Volume 4, Annex 5.5: Offshore ornithology apportioning technical report (APP-057) for some species the sabbatical rates presented in Horswill and Robinson (2015) have an associated ‘intermediate’ or ‘good’ data quality and/or data representation score. However, in the assessments presented for the Morgan Generation</p>

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Reference	Relevant Representation	Applicant response
	<p>species/populations”</p> <p>Natural England strongly disagrees with this statement. Expert review of the seabird demographic rates presented by Horswill & Robinson (2015) and the literature used to inform them should introduce significant caution in any consideration of sabbaticals during impact assessment. In short, there are insufficient studies to inform a full understanding and no clear basis to extrapolate findings to other colonies. Further, it is highly uncertain that historic findings remain relevant now, or for the extended period that OWF projects may impact populations.</p> <p>Key issues that currently preclude the proper consideration of sabbaticals, but were apparently not considered by the Applicant, are briefly detailed below.</p> <ul style="list-style-type: none"> • Mean proportions of populations expected to take sabbaticals are poorly understood. Temporal and spatial variation of sabbatical rates remains largely unknown. Thus, we have no basis to assign rates to breeding populations that are not directly studied. • The behaviour of sabbatical birds is unknown. We do not know if they are present at colonies, or how they forage. Thus, we do not understand their potential impact exposure. • It is possible, and indeed, likely that sabbatical birds contribute to some colony population estimates if they are present in breeding habitat during counts. Further, if they do remain at colonies (e.g. defending a nest site) some sabbatical birds may even inform productivity rates calculated for breeding populations. This would need to be accounted for in impact assessment. • Sabbatical birds are part of the breeding population and their potential impact exposure compared to breeding birds is not known. <p>Natural England acknowledges that sabbaticals represent a knowledge gap for ecologically realistic impact assessments. However, we do not believe that simply removing them from assessments during apportioning is appropriate.</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England does not consider the current evidence base sufficient to recommend sabbatical rates of >0 for any seabird species. We therefore welcome the presentation of results derived from adult</p>	<p>Assets, the proportion of any impact that may be attributable to sabbatical birds has only been considered qualitatively and has not been incorporated into any apportioning calculations. This is in alignment with Natural England’s recommendations.</p> <p>The Applicant has therefore applied the best available evidence in a qualitative fashion within the assessments. As mentioned by Natural England in comment RR-026.B.70, Reed <i>et al.</i> (2015) provides evidence for guillemots visiting breeding colonies however, it is important to note that displacement impacts do not occur at colonies rather they occur offshore where the project is located. Please see additional information provided as part of the Applicant’s response to comment B29 (RR-026.B.70).</p>

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RR-026.B.70	<p>populations that have not been altered to take sabbaticals into account. We advise that integrity judgements should be based on assessments that do not remove sabbatical birds at the apportioning stage.</p> <p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B29 [APP-057] 1.2.3.15</p> <p>The Applicant claims, “breeding colony population size estimates, which are used within the Environmental Impact Assessment and ISAA part 3 – SPA and Ramsar site assessments (Document Reference E1.3) to inform the derivation of the significance of impacts, do not include these sabbatical birds.”</p> <p>Natural England do not consider this statement to be evidence based. Furthermore, we remain wholly unconvinced that seabirds are not attending colonies while taking sabbaticals from breeding, and therefore potentially being counted as part of the breeding population.</p> <p>In fact, Reed et al (2015), reported that on the Isle of May (where the adopted sabbatical rate for guillemot was calculated), “Non-breeding guillemots spend much time in the colony near their last breeding site”.</p> <p>Thus, Natural England consider that sabbatical guillemots may be represented in colony population estimates, especially given the methods employed to count auk colonies (individuals present in breeding habitat are counted, rather than apparently occupied nests/sites). Similarly, we consider it possible that gulls may attend colonies, and even attend or defend nest sites while taking a sabbatical.</p> <p>Natural England’s Recommendations to Resolve Issues.</p> <p>Natural England consider it of fundamental importance that the discussion around sabbatical rates remains evidence-based and fully considers the quality of any evidence, its more general applicability, the high levels of uncertainty and significant residual knowledge gaps.</p> <p>Natural England advise that the Applicant should ensure assessments that do not apportion sabbatical birds are clearly presented, and that those mortality estimates are considered in relation to baseline mortality and taken through to PVA where required.</p>	<p>Please see response to comment RR-026.B.69 in relation to sabbatical rates.</p> <p>The methods used to census guillemots have been designed to account for the presence of sabbatical birds (Walsh <i>et al.</i>, 1995). Colony counts are recommended to be between 0800 and 1600, which reduces the variability of counts due to the presence of ‘off duty’ adult and immatures. As stated in Walsh <i>et al.</i> (1995) considerable effort has been expended developing accurate census methods for guillemot; the most reliable method is based on counts of individual birds. These counts can then be corrected to a breeding pair metric using a standard correction factor (0.67) to remove any non-breeding birds. This factor has been applied as part of both the Seabirds 2000 (Mitchell <i>et al.</i>, 2004) and Seabirds Count (Burnell <i>et al.</i> 2024) national censuses to derive an estimate of the number of breeding pairs present.</p> <p>Therefore whilst sabbatical birds may be incorporated into counts of individual birds, correction factors exist to ensure that these birds are removed from counts used as part of national censuses and in some cases SPA colonies (e.g. the Forth Islands SPA and the Flamborough and Filey Coast SPA), if a breeding pair metric is required. The metric used within the assessments for the Morgan Generation Assets is breeding pairs and as a result the assessments are conducted against an SPA population size that discounts these birds and therefore consideration of sabbatical birds is an important aspect of the assessments.</p>

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Reference	Relevant Representation	Applicant response
RR-026.B.71	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B30 [APP-057] 1.2.3.16 The Applicant states, “Consideration will be given in relevant assessments to the sabbatical values presented in Table 1.6 for each species.”</p> <p>Natural England again advise that we do not consider the current evidence base sufficient to apply sabbatical rates of >0 in apportioning for any seabird species.</p> <p>We would further highlight the general issue of a lack of clarity regarding the consideration of alternative approaches to impact assessment throughout the documents.</p> <p>Natural England’s Recommendations to Resolve Issues. Following review of all submitted documents, Natural England assume that impact assessments that have removed sabbaticals are not actually progressed through all stages of assessment. In document E1.3 the Applicant states, “The apportioning values do not include consideration of sabbatical birds.”</p> <p>The Applicant should confirm that this is the case and edit text for clarity as necessary.</p>	<p>Please see response to comment RR-026.B.69 in relation to sabbatical rates.</p>
RR-026.B.72	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B31 [APP-058] Table 1.2 Natural England note that for the great black-backed gull PVA, the Applicant has used the herring gull survival rates, including using the adult herring gull figure.</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England advise using the herring gull 0-1 year survival rate and the adult great black-backed gull rate detailed in Horswill and Robinson, which is considered precautionary in terms of weighted mean survival rates for 1% thresholds.</p>	<p>The Applicant has used two parameter sets to parameterise the PVA models produced for great black-backed gull at the Isles of Scilly SPA. The first uses surrogate values for herring gull as recommended in Horswill and Robinson (2015) whilst the second uses an adult survival rate for great black-backed gull from the BTO’s Retrap Adult Survival project and applies this across all age classes. Two approaches have been used to account for the uncertainty in the available survival rate data. The adult survival rate for great black-backed gull from the BTO’s Retrap Adult Survival Study is closer to the herring gull survival rate reported by Horswill and Robinson (2015) and incorporated into the first parameter set used for PVA. Both of these rates are more precautionary than the rate recommended by Natural England.</p> <p>The Applicant has used the survival rates presented in Horswill and Robinson (2015) for adult and immature herring gull to parameterise one of the PVA models for great black-backed gull following the recommendation to so in Horswill and Robinson (2015). There were</p>

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Reference	Relevant Representation	Applicant response
		<p>extensive discussions on PVA as part of EWG meetings and associated consultation material and these rates were not mentioned during this process.</p> <p>Irrespective of this, the Applicant has, within the assessments presented, provided evidence of a lack of connectivity between great black-backed gull from the Isles of Scilly SPA and the north-east Irish Sea. This significantly reduces the impact considers in the PVA and means that there is no connectivity between the Morgan Generation Assets and this SPA and therefore no adverse effect on the integrity of this SPA.</p>
RR-026.B.73	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B32 [APP-058] Table 1.4</p> <p>Natural England note that the Applicant presents two total mortality impacts for consideration by PVA of great black-backed at the Isles of Scilly (IoS) SPA. Two different avoidance rates are detailed. However, it is not clear here if all other parameters considered in the CRM to derive these estimates are in line with SNCB advice, or those preferred by the Applicant (or a mixture).</p> <p>Natural England note that the in-combination assessment (E1.3, Table 1.74) apportioned 0.4 collisions to IoS SPA. The Applicant apportioned 9.14% of impacts to IoS (F4.5.5, Table 1.17). Thus, we calculate $(0.4 / 9.14) * 100 = 4.38$ total collisions. However, the mean collisions detailed in 4.5.3 Table B.2 do not align with this figure.</p> <p>Natural England’s Recommendations to Resolve Issues.</p> <p>Please clarify the parameters used to derive mortality estimates considered in the PVA models.</p> <p>Natural England reiterate that we will only consider the findings based on our recommended parameters when making integrity judgements.</p>	<p>The PVA has considered in-combination impacts which are presented in Table 1.4 of Volume 4, Annex 5.6: Offshore ornithology PVA technical report (APP-058). The total in-combination impact is 8.8 collisions/annum when applying a 99.39% avoidance rate. The value quoted by Natural England is the apportioned impact for the Morgan Generation Assets alone. A separate PVA was not conducted for the Morgan Generation Assets alone as the predicted impact represents less than a 1% increase in the baseline mortality of the Isles of Scilly SPA population.</p>
RR-026.B.74	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B33 [APP-023] 5.9.1.14</p> <p>The Applicant presents evidence relating to displacement of auks to justify the consideration of 50% displacement rates and 1% mortality rates in the assessment, drawing on APEM (2002) and MacArthur Green (2023).</p>	<p>The Applicant has used Trinder (2024) as part of a larger discussion relating to the appropriate evidence-based displacement and mortality rates to use for assessment. This includes APEM (2022) and Dierschke <i>et al.</i> (2016) which provide literature reviews of relevant evidence to derive displacement and mortality rates for a number of species.</p>

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Reference	Relevant Representation	Applicant response
	<p>Natural England do not agree with the Applicant’s interpretation of this evidence, and especially that it supports a claim that auks are not displaced by OWFs.</p> <p>We highlight that the Beatrice OWF study was principally focussed on auk responses to individual turbines i.e. those auks that were not displaced rather than those that were, and did not assess avoidance of the array as a whole in a way that is compatible with the impact assessment methodology. I.e., test for a reduction in abundance/density within the array and 2km buffer. However, while abundance increased in the post-operational period over the whole study area, the proportion of the auk population within the array area (generally) decreased, indicative of a displacement effect.</p> <p>Natural England’s Recommendations to Resolve Issues. With respect to recent literature of relevance to the assessment of displacement impacts on auks Natural England would highlight that a recent study in the German North Sea suggested that displacement of auks could be occurring at much greater distances from OWFs (up to 19.5km) than are currently considered by best practice impact assessments (Peschko et al, 2024).</p> <p>Natural England reiterate that our advice remains evidence based, and we take a complete view of that evidence in forming our guidance and advice.</p> <p>We question the characterisation of our advice as being “precautionary” compared to the Applicants “more evidence based” approach. An apparently limited or selective appraisal of relevant evidence has been made. Further, we suggest that some questionable and misleading conclusions have been drawn from the Applicants review.</p> <p>Natural England therefore advise that SNCB guidance is followed throughout the assessments so we can provide our advice into the Examination.</p>	<p>As highlighted in previous responses, the APEM (2022) review is the most comprehensive review of displacement rates undertaken and the Applicant is unaware of Natural England having undertaken a similar published review to support their preferred rates.</p> <p>As Natural England have indicated it is inappropriate to base parameters on individual studies and therefore the Applicant has incorporated findings from multiple studies, including comprehensive literature reviews, to define evidence-based displacement and mortality rates for all species.</p>
RR-026.B.75	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B34 [APP-023] 5.9.1.16</p> <p>Natural England do not consider there to be any convincing evidence that is broadly supportive of auk displacement from OWFs being a short-term effect, or that birds will habituate to them.</p>	Please see response to comment RR-026.B.74.

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Reference	Relevant Representation	Applicant response
	<p>Natural England do accept that there is a large degree of uncertainty regarding displacement rates and effects. We would highlight our proposal to the Offshore Renewables Joint Industry Project (ORJIP), subsequently accepted and now being contracted, for a project to help address this, Improving understanding of distributional change for relevant seabird species (ImpUDis), though unfortunately this will not report during the Examination of this project.</p> <p>Natural England’s Recommendations to Resolve Issues. Although we hope that new evidence will reduce uncertainty with respect to displacement effects and impact assessment, at present, SNCB guidance remains unchanged.</p> <p>Natural England are not persuaded that the Applicant presents any evidence that challenges the validity of that guidance.</p>	
RR-026.B.76	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B35 [APP-023] 5.9.1.27 “The EWG recommended the use of a 30-70% displacement rate range and a 1-10% displacement rate range. NatureScot advise a 30% displacement rate and 1% to 3% mortality rate for kittiwake in both the breeding and non-breeding season (Nature Scot, 2023) and when following joint SNCB guidance (JNCC et al., 2022) a 10-30% displacement rate range would be used. In light of this guidance and additional evidence stated, for the purpose of this assessment, precautionary rates of 50% (range 30% to 70%) for displacement and 1% (range 1% to 10%) for mortality have been used for the operations and maintenance phase of the Morgan Generation Assets. Given that the displacement rate used for the construction phase is a 50% reduction from the operational phase displacement rate, the rate used for kittiwake during the construction phase is 25% (range 15% to 35%) as agreed with the SNCBs in the second EWG (held on 13/07/2022).”</p> <p>Natural England’s Recommendations to Resolve Issues. Although we hope that new evidence will reduce uncertainty with respect to displacement effects and impact assessment, at present, SNCB guidance remains unchanged.</p>	Please see response to comment RR-026.B.74. The Applicant intends to submit a clarification note discussing displacement rates at Deadline 1.

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RR-026.B.77	<p>Natural England are not persuaded that the Applicant presents any evidence that challenges the validity of that guidance.</p> <p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B36 [APP-023] 5.10 Throughout the Expert Working Group (EWG) process, and in our review of the Applicants Preliminary Environmental Information Report (PEIR), Natural England have highlighted the risks associated with the deficiencies of the projects cumulative and in-combination assessments. This is due to the lack of appropriate data to enable quantitative consideration of some historic projects. The Statutory Nature Conservation Bodies (SNCBs) i.e. NE, NRW and JNCC supplied bespoke advice to all R4 Irish Sea projects (and demonstrator projects in the R5 Celtic Sea zone) in October 2023.</p> <p>Our advice detailed a pragmatic hierarchical method to ‘gap-fill’ the Irish Sea cumulative & in-combination assessments (Annex I). The proposed approach was relatively basic, with acknowledged limitations but was designed to generate indicative estimates for currently unknown (zeroed) impacts. This would then enable more informed expert judgement to be made on the likelihood of significant impacts and Adverse Effect on Integrity (AEoI), and thus if further investigation by a more rigorous assessment was warranted.</p> <p>Despite this, the Applicant’s cumulative and in-combination assessments still do not quantitatively consider impacts from a number of relevant projects due to the acknowledged lack of data. Impacts specified as ‘unknown’ have been assessed qualitatively, but ultimately treated as zero. This approach will inevitably underestimate impacts and compromises future assessments for any further development in the region.</p> <p>Natural England continue to advise this approach is unacceptable, and hence consider it inappropriate to comment on the potential significance of cumulative or in-combination impacts presented.</p> <p>Natural England’s Recommendations to Resolve Issues. To increase confidence in the cumulative and in-combination assessments, Natural England advise that the method previously supplied to the Applicant remains our preferred approach.</p> <p>However, we recognise that for most assessments the legitimate risk of impact on integrity judgements is relatively low. Thus, we recommend that</p>	Please see response to comment RR-026.B.2.

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Reference	Relevant Representation	Applicant response
	<p>the Applicant aligns their qualitative approach with that proposed by the Morecambe OWF (PINS doc ref: EN010121-000242-5.1.12 Chapter 12 Offshore Ornithology.pdf (planninginspectorate.gov.uk). Natural England have not yet conducted a complete technical review, but currently consider this approach to be a useful initial screening method. We note that further investigation of data gaps as originally advised may still be required in some cases.</p>	
RR-026.B.78	<p>Table 1 Summary of Key Issues – Offshore Ornithology Identified Impacts B37 [APP-023] While Natural England consider that project alone impacts are likely to be relatively small, a number of methodological issues must be resolved before we can take an informed view on the conclusions of the assessment.</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England advise updating the assessments and their conclusions as required.</p>	Please see response to previous comments specific to methodological matters raised.
RR-026.B.79	<p>HRA - Document Used:</p> <ul style="list-style-type: none"> • [APP-023] F2.5 Volume 2, Chapter 5: Offshore ornithology • [APP-096] E1.1 HRA stage 2 Information to Support an Appropriate Assessment (ISAA) Part 1: Introduction • [APP-098] E1.3 HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas (SPA) and Ramsar Site assessments • [APP-099] E1.4 HRA Stage 1 Screening Report • [APP-100] E1.5 HRA integrity matrices 	Noted, the Applicant has no further response.
RR-026.B.80	<p>Table 1 Summary of Key Issues – Offshore Ornithology Screening B38 [APP-099] General Natural England note that due to the location of Morgan OWF, protected sites from the other UK devolved administrations are screened into the assessment. We highlight that Natural England are the relevant SNCB to consult on impacts to English sites, but we cannot advise on integrity judgements on sites located in Wales, Scotland or Northern Ireland.</p> <p>Natural England’s Recommendations to Resolve Issues. We advise that the Applicant consult the relevant SNCBs regarding impacts to non-English sites. This may be particularly important with respect to Scottish sites, for which Nature Scot are the relevant SNCB.</p>	The Applicant has consulted with all relevant stakeholders, including NatureScot. Please see Consultation Report (APP-088), Technical engagement plan (APP-094) and Technical engagement plan appendices Part 4 (Appendix D) (APP-092).

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Reference	Relevant Representation	Applicant response
RR-026.B.81	<p>Table 1 Summary of Key Issues – Offshore Ornithology Screening B39 [APP-0098] 1.3.2.2, 1.4.5.4 [APP-099] Table 1.9 Natural England highlight:</p> <p>“As detailed in the HRA Phase 1 Screening Report (Document Reference E1.4), a total of 35 SPAs designated for ornithological features were advanced to the HRA Stage 2 ISAA Report with these located in Scotland, Wales, England, Northern Ireland and the Republic of Ireland.”</p> <p>“Due to the location and scale of the Morgan Generation Assets, European sites with the potential to be impacted fall variously under the remit of Natural England, NRW, NatureScot, Department for Agriculture, Environment and Rural Affairs (DAERA), National Parks and Wildlife Service (NPWS) and the JNCC.”</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England advise that the Applicant should consult the relevant SNCBs on impacts to non-English sites. Natural England can only comment on the following sites screened into the HRA;</p> <ul style="list-style-type: none"> • Morecambe Bay and Duddon Estuary SPA (and Ramsar site) • Ribble and Alt Estuaries SPA (and Ramsar site) • Bowland Fells SPA • Flamborough and Filey Coast SPA • Isles of Scilly SPA (and Ramsar) 	<p>The Applicant has consulted with all relevant stakeholders, including NatureScot. Please see Consultation Report (APP-088), Technical engagement plan (APP-094) and Technical engagement plan appendices Part 4 (Appendix D) (APP-092).</p>
RR-026.B.82	<p>Table 1 Summary of Key Issues – Offshore Ornithology Screening B40 [APP-099] 1.3.5.13 APP-099] 1.3.5.19 The Applicant states, “Where a species has not been recorded during the breeding season or has been recorded in only small numbers that would not be commensurate with a measurable impact, it is discounted for further consideration in the breeding season only.”</p> <p>The Applicant states, “The first stage considers the results of the baseline aerial surveys to identify if each species was present in non-negligible numbers during the non-breeding seasons of relevance (Table 1.12).”</p> <p>Natural England’s Recommendations to Resolve Issues. The Applicant should clarify what constitutes a small number.</p>	<p>As Natural England have highlighted the overall population size for each species differs. It is therefore inappropriate to define arbitrary numerical thresholds as a small number for one species could represent an important population for another. The identification of what constitutes a small number for each species is therefore undertaken using expert judgement based on extensive project experience of multiple assessments for projects in UK waters taking into account all relevant species-specific factors (e.g. population sizes, conservation value, impact vulnerability, etc.). This is the basis of the analysis undertaken in Volume 4, Annex 5.1 Offshore ornithology baseline characterisation (APP-053) which has informed the identification of important ornithological receptors.</p>

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Reference	Relevant Representation	Applicant response
RR-026.B.83	<p>The Applicant should define “non-negligible” and clarify the method used to identify it. Natural England advise that an arbitrary approach (e.g. <10 birds) is not necessarily appropriate as very low numbers of seabirds from small populations could be significant.</p> <p>Table 1 Summary of Key Issues – Offshore Ornithology Screening B41 [APP-099] 1.26 Natural England are concerned that the HRA Stage 1 Screening Report does not consider the potential for disturbance and displacement impacts from vessel movements in the construction or operation and maintenance phase on the red-throated diver and common scoter features of Liverpool Bay SPA. Until it can be confirmed that vessel movements will not pass through the SPA in the wintering period, LSE cannot be ruled out for these features.</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England advise that red-throated diver and common scoter at Liverpool Bay SPA should be assessed in the HRA Stage 2 ISAA Part 3 report.</p> <p>Vessel traffic should be considered from port to site as well as within the array, and any overlap with protected sites and the distribution of these features within the site properly considered.</p> <p>We note the commitment to secure and adhere to best practice vessel operations to minimise disturbance and suggest that the assessment fully considers the value and potential effectiveness of such measures. As regards suitable measures, Natural England has developed a Best Practice Protocol setting out some examples. Transiting along existing shipping lanes or other high traffic areas is likely to be particularly relevant in Liverpool Bay.</p>	<p>The Applicant considers that there will be no adverse effect on the integrity of the Liverpool Bay SPA as a result of disturbance impacts on the red-throated diver and common scoter qualifying features of the SPA. For similar projects the increase in vessel movements associated with the project is negligible when compared to the existing level of vessel traffic in the area with this of particular relevance to the Irish Sea. The Applicant highlights the inclusion of the measures listed in Table 5.26 of Volume 2, Chapter 5: Offshore ornithology (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 Measures to minimise disturbance (APP-070)) and include a Marine Pollution Contingency Plan (MPCP). It is noted that NRW consider that with the application of the aforementioned measures that there will be no adverse effect on the integrity of the SPA (RR-027).</p>
RR-026.B.84	<p>Table 1 Summary of Key Issues – Offshore Ornithology Assessment B42 [APP-098] 1.4.6.11 “The Morgan Generation Assets has followed the approach undertaken by all previous projects in UK waters and has not calculated in-combination collision risk estimates for projects for which project-specific values are not available.”</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England note that there is precedence for calculating collision risk</p>	<p>It is standard practice within cumulative and in-combination assessments presented as part of application documentation for offshore wind farms to not estimate impacts for projects for which quantified impacts are unavailable. The calculation of impacts for lesser black-backed gull as part of the Walney Extension was undertaken during the examination for the project and did not represent an exercise as extensive as that requested for inclusion in the Morgan Generation Assets assessments. The Applicant maintains that, with the exception of this example, this has not been undertaken by any other offshore wind farm, including the</p>

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Reference	Relevant Representation	Applicant response
	<p>estimates for projects for which project-specific values are not available. E.g., novel CRM of other projects was undertaken during the examination of Walney Extension for LBBG. This example was sent to the Applicant by Natural England on 16/04/24.</p>	<p>recently consented Awel y Môr offshore wind farm located in the same sea area as the Morgan Generation Assets.</p>
RR-026.B.85	<p>Table 1 Summary of Key Issues – Offshore Ornithology Assessment B43 [APP-098] 1.4.6.12 Natural England note that “Where information is available for a project, collision risk estimates have been updated using the avoidance rate recommended by the EWG for the relevant species to provide a precautionary approach that ensures sites are not omitted from the assessment prematurely.”</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England are supportive of updating historical data in contemporary assessments, but request that the methodology employed is detailed by the Applicant in an updated submission.</p>	<p>A simple correction factor reflecting the difference between the ‘old’ and ‘new’ avoidance rates has been applied to update estimates. The Applicant welcomes Natural England’s statement in relation to updating impacts for historical projects.</p>
RR-026.B.86	<p>Table 1 Summary of Key Issues – Offshore Ornithology Assessment B44 [APP-098] 1.4.7.2 The Applicant has taken a somewhat novel approach to HRA screening and assessment, and states “As part of the EWG process, stakeholders agreed with the following two-step approach to the HRA Stage 2 ISAA for offshore ornithological features outlined below (see Technical Engagement Plan (Document Reference E4)).”</p> <p>We consider the approach to be appropriate for this project as predicted project alone impacts are small. However, we highlight that it may not be appropriate for other projects. E.g. if designated sites with AEOI in-combination impacts or sites considered to be in unfavourable condition/have restore conservation objectives are screened into the assessment. We also note for the avoidance of doubt, that impacts from the Morgan project should not be excluded from in-combination totals for future project assessments using this rationale.</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England highlight that we did agree to the approach detailed by the Applicant for this project due to the project’s potential connectivity with a large number of designated sites and with an expectation that the likelihood</p>	<p>The Applicant welcomes this agreement on the approach taken for HRA screening and assessment.</p>

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	<p>of substantial impacts is low. However, we advise the ExA that this approach might not be appropriate in other circumstances.</p>	
RR-026.B.87	<p>Table 1 Summary of Key Issues – Offshore Ornithology Assessment B45 [APP-098] Figure 1.1 Natural England believe that there are errors in the diagram, e.g. Are effectively 0 birds impacted? Yes should rule out LSE, not no.</p> <p>Natural England’s Recommendations to Resolve Issues. The figure should be amended to reflect the approach taken.</p>	<p>Natural England are correct, the boxes presented in the diagram should be the other way round. The boxes should read: “Yes – Not taken to Stage 2. LSE can be ruled out” and “No – Taken to Stage 2. LSE can not be ruled out”. This has been noted in the Applicant’s errata document.</p>
RR-026.B.88	<p>Table 1 Summary of Key Issues – Offshore Ornithology Assessment B46 [APP-098] 1.5.3.1 Natural England note that “The apportioning values do not include consideration of sabbatical birds.”</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England welcome the Applicant’s stated approach to apportioning with respect to sabbatical birds. We advise that this is made clear where appropriate throughout the submitted documents.</p> <p>See also our comment NE Ref: B28.</p>	<p>Please see previous comments in response to RR-026.B.69.</p>
RR-026.B.89	<p>Table 1 Summary of Key Issues – Offshore Ornithology Assessment B47 [APP-098] 1.5.3, Table 1.7 In the Applicants ‘Assessment of potential Adverse Effect on Integrity - Integrity test: Step 1’ they propose preferred “evidence-based” displacement and mortality rates. Furthermore, 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) are based solely on the Applicant’s preferred displacement (50%) and mortality (1%) rates.</p> <p>Natural England do not consider this approach to be appropriate.</p> <p>We continue to advocate for a range-based approach to displacement assessments to capture the very high levels of uncertainty in potential rates of both displacement and mortality. We would highlight that this approach is evidence-based and consider that it better reflects the relatively data poor nature of offshore impact assessment.</p>	<p>Please see response to comment RR-026.B.74. The Applicant intends to submit a clarification note addressing this point.</p>

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	<p>Natural England’s Recommendations to Resolve Issues. Natural England advise that the project fully considers the SNCB advised ranges of displacement and mortality rates in all assessments.</p>	
RR-026.B.90	<p>Table 1 Summary of Key Issues – Offshore Ornithology Assessment B48 [APP-098] 1.5.3.9 - 1.5.3.12 The Applicant presents an evidence review to justify the consideration of a 50% displacement rate to calculate impacts for assessment against baseline mortality in the Step 1 integrity test.</p> <p>Natural England are not persuaded that the evidence presented is sufficient to justify the Applicants position and highlight that a comprehensive evidence review has not been undertaken. Further, we suggest that the interpretation of some evidence is questionable.</p> <p>E.g., the Applicant concludes that evidence gathered at Beatrice OWF suggests “these species are not displaced by offshore wind farms”. Natural England strongly disagree with this interpretation of the evidence, see our previous comment, NE Ref: B33.</p> <p>The Applicant goes on to state, “evidence suggests that although auk species are somewhat sensitive to displacement, the effects are short-term, and studies indicate auk habituation to offshore windfarms.” Natural England consider it to be quite clear that there is insufficient evidence to draw any broadly applicable conclusions relating to habituation of auks to OWFs over time and would urge restraint in making unsubstantiated claims relating to birds potentially being habituated to OWFs in the region.</p> <p>Finally, we note that some recent studies that do not present such an optimistic view of auk displacement impacts have not been considered. E.g., Peschko et al (2024) found displacement impacts could be occurring over much greater distances (~20km) than are considered by best practice impact assessments in English waters (2km).</p> <p>Natural England’s Recommendations to Resolve Issues. Natural England advise that a range of displacement rates should be considered (30-70%) throughout the assessments.</p>	<p>Please see response to comment RR-026.B.74. The Applicant intends to submit a clarification note discussing displacement rates at Deadline 1. The Applicant considers that APEM (2022) represents a comprehensive review of evidence for displacement and mortality rates with this report having been incorporated into the Applicant’s literature review for these parameters.</p> <p>The Applicant acknowledges the publication of Peschko <i>et al.</i> (2024) which post-dates the assessments preparation. However, as Natural England have highlighted elsewhere in their comments, caution should be taken when using information from a single study and conclusions should be reached by comprehensively reviewing all available information.</p>

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Reference	Relevant Representation	Applicant response
RR-026.B.91	<p>Table 1 Summary of Key Issues – Offshore Ornithology Assessment B49 [APP-098] 1.5.3.25 Natural England are concerned that the range of predicted collision impacts presented in the Step 1 assessment tables of the HRA Stage 2 ISSA Part 3 (SPAs and Ramsars) are not based on the results of CRM calculated using the SNCB advised model parameters.</p> <p>We note also that, “Throughout the document, outputs have been presented alongside other parameter values (e.g. Oszanlav-Harris et al., 2023; Skov et al., 2018) to capture the uncertainty in various parameter values.” We again highlight the inherently confusing nature of the assessments resulting from the concurrent presentation of a number of different assessment scenarios.</p> <p>Natural England’s Recommendations to Resolve Issues. The Applicant should clarify which collision estimates have been propagated through the assessment.</p> <p>Natural England reiterate that we will only consider the conclusions of assessments that follow SNCB guidance and therefore seek an updated assessment which clearly presents CRM outputs based on all SNCB advised parameters.</p>	<p>A range of collision risk estimates incorporating the parameters advocated by the Applicant and Natural England have been progressed throughout all assessments supporting the Application. This is highlighted in paragraph 1.4.7.11 in HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) and paragraph 5.9.4.7 in Volume 2, Chapter 5 Offshore ornithology (APP-023).</p>
RR-026.B.92	<p>Table 1 Summary of Key Issues – Offshore Ornithology In- combination B50 [APP-098], Table 1.23 Kittiwake impact is totalled across displacement and collision.</p> <p>Natural England's Recommendations to Resolve Issues: Natural England request that kittiwake collision and displacement impacts are presented separately. This will facilitate their incorporation into future in-combination assessments, noting that Natural England NRW do not currently advise displacement is assessed for this species.</p>	<p>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.</p> <p>The only features for which assessments of combined displacement and collision risk impacts have been considered in HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) are for 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</p>

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		1.66 with in-combination displacement impacts presented in Table 1.83. Combined impacts are presented in paragraphs 1.6.3.132 and 1.6.3.135.
RR-026.B.93	<p>Table 1 Summary of Key Issues – Offshore Ornithology</p> <p>In- combination B51 [APP-098] Natural England do not consider the in-combination assessment to be sufficiently robust.</p> <p>Natural England's Recommendations to Resolve Issues: Please see the comments and advice detailed in our key concerns, NE Ref: 36.</p>	Please see response to comment RR-026.B.2.
RR-026.B.94	<p>Table 1 Summary of Key Issues – Offshore Ornithology</p> <p>Have the impacts been avoided/reduced by the use of appropriate mitigation? B52 [APP-023] 5.8.1.3 Natural England note that the Applicant makes a commitment to a 34m lower tip height, which we broadly welcome. However, Natural England would highlight that the 22m limit stated is the tip height above mean high water spring tide. Thus, the comparison is inappropriate as the Applicant's tip height of 34m is above the lowest astronomical tide (LAT).</p> <p>Natural England's Recommendations to Resolve Issues: Natural England advise that the blade tip height is stated above HAT to enable appropriate comparison.</p>	Lower blade tip height at HAT is 26 m. The commitment to a lower tip height for the Morgan Generation Assets is beyond the minimum required for other receptors and reduces collision risk impacts to ornithological receptors significantly.
RR-026.B.94	<p>Table 1 Summary of Key Issues – Offshore Ornithology</p> <p>Have the impacts been avoided/reduced by the use of appropriate mitigation? B53 [APP-098], Table 1.6 With respect to vessel management plans, the Applicant commits to <i>“The development of and adherence to an Offshore EMP which will include measures to minimise disturbance to rafting birds from transiting vessels.”</i></p> <p>Natural England's Recommendations to Resolve Issues: Natural England advise that if vessel movements are expected to transit through the Liverpool Bay SPA then they should strictly adhere to pre-existing shipping routes to reduce the risk of additional disturbance to wintering red-throated diver and common scoter. The levels of existing</p>	Please see response to comment RR-026.B.83.

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RR-026.B.95	<p>shipping traffic, as well as red-throated diver and common scoter density distribution in those areas may require consideration to ascertain the likely additional impacts of vessel movements associated with the project.</p> <p>Table 1 Summary of Key Issues – Offshore Ornithology B54 [APP-023], General</p> <p>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.</p> <p>Natural England's Recommendations to Resolve Issues:</p> <p>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.</p> <p>[See live link in PDF: https://defra.sharepoint.com/sites/WorkDelivery2512/Offshore%20Wind/Forms/AllItems.aspx?id=%2Fsites%2FWorkDelivery2512%2FOffshore%20Wind%2FPhase%20IV%20%2D%20Post%2Dconsent%20monitoring%20and%20environmental%20considerations%2FPhase%20IV%20Best%20Practice%20Advice%20for%20Post%2DConsent%20Monitoring%2C%20Version%201%2E0%2C%20July%202022%2Epdf&parent=%2Fsites%2FWorkDelivery2512%2FOffshore%20Wind%2FPhase%20IV%20%2D%20Post%2Dconsent%20monitoring%20and%20environmental%20considerations]</p>	<p>The impacts predicted for the Morgan Generation Assets alone are either not significant or do not represent an adverse effect on the integrity of any associated SPAs. The impacts predicted are very small in numerical terms and it will therefore be difficult to define monitoring options that have the statistical robustness to address conditions pertaining to monitoring that may be included in the dML. It is noted that other recent projects in the region (e.g. Walney Extension offshore wind farm) have not undertaken post-consent monitoring with other projects, that are yet to be consented following the same approach (e.g. Rampion 2).</p>
RR-026.B96	<p>Table 1 Summary of Key Issues – Offshore Ornithology Assessment Conclusions B55 [APP-098]</p> <p>While we are in general agreement with the Applicant that their project-alone impacts are low, Natural England do not currently consider it appropriate to comment on the assessment conclusions. This is due to a number of methodological issues. We would particularly highlight the issues arising from deviations from SNCB advice in the assessment of displacement and</p>	<p>Please see previous comments on specific matters. The Applicant has presented an assessment that is robust and has concluded no significant effects on any offshore ornithological receptor and no adverse effects on the integrity of any SPA.</p>

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	<p>collision, and especially the consideration of historic impacts in the cumulative and in-combination assessments.</p> <p>Natural England's Recommendations to Resolve Issues: Natural England advise that full consideration of our comments is reflected in an updated assessment.</p>	

Response to relevant representations relating to Marine Mammals (Natural England Appendix C)

Reference	Relevant Representation	Applicant Response
RR-026.C.1	<p>C1 Summary of Key Concerns Natural England have concerns on the assessment methodology. We see the issues as follows:</p> <ul style="list-style-type: none"> • 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. <p>Natural England's Recommendations to Resolve Issues. Natural England advise the assessment methodology be revised</p>	<p>With reference to Natural England's Relevant Representation on dual effect categories: for each topic chapter, what is considered 'significant' has been clearly defined. In cases where a range is suggested for the significance of effect, the final significance is based upon the topic expert's professional judgement as to which outcome delineates the most likely effect, with a clear explanation as to why this is the case (Volume 1, Chapter 5: Environmental impact assessment methodology (APP-012)). The final conclusion is based upon a realistic worst case scenario for each impact and therefore the precaution is inherent in the approach to the assessment.</p> <p>The matrix approach (presented in Volume 1, Chapter 5: Environmental impact assessment methodology (APP-012)), which is a recognised and accepted approach for Environmental Impact Assessment (EIA) is then used, together with professional judgement, to evaluate the significance of effect. The flexibility in the matrix table is necessary to allow a consistent approach to be applied across all the topic chapters but the magnitude and sensitivity tables are tailored specifically to marine mammals, to underpin the assessment and provide quantitative metrics, where possible, that allow a robust conclusion of significance to be reached.</p> <p>For example, for the impact of injury from piling, for Very High Frequency (VHF) cetaceans (e.g. harbour porpoise) and High Frequency (HF) cetaceans (e.g. bottlenose dolphin), with primary and tertiary mitigation applied, the magnitude of the impact was deemed to be negligible and the sensitivity of the receptor was considered to be high, and there was considered to be no change to the international value of the species assessed (as set out in paragraph 4.9.2.157 of Volume 2, Chapter 4: Marine mammals (AS-010)). The conclusion of significance, in line with the approach set out by the matrix, could have been concluded to be either negligible or minor (adverse) (both not significant in EIA terms) however a precautionary approach was adopted, based on expert opinion, and significance was concluded to be minor. For minke whale, for the same impact, with primary and tertiary mitigation applied, the magnitude of the impact was deemed to be low and the sensitivity of the receptor was considered to be high (as set out in paragraph 4.9.2.158 of Volume 2, Chapter 4: Marine mammals (AS-010)). Volume 2, Chapter 4: Marine mammals (AS-010)</p>

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Reference	Relevant Representation	Applicant Response
		<p>acknowledged that whilst there could be some residual effect with a small number of animals potentially exposed to sound levels that could elicit PTS, this was unlikely to affect the international value of the species as there is no long term decline in the regional population predicted. This was demonstrated via the Interim Population Consequences of Disturbance Model (iPCoD) modelling assessment for the species. The conclusion of significance, in line with the approach set out by the matrix, could have been concluded to be either minor (adverse) (not significant in EIA terms) or moderate (adverse) (significant in EIA terms), however based on expert judgement and the conclusions of population modelling, it was deemed that a moderate (adverse) effect would have been disproportionate to the impact and potential effect identified.</p> <p>With reference to Natural England’s Relevant Representation on assessment terminology: interspecific differences in life history make it difficult to define short, medium, and long term within the magnitude tables. Consequently, the temporal scale of the impact is described in the text under each magnitude section and relates to the lifespan of a particular species. Similarly, spatial scale is also referred to in more detail within the text in the magnitude section; where possible a quantitative value is given (i.e. a range of effect in metres or kilometres) otherwise a qualitative description applies (e.g. ‘localised to within the Morgan Array Area’ or collision risk which occurs ‘within close vicinity’ to the vessel). A measure of the temporary nature of effects is also described here (e.g. UXO clearance would cause a temporary disturbance of 1 second, whilst piling may cause disturbance up to a day after cessation of piling).</p> <p>Therefore, the Applicant considers that the conclusions of magnitude and significance, as presented within Volume 2, Chapter 4: Marine mammals (AS-010) are appropriate and proportionate.</p>
RR-026.C.2	<p>C2 Summary of Key Concerns 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.</p> <p>Natural England’s Recommendations to Resolve Issues. Revise the assigned magnitude scores in relation to injury and disturbance from piling activity.</p>	<p>The approach to identifying the conclusion of negligible magnitude for injury to marine mammals from elevated underwater sound due to piling activities follows the assessment methodology presented in section 4.6 of Volume 2, Chapter 4: Marine mammals (AS-010). As stated under paragraph 4.9.2.39 of Volume 2, Chapter 4: Marine mammals (AS-010), without mitigation, PTS could affect a small number of animals leading to measurable changes at an individual level but this is unlikely to affect the wider population. For harbour porpoise, since injury is assumed to be fully mitigated via primary and tertiary mitigation, in the context of the associated assumptions described in paragraph 4.9.1.39 of Volume 2, Chapter 4: Marine mammals (AS-010), there is considered to be no residual risk of injury; the magnitude is therefore considered to be negligible. The Applicant therefore considers that the conclusion of negligible magnitude, as presented within Volume 2, Chapter 4: Marine mammals (AS-010) is appropriate and proportionate. The Applicant highlights that the magnitude for disturbance to marine mammals from elevated underwater sound due to piling activities, as presented in section 4.9.2.64 of Volume 2, Chapter 4: Marine mammals (AS-010) was assessed as low, and not as negligible, and therefore no further comments are provided.</p>

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Reference	Relevant Representation	Applicant Response
RR-026.C.3	<p>C3 Summary of Key Concerns</p> <p>Natural England notes that 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 large scale ADDs use may cause unintended cumulative consequences. This is particularly relevant to harbour porpoises which have high energetic demands.</p> <p>We advise that 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, we advise that careful consideration needs to be given when choosing the right type of ADD to be used in order to balance prevention of injury with production of unnecessary noise with potential negative effects.</p> <p>Natural England’s Recommendations to Resolve Issues.</p> <p>If relying on ADDs as a main mitigation tool to reduce the risk of injury, the impact of additional noise 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.</p>	<p>The Applicant acknowledges the potential effect of Acoustic Deterrent Devices (ADDs) themselves should not be overlooked. The Applicant agrees that the reliance on ADDs as a primary mitigation tool should be considered carefully, and on a case-by-case basis, but this does not change the outcome or robustness of the assessment in Volume 2, Chapter 4: Marine mammals (AS-010) which uses an indicative 30 minutes of ADD activation. The use of an ADD contributes an additional 30 minutes of underwater sound to that from piling (up to a total of 4.5 hours of piling per pile; Table 4.16 in Volume 2, Chapter 4: Marine mammals (AS-010)), however, the magnitude of effect from the ADD (i.e. range over which disturbance could occur) is considerably lower compared to piling (see below for more detail on ADD disturbance ranges). It is acknowledged that ADDs are not assessed separately in the Application for disturbance to marine mammals (although they are factored into the assessment for injury; Table 4.25 and Table 4.26 in Volume 2, Chapter 4: Marine mammals (AS-010)), however, the Applicant highlights that this approach is typical for offshore wind farm assessments and that this was not raised as a concern during the EWG consultation process or in the Section 42 consultation responses. The Applicant also highlights that the assessment of disturbance effects due to elevated underwater sound is, in any case, precautionary as the population model assumes that for days on which there is piling (and therefore the same days on which the ADD is activated), marine mammals would be disturbed for the entire day plus the subsequent day over the ranges predicted for piling. Thus, given that the ranges of disturbance during ADD activation are considerably less than those predicted for piling and that ADD activation forms part of the piling construction sequence, it is not considered necessary to consider this as a separate impact as essentially it is captured in the assessment of disturbance from piling. The Applicant therefore maintains that the assessment is precautionary and conclusions of significance are valid with respect to disturbance from ADDs.</p> <p>The Applicant also highlights that the 30 minute activation period is not a fixed time period and the final ADD type and duration will be agreed post-consent in the final MMMP (as secured under Schedule 14, Condition 18(1)(i) within the Draft Development Consent Order (AS-003) and Outline Marine mammal mitigation protocol (MMMP) (APP-072)), in consultation with the relevant statutory nature conservation body, and will consider the balance between allowing an animal time to move away from the injury zone (i.e. prevention of injury) and reducing unnecessary additional noise with potential negative effects. Agreement on the appropriate ADD device to employ will also be sought for the final MMMP.</p> <p>Elmegaard <i>et al.</i> (2023) investigated the physiological and behavioural responses of harbour porpoise to a commercial ADD in Danish waters. Six harbour porpoises were tagged with DTAGs (sound and movement recording tags), recording sound, 3D-movement, and GPS or electrocardiogram and were then exposed to ADDs for 15 minutes. All animals displayed a mixture of acoustic startle responses, swimming away responses, altered echolocation behaviour, and increased heart rate while diving. However, five harbour porpoise (out of six) returned to feeding within 16 to 42 minutes after exposure to the ADD (the tag fell off the sixth harbour porpoise, shortly</p>

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		<p>after exposure). The study demonstrated harbour porpoise reacted to ADDs more than 7 km from the ADD (consistent with identified 7.5 km to 12 km ranges by other similar studies (Brandt <i>et al.</i>, 2013, Dähne <i>et al.</i>, 2013)). Therefore, whilst deterrence devices need to be effective to avoid auditory injury from construction activities, the risk and effect caused by the deterrence should not exceed the risk and effect of the activity the animals are deterred from.</p> <p>Therefore, the Applicant understands the need for proportionate and judicious application of ADDs, and this will be considered carefully when finalising the ADD type and deployment duration post-consent, but this does not change the conclusions or validity of the assessment within Volume 2, Chapter 4: Marine mammals (AS-010).</p>
RR-026.C.4	<p>C4 Summary of Key Concerns Natural England does not support use of scare charges for UXO clearance thus we advise that this measure is not considered in the final Marine Mammal Mitigation Protocol (MMMP).</p> <p>Natural England's Recommendations to Resolve Issues. Remove the use of scare charges for UXO clearance from the final MMMP.</p>	<p>The Applicant notes Natural England's concerns regarding soft start scare charges and is aware that there may be new guidance being published soon by JNCC on UXO clearance mitigation measures. At the point of submission, the Applicant put forward mitigation measures as part of an Outline MMMP (APP-072) that are considered as industry good practice, however, the final MMMP will be developed post-consent following engagement with stakeholders 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. The use of mitigation measures (e.g. ADDs or soft start charges), should a high order clearance be necessary, will be discussed and agreed as part of the final MMMP with all relevant stakeholders. The Applicant considers that the judicious use of soft start scare charges to deter animals over large distances is preferable to the risk of injury to marine mammal receptors, but will discuss alternative options with relevant stakeholders as part of the development of the final MMMP.</p>
RR-026.C.5	<p>C5 Summary of Key Concerns Standard industry measures (such as Marine Mammal Observers (MMOs), Passive Acoustic Monitoring (PAM) and Acoustic Deterrent Devices (ADDs)) 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.</p> <p>Natural England's Recommendations to Resolve Issues. 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.</p>	<p>The Applicant highlights that the strategy presented in the Outline UWSMS (APP-068) is for minimising the risk of both injury and disturbance to marine mammals whilst the Outline MMMP (APP-072) is focussed on reducing the risk of injury. To clarify, the assessment of injury takes into account project designed-in measures, such as soft start to piling (primary mitigation), and standard industry measures, such as the use of Marine Mammal Observers (MMOs) and Passive Acoustic Monitoring (PAM) to monitor a mitigation zone (tertiary mitigation). Disturbance to marine mammals presented in Volume 2, Chapter 4: Marine mammals (AS-010) is, however, concluded on the basis of no additional mitigation and therefore the use of MMOs, PAM and ADDs does not factor into the conclusion of no significant disturbance.</p> <p>As an example, paragraph 4.9.2.161 of Volume 2, Chapter 4: Marine mammals (AS-010) provides the summary of significant effects in relation to behavioural disturbance to harbour porpoise during piling: "<i>Overall, the magnitude of the impact is deemed to be low and the sensitivity of the receptor is considered to be medium. The effects are unlikely to affect the international value of the species in the context of the CIS MU as there is no long-term decline in the regional population predicted as demonstrated with the iPCoD modelling assessment. The effect on harbour porpoise will, therefore, be of minor adverse.</i>" This is compared to the summary of significant effects in relation to injury to</p>

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		<p>harbour porpoise during piling (paragraph 4.9.2.156 of Volume 2, Chapter 4: Marine mammals (AS-010)):</p> <p><i>“Overall, with primary and tertiary mitigation applied, the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be high. There would be no change to the international value of these species. The effect on bottlenose dolphin, short-beaked common dolphin and Risso’s dolphin will, therefore, be of minor adverse significance, which is not significant in EIA terms.”</i></p> <p>With respect to further mitigation for disturbance, the Applicant directs Natural England to the Outline UWSMS (APP-068) which has been reviewed and agreed in principle via the EWG process (EWG07) by all relevant stakeholders. Post-consent, any project refinements will be reviewed and if further mitigation is deemed necessary, this will be captured in the final UWSMS. As secured under Schedule 3 and 4, Condition 22 (1) within the Draft Development Consent Order (AS-003) no piling activities or detonation of unexploded ordnance can commence until an UWSMS for those activities, which accords with the outline UWSMS (APP-068), has been submitted to, and approved in writing, by the MMO in consultation with the relevant statutory nature conservation body.</p>
RR-026.C.6	<p>C6 Summary of Key Concerns The inter-related effects have potential to create a more significant effect on a receptor than if just assessed in 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.</p> <p>Natural England’s Recommendations to Resolve Issues. Include the outcomes of the inter-related effects assessment in this report. In particular, the receptor-led effects from disturbance should be assessed adequately.</p>	See Annex 3.4_Morgan Gen_Response to RR-026_NE and RR-027_NRW_Marine Mammals_Interrelated effects.
RR-026.C.7	<p>C7 Summary of Key Concerns Natural England strongly advises the Applicant to commit to using noise abatement (NAS) as</p>	The Applicant welcomes that Defra will be publishing a marine noise policy paper soon and the final UWSMS will be developed in accordance with the most up to date published guidance and policy.

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	<p>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. We are aware that 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 majority of piling from 2025 onwards will not be able to go ahead without noise abatement in place.</p> <p>Natural England's Recommendations to Resolve Issues.</p> <p>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).</p>	<p>The Applicant has made a commitment in the Outline UWSMS (APP-068) to considering the use of Noise Abatement Systems (NAS) as part of further mitigation options in the UWSMS if required (i.e. where there remains a residual significant effect even with the inclusion of primary and tertiary measures adopted). Its implementation will be decided in consultation with the licencing authority and SNCBs, including Natural England, as part of the final UWSMS, prior to construction. NAS options are discussed in the Outline UWSMS (APP-068) (sections 1.8.2 for piling and 1.8.3 for UXO) and if required will be refined post-consent. In the UK thus far, offshore wind developers have not been required to employ such systems. While there is available guidance outlining measures to prevent harm to marine mammals (JNCC 2020a; 2020b), specific recommendations for how NAS is to be used to mitigate injury and disturbance are scarce in the UK. Instances of such guidance have emerged in connection to particular Marine Protected Areas (MPAs) designated for the well-being of marine mammals, aiming to restrict impulsive sound levels and minimise disturbances (JNCC, 2020a and 2020b). The approach adopted for the Application (i.e. the inclusion of an UWSMS) follows the latest industry good practice for offshore wind in the UK and takes such guidance and advice into account. The Applicant welcomes that Defra will be publishing a marine noise paper soon and the final UWSMS will be developed in accordance with the most up to date published guidance and policy. As such, the proposed approach to mitigating risks of underwater sound on marine life is considered to be proportionate and robust.</p>
RR-026.C.8	<p>C8 Summary of Key Concerns</p> <p>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.</p>	<p>The Applicant has not proposed monitoring for marine mammals, on the basis that with the implementation of adopted measures, the risk of injury can be fully mitigated and that the effect of disturbance, for all impacts was concluded to be not significant in EIA terms. This does not preclude noise monitoring of the first four piled foundations to allow comparison against predictions for received sound levels as presented in Volume 3, Annex 3.1: Underwater sound technical report (APP-028). Such monitoring will validate the predictions in the underwater sound modelling, which underpins the marine mammal assessment.</p> <p>The use of mitigation measures will be discussed and agreed post-consent, as part of the final MMMP (APP-072) and final UWSMS (APP-068), with all relevant stakeholders.</p>

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	<p>Natural England's Recommendations to Resolve Issues.</p> <p>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.</p>	
RR-026.C.9	<p>Table 2 Natural England's Detailed Advice and Recommendations – Marine Mammals Baseline Characterisation - Document(s) Used: [APP-052] F4.4.1 Volume 4, Annex 4.1 Marine mammals technical report Survey Data Acquisition</p> <p>C9 1.5.19.3 Comment</p> <p>Natural England does not agree with the approach of using 100 km and 50 km buffer regions for grey seal and harbour seal respectively in order to determine connectivity with the Morgan Generation Assets based upon average foraging ranges for the two species. These distances do not have any ecological meaning as there are no haul out sites within the project area. Natural England previously advised that the maximum foraging distances from Carter et al., 2022 are used to determine the connectivity from an identified haul out site and the project area.</p> <p>Recommendation</p> <p>Natural England previously raised this issue during the PEIR stage and it has not been addressed. We</p>	<p>The Applicant notes that this matter was raised during Section 42 consultation on the PEIR and has been responded to in Table 4.5 of Volume 2, Chapter 4: Marine mammals (AS-010). The Applicant notes that Management Units (MU) were presented and agreed through the Evidence Plan Process, at the Marine Mammals EWG05. These MUs are identified as the Wales MU, North West England MU, SW Scotland and Northern Ireland MU for grey seal, and the Wales MU and North West England MU for harbour seal.</p> <p>For Habitats Regulations Assessment (HRA), screening was based primarily on the above identified seal MUs; all Special Areas of Conservation (SACs) designated for grey seal and harbour seal located within the MUs were screened in for Likely Significant Effects (LSE). In addition, foraging ranges from Carter <i>et al.</i> (2022) were applied to determine connectivity with the Morgan Generation Assets; additional sites with grey seal/harbour seal as a qualifying feature, which may have connectivity with the Morgan Generation Assets were screened in for LSE. Finally, for grey seal, the OSPAR Region III Interim MU was also considered, as set out in paragraphs 1.3.4.10 and 1.3.4.11 of the HRA Stage 1 Screening Report (APP-099).</p> <p>The Applicant highlights that the buffers of 100 km and 50 km for grey and harbour seal respectively are applied in particular to the SMRU seal telemetry study to identify connectivity to SACs. This work informed the baseline identification for both species, as part of a wider desktop study. The buffers of 100 km and 50 km are defined based on accepted typical foraging ranges as reported by the Special Committee on Seals (SCOS) (SCOS, 2020; 2021).</p>

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	do not now anticipate any material changes would be made to the baseline.	
RR-026.C.10	<p>C10 Vol 2.4 Comment We note that Unexploded Ordnance (UXO) clearance is included as a licenced activity in the DCO/marine licence (which includes high order clearance). However, we advise that a separate licence is sought for UXO clearance due to the lack of information available and the over precaution that must be incorporated into the impact assessment at this stage. For example, the most likely maximum size of UXO to be encountered is expected to be 130kg Net Explosive Quantity (NEQ), however, it also states the size of device could range between 25kg and 907kg as an absolute maximum. Without further information on what size of devices will proceed to clearance stage, the assessment (and associated mitigation protocols) must consider the worst-case scenario presented within the Environmental Statement (ES) (907kg) and describe mitigation measures that will reduce those predicted impacts. We agree that the UXO clearance should be included in the assessment at this stage as it represents a holistic approach including all noisy activities.</p> <p>Recommendation Note</p>	<p>The Applicant notes your response and highlights that the assessment covered a range of UXOs likely to be encountered within the array area based on a comprehensive study. Further the Applicant highlights that the UWSMS, which will be developed in consultation with key stakeholders, will provide suitable measures to mitigate for high order clearance of any UXO size encountered. This will include consideration of NAS for UXOs larger than 130 kg.</p>
RR-026.C.11	<p>Methodology C11 Table 4.5 Comment Natural England has concerns regarding the assessment matrix and double outcome categories of significance. Such an approach needs further justification with explanation of how the conclusions of the assessment are reached, especially in scenarios where non-significant and significant effects can result from the same combination of</p>	<p>See Applicant's response to Natural England Relevant Representation reference number RR-026.C.1.</p>

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	<p>magnitude and sensitivity (e.g. high sensitivity and low magnitude result in minor and moderate effects). It is generally accepted that the assessment should follow the precautionary principle in which case moderate effects should be concluded unless a robust evidence and strong justification is provided to argue contrary.</p> <p>Recommendation Revise the assessment matrix and/or include a strong justification to support the conclusions of non-significant effects.</p>	
RR-026.C.12	<p>C12 Table 4.29 Comment 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 this conclusion has been reached taking into account primary and tertiary mitigation measures (including 30 minutes ADD activation) as outlined in the Marine Mammal Mitigation Protocol (MMMP). However, piling noise itself has additional physiological impacts on cetaceans which have not been considered here. As outlined in the study by Yang et al (2021) (https://www.frontiersin.org/articles/10.3389/fmars.2021.606736/full) which sheds light on the potential impact of pile driving-like sounds on the endocrine and immune systems in cetaceans: " If the stressor lasts only for a brief time, the cortisol upsurge contributes to keep normal physiologic function when the animal is controlling the effects of the stressor (e.g., fleeing unpleasant sounds causing foraging area abandonment). However, if cortisol levels persist elevated for extended period of time (exposure to high or</p>	<p>The conclusion of negligible magnitude has been assigned based on the inclusion of the potential indicative use of designed-in measures (primary measures) and industry standard measures (tertiary measures), following published guidance (JNCC, 2010). Adoption of such measures mean that this potential impact and its potential effects can be mitigated. Tertiary measures, as recommended by JNCC (2010), includes the use of an indicative 30 minutes of ADDs, as part of the proposed mitigation strategy outlined in Volume 2, Chapter 4 Marine mammals (AS-010), Outline MMMP (APP-072) and Outline UWSMS (APP-068). Agreement on the appropriate use of ADDs (including device and method and duration of deployment) will be made post-consent, in consultation with relevant stakeholders, including Natural England.</p> <p>Without mitigation, PTS could affect a small number of animals leading to measurable changes at an individual level but this is unlikely to affect the wider population. Since injury is assumed to be fully mitigated via primary and tertiary mitigation, in the context of the associated assumptions described in paragraph 4.9.1.39 of Volume 2, Chapter 4: Marine mammals (AS-010), there is considered to be no residual risk of injury; the magnitude is therefore considered to be negligible.</p> <p>The magnitude of low presented in the PEIR was deemed appropriate for the injury ranges that were modelled on the project design at that stage. Since consultation on the PEIR, the project design was refined including the removal of monopiles from the project design envelope (PDE). As such, updated modelling was carried out which resulted in smaller injury ranges (as presented in Volume 2, Chapter 4: Marine mammals (AS-010)) than those presented in the PEIR (Volume 3, Annex 3.1: Underwater sound technical report (APP-028)). Therefore, in light of the updated assessment, and given that injury is assumed to be fully mitigated via primary and tertiary mitigation, the magnitude has been revised accordingly.</p> <p>The Applicant notes that the magnitude of impact for disturbance was concluded to be low, and not negligible as suggested by this Relevant Representation.</p>

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	<p>cumulative noise levels for days to months), the high hormone levels can have negative effects on immune response, growth, and reproduction (Fair and Becker, 2000), causing the animal to potentially become more vulnerable when other stressors are present, such as microorganism infection, prey scarcity and competition.</p> <p>With this in mind, we cannot agree with the conclusion that there no residual risk of injury and as such the magnitude of negligible is not precautionary enough to take into account the entirety of possible impacts that can lead to injury. Thus, Natural England advise that assigned magnitude scores for piling are revised accordingly. 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”.</p> <p>Recommendation The assigned magnitude scores in relation to injury and disturbance from piling activity should be revised with clearer definitions and further justification provided.</p>	
RR-026.C.13	<p>C13 Vol 2.4 Comment Natural England notes that there is over-reliance in the assessment on 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. New evidence suggested that ADDs may evoke both startle, flight and cardiac</p>	<p>The Applicant refers Natural England to the response to Natural England Relevant Representation reference number RR-026.C.3 which addresses the use of ADDs as a mitigation tool to prevent injury, and acknowledges the potential effect of ADDs themselves on marine mammals.</p> <p>In addition to the information presented in response to Natural England Relevant Representation reference number RR-026.C.3, the Applicant also highlights that the final MMMP will consider any potential cumulative effects, including those on harbour porpoise. The final MMMP will be developed post-consent and in line with any new advice and guidance.</p>

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	<p>responses which may impact blood-gas management, breath-hold capability, energy balance, stress level and increase risk of by-catch (Elmegaard <i>et al</i>, 2023). Thus, large scale ADDs use may cause unintended cumulative consequences. This is particularly relevant to harbour porpoises which have high energetic demands.</p> <p>We advise that the onus should be on reducing the noise at the source as a priority (please see our advice below on NAS). Furthermore, we advise that careful consideration needs to be given when choosing the right type of ADD to be used in order to balance prevention of injury with production of unnecessary noise with potential negative effects.</p> <p>Recommendation If relying on ADDs as a main mitigation tool to reduce the risk of injury, the impact of additional noise 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.</p>	<p>In response to the comment on the potential application of NAS, NAS is one of the options which is being considered for additional mitigation if required. NAS options are discussed in the Outline UWSMS (APP-068) (sections 1.8.2 for piling and 1.8.3 for UXO) and if required will be refined post-consent in the final UWSMS in consultation with the licencing authority and SNCBs, including Natural England, prior to construction.</p>
RR-026.C.14	<p>C14 4.9.2.168 Comment Natural England notes the statement that the main objective of the Outline underwater sound management strategy (UWSMS) is to reduce the magnitude of impact of piling such that any residual significant effects from the project alone are reduced to a non-significant level. However, the Applicant has assessed the magnitude of the impacts as mostly negligible for PTS and low for disturbance resulting in non-significant effects. Thus, there are currently no residual effects. We advise that the Applicant revises the objective of the UWSMS.</p>	<p>The Applicant highlights that the purpose of the Outline UWSMS (APP-068) is to reduce the magnitude of impacts from elevated underwater sound from the Morgan Generation Assets. For the impact of injury as a result of UXO clearance, a significant impact was identified and therefore the Outline UWSMS has been developed as a means to reduce the magnitude to a level such that any residual effects on sensitive receptors can be concluded as non-significant in the context of EIA. The Applicant recognises that for the impact of piling, there was no significant impact identified for the project alone, but the final UWSMS will also act as a means to reduce the project's contribution to the cumulative increase in underwater sound within the region (with a focus on more sensitive species). The Applicant therefore considers that the objectives of the Outline UWSMS do not require updating.</p>

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	<p>Recommendation Revise the objective of the UWSMS so it is relevant to the assessment.</p>	
RR-026.C.15	<p>C15 4.9.4.5; 4.9.4.23; 4.9.4.35 Comment Baseline suggests a total of 3,166 and 640 vessels passing through the Morgan Array Area and Morgan marine mammal area per year respectively, mainly concentrated within main shipping routes (located predominantly around the outer borders of the project area (Figure 4.24). 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.</p> <p>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, we advise that this assessment is 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.</p> <p>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.</p> <p>N.B. The same comment applied to HRA Stage 2 Information to support an appropriate assessment,</p>	<p>See Annex 3.5_Morgan Gen_Response to RR-026_NE and RR-027_NRW_Marine Mammals_UWS due to Vessel Use and Applicant’s Response to Relevant Representation from Natural England reference number RR-026.C.19.</p>

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	<p>paragraph 1.6.4.315.</p> <p>Recommendation Revise the assessment for disturbance from elevated underwater sound due to vessel use and other (non-piling) sound producing activities.</p>	
RR-026.C.16	<p>C16 Table 4.48 Comment Natural England notes that the predicted disturbance ranges for Sub-bottom profilers (SBPs) and vibro-coring are 17.3km and 8.8km respectively. However, no mitigation measures have been discussed for these large disturbance ranges. Natural England advises that geophysical and geotechnical surveys are included in the MMMP and UWSMS and appropriate measures considered to mitigate disturbance over such large ranges. Also, they need to be appropriately assessed for cumulative impacts of disturbance (Table 4.55).</p> <p>Recommendation Consider appropriate mitigation measures to mitigate the large impact ranges as a result of the SBP and vibro-coring activities.</p>	<p>The Applicant notes that underwater sound from Sub-bottom Profilers (SBP) and vibro-coring have been assessed for the project alone in section 4.9.6 (Injury and disturbance from elevated underwater sound generated from site investigation survey sources) and cumulatively in section 4.11.3 of Volume 2, Chapter 4: Marine mammals (AS-010).</p> <p>Whilst the ranges of disturbance are modelled to be up to 17.3 km from source, disturbance as an effect is considered short-term, temporary and reversible and geophysical/geotechnical surveys will only occur over a matter of months, and therefore the Applicant considers that mitigation measures above and beyond standard industry practice would be disproportionate. In developing the modelling, a number of conservative assumptions were applied, meaning that the ranges of effect are extremely conservative. Such assumptions included: i) the highest possible source level for the equipment, ii) the fastest pulse rate, iii) the longest pulse duration, and iv) the frequencies within the most sensitive marine mammal hearing range were selected. See also the Applicant's response to Natural England's Relevant Representation reference number RR-026.C.37.</p> <p>The Applicant has developed a range of measures adopted as part of the project that are considered as industry good practice, to reduce or eliminate the risk of injurious effects of underwater sound due to geophysical surveys. Whilst these measures target the reduction/elimination of injurious effects, certain aspects will also reduce the impact of disturbance. Pre-survey monitoring (visual/acoustic) will ensure that no animals are within the mitigation zone prior to commencement of soft start, thereby reducing the risk of disturbance within this mitigation zone.</p> <p>The final MMMP (as secured under condition 20(1)(h) in each deemed marine licence within schedules 3 and 4 of the Draft Development Consent Order (AS-003) will be developed in consultation with relevant stakeholders, including Natural England, and will be informed by the most recent guidance.</p>
RR-026.C.17	<p>C17 4.9.6.16 Comment Natural England disagrees that a period of several months can be considered as a "very short duration". Also, we find it confusing that in the next paragraph, the same period of time is referred to as "medium term duration". Thus, the terms used for temporal impacts need to be clearly defined and</p>	<p>The Applicant notes that the wording presented in paragraph 4.9.6.16 of Volume 2, Chapter 4: Marine Mammals (AS-010) was in error. The Applicant considers surveys over a period of 'up to several months' to be of medium-term duration, as set out in paragraph 4.9.6.17 of Volume 2, Chapter 4: Marine mammals (AS-010). This has been noted in the Applicant's errata document.</p> <p>With regards to defining overarching terms to describe temporal and spatial impacts, the Applicant considers that temporal and spatial scales should be considered on an impact/effect and receptor</p>

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	<p>universally applied across the assessment.</p> <p>Recommendation Define the terms to describe both temporal and spatial impacts and apply them consistently across the assessment.</p>	<p>basis. As per the Applicant's response to Natural England's Relevant Representation reference number RR-026.C.1, interspecific differences in life history make it difficult to define short, medium, and long term within the magnitude tables. Consequently, the temporal scale of the impact is described in the text under each magnitude section and relates to the lifespan of a particular species. Similarly, spatial scale is also referred to in more detail within the text in the magnitude section; where possible a quantitative value is given (i.e. a range of effect in metres or kilometres) otherwise a qualitative description applies (e.g. 'localised to within the Morgan Array Area' or collision risk which occurs 'within close vicinity' to the vessel).</p> <p>For example, for piling during the construction phase, paragraph 4.9.2.39 states the impact is "predicted to be of local spatial extent with respect to the ranges over which PTS could occur, medium term duration", whilst for auditory injury from underwater sound from vessels during the operations and maintenance phase the impact "is predicted to be of limited spatial extent, long term duration". This highlights that the terms used to describe both temporal and spatial impacts are tailored to the assessment of each individual impact (see also response to RR-026.C.1).</p>
RR-026.C.18	<p>C18 4.9.8.16 Comment Inconsistency in the approach when assigning the sensitivity score for effects on marine mammals due to changes in prey availability. Minke whale has been assigned medium due to being particularly vulnerable to potential effects on herring. Paragraph 4.9.8.1 states that harbour porpoise and harbour seal may be particularly vulnerable to changes in prey availability while they are assigned sensitivity score low.</p> <p>Recommendation Due to the vulnerability of harbour porpoise and harbour seal to changes in prey availability, their assigned sensitivity score should be medium.</p>	<p>The sensitivity of effects scores have been assigned on a receptor by receptor basis, considering key prey species in the context of changes to prey availability. Whilst it has been highlighted that minke whale, harbour porpoise and harbour seal are all vulnerable to changes in prey availability, the assessment takes into account the assessment for effects on fish and shellfish receptors (Volume 2, Chapter 3: Fish and Shellfish Ecology (APP-021)) which considers the potential that herring (a key prey species for minke whale) could be impacted by the Morgan Generation Assets due to piling. Minke whale are considered to have reliance on this single species, whereas the assessment considers the wide range of prey species available to harbour porpoise and harbour seal and therefore their ability to switch prey. As such, the Applicant maintains the position that the sensitivity of harbour porpoise and harbour seal to this impact is less than that of minke whale and is considered to be low. The Applicant highlights that the Outline UWSMS (APP-068) considers herring as a key species and as such, measures will be taken post-consent to develop a strategy to reduce the effects on this species and in doing so will reduce any indirect effects on minke whale.</p>
RR-026.C.19	<p>C19 4.9.4.39 Comment If basing the assessment on the statement that "all marine mammals are deemed to have some tolerance to disturbance", robust evidence needs to be provided to support it. Given the difference in hearing threshold of different marine mammal species as well as other variables that may impact their response to disturbance, such generalised</p>	<p>The statement referred to in paragraph 4.9.4.39 of Volume 2, Chapter 4: Marine mammals (AS-010) is a summary statement provided at the end of the sensitivity section (paragraphs 4.9.4.27 to 4.9.4.39) which provides a comprehensive literature review of the sensitivity of marine mammals to disturbance by vessels. The statement is therefore fully supported by evidence from published scientific studies for the key marine mammal species. Key examples of the literature presented in Volume 2, Chapter 4: Marine mammals (AS-010) relating to disturbance responses of marine mammals to vessels are provided below.</p>

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	<p>statement is misleading.</p> <p>Recommendation Provide evidence to support this statement.</p>	<p>Regarding cetaceans, Antichi <i>et al.</i> (2022) discussed several studies which showed dolphins continue to frequent the same localities even in the presence of vessels, rather than exhibiting site avoidance (Heiler <i>et al.</i>, 2016; May-Collado and Wartzok, 2008; La Manna <i>et al.</i>, 2013; Rako Gospić and Picciulin, 2016; Peters, 2018). This suggests that animals show tolerance to vessels, particularly when there is dependence on specific areas to maintain activities (see paragraph 4.9.4.38 of Volume 2, Chapter 4: Marine mammals (AS-010)). Similarly, Wisniewska <i>et al.</i> (2018) found tagged harbour porpoise did not appear to avoid areas of high traffic and proposed this was because these areas overlapped with important foraging habitats.</p> <p>As detailed in paragraph 4.9.4.37 of Volume 2, Chapter 4: Marine mammals (AS-010), Potlock <i>et al.</i> (2023) used Cetacean POrtable Device (C-POD) detections of sonar activity as a proxy for vessel disturbance during construction of wind turbine foundations off Blyth, Northumberland. Potlock <i>et al.</i> (2023) found that bottlenose dolphin occurrence during and post-construction was not significantly different to the construction phase. Similarly, an increase in harbour porpoise occurrence across this study suggested that construction and post-construction vessel activity did not result in any overall decline in area usage (Potlock <i>et al.</i>, 2023), implying that tolerance to sound was sufficient to prevent significant displacement.</p> <p>Paragraph 4.9.4.27 of Volume 2, Chapter 4: Marine mammals (AS-010) highlights that level of disturbance will depend on individual hearing ranges, background sound levels (which are already high in the Irish Sea), an animal's activity at the time of disturbance and the vessel type/behaviour (Oakley <i>et al.</i>, 2017; Hermannsen <i>et al.</i>, 2019, Meza <i>et al.</i> (2020) (see paragraph 4.9.4.32 of Volume 2, Chapter 4: Marine mammals (AS-010)).</p> <p>The Applicant acknowledges cetaceans can both be attracted to and disturbed by vessels (see paragraphs 4.9.4.28, 4.9.4.30, 4.9.4.33 of Volume 2, Chapter 4: Marine mammals (AS-010)), and reactions to vessels are often tied to the animal's activity at the time (e.g. resting, foraging, socialising) (see paragraph 4.9.4.28 of Volume 2, Chapter 4: Marine mammals (AS-010)). For pinnipeds, for example, seal bulls have been known to approach fishing vessels in Liverpool Bay (Dobson, 2002, pers comm) whilst Jones <i>et al.</i> (2017) showed there is high co-occurrence between grey seal/harbour seal and shipping traffic within 50 km of the coastline near haul out sites. It is acknowledged in paragraphs 4.9.4.34 and 4.9.4.35 of Volume 2, Chapter 4: Marine mammals (AS-010) that pinniped reactions such as increased vigilance, flushing into the sea, changes in diving and avoidance have been reported in literature (Mikkelsen <i>et al.</i>, 2019, Pérez Tadeo <i>et al.</i>, 2021), but nuances such as season, foraging context, prey patch quality, result in different responses likely dependent on perceived risk (Andersen <i>et al.</i>, 2012; Hastie <i>et al.</i>, 2021).</p> <p>Therefore, the statement in paragraph 4.9.4.39 of Volume 2, Chapter 4: Marine mammals (AS-010) takes into account the variables and different species' responses in the evidence presented in paragraphs 4.9.4.27 to 4.9.4.39 of Volume 2, Chapter 4: Marine mammals (AS-010), derived from robust peer-reviewed scientific literature.</p>

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RR-026.C.20	<p>C20 4.10.1.3 Comment Natural England recommend application of the tiered approach for cumulative assessment as outlined in the Natural England Best Practice Guidelines Phase III document. We advise that the same Tier system is used for HRA as well.</p> <p>Recommendation Refer to Natural England Best Practice Guidelines Phase III</p>	<p>The cumulative assessment presented in Volume 2, Chapter 4: Marine mammals (AS-010) and the in-combination assessment presented in HRA Stage 2 Information to support an appropriate assessment Part 2: Special areas of conservation assessments (APP-097) both follow the tiered approach as outlined in Natural England's Best Practice Guidelines Phase III (Natural England, 2022).</p>
RR-026.C.21	<p>C21 Table 4.54 - Significance of effect Comment The standard industry measures (i.e. MMO, PAMS, ADDs) are primarily aimed at reducing the potential of injury, not disturbance, thus they cannot be used to justify the 'low' magnitude assigned for behavioural disturbance from UXO clearance. Thus, Natural England disagrees with the conclusion related to behavioural disturbance from elevated underwater sound during UXO clearance.: "With standard industry measures applied, the magnitude of the cumulative impact for all species is deemed to be low and the sensitivity of the receptor is considered to be low."</p> <p>Recommendation Mitigation measures aimed at reducing the risk of injury cannot be used as a justification for non-significant effects of disturbance. This needs to be revised throughout the assessment.</p>	<p>The Applicant notes that the assessment of magnitude of impact for disturbance as a result of UXO clearance (low) did not take into account adopted measures, and therefore regardless of the indirect benefits of pre-detonation monitoring, the Applicant maintains the position that the magnitude of impact is deemed to be low. In addition, it is important to reiterate that the duration of impact (elevated sound) for each UXO detonation is very short (seconds) and therefore the conclusion of low magnitude of impact considers the timescales over which disturbance could occur.</p> <p>The Applicant has developed a range of measures adopted as part of the project that are considered as industry good practice, to reduce or eliminate the risk of injurious effects of underwater sound due to UXO clearance. Whilst these measures target the reduction/elimination of injurious effects, certain aspects will also reduce the impact of disturbance. Pre-detonation monitoring (visual/acoustic) will ensure that no animals are within the mitigation zone prior to commencement of soft start, thereby reducing the risk of disturbance within this mitigation zone.</p> <p>In addition, the Outline UWSMS has been developed as a means to reduce the impact magnitude to a level such that any residual effects on sensitive receptors can be concluded as non-significant in the context of EIA.</p> <p>The final MMMP (as secured under condition 20(1)(h) within the deemed marine licences in schedules 3 and 4 of the Draft Development Consent Order (AS-003) and final UWSMS will be developed in consultation with relevant stakeholders, including Natural England, and will be informed by the most recent guidance.</p>
RR-026.C.22	<p>C22 Table 4.56 Comment 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</p>	<p>Please see Annex 3.5_Morgan Gen_Response to RR-026_NE and RR-027_NRW_Marine Mammals_UWS due to Vessel Use for justification for low magnitude from the project alone.</p> <p>The maximum disturbance range for the impact of disturbance from elevated underwater sound due to vessel use and other (non-piling) sound producing activities at the Morgan Generation Assets, was modelled as 3.6 km (as presented in paragraph 4.9.4.17 in Volume 2, Chapter 4: Marine mammals (AS-010)). It is highlighted that the Morgan and Morecambe Offshore Wind</p>

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	<p>to vessel use and other (non-piling) sound producing activities.</p> <p>Recommendation Revise the assessment accordingly.</p>	<p>Farms: Transmission Assets PEIR presented a maximum disturbance range of 20 km based on the largest range presented in either the Morecambe Generation Assets PEIR or the Morgan Generation Assets PEIR. However, the disturbance ranges from vessel noise presented in the final Environmental Statements were modelled as 3.6 km and 4 km for Morgan Generation Assets and Morecambe Generation Assets respectively and therefore the 20 km is now considered to be an overestimate, based on the detailed underwater sound modelling assessment presented in Volume 3, Annex 3.1 Underwater sound technical report (APP-028). The Applicant notes that for all other projects considered in the cumulative effects assessment (CEA) (where information is available) the greatest disturbance range considered was up to 7 km.</p> <p>Volume 2, Chapter 4: Marine mammals (AS-010) also highlights that vessels are not a novel impact for marine mammals in the Irish Sea (see paragraphs 4.9.4.27 to 4.9.4.39 of Volume 2, Chapter 4: Marine mammals (AS-010)). The Applicant acknowledged (in Table 4.56 of Volume 2, Chapter 4: Marine mammals (AS-010)) that there may be an uplift in vessel activity cumulatively, and animals may be disturbed from isolated project areas at different points in time, and cumulatively could lead to a larger area of disturbance at any one time compared to the Morgan Generation Assets alone, but in the context of the wider habitat available within the regional marine mammal study area, the scale of the disturbance effects is considered to be small. Furthermore, the cumulative effects assessment is based upon each projects' respective maximum design scenarios, therefore the number of vessels present at any one time are likely to be lower. Therefore, the Applicant considers the assigned magnitude score of 'low' for disturbance from elevated underwater sound due to vessel use and other (non-piling) sound producing activities to be proportionate.</p>
RR-026.C.23	<p>C23 4.13 Comment The inter-related effects have the potential to create a more significant effect on a receptor than if just assessed in 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.</p> <p>Recommendation Include the outcomes of the inter-related effects assessment in this report. In particular, the receptor-</p>	<p>See Annex 3.4_Morgan Gen_Response to RR-026_NE and RR-027_NRW_Marine Mammals_Interrelated effects.</p>

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	<p>led effects from disturbance should be assessed adequately.</p>	
RR-026.C.24	<p>Have the impacts been avoided/reduced by the use of appropriate mitigation? C24 1.1.2.3 Comment Outline Marine Mammal Mitigation Protocol: The PAM guidance was updated in December 2023 (JNCC 2023). This updated version should be used to inform the final MMMP.</p> <p>Recommendation Updated PAM guidance should be used to inform the final MMMP: JNCC guidance for the use of Passive Acoustic Monitoring in UK waters for minimising the risk of injury to marine mammals from offshore activities JNCC Resource Hub</p>	<p>The Applicant notes your response. The final MMMP (as secured under condition 20(1)(h) of the deemed marine licences in schedules 3 and 4 of the Draft Development Consent Order (AS-003) will be developed in consultation with relevant stakeholders, including Natural England, and will be informed by the most recent guidance.</p>
RR-026.C.25	<p>C25 1.6.6.1 Comment Outline Marine Mammal Mitigation Protocol: Natural England does not support implementation of UXO soft start using a sequence of small explosive charges as a suitable mitigation measure thus we advise that this measure is not considered in the Final MMMP. The applicant should actively work towards reducing the sound at source not adding additional noise as a form of mitigation. Thus, we advise that the mention of the UXO soft start is removed from the final MMMP.</p> <p>Recommendation Revise the MMMP to remove the use of scare charges.</p>	<p>The Applicant directs Natural England to the response to Natural England Relevant Representation reference number 'RR-026.C.4 Summary of Key Concerns' above.</p>

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RR-026.C.26	<p>C26 1.6.1.2 Comment Natural England notes that a conservative mitigation zone of 1,700 m has been identified for piling. This range will be difficult to monitor with the standard MMO and PAM methods, thus thoughtful consideration needs to be given to the technologies that can effectively monitor this range.</p> <p>Recommendation Natural England is happy to engage with the Applicant to discuss the appropriate monitoring strategies/technologies for this size of mitigation zone.</p>	<p>The Applicant notes your response. As the 1,700 m conservative mitigation zone may not be able to be covered with standard MMO/PAM approaches alone, alternative monitoring strategies will be considered in the final MMMP post-consent. MMO and PAM techniques are developing and changing, and technologies are already available which allow successful monitoring of mitigation zones over 500 m; ‘bigeye’ binoculars are already regularly used for research and mitigation purposes, and alternative visual strategies such as the application of unmanned aerial vehicles (UAV) could be considered. This will be developed in consultation with relevant stakeholders, including Natural England.</p>
RR-026.C.27	<p>C27 1.7.2.3 Comment We disagree with the statement: “The PTS onset ranges will be further reduced by application of ADDs...”. The purpose of the ADD is to encourage animals to leave the area of the impact before the commencement of the activity, in this case piling, not to reduce the impact of the sound itself. In order to reduce the noise at the source, NAS needs to be employed.</p> <p>Recommendation Natural England strongly advises the implementation of NAS be considered to reduce the noise at source and reduce the reliance on ADDs.</p>	<p>The Applicant notes Natural England’s comment relating to paragraph 1.7.2.3 of the Outline MMMP (APP-072) and agrees that the wording here is incorrect. The Applicant therefore acknowledges that the PTS ranges will not be reduced by the application of ADDs, but instead the risk of injury within the modelled ranges will reduce. This has been noted in the Applicant’s errata document.</p> <p>It is noted that the application of ADDs does not reduce sound at source and that the reliance on ADDs as a primary mitigation tool should be considered carefully, and on a case-by-case basis, but this does not change the outcome or robustness of the assessment in Volume 2, Chapter 4: Marine mammals (AS-010) which uses an indicative 30 minutes of ADD activation.</p> <p>The Applicant has made a commitment to considering the use of NAS as part of further mitigation options in the UWSMS if required post-consent (i.e. where there remains a residual significant effect following project design refinements and further detailed information post-consent, even with the inclusion of primary and tertiary measures adopted). Consequently, if NAS is selected as an option, the most suitable system will be selected based on the available technologies at the time, and information will be presented to stakeholders to demonstrate that these will be sufficiently effective to mitigate any residual impacts to a non-significant level. The Applicant welcomes that Defra will be publishing a marine noise paper soon and the final UWSMS will be developed in accordance with the most up to date published guidance and policy.</p>
RR-026.C.28	<p>C28 Figure 1.2 Comment Piling mitigation flow chart lacks detail e.g. duration of the ADD activation; breaks of less than 10min need to be monitored by MMO/PAM to make sure no marine mammals are in the mitigation zone prior to re-commencement of piling; procedures for ADDs during the break.</p>	<p>The Applicant notes your response. The Applicant highlights that the ADD type, duration and procedures are not fixed and the final specifications of piling mitigation will be agreed post-consent in the final 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) and Outline MMMP (APP-072)), in consultation with relevant stakeholders including Natural England.</p>

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	<p>Recommendation Provide further detail in the MMMP.</p>	
RR-026.C.29	<p>C29 Figure 1.3 Comment Natural England notes that a 30 minute duration of ADD activation has been proposed at this stage. We advise that this is revised and agreed post-consent in agreement with SNCBs. Moreover, Natural England do not agree that NAS should be used exclusively for UXO changes larger than 130kg as this is not in line with the current policy plus this technology is routinely used for smaller charges. The applicant should commit to reduce the noise at the source as far as possible.</p> <p>Recommendation Update the MMMP with consideration of use of NAS for UXO charges smaller than 130kg.</p>	<p>The Applicant highlights that the 30 minute activation period is not a fixed time period and the final ADD duration will be agreed post-consent in the final MMMP (as secured condition 20(1)(h) in the deemed marine licences in schedule 3 and 4 of the Draft Development Consent Order (AS-003) and Outline MMMP (APP-072)), in consultation with relevant stakeholders, including Natural England, and will consider the balance between allowing an animal time to move away from the injury zone and limiting unnecessary additional sound which may cause unnecessary disturbance.</p> <p>The Applicant maintains that the primary and tertiary measures put forward in the Outline MMMP (APP-072) are considered to be effective up to the realistic maximum of 130 kg and therefore no further mitigation is necessary. However, the use of NAS as a secondary mitigation technique will be considered once further details of the size and type of UXO are available and will be discussed with stakeholders (including Natural England) as an option as part of the final UWSMS. The Applicant has made a commitment to considering the use of NAS as part of further mitigation options in the UWSMS if required post-consent (i.e. where there remains a residual significant effect following project design refinements and further detailed information post-consent, even with the inclusion of primary and tertiary measures adopted). The Applicant welcomes that Defra will be publishing a marine noise paper soon and the final UWSMS will be developed in accordance with the most up to date published guidance and policy.</p>
RR-026.C.30	<p>C30 1.9.2.2 Comment There is no requirement to use ADDs during the geophysical surveys. Thus, this mitigation should not be considered for these activities.</p> <p>Recommendation Update MMMP accordingly.</p>	<p>The Applicant notes your response. The final 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, including Natural England, and will be informed by the most recent guidance.</p>
RR-026.C.31	<p>C31 General Comment Natural England welcomes the proposed Outline Underwater Sound Management Strategy (UWSMS) aimed at reducing the risk of injury and disturbance to marine mammal receptors to an acceptable level. We note that the strategy is currently presented as high-level and that various secondary mitigation measures for piling and UXO clearance will be considered including NAS in order to support the</p>	<p>The Applicant notes your response and highlights that post-consent there are likely to be project refinements which may help to reduce the magnitude of effects. The Applicant reiterates that the measures secured via the Outline UWSMS (APP-068) are sufficiently robust to ensure that NAS will be considered if required (i.e. where there remains a residual significant effect) and such measures will be discussed and agreed with relevant stakeholders for the development of the final UWSMS. The Applicant welcomes that Defra will be publishing a marine noise paper soon and the final UWSMS will be developed in accordance with the most up to date published guidance and policy.</p>

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	<p>conclusions of “not significant effects”. However, we expect that the Applicant commits fully to using NAS. At this stage, we are not content with the tentative approach e.g. “... these potential Measures [NAS] will be considered as an option under the Underwater sound management strategy (Document Reference J13) post consent, if required.”(Table 4.5). Natural England is happy to work with the Applicant to further develop the strategy and to finalise it post-consent. We agree with the intention to secure the strategy within the dMLs in the Draft DCO.</p> <p>Recommendation Note</p>	
RR-026.C.32	<p>C32 Table 1.5 Comment Natural England notes that the Mitigation and Monitoring Schedule document only includes primary and tertiary mitigation measures, and there is no mention of monitoring for marine mammals within the Offshore In-principle Monitoring Plan. Natural England advises that the in-principle monitoring plan should include monitoring for marine mammals. Such monitoring should examine the assumptions made within the marine mammal assessment and identify monitoring that seeks to validate one or more of these. Consideration should be given to 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, such as areas of high uncertainty or low confidence. 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</p>	<p>The Applicant has not proposed monitoring for marine mammals, on the basis that with the implementation of adopted measures, the risk of injury can be fully mitigated and that the effect of disturbance, for all impacts, was concluded to be not significant in EIA terms.</p> <p>This does not preclude noise monitoring of the first four piled foundations to allow comparison against predictions for received sound levels as presented in Volume 3, Annex 3.1 Underwater sound technical report (APP-028). Such monitoring will validate the predictions in the underwater sound modelling, which underpins the marine mammal assessment.</p> <p>The Applicant also highlights that the marine mammal impact assessment presented in Volume 2, Chapter 4: Marine mammals (AS-010) has adopted a precautionary approach throughout, with any assumptions required implementing the precautionary principle, and this therefore mitigates for any uncertainty in the marine mammal assessment.</p>

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	<p>monitoring plans. 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.</p> <p>Recommendation Compile in-principle monitoring plan for marine mammals and engage with NE to provide project-specific advice.</p>	
RR-026.C.33	<p>C33 Vol 3.1 Comment Natural England defers to CEFAS as the underwater noise specialists to comment on the Underwater Noise Technical Report.</p> <p>Recommendation To note.</p>	The Applicant notes your response.
RR-026.C.34.	<p>HRA - Document Used: [APP-096] E1.1 HRA Stage 2 Information to support an appropriate assessment Part 1 – Introduction; [APP-097] E1.2 HRA Stage 2 Information to support an appropriate assessment Part: Special Areas of Conservation Assessments; Screening</p> <p>C34 General Comment Please note that it is Natural England's remit to provide advice on the assessment in so much as it relates to SACs in English waters. We defer to the relevant SNCBs on the appropriate approach for assessing SACs outside English waters.</p>	The Applicant notes your response.

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Reference	Relevant Representation	Applicant Response
RR-026.C.35	<p>Recommendation Note.</p> <p>C35 General Comment Terms short, medium and long term are used throughout the document without much clarity as to what lengths of time they refer to. Given that the duration of the impact is often used as a basis for the assessment conclusions, these terms need to be clearly defined and their context provided in terms of the life span of the species being impacted. Also, terms local, regional, highly localised are used while referring to relatively large distances without clear demarcation what constitutes a local or regional scale. For example, 'highly localised' is used to refer to the entire Morgan Array Area which is 280km², thus we disagree that this area constitutes 'highly localised'. We also note that within the ES methodology chapter there is a statement: "Topic-specific definitions for these categories are provided in each of the topic chapters", however, we have not seen these definitions within the marine mammal chapter.</p> <p>Recommendation Include the definitions for spatial and temporal impacts in the marine mammal chapter.</p>	<p>Interspecific differences in life history of marine mammals make it difficult to provide topic-specific definitions for temporal and spatial scales. As such, the temporal scale of the impact is described in the text under each magnitude section and relates to the lifespan of a particular species. Similarly, spatial scale is also referred to in more detail within the text in the magnitude section; where possible a quantitative value is given (i.e. a range of effect in metres or kilometres) otherwise a qualitative description applies (e.g. 'localised to within the Morgan Array Area' or collision risk which occurs 'within close vicinity' to the vessel). A measure of the temporary nature of effects is also described here (e.g. UXO clearance would cause a temporary disturbance of 1 second, whilst piling may cause disturbance up to a day after cessation of piling). See also the Applicant's response to Natural England's Relevant Representation reference number RR-026.C.1 and RR-026.C.17. The Applicant notes that whilst the statement 'Topic-specific definitions for these categories are provided in each of the topic chapters' has been included within Volume 1, Chapter 5: Environmental impact assessment Methodology (APP-012), this approach is not appropriate for marine mammals, for the reasons discussed above.</p>
RR-026.C.36	<p>C36 1.6.4.59 Comment We note that iPCoD modelling for bottlenose dolphin was carried out for 25 years period. Our advice at PEIR was that the results are presented for shorter periods alongside 25 years and that those periods are also considered in the assessment (e.g. the first 6 years, based on the Favourable Conservation Status (FCS) reporting period). This comment applies to all instances where iPCoD modelling was used.</p> <p>Recommendation</p>	<p>The Applicant notes that this matter was raised during Section 42 consultation on the PEIR and has been responded to in Table 4.5 of Volume 2, Chapter 4: Marine mammals (AS-010).</p> <p>Following feedback from Section 42 consultation, and as agreed with stakeholders including Natural England via the Marine Mammals Expert Working Group Technical Note (which followed EWG 05), results from the iPCoD modelling at both six-year and 25-year time periods, are provided within Volume 2, Chapter 4: Marine mammals (AS-010), for the project alone and the CEA for elevated underwater sound during piling for harbour porpoise, bottlenose dolphin, minke whale and grey seal. The results of the modelling carried out at different time periods are fully considered in the assessment, and are presented in full in Appendix B: Marine mammal population modelling report of Volume 2, Chapter 4: Marine mammals (AS-010).</p>

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Reference	Relevant Representation	Applicant Response
	<p>iPCoD modelling should be presented for shorter period of time and those results should be considered in the assessment.</p>	
RR-026.C.37	<p>C37 1.6.4.220 Comment Natural England does not agree with the conclusion regarding the pre-construction site investigation surveys: "...all geotechnical and geophysical surveys will be of a very short duration (over a period of several months), activities are likely to be intermittent and animals are expected to recover quickly after cessation of the survey activities.".</p> <p>Natural England does not consider that a period of several months can be considered a 'very short duration'. In addition, new data collected in Wales is showing that SBP surveys cause displacement of harbour porpoises at least 4 days after the cessation of the survey activity which is much longer than published responses to seismic surveys or pile driving (N.B. the displacement could had been much longer but the data was not collected past day 4). The data collected during this study have shown that SBP surveys cause marked and prolonged reduction in acoustic porpoise detection (Veneruso et al. 2024). Thus, full credence needs to be given to this new data 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.</p> <p>Recommendation Review and take into consideration the new findings related to displacement caused by SBP surveys and identify appropriate mitigation. Veneruso, G. Cordes, L., Gordon, H. and Le Vay, L.. (2024). Harbour porpoise detections decline in response to a scientific seismic survey during site characterization of a tidal energy development:</p>	<p>As per the Applicant's response to Natural England's Relevant Representation reference number RR-026.C.17, the Applicant notes that the wording presented in paragraph 4.9.6.16 Volume 2, Chapter 4: Marine mammals (AS-010) was in error and this is noted in the Applicant's errata document. The Applicant considers surveys over a period of 'up to several months' could be considered more than a 'very short duration' in the context of the life span of marine mammals, as set out in paragraph 4.9.6.17 of Volume 2, Chapter 4: Marine mammals (AS-010). A review of evidence for sensitivity of marine mammals to geophysical surveys was undertaken for the data available at the time of writing and presented under the sensitivity of receptor section in Volume 2, Chapter 4: Marine mammals (AS-010). Multiple studies were reviewed, and as set out in Volume 2, Chapter 4: Marine mammals (AS-010), there is evidence to suggest that disturbance responses to geophysical surveys may not result in displacement; in a study on Multi-Beam Echo-Sounder (MBES) surveys in 2020, Kates Varghese <i>et al.</i> (2020) showed that the only marine mammal metric that was identified as altering was vocalisation rate. Neither displacement nor changes in foraging were observed. Studies also show that whilst geophysical surveys may result in displacement of animals, results indicated that displacement was temporary (Sarnocińska <i>et al.</i>, 2020). Studies reviewed presented a range of indicative timescales for cessation of sound-induced behavioural changes, ranging from a few hours (Thompson <i>et al.</i>, 2013) to eight hours or less (van Beest <i>et al.</i>, 2018) to 24 hours until 'natural behaviour was resumed' (van Beest <i>et al.</i>, 2018).</p> <p>Volume 2, Chapter 4: Marine mammals (AS-010) highlighted that the available evidence for sonar-like sound sources (e.g. Sub Bottom Profiler (SBP), Multi Beam Echosounder (MBES), Single Beam Echosounder (SBES) is drawn from studies largely focused on the effects of multi-array seismic surveys on marine mammals, and therefore evidence for behavioural responses to sonar-like sources is less widely available. However, findings indicate that in the context of exposure to sonar-like sound sources, marine mammals may show subtle behavioural responses but factors such as species, behavioural context, location, and prey availability may be as important or even more important than the acoustic signals themselves (Ruppel <i>et al.</i>, 2022).</p> <p>Whilst the newly published report identified by Natural England indicates that SBP surveys can cause displacement of harbour porpoises at least four days after the cessation of the survey activity, as discussed above, there are multiple other studies that concur that the duration of behavioural responses last over durations of a maximum of 24 hours. However, the Applicant acknowledges these results and the final 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, including Natural England, and will be informed by the most recent guidance.</p>

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Reference	Relevant Representation	Applicant Response
	<p>considerations for Environmental Impact Assessments. European Cetacean Society Conference, Sicily, 2024.</p>	<p>As per the Applicant's response to Natural England's Relevant Representation reference number RR-026.C.16, the Applicant has developed a range of measures adopted as part of the project that are considered as industry good practice, to reduce or eliminate the risk of injurious effects of underwater sound due to geophysical surveys. Whilst these measures target the reduction/elimination of injurious effects, certain aspects will also reduce the impact of disturbance. Pre-survey monitoring (visual/acoustic) will ensure that no animals are within the mitigation zone prior to commencement of soft start, thereby reducing the risk of disturbance within this mitigation zone.</p>
RR-026.C.38	<p>C38 1.4.5 Comment Natural England advise the tiered approach should be used for the in-combination assessment as outlined in the Natural England Best Practice Guidelines Phase III document.</p> <p>Recommendation Refer to Natural England Best Practice Guidelines Phase III, Table 11.1</p>	<p>As per the Applicant's response to Natural England's Relevant Representation reference number RR-026.C.20, the in-combination assessment presented in HRA Stage 2 Information to support an appropriate assessment Part 2: Special areas of conservation assessments (APP-097) follows the tiered approach as outlined in Natural England's Best Practice Guidelines Phase III (Natural England, 2022).</p>
RR-026.C.39	<p>C39 Table 1.127 Comment We note that the total number of animals disturbed as a result of elevated underwater sound during piling for each tier is missing in the table. The numbers of animals per project/tier should be summed to get the total number of animals disturbed and what proportion of the relevant MU that constitutes (e.g. Morgan Generation Assets and Transmission Assets have the potential to affect up to 5.5% of the CIS MU for harbour porpoises; Tier 1 projects could disturb up to 15.36% of CIS MU, etc). Thus, there is a potential that more than 20% of the CIS MU population of harbour porpoise may be disturbed at any one time from all projects in-combination. Whilst we acknowledge no spatial overlap between the Project and the Bristol Channel Approaches SAC, our concern is whether this level of in-combination disturbance could impact the ability of harbour porpoise to remain a viable component of the site (Conservation Objective 1). This supports the necessity to commit to NAS as a</p>	<p>The Applicant highlights that the assessment presented in HRA Stage 2 Information to support an appropriate assessment Part 2: Special areas of conservation assessments (APP-097) to assess potential adverse effect on integrity (AEoI) to harbour porpoise SACs was completed in line with guidance from stakeholders (Natural England, NRW and JNCC). The Applicant highlights that this approach is typical for offshore wind farm assessments and that this was not raised as a concern during the EWG consultation process or in the Section 42 consultation responses. The Applicant disagrees with NE's evaluation that 20% of the CIS MU population could be affected by cumulative projects and provides further justification for this position below.</p> <p>For the assessment of disturbance associated with pile driving, an Effective Disturbance Range (EDR) approach was applied, in parallel with the application of an unweighted sound threshold value of 143 dB re 1μPa²s single strike sound exposure level (SEL_{ss}) for harbour porpoise (as agreed during EWG06, 16/10/2023) to represent the minimum fixed sound threshold at which significant disturbance would occur, and to measure the overlap with harbour porpoise SACs, for the project alone and for the in-combination assessment.</p> <p>The agreed approaches were applied to test against the conservation objectives of harbour porpoise SACs for the project alone and for the in-combination assessment. It was concluded that no adverse effects on harbour porpoise features of relevant SACs would occur. The Applicant maintains the position that there is no potential for adverse effects on integrity for harbour porpoise SACs from in-combination disturbance effects. Furthermore, the CEA presented in Volume 2, Chapter 4: Marine mammals (AS-010) (which informs HRA Stage 2 Information to support an</p>

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Reference	Relevant Representation	Applicant Response
	<p>mitigation method in order to reduce the distance ranges and decrease the proportion of animals disturbed.</p> <p>Recommendation Natural England advises the Applicant commit to the adoption of NAS to ensure no AEoI to harbour porpoise SACs from in-combination disturbance effects.</p>	<p>appropriate assessment Part 2: Special areas of conservation assessments (APP-097)) considered the cumulative numbers of animals potentially disturbed for the Morgan Generation Assets alongside other Tier 1 projects, and these numbers were incorporated into population modelling, alongside project timelines (of which Tier 1 projects are not all expected to occur at the same time). Thus, the population model already considers time periods where piling could overlap and sums any numbers of animals disturbed during these overlapping days. The Applicant therefore considers that summing all cumulative numbers to arrive at 20% of the Celtic and Irish Sea Management Unit (CIS MU) is potentially misleading (as it could be interpreted as this number of animals being disturbed throughout the entirety of the Morgan Generation Assets construction phase) and as such would be an overestimate of the effect, and does not reflect a proportionate assessment. The Applicant has made a commitment to considering the use of NAS as part of further mitigation options in the UWSMS if required (i.e. where there remains a residual significant effect even with the inclusion of primary and tertiary measures adopted). The UWSMS will act as a means to reduce the project's contribution to the cumulative increase in subsea sound within the region (with a focus on more sensitive species).</p> <p>Consequently, if NAS is selected as an option, the most suitable system will be selected based on the available technologies at the time. Such information will be presented to stakeholders to demonstrate that these will be sufficiently effective to mitigate any residual impacts to a non-significant level. These measures will be discussed and agreed with relevant stakeholders including Natural England, and will be set out in the final UWSMS. Therefore, the adoption of the UWSMS ensures no residual significant effect on the populations of marine mammals, including harbour porpoise. The Applicant welcomes that Defra will be publishing a marine noise paper soon and the final UWSMS will be developed in accordance with the most up to date published guidance and policy.</p>
RR-026.C.40	<p>C40 Table 1.1.42; general Comment Natural England does not agree with the statement made in Table 1.142: "It is assumed that whilst some ecological functions could be inhibited in the short-term due to behavioural disturbance ... (e.g. cessation of feeding), these are reversible on recovery of harbour porpoise hearing and therefore not considered likely to lead to any long-term effects on the individual". On contrary, a study by Yang et al, (2021) (https://www.frontiersin.org/articles/10.3389/fmars.2021.606736/full) suggests that the long term effect of stress caused by noise can lead to effect on the</p>	<p>The Applicant assumes that this comment refers to 'Table 1.142: Conclusions against the conservation objectives of the North Anglesey Marine/Gogledd Môn Forol SAC for in-combination elevated underwater sound during UXO clearance during the construction phase' as presented in HRA Stage 2 Information to support an appropriate assessment Part 2: Special areas of conservation assessments (APP-097).</p> <p>A review of evidence for sensitivity of marine mammals to sound produced by UXO clearance was undertaken for the relevant data available at the time of the application and presented under the sensitivity of receptor section in Volume 2, Chapter 4: Marine mammals (AS-010). The Applicant notes that the paper identified by Natural England in this Relevant Representation was not identified as a data source in Volume 2, Chapter 4: Marine mammals (AS-010). The Applicant has reviewed this paper and provides a detailed response on this representation below.</p> <p>Multiple studies were reviewed, and as set out in Volume 2, Chapter 4: Marine mammals (AS-010), for single detonations, behavioural disturbance is likely to be limited to 'a short-lived startle reaction'</p>

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	<p>individual. Thus, such conclusions are not based on the evidence and cannot be used to justify no significant disturbance.</p> <p>Recommendation Natural England advises these conclusions be revisited and reconsidered.</p>	<p>(Finneran and Jenkins, 2012). The studies also show that recovery to pre-exposure baselines from various sound sources was in the order of magnitude of up to a maximum of two hours. Kastelein <i>et al.</i> (2018) measured recovery rates of harbour seal following exposure to a sound source of 193 dB re 1 $\mu\text{Pa}^2\text{s}$ cumulative sound exposure level (SEL_{cum} over 360 minutes and found that recovery from TTS to the pre-exposure baseline was estimated to be complete within 72 minutes following exposure. SEAMARCO (2011) investigated recovery rates of harbour porpoise following exposure to a piling playback sound source of 175 dB re 1 $\mu\text{Pa}^2\text{s}$ (SEL) over 120 minutes. The study found recovery to the pre-exposure threshold was estimated to be complete within 48 minutes following exposure. Finally, Kastelein <i>et al.</i> (2021) found that in a series of studies measuring TTS occurrence in harbour porpoise at a range of frequencies typical of high amplitude anthropogenic sounds, the greatest shift in mean TTS occurred at 0.5 kHz with hearing recovery within 60 minutes after the fatiguing sound stopped.</p> <p>Whilst the newly published report identified by Natural England indicates that long term effect of stress caused by noise can lead to effect on the individual, as discussed above, there are multiple other studies that concur that recovery from exposure to sound sources similar to UXO clearance is likely to be complete within a couple of hours. The Applicant also notes that Yang <i>et al.</i> (2021) highlight that cortisol concentrations of the two studied dolphins elevated significantly after a 30 minute high-level sound exposure but concluded that if the stressor lasts only for a brief time, the cortisol upsurge contributes to keeping normal physiologic function when the animal is controlling the effects of the stressor. The Applicant highlights that, as set out in Volume 2, Chapter 4: Marine mammals (AS-010), the duration of impact (elevated sound) for each UXO detonation is very short (seconds) and therefore any physiological effects are likely to be short-lived with animals fully recovering.</p> <p>However, the Applicant acknowledges these results and the final MMMP (as secured under condition 20(1)(h) in the deemed marine licences in schedule 3 and 4 of the Draft Development Consent Order (APP-003)) and final UWSMS will be developed in consultation with relevant stakeholders, including Natural England, and will be informed by the most recent guidance. Post-consent, any project refinements will be reviewed and if further mitigation is deemed necessary, this will be captured in the final UWSMS.</p>
RR-026.C.41	<p>C41 1.6.5.49 Comment</p> <p>Considering the behavioural ecology of bottlenose dolphins i.e. a highly social species living in medium to large groups that very rarely occur solitary, the estimated number of dolphins impacted by piling in combination with other projects, cannot be considered as an over-estimate and highly precautionary.</p>	<p>Species specific ecology and a detailed baseline assessment has been incorporated into the assessments (please see section 4.1.1. in Volume 2, Chapter 4: Marine mammals (AS-010) and section 1.7.3 and Table 4.10 in Volume 4, Annex 4.1 Marine mammals technical report (APP-052)). The Applicant highlights that the densities of bottlenose dolphin that underpin the quantitative assessment for the project alone were those from the Welsh Marine Mammal Atlas as recommended by the Expert Working Group and accepted by Natural England. These densities were considered to be precautionary, appropriate and robust. The issue of group size was also discussed during EWG05 where it was highlighted that densities take into account multiple individuals within a group and the Applicant provided further context on this during the meeting.</p>

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Reference	Relevant Representation	Applicant Response
	<p>Recommendation</p> <p>Consider ecology of the species in the assessment in order to come to robust conclusions of the magnitude of the impacts.</p>	<p>Similarly, for other projects in the cumulative study area, species densities would have been agreed through consultation and are therefore considered to be robust and conservative. The Applicant acknowledges Natural England's representation that bottlenose dolphins may occur in medium to large groups and highlights therefore that the application of a single density value (which takes into account group size) across the whole study area is conservative as animals are more likely to move in groups meaning that, in reality the distribution will be uneven and animals are likely to be absent from much of the area at any one time. By assuming they are distributed evenly across the study area the assessment is likely to be highly precautionary. The Applicant also highlights that the ecology of the species was considered when coming to the conclusions of significance. For example, the assessment described that bottlenose dolphins move largely along coastal areas and across to the Isle of Man and that there is a seasonality in this movement. Therefore, even though the population model suggested that the median ratio of the impacted to unimpacted population is close to 1 at 25 years, because of the scale of the disturbance from cumulative projects within a small Management Unit (MU), and considering the movement of animals between west of Wales and Isle of Man, the assessment conservatively concluded the impact could be significant. The Applicant maintains therefore that the assessment is precautionary and the conclusions of significance are valid.</p>
<p>RR-026.C.42</p>	<p>Have the impacts been avoided/reduced by the use of appropriate mitigation? C42 Table 1.56 Comment We note that the mitigation measures to minimise disturbance to marine mammals included within the Offshore EMP are only relevant to the transiting vessels. Thus, these measures are not sufficient to address the overall disturbance from elevated underwater sound due to other (non-piling) sound producing activities.</p> <p>Recommendation Consider appropriate measure for all other (non-piling) sound producing activities, not just transiting vessels.</p>	<p>The assessment of significance for the impact of injury and disturbance from elevated underwater sound due to vessel use and other (non-piling) sound producing activities concluded that the effect of disturbance was considered to be not significant in EIA terms (see also Annex 3.5_Morgan Gen_Response to RR-026_NE and RR-027_NRW_Marine Mammals_UWS due to Vessel Use and the Applicant's response to Natural England's Relevant Representation reference number RR-026.C.22.</p> <p>As such, the Applicant considers that mitigation measures above and beyond standard industry practice, would be disproportionate.</p>
<p>RR-026.C.43</p>	<p>C43 Table 1.1.42; General Comment Standard industry measures (such as MMOs, PAM and ADDs) 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</p>	<p>As per the Applicant's response to Natural England's Relevant Representation reference number RR-026.C.21, the Applicant has developed a range of measures adopted as part of the project that are considered as industry good practice, to reduce or eliminate the risk of injurious effects of underwater sound due to UXO clearance. Whilst these measures target the reduction/elimination of injurious effects, certain aspects will also reduce the impact of disturbance. Pre-detonation monitoring (visual/acoustic) will ensure that no animals are within the mitigation zone prior to</p>

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Reference	Relevant Representation	Applicant Response
	<p>Recommendation 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.</p>	<p>commencement of soft start, thereby reducing the risk of disturbance within this mitigation zone. In addition, the Outline UWSMS (APP-068) has been developed as a means to reduce the impact magnitude to a level such that any residual effects on sensitive receptors can be concluded as non-significant in the context of EIA. The final MMMP (as secured condition 20(1)(h) in the deemed marine licences in schedule 3 and 4 of the Draft Development Consent Order (AS-003)) and final UWSMS will be developed in consultation with relevant stakeholders, including Natural England, and will be informed by the most recent guidance. The Applicant welcomes that Defra will be publishing a marine noise paper soon and the final UWSMS will be developed in accordance with the most up to date published guidance and policy.</p>
RR-026.C.44	<p>2. Noise Abatement Systems Natural England note that the Outline Marine Mammal Mitigation Protocol (MMMP) provides a summary of potential mitigation measure (primary and tertiary) to reduce the potential of injury and is not intended to identify specific mitigation measures that will be implemented during pile-driving, UXO and geophysical operations. We also note that the Outline Underwater Sound Management Strategy (UWSMS) aims to address both injury and disturbance and consider secondary mitigation measures to ensure any residual effects from the project are reduced to a non-significant level.</p> <p>However, Natural England strongly advises that the Applicant fully commits to using noise abatement as mitigation, for driven or part-driven piles or for UXOs of any size needed to be detonated with high order techniques. NAS are proven to reduce the level of noise generated at source 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.</p> <p>We are aware that 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</p>	<p>The Applicant notes your response.</p> <p>The Applicant has made a commitment in the Outline UWSMS (APP-068) to considering the use of NAS as part of further mitigation options in the UWSMS if required (i.e. where there remains a residual significant effect even with the inclusion of primary and tertiary measures adopted).</p> <p>In the UK thus far, offshore wind developers have not been required to employ such systems. While there is available guidance outlining measures to prevent harm to marine mammals (JNCC 2020a; 2020b), specific recommendations for how NAS is to be used to mitigate injury and disturbance are scarce in the UK. Instances of such guidance have emerged in connection to particular Marine Protected Areas (MPAs) designated for the well-being of marine mammals, aiming to restrict impulsive sound levels and minimise disturbances (JNCC, 2020a and 2020b). The approach adopted for the Application (i.e. the inclusion of an UWSMS) follows the latest industry good practice for offshore wind in the UK and takes such guidance and advice into account. As such, the proposed approach to mitigating risks of underwater sound on marine life is considered to be proportionate and robust. Consequently, if NAS is selected as an option, the most suitable system will be selected based on the available technologies at the time. Such information will be presented to stakeholders to demonstrate that these will be sufficiently effective to mitigate any residual impacts to a non-significant level. These measures will be discussed and agreed with relevant stakeholders including Natural England, and will be set out in the final UWSMS. Therefore, the adoption of the UWSMS ensures no residual significant effect on the populations of marine mammals, including harbour porpoise. The Applicant welcomes that Defra will be publishing a marine noise policy paper soon and will refine the final UWSMS in accordance with the most up to date guidance and policy.</p>

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Reference	Relevant Representation	Applicant Response
	<p>noise reductions through the use of primary and/or secondary noise mitigation methods in the first instance from January 2025. We expect that the majority of piling from 2025 onwards will not be able to go ahead without noise abatement in place, for the following reasons: The large-scale piling campaigns for offshore wind projects risk causing injury and disturbance offences to marine mammals of European Protected Species (EPS), therefore developers typically apply for a wildlife licence to exempt them from an offence under the regulations. A licence can only be granted where the regulator is satisfied that the required legislative tests are met, such as that there is no other satisfactory alternative. We expect it to be increasingly difficult for projects to demonstrate that noise abatement is not a satisfactory alternative. Projects that do not use noise abatement therefore risk not meeting the legislative test needed in order to be granted a wildlife licence.</p>	

Response to relevant representation relating to Physical Processes (Natural England Appendix D)

Reference	Relevant Representation Comment	Applicant's response
RR-026.D.1	<p>Appendix D – Physical Processes In formulating these comments, the following documents have been considered:</p> <ul style="list-style-type: none"> • [APP-096] E1.1 Morgan Gen HRA Stage 2 ISAA Part 1 – Introduction • [APP-097] E1.2 Morgan Gen HRA Stage 2 ISAA part 2 - SAC assessments • [APP-099] E1.4 Morgan Gen HRA Stage 1 Screening report • [APP-100] E1.5 Morgan Gen HRA integrity matrices • [APP-101] E2 Morgan Gen Marine Conservation Zone screening report • [APP-010] F1.3 Volume 1, Chapter 3: Project description • [APP-012] F1.5 Volume 1, Chapter 5: Environmental impact 	<p>The Applicant notes your response and consideration of the documents listed.</p>

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Reference	Relevant Representation Comment	Applicant's response
	assessment methodology <ul style="list-style-type: none"> • [APP-013] F2.1 Volume 2, Chapter 1: Physical processes • [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report 	
RR-026.D.2	<p>1.Natural England's Advice and Recommendations A summary of Natural England's key concerns in relation to Physical Processes is set out in Table 1. Our detailed advice and recommendations are presented in further detail in Table 2.</p>	This is noted by the Applicant and a response is provided for each recommendation.
RR-026.D.3	<p>Table 1 Summary of Key Issues – Physical processes D1.Summary of Key Concerns In most cases Natural England agrees with the position on WCS, except the following:</p> <ul style="list-style-type: none"> •Maximum Design Scenario (MDS) for sandwave clearance impact width for inter-array and interconnector cables; and •Cable crossings; •MDS figures for cable protection during construction; and •MDS figures for maintenance of cables and offshore infrastructure during operation and maintenance phase. <p>Natural England's Recommendations to Resolve Issues. Natural England advises the Applicant to provide the necessary updated project parameters, evidence and assessment in updated Application documents as discussed in detailed comments</p>	Please see response in (RR-026.D.9, RR-026.D.10 and RR-026.D.11).
RR-026.D.4	<p>Table 1 Summary of Key Issues – Physical processes D2.Summary of Key Concerns Natural England agrees that on the basis of the evidence presented that the baseline description of physical processes through the desktop review of existing literature and existing data sources, project specific surveys and numerical modelling baseline scenarios are sufficient to appropriately characterise the study area. Additionally, we agree with the numerical modelling approach and scenarios conducted in relation to hydrodynamics, waves and sediment transport to inform the potential changes in the Morgan Generation physical processes study area arising from the construction, operation and decommissioning.</p> <p>Natural England's Recommendations to Resolve Issues.</p>	This is noted and welcomed by the Applicant.

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Reference	Relevant Representation Comment	Applicant's response
	<p>Natural England advises that unless there are significant changes to project design parameters we will provide no further comment on data during examination.</p>	
<p>RR-026.D.5</p>	<p>Table 1 Summary of Key Issues – Physical processes D3.Summary of Key Concerns Natural England advises that the following potential pressures/impacts have not been considered/assessed or that further information is required:</p> <ul style="list-style-type: none"> •See those listed in the WCS section above; •Boulder clearance; •UXO clearance; •Impacts of seabed scour due to the presence of windfarm infrastructure during the operation and maintenance phase; and •Impacts due to cable and infrastructure repair during the operation and maintenance phase. <p>Natural England's Recommendations to Resolve Issues. Natural England advises that an updated ES chapter is submitted which includes and assesses these pressures/impacts across the EIA as discussed in detailed comments.</p>	<p>As outlined in Volume 2, Chapter 1: Physical processes (APP-013), the physical processes assessment has been undertaken in line with the physical processes and impacts agreed through the Scoping, PEIR and EWG processes as documented in the Consultation Report - Consultation Report Appendices (APP-102, APP-103, APP-104) and Technical engagement plan appendices Part 2 (APP-90).</p> <p>As outlined in section 3.5.4 of Volume 1, Chapter 3: Project description (APP-010), boulder clearance is anticipated to take the form of side casting. Therefore, boulders may be picked up one by one and moved to the side of the construction area. For the inter-array and interconnector cabling, this would be at least 10 m either side from the centre line of each cable, or removed using a plough where boulders will be pushed out of the way. Therefore the activity will not result in significant increases in SSC. All boulders will remain in the marine environment within the boundary of the Morgan Array Area therefore the activity will not result in changes to the seabed characteristics or physical processes.</p> <p>Further information on each aspect raised in the detailed comments is provide in (RR-026.F.10, RR-026.D.11, RR-026.D.17, RR-026.D.18, and RR-026.D.19 below).</p>
<p>RR-026.D.6</p>	<p>Table 1 Summary of Key Issues – Physical processes D4.Summary of Key Concerns Natural England advises that further consideration of the mitigation hierarchy is required to ensure that environmental impacts are reduced as much as possible, including but not exclusively:</p> <ul style="list-style-type: none"> •Commitment to remove infrastructure at the time of decommissioning. <p>Natural England's Recommendations to Resolve Issues. Natural England advises that all embedded mitigation measures proposed are secured in the DCO/dML. In addition to the mitigation proposed by the Applicant, we advise that further mitigation in considered by the Applicant as discussed in the detailed comments.</p>	<p>As outlined in the Mitigation and monitoring schedule (APP-076), mitigation measures proposed are to be secured in the DCO/dML.</p> <p>As outlined in section 3.11 of Volume 1, Chapter 3: Project description (APP-010), no offshore decommissioning works will take place until a written decommissioning programme has been approved by the Secretary of State for the Department for Energy Security and Net Zero, a draft of which will be submitted prior to the construction of the Morgan Generation Assets. The scope of the decommissioning works, and methods of decommissioning, will be determined by the relevant legislation and guidance at the time of decommissioning (i.e. including latest guidance on good practice for the decommissioning of cables and associated cable/scour protection). It is the Applicant's intention to secure decommissioning activities through separate standalone marine licences at the relevant time.</p>
<p>RR-026.D.7.</p>	<p>Table 1 Summary of Key Issues – Physical processes D5.Summary of Key Concerns Natural England advises that as per Offshore Wind Best Practice guidance on 'Tiers' and inclusion of projects within in-combination</p>	<p>The CEA presented in section 1.11 of Volume 2, Chapter 1: Physical processes (APP-013) was undertaken based upon the results of a screening exercise presented in Volume 3, Annex 5.1: Cumulative effects screening matrix (APP-031). Each project was considered on a case by case basis for screening in or out of this chapter's assessment</p>

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	<p>assessments; that further plans/projects should be included within the assessment.</p> <p>Natural England's Recommendations to Resolve Issues. Natural England advises that the CEA is updated to include all projects which are having ongoing impacts to marine process and those where there is sufficient evidence in the public domain to undertake an assessment.</p>	<p>based upon data confidence, effect-receptor pathways and the spatial/temporal scales involved.</p> <p>Further information relating to detailed recommendation is provided in RR-026.D.22 and RR-026.D.27.</p>
RR-026.D.8	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes: Project Parameters - Documents Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-013] F2.1 Volume 2, Chapter 1: Physical processes, Natural England's Key Considerations: D6 [APP-010] Project Description Natural England's Advice: Comment: We advise that further detail is required in the project description to inform the Maximum Design Scenario (MDS) and Environmental Impact Assessment (EIA). Please see detailed comments in relevant headings of this. Recommendation: N/a</p>	<p>This is noted by the Applicant and a response is provided for each concern or recommendation.</p>
RR-026.D.9	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes: Project Parameters - Documents Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-013] F2.1 Volume 2, Chapter 1: Physical processes, Natural England's Key Considerations: D7[APP-010] Table 3.4 [APP-013] Table 1.13 Natural England's Position on Worst Case Scenario or Scenarios Natural England's Advice: Comment: MDS for sandwave clearance impact width for inter-array and interconnector cables – Natural England acknowledges and welcome that the Applicant has reduced the MDS parameters for sandwave clearance and seabed preparation in the Morgan array area during the pre-application phase from 104m to 80m for intermarray cables, but remains unchanged at 104m for</p>	<p>The Applicant acknowledges Natural England's comments on the interconnector cable corridor sandwave clearance impact width remaining unchanged since PEIR (compared to the reductions in the width for inter-array cables). The Applicant has now been able to further consider the results of the initial surveys for the Morgan array area, and can confirm the reduction of the interconnector cable corridor sandwave clearance width from 104m to 80m. This will lead to a decrease in the sandwave clearance volumes, with updated figures provided at Deadline 1. This update will be secured through the total disposal captured within Schedules 3 and 4, Condition 2(g) of the Draft DCO being updated at Deadline 1.</p> <p>The Applicant highlights that the geophysical surveys to date have indicated that certain sections of the Morgan Array Area contain sandwaves up to 8m high. For sections of the cable corridor with such high sandwaves, the Applicant expects the maximum design scenario of 80 m in width of sandwave clearance. The Applicant notes that the cable corridors will cross sand waves with a lower average height, however the</p>

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	<p>interconnector cables.. Despite the reduction, this seems to be an exceptionally large impact width in comparison to other projects of a similar scale. Natural England queries if the width MDS parameters are realistic?</p> <p>Recommendation: Natural England advises that further evidence is required to support the realistic MDS parameters as set out in the DCO/dML.</p>	<p>maximum design scenario of 80 m in width of sandwave clearance has been retained on a precautionary basis for the purposes of the environmental impact assessment.</p> <p>The reduction in interconnector cable corridor sandwave clearance width and volume does not change the conclusion of the physical processes assessment presented in Volume 2, Chapter 1: Physical processes (APP-013) which determined that there would be no significant impacts and the significance of effects on physical processes receptors remain negligible adverse. In terms of suspended sediment concentrations during sandwave clearance, these will remain unchanged as the same activity is being undertaken. There will however be a reduction in both the spatial extent and duration of the sediment plumes due to the reduction in the footprint of the activities and the reduced volume of material being relocated. The region has active sediment transport systems and it is anticipated that in the months following installation infilling would become evident. The reduction in sandwave clearance will therefore also lessen the period required for sandwave reformation.</p> <p>The reductions in the parameters for sandwave clearance for inter-connector cables will result in a reduction in the total temporary habitat loss/disturbance predicted to arise during the construction phase of the Morgan Generation Assets.</p> <p>This reduction does not, however, change the magnitude of the impact predicted in section 2.9.2 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020), and the magnitude of the potential impact of temporary habitat loss/disturbance during the construction phase is predicted to remain as low. As such, the overall conclusions of the assessment presented in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) are unchanged and the effect of temporary habitat loss/disturbance during the construction phase on all benthic subtidal receptors will remain as minor adverse significance, which is not significant in EIA terms.</p> <p>Surveys are still ongoing, and the precise cable routing and final Cable Burial Risk Assessment (CBRA) are yet to be completed. Until that work has completed, the Applicant is unable to refine the MDS parameters further at this stage of design.</p>
RR-026.D.10	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes: Project Parameters - Documents Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-013] F2.1 Volume 2, Chapter 1: Physical processes, Natural England's Key Considerations: D8 [APP-013] Table 1.13 Natural England's Position on Worst Case Scenario or Scenarios Natural England's Advice:</p>	<p>Details of the cable protection material included in the project design for the Morgan Generation Assets, including volumes, methods and area of impact, are outlined in sections 3.5.9 and 3.5.10 of Volume 1, Chapter 3: Project description (APP-010). There is no overlap between the Morgan Array Area and any MPA.</p> <p>As outlined in Volume 2, Chapter 1: Physical processes (APP-013), the physical processes assessment has been undertaken on a MDS of up to ten crossings. The ten crossings have been included in the project design on a precautionary basis. The location of these crossings, if any are required, is not currently known but will be</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Comment: Cable crossings – Natural England notes that there is limited information pertaining to cable crossings. In [APP-013] the MDS parameters are given as up to 10 cable crossings, with a height of 4m, width of 36m and length of up to 80m. There is no information on location of crossings, volume of cable protection to be used in relation to crossings or impacts from sediments plumes (unless this is elsewhere in the ES). Additionally, no cross-section or plan schematics of cable crossing layout, it would be helpful if these could be provided and updated in the final ES.</p> <p>Recommendation: To better understand any potential disruption to marine processes, Natural England advises that further information on cable crossings is provided in line with best practice guidance as set out in <i>Natural England's Best Practice Guidance Phase III</i>. Namely:</p> <ul style="list-style-type: none"> •Method(s) to be used; •Specific locations (informed by acoustic data); •Total area of impact; •Overlap with MPA(s); •Habitats impacted •Presence of sensitive species and habitats; •Where applicable total volume of external cable protection; •Method(s) (as it generally requires external cable protection the points above also apply); and •Impacts from sediment plumes. <p>Once this is provided we believe that this matter can be readily resolved</p>	<p>specified in the cable specification and installation plan in adherence to the Applicant's commitments secured under Schedule 4, Condition 20(1)(d) of the Draft DCO (AS-003).</p> <p>The modelling study undertaken presented in section 1.3.6 of Volume 4, Annex 1.1: Physical processes technical report (APP-033) and used to inform the physical processes assessment included cable protection and cable crossings at representative locations across the Morgan Array Area.</p> <p>The MDS for cable installation in terms of SSC, which was modelled and assessed, is trenching to the maximum depth of 3 m. With respect to impacts from sediment plumes during installation of cable protection, the resulting increase in SSCs would be minimal and does not constitute the MDS for cable installation. The Applicant is, therefore, confident that this impact is within the impact assessed within the MDS for increased SSCs and associated deposition in Volume 2, Chapter 1: Physical processes (APP-013).</p>
RR-026.D.11	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes: Project Parameters - Documents Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-013] F2.1 Volume 2, Chapter 1: Physical processes, Natural England's Key Considerations: D9 [APP-013] Table 1.13 Natural England's Position on Worst Case Scenario or Scenarios Natural England's Advice: Comment: Natural England notes that the application states that cable and infrastructure repair will be necessary, but there is limited information</p>	<p>As outlined in Volume 2, Chapter 1: Physical processes (APP-013), the physical processes assessment has been undertaken on a MDS of repair of up to 8 km of inter-array cables in one event every three years; reburial of up to 20 km of inter-array cable in one event every five years; repair of up to 19.6 km of interconnector cable in each of three events every 10 years; and reburial of up to 3 km of interconnector cable in one event every five years. This is the greatest foreseeable number of cable reburial and repair events and is in line with the Outline offshore operations and maintenance plan (APP-079) which is secured by condition 13(3) of each deemed marine licence within the Draft DCO (AS-003).</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>on MDS figures for cable repairs and WTG/OSP maintenance e.g. seabed footprint disturbed due to cable repair and infrastructure maintenance, sediment displaced during cable repair and reburial etc.</p> <p>We advise that cable and infrastructure repair have the potential to impact physical processes e.g. through increases in Suspended Sediment Concentrations (SSCs). Without the full MDS figures, it is difficult to understand the magnitude of this impact. (Please also see comment D17).</p> <p>Recommendation: Natural England advises that further information on MDS figures for cable protection and cable and WTG/OSP maintenance should be provided in the final Application. Namely:</p> <ul style="list-style-type: none"> •Footprint of seabed disturbed due to cable and WTG/OSP maintenance; and •Sediment displaced during cable repair and reburial. <p>Ideally this information would also be included within an Outline Operation and Maintenance Plan and submitted into examination</p>	<p>The location and extent of these repairs is not currently known but will be determined through monitoring in line with the Offshore in-principle monitoring plan (APP-066) and outlined in the Mitigation and monitoring schedule (APP-076).</p> <p>The sediment plumes and sedimentation footprints would be dependent on which section of the cable is being repaired. In section 1.9.2 of Volume 2, Chapter 1: Physical processes (APP-013) the construction phase of the physical processes assessment considers the potential impacts of trenching the entire lengths of the inter-array and interconnector cables and determined that there were no significant impacts on physical processes. Therefore, given the reduced and localised nature of repair operations the potential impacts would be further reduced regardless of the location and extent of the repair activities.</p>
<p>RR-026.D.12</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes:</p> <p>Baseline Characterisation - Document(s) Used: [APP-013] F2.1 Volume 2, Chapter 1: Physical Processes, [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report</p> <p>Natural England's Key Considerations: D10 Survey Data Acquisition</p> <p>Natural England's Advice:</p> <p>Comment: Natural England agrees that the baseline description of physical processes through the desktop review of existing literature and existing data sources, project specific surveys and numerical modelling baseline scenarios are sufficient to appropriately characterise the study area. Therefore, we advise that unless there are significant changes to project design parameters we will provide no further comment on data during examination.</p> <p>Recommendation: N/A</p>	<p>This is noted and welcomed by the Applicant.</p>
<p>RR-026.D.13</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes:</p>	<p>The Gardline (2022) and XOcean (2022) documents have been previously provided to Natural England by the Applicant (11^h July 2023) as part of the EWG process. The</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Baseline Characterisation - Document(s) Used: [APP-013] F2.1 Volume 2, Chapter 1: Physical Processes, [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report</p> <p>Natural England's Key Considerations: D11 [APP-013] Vol4, Appendix 1.1 Data gaps</p> <p>Natural England's Advice:</p> <p>Comment: Natural England notes that there are site-specific surveys referenced throughout the chapter which have not been provided with the ES reports. •Guardline (2022); •XOcean (2022); and •Furgo (2022). We advise that these should be provided to ensure there are no issues with the EIA as presented</p> <p>Recommendation: Natural England advises that all reference documents should be presented into examination.</p>	<p>Fugro report is commercially sensitive and the Applicant is unable to provide a copy of it. The Fugro report covers geotechnical information, whereas the Applicant considers that Natural England would only require the reports on the geophysical surveys from Gardline and XOcean. This was discussed with Natural England at the EWG meeting in July 2023 and no issue raised.</p>
RR-026.D.14	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes:</p> <p>Baseline Characterisation - Document(s) Used: [APP-013] F2.1 Volume 2, Chapter 1: Physical Processes, [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report</p> <p>Natural England's Key Considerations: D12 [APP-013] [APP-033] Analysis, Modelling and Reporting</p> <p>Natural England's Advice:</p> <p>Comment: Natural England agrees with the numerical modelling approach and scenarios conducted in relation to hydrodynamics, waves and sediment transport to inform the potential changes in the Morgan Generation physical processes study area arising from the construction, operation and decommissioning. Therefore, we advise that unless there are significant changes to project design parameters, we will provide no further comment on data during examination.</p>	<p>This is noted and welcomed by the Applicant.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Recommendation: N/A</p>	
<p>RR-026.D.15</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes: Environmental Impact Assessment - Document Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-012] F1.5 Volume 1, Chapter 5: Environmental impact assessment methodology [APP-013] F2.1 Volume 2, Chapter 1: Physical processes, [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report Natural England's Key Considerations: D13 [APP-013] Section 1.6.2 Identified impacts Natural England's Advice: Comment: Natural England notes that the impact assessment criteria section states that <i>“Physical processes are not generally receptors in themselves; they may be a pathway by which coastal features may be impacted or a pathway for indirect impacts on other receptors.”</i> However, we highlight that there are a number of physical processes receptors within the study area, including designated sites and sandbanks/sandwaves. Recommendation: Natural England requests that the Applicant confirms all physical processes have been identified and therefore assessed.</p>	<p>Section 1.5.2 of Volume 2, Chapter 1: Physical processes (APP-013) presents all designated sites and relevant qualifying interests for the assessment (i.e. those which are designated by, or have features relating to, physical processes).</p> <p>The key parameters for assessment outlined in section 1.7 of Volume 2, Chapter 1: Physical processes (APP-013) demonstrates how the assessment is presented for each potential impact pathway (i.e. SSC, tidal regime, wave climate, sediment transport and stratification). Table 1.5 outlines each construction activity and the potential effect/s which are assessed.</p> <p>Within each section of the assessment, the magnitude of the potential impact of each activity on the relevant physical process pathway and designated sites is quantified and the significance of the effect is assessed both with respect to the relevant pathway but also the designated sites identified.</p> <p>Therefore, the Applicant can confirm that all physical processes have been identified and assessed.</p>
<p>RR-026.D.16</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes: Environmental Impact Assessment - Document Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-012] F1.5 Volume 1, Chapter 5: Environmental impact assessment methodology [APP-013] F2.1 Volume 2, Chapter 1: Physical processes, [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report Natural England's Key Considerations: D14 [APP-010] [APP-013],Table1.13 Identified impacts Natural England's Advice: Comment:</p>	<p>In line with the Offshore in-principle monitoring plan (APP-066), monitoring will be undertaken to observe the effect of sediment transport and sediment transport pathways on cable burial. This is secured as a condition in the dMLs within the Draft DCO (AS-003).</p> <p>No significant effects on physical process receptors were predicted in Volume 2, Chapter 1: Physical processes (APP-013), and therefore, no monitoring is considered to be required to test the predictions of the EIA.</p> <p>The Applicant can confirm that all physical processes have been identified and assessed. For further information please see RR-026.D.15.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Natural England notes that the total spoil volume due to sandwave clearance and seabed preparation amounts to 18,236,920m³ in the Morgan Generation array area. We acknowledge that the material cleared from the sandwave will be sidecast, allowing the sediment to be readily available for supply of sandwave recovery. Sandwave reformation will depend on a variety of factors.</p> <p>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 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. We encourage the Applicant to consider monitoring the recovery of sandwaves in the Morgan array study area, please also see comment (ref: D19).</p> <p>Recommendation:</p> <p>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 the seabed has recovered from construction activities. In this case, we advise monitoring the recovery of sandwaves.</p> <p>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.</p> <p>Natural England requests that the Applicant confirms all physical processes have been identified and therefore assessed.</p>	
<p>RR-026.D.17</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes: Environmental Impact Assessment - Document Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-012] F1.5 Volume 1, Chapter 5: Environmental impact assessment methodology [APP-013] F2.1 Volume 2, Chapter 1: Physical processes, [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report</p> <p>Natural England's Key Considerations:</p>	<p>As outlined in Volume 2, Chapter 1: Physical processes (APP-013), the physical processes assessment has been undertaken in line with the physical processes and impacts agreed through the Scoping, PEIR and EWG processes as documented in the Consultation Report - Consultation Report Appendices (APP-102, APP-103, APP-104) and Technical engagement plan appendices Part 2 (APP-90). Through this process, UXO clearance was not scoped into the physical processes assessment.</p> <p>Although UXO clearance can cause increased SSCs and indentations on the seabed, these effects would be local, temporary and recoverable and, as such, effects are</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>D15 [APP-013], Table 1.13 Identified impacts Natural England's Advice: Comment: Natural England notes that Unexploded Ordnance (UXO) clearance has not been considered for impacts on physical processes. UXO clearance can lead to pressures such as abrasion/disturbance of the substrate on the surface of the seabed, changes in suspended solids, smothering etc. We advise that the Application should provide sufficient information to assess the potential impacts Recommendation: Natural England advises that physical process impacts due to UXO clearance should be considered and assessed within updated Application documents.</p>	<p>negligible and were not considered within the physical processes assessment. Areas of potential UXO clearance do not overlap with physical processes designated sites and with craters of less than 15 m in diameter and less than 3 m in depth, physical processes pathways would not be affected. The UXO clearance method statement is secured in the dMLs/Draft DCO (AS-003) (condition 23 of each dML) and will be agreed pre-construction in consultation with the relevant Statutory Nature Conservation Body (SNCB). In terms of benthic habitat, consideration of UXO craters is included in the assessment of temporary habitat disturbance/loss in section 2.9.2 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020).</p>
<p>RR-026.D.18</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes: Environmental Impact Assessment - Document Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-012] F1.5 Volume 1, Chapter 5: Environmental impact assessment methodology [APP-013] F2.1 Volume 2, Chapter 1: Physical processes, [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report Natural England's Key Considerations: D16 [APP-013], Table 1.13 Identified impacts Natural England's Advice: Comment: Natural England notes that the impacts of seabed scour due to the presence of windfarm infrastructure during the operation and maintenance phase has not been included as an impact. Recommendation: Natural England advises that this impact should be considered and assessed by the Applicant and included in the updated application documents.</p>	<p>As outlined in the Mitigation and monitoring schedule (APP-076), a primary measure to be adopted as part of the Morgan Generation Assets is development and adherence to an Offshore Construction method statement (CMS), which will include details of scour protection management, to be used around offshore structures and foundations to reduce scour as much as is practical. Scour protection will be installed at the same time as the infrastructure. The detail of design and construction will be outlined within the Cable specification and installation plan (CSIP) and would also determine the likely extent of any potential scour. The scour protection measures will be subject to engineering design to ensure they minimise as much as practical the occurrence of scour and therefore any impacts would relate only to residual/secondary scour. Secondary scour has been assessed within the context of impacts to sediment transport and sediment transport pathways due to presence of infrastructure in section 1.9.5 of Volume 2, Chapter 1: Physical processes (APP-013) for the operations and maintenance phase. It is likely that any secondary scour effects associated would be confined to within a few metres of the direct footprint of that scour protection material. During the operations and maintenance phase of the project, routine inspections will be made of cable and scour protection in line with the Offshore in-principle monitoring plan (APP-066). If secondary scour is identified, remedial works may be undertaken to both mitigate environmental impacts and to provide asset security.</p>
<p>RR-026.D.19</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes:</p>	<p>The impacts of WTG/OSP maintenance is detailed in Volume 2, Chapter 1: Physical processes (APP-013) and all impacts during the operations phase are concluded to be</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Environmental Impact Assessment - Document Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-012] F1.5 Volume 1, Chapter 5: Environmental impact assessment methodology [APP-013] F2.1 Volume 2, Chapter 1: Physical processes, [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report</p> <p>Natural England's Key Considerations: D17 [APP-013],Section 1.9.2 Identified impacts</p> <p>Natural England's Advice:</p> <p>Comment: Natural England notes that the Application states that cable and infrastructure repair will be necessary but there is limited information on impact pathways arising from the maintenance activities. We advise that cable and infrastructure repair have the potential to impact physical processes e.g., through increases in Suspended Sediment Concentrations (SSCs). Without the full MDS figures, it is difficult to understand the magnitude of this impact.</p> <p>Recommendation: Natural England advises that further information is required from the Applicant before we can fully advise on the potential impacts. This additional information and associated assessment should be provided within updated Application documents. In particular:</p> <ul style="list-style-type: none"> • Footprint of seabed disturbed due to cable and WTG/OSP maintenance; and • Sediment displaced during cable repair and reburial. 	<p>negligible and not significant. Section 2.9.2 and Table 2.16 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) also outline that the maximum design scenario accounts for up to 11,362,800 m² of temporary habitat disturbance during the operation and maintenance phase as a result of WTG/OSP and cable maintenance. Section 2.9.2 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) also describes the habitats that could be affected by maintenance activities and includes a full assessment of the associated impacts which, for all benthic subtidal ecology receptors, will be of minor adverse significance, which is not significant in EIA terms.</p> <p>As outlined in Volume 2, Chapter 1: Physical processes (APP-013), the physical processes assessment has been undertaken on a MDS of repair of up to 8 km of inter-array cables in one event every three years; reburial of up to 20 km of inter-array cable in one event every five years; repair of up to 19.6 km of interconnector cable in each of three events every 10 years; and reburial of up to 3 km of interconnector cable in one event every five years. This is the greatest foreseeable number of cable reburial and repair events and is in line with the Outline offshore operations and maintenance plan (APP-079) which details the scope of the activities included within the Draft DCO (AS-003).</p> <p>The location and extent of these repairs is not currently known but will be determined through monitoring in line with the Offshore in-principle monitoring plan (APP-066) and outlined in the Mitigation and monitoring schedule (APP-076).</p> <p>The sediment plumes and sedimentation footprints would be dependent on which section of the cable is being repaired. In section 1.9.2 of Volume 2, Chapter 1: Physical processes (APP-013) the construction phase of the physical processes assessment considers the potential impacts of trenching the entire lengths of the inter-array and interconnector cables and determined that there were no significant impacts on physical processes or associated designated sites. Therefore, given the reduced and localised nature of repair operations, the potential impacts would be further reduced regardless of the location and extent of the repair activities.</p>
RR-026.D.20	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes:</p> <p>Environmental Impact Assessment - Document Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-012] F1.5 Volume 1, Chapter 5: Environmental impact assessment methodology [APP-013] F2.1 Volume 2, Chapter 1: Physical processes, [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report</p> <p>Natural England's Key Considerations: D18 [APP-013],Section 1.9.2.5</p>	<p>As noted in the MDS presented in Table 1.13 of Volume 2, Chapter 1: Physical processes (APP-013), up to a total of 490,000 m³ of material may be harvested from site preparation activities for ballast in gravity based foundations. In terms of sediment budget, 490,000 m³ of the maximum 6,746,105 m³ seabed preparation volume (which equates to 7.2%) would be used across the Morgan Array Area during the 12 month installation period. This will also equate to an average sediment ballast requirement of 5,104 m³ per foundation location when 96 gravity base foundations are considered.</p> <p>Typical net sediment transport, under tides alone, though the Morgan Array Area is circa 15,000 m³ per day; the harvested material therefore represents a one-off 9%</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Identified impacts</p> <p>Natural England's Advice:</p> <p>Comment:</p> <p>Natural England requested further information from the Applicant regarding impacts to the wider marine environment and sediment transport budget as a result of sediment extraction in order to stabilise conical gravity based foundations.</p> <p>We are also aware there have been similar proposals for the Mona Array and therefore have concerns relating to the cumulative loss of sediment in the wider area. We requested that the following points should be covered in the ES:</p> <ul style="list-style-type: none"> •Clarification of total material to be used in conical gravity based foundations; •Detailed methodology of proposal including impacts on sediment transport budget in the wider environment; •Further information on alternative options for ballast; and •Further information on what will happen to the material used as ballast at decommissioning. <p>Recommendation:</p> <p>Natural England requests that further information is provided on the fate of the ballast material at the time of decommissioning. Ideally this would be included in an Outline Decommissioning Plan and submitted to support the consenting phase.</p> <p>Additionally, we advise that further information is provided on the ballast proposal in-combination with the Mona Offshore Wind Farm Project proposals.</p>	<p>reduction in sediment budget during the construction phase and would therefore not significantly influence sediment transport across the Morgan Array Area. It is also noted that a more likely construction period for foundation installation may be up to 24 months and therefore influence due to the reduction in sediment budget would be less evident.</p> <p>As outlined Table 1.20 of the CEA presented in Volume 2, Chapter 1: Physical processes (APP-013), the sediment which enters the Morgan Array Area derives from the northern section of the corridor between Anglesey and the Isle of Man whilst the sediment which enters the Mona Array Area originates from the southern section of this corridor, also from an easterly direction, as it is located directly to the south of the Morgan Array Area. As such, any potential changes to sediment budgets or sediment transport regimes as a result of the Morgan Generation Assets will not cumulatively impact with the Mona Offshore Wind Project as they do not share a common sediment transport pathway. Similarly, the use of up to 490,000 m³ of site preparation material for ballast as part of the Mona Offshore Wind Project (one-off 6.7% reduction in sediment budget) would therefore not significantly influence sediment transport within the Mona Array Area (Mona Offshore Wind Limited (2024)¹ or give rise to any cumulative impacts with respect to the Morgan Array Area or the wider environment.</p> <p>Ballast material may be a mix of materials such as sand, rock (such as olivine) or iron ore therefore on decommissioning it is anticipated that the ballast material will be reused or disposed of offsite and not released back into the local system. As outlined in section 3.11 of Volume 1, Chapter 3: Project description (APP-010), no offshore decommissioning works will take place until a written decommissioning programme has been approved by the Secretary of State for the Department for Energy Security and Net Zero, a draft of which will be submitted prior to the construction of the Morgan Generation Assets. The scope of the decommissioning works, and methods of decommissioning, would be determined by the relevant legislation and guidance at the time of decommissioning and it is the Applicant's intention to secure decommissioning activities through separate standalone marine licences at the relevant time.</p>
RR-026.D.21	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes:</p> <p>Environmental Impact Assessment - Document Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-012] F1.5 Volume 1, Chapter 5: Environmental impact assessment methodology [APP-013] F2.1 Volume 2, Chapter 1: Physical</p>	<p>The MDS in relation to sediment budget presented in Table 1.13 of Volume 2, Chapter 1: Physical processes (APP-013) states that the volume of material which may be harvested from site preparation activities for ballast in gravity based foundations is up to 7,000 m³ for each location, up to a total of 490,000 m³. By way of clarification, it is not proposed to remove 7,000 m³ from every location. Where suitable material is located, up to 7,000 m³ may be sourced from any single location with a total requirement of</p>

¹ Mona Offshore Wind Limited (2024) Mona Offshore Wind Project Environmental Statement, Volume 2, Chapter 1: Physical processes.

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Reference	Relevant Representation Comment	Applicant's response
	<p>processes, [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report</p> <p>Natural England's Key Considerations: D19 [APP-013], Section 1.9.2.5 Identified impacts</p> <p>Natural England's Advice: Comment: Natural England notes that the Applicant has stated that 7,000m³ of sediment per foundation may be sequestered as ballast within the gravity base foundation with a maximum total volume of 490,000m³. Natural England queries this calculation, if the MDS for number of gravity based foundations is 98 then this would equate to 7,000m³ x 98 = 686,000m³.</p> <p>Recommendation: Natural England advises the Applicant checks these figures and ensures that correct volumes are included in any assessment and the DCO/DML.</p>	<p>490,000 m³. Therefore, less than 7,000 m³ or indeed no material would be required at a number of locations.</p> <p>As outlined in Volume 1, Chapter 5: Environmental impact assessment methodology (APP-012), the assessment was undertaken based on the MDS (i.e. the scenario with the potential to result in the greatest impact). The most likely scenario would comprise a lower number of foundations in total or a combination of foundation types based on suitable ground conditions. In this case, fewer GBF would be installed resulting in a decrease in ballast requirements and providing a reduction in any potential impacts from harvesting material from site preparation activities.</p>
RR-026.D.22	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes: Environmental Impact Assessment - Document Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-012] F1.5 Volume 1, Chapter 5: Environmental impact assessment methodology [APP-013] F2.1 Volume 2, Chapter 1: Physical processes, [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report</p> <p>Natural England's Key Considerations: D20 [APP-013], Table 1.15 Identified impacts</p> <p>Natural England's Advice: Comment: Natural England notes that there are several projects which seem to be missing from the CEA Table, namely:</p> <ul style="list-style-type: none"> •Awel Y Mor Offshore Wind Farm; •Mersey Tidal Power Project; •Liverpool Bay aggregate production area (Area 457); •Site Z Disposal Area; •HyNet - Carbon Capture Storage Licence (CS004) <p>We advise that these projects are either in pre-application stages or have submitted their relevant applications and have the potential to</p>	<p>The CEA presented in section 1.11 of Volume 2, Chapter 1: Physical processes (APP-013) was undertaken based upon the results of a screening exercise presented in Volume 3, Annex 5.1: Cumulative effects screening matrix (APP-031). Each project was considered on a case by case basis for screening in or out of the assessment based upon data confidence, effect-receptor pathways and the spatial/temporal scales involved.</p> <p>The Morgan Generation Assets physical processes study areas were agreed through the Scoping, PEIR and EWG processes. The area that may be influenced by changes to physical processes due to the Morgan Generation Assets was defined as one spring tidal excursion which is the distance suspended sediment is transported prior to being carried back on the returning tide. This was defined as the Morgan Generation Assets physical processes study area. The Morgan Generation Assets physical processes CEA study area was defined as two spring tidal excursions which represents where study areas for adjacent projects and developments, defined in a similar way, may intersect.</p> <p>The following projects were screened out of the physical processes CEA as they are located beyond the Morgan Generation Assets physical processes CEA study area:</p> <ul style="list-style-type: none"> • Awel Y Mor Offshore Wind Farm • Mersey Tidal Power Project • Liverpool Bay aggregate production area (Area 457)

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Reference	Relevant Representation Comment	Applicant's response
	<p>interact with Morgan Generation Assets. Recommendation: Natural England advises that the Applicant should review the projects taken forward into the CEA and update the assessment accordingly.</p>	<ul style="list-style-type: none"> • Site Z Disposal Area • HyNet - Carbon Capture Storage Licence (CS004). <p>Note: the Site Z Disposal Area is included within Mersey Channel and River Maintenance Dredge Disposal Renewal, along with the other projects cited, in the long list provided in Volume 3, Annex 5.1: Cumulative effects screening matrix (APP-031).</p>
RR-026.D.23	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes: Environmental Impact Assessment - Document Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-012] F1.5 Volume 1, Chapter 5: Environmental impact assessment methodology [APP-013] F2.1 Volume 2, Chapter 1: Physical processes, [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report Natural England's Key Considerations: D21 [APP-013], Table 1.14 Have the impacts been avoided/reduced by the use of appropriate mitigation? Natural England's Advice: Comment: Natural England acknowledges the commitment of the Applicant to develop and adhere to an Offshore Construction Method Statement (CMS), which will include a Cable Specification Installation Plan (CSIP), incorporating a Cable Burial Risk Assessment (CBRA). Recommendation: Natural England advises that pre construction geotechnical data should be used to inform the CBRA. We also advise that Natural England should be consulted on the suitability of the CMS ahead of commencement activities. This should be secured in the DCO/dML.</p>	<p>The Applicant can confirm that pre-construction geotechnical data will be used to inform the cable burial risk assessment (CBRA). The Offshore Construction method statement (CMS) is secured within the dMLs of the draft DCO (AS-003) (condition 20(1)(d) in each dML) and Natural England will be consulted in the development of the Offshore CMS.</p>
RR-026.D.24	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes: Environmental Impact Assessment - Document Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-012] F1.5 Volume 1, Chapter 5: Environmental impact assessment methodology [APP-013] F2.1 Volume 2, Chapter 1: Physical processes, [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report Natural England's Key Considerations:</p>	<p>As outlined in the Mitigation and monitoring schedule (APP-076), mitigation measures proposed will be secured in the DCO/dML. This includes the Applicant's commitment to develop and adhere to an Offshore Construction method statement (CMS), which will include a Cable specification and installation plan (CSIP), incorporating a Cable burial risk assessment (CBRA).</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>D22 [APP-013], Table 1.14 Have the impacts been avoided/reduced by the use of appropriate mitigation? Natural England's Advice: Comment: Natural England advises that it is key that all mitigation measures are secured in any consent issued. Whilst we understand there is a commitment to implementing them, it cannot be fully understood at this stage the level of mitigation some measures may be able to provide. Recommendation: Natural England advises that all embedded mitigation measures proposed should be agreed prior to consent and secured in the DCO/dML.</p>	
<p>RR-026.D.25</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes: Environmental Impact Assessment - Document Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-012] F1.5 Volume 1, Chapter 5: Environmental impact assessment methodology [APP-013] F2.1 Volume 2, Chapter 1: Physical processes, [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report Natural England's Key Considerations: D23 [APP-013], Sections 1.97, 1.11.6 Have the impacts been avoided/reduced by the use of appropriate mitigation? Natural England's Advice: Comment: 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). We would welcome and encourage the commitment from the Applicant to consider this further, in order to inform the baseline of future projects and their alone and in-combination assessments. Recommendation: Natural England would welcome and encourage the Applicant to consider future monitoring of benthic and physical processes to be</p>	<p>In line with the Offshore in-principle monitoring plan (APP-066), monitoring will be undertaken to observe the effect of sediment transport and sediment transport pathways on cable burial. This will be secured as a condition in the dMLs within the Draft DCO (AS-003).</p> <p>No significant effects on physical process receptors were predicted in Volume 2, Chapter 1: Physical processes (APP-013), and therefore, no monitoring is considered to be required to test the predictions of the EIA.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>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.</p> <p>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.</p>	
<p>RR-026.D.26</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes: Environmental Impact Assessment - Document Used: [APP-010] F1.3 Volume 1, Chapter 3: Project description, [APP-012] F1.5 Volume 1, Chapter 5: Environmental impact assessment methodology [APP-013] F2.1 Volume 2, Chapter 1: Physical processes, [APP-033] F4.1.1 Volume 4, Annex 1.1: Physical processes technical report Natural England's Key Considerations: D24 [APP-013], Table 1.13, etc Have the impacts been avoided/reduced by the use of appropriate mitigation? Natural England's Advice: Comment: Natural England notes that the Applicant is proposing to leave scour and cable protection <i>in-situ</i>. We advise that regardless of legislation or being outside of designated sites, the Applicant should aim to remove infrastructure. Decommissioning should aim to remove infrastructure to avoid irreversible (permanent) habitat loss, thus returning the seabed habitat to its pre-developed baseline status as required by OSPAR. Recommendation: Natural England advises that the Applicant considers using scour and cable protection which is more readily removable at the time of decommissioning. We would welcome and encourage this to be secured as a commitment. Ideally this would also be included in an Outline Decommissioning Plan submitted to support the consenting phase. We highlight that it is a requirement to prepare a decommissioning programme under Section 105 of the Energy Act 2004.</p>	<p>As outlined in section 3.11 of Volume 1, Chapter 3: Project description (APP-010), no offshore decommissioning works will take place until a written decommissioning programme has been approved by the Secretary of State for the Department for Energy Security and Net Zero, a draft of which will be submitted prior to the construction of the Morgan Generation Assets. The scope of the decommissioning works, and methods of decommissioning, will be determined by the relevant legislation and guidance at the time of decommissioning (i.e. including latest guidance on good practice for the decommissioning of cables and associated cable/scour protection). It is the Applicant's intention to secure decommissioning activities through separate standalone marine licences at the relevant time.</p> <p>Notwithstanding, the physical processes assessment presented in Volume 2, Chapter 1: Physical processes (APP-013) applies a MDS which is applicable to each impact (i.e. for SSC this is the removal of cables, whilst for impacts relating to seabed and water column obstruction scour protection is retained). Therefore, applying good practice at the time of decommissioning will not give rise to impacts greater than those assessed.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-026.D.27	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes: HRA - Document Used: • [APP-096] E1.1 Morgan Gen HRA Stage 2 ISAA Part 1 – Introduction; • [APP-097] E1.2 Morgan Gen HRA Stage 2 ISAA part 2 - SAC assessments; • [APP-099] E1.4 Morgan Gen HRA Stage 1 Screening report; and • [APP-100] E1.5 Morgan Gen HRA integrity matrices. Natural England's Key Considerations: D25 [APP-097] Assessment Conclusions Natural England's Advice: Comment: Natural England are in broad agreement that the relevant sites have been screened in and an appropriate HRA methodology has been used to assess the project in relation to physical processes. However, we advise that the projects outlined in comment (ref: D16) of this Appendix should be included and reflected in the final CEA and in-combination assessments. Recommendation: Natural England will provide further comment once in-combination assessments have been updated</p>	<p>The Applicant assumes that Natural England are referring to ref: D20 of Natural England's relevant representation, which relates to comments on projects to be included and reflected in the final CEA and in-combination assessments.</p> <p>The following projects were screened out of the physical processes CEA as they are located beyond the Morgan Generation Assets physical processes CEA study area:</p> <ul style="list-style-type: none"> • Awel Y Mor Offshore Wind Farm • Mersey Tidal Power Project • Liverpool Bay aggregate production area (Area 457) • Site Z Disposal Area • HyNet - Carbon Capture Storage Licence (CS004). <p>Note: the Site Z Disposal Area is included within Mersey Channel and River Maintenance Dredge Disposal Renewal, along with the other projects cited, in the long list provided in Volume 3, Annex 5.1: Cumulative effects screening matrix (APP-031).</p> <p>For further information on the Morgan Generation Assets physical processes CEA study area please see RR-026.D.22.</p> <p>The Applicant can therefore confirm that the CEA and in-combination assessments with respect to the HRA includes all relevant projects in relation to physical processes.</p>
RR-026.D.28	<p>Table 2 Natural England's Detailed Advice and Recommendations – Physical processes: MCZ Assessment - Document Used: [APP-101] E2 Morgan Gen Marine Conservation Zone screening report Natural England's Key Considerations: D26 [APP-097] Assessment Conclusions Natural England's Advice: Comment: Natural England are in broad agreement that the relevant sites have been screened in and an appropriate MCZ Assessment methodology has been used to assess the project in relation to physical processes. However, we advise that the projects outlined in comment (ref: D16) of this Appendix should be included and reflected in the final CEA and in-combination assessments.</p>	<p>The Applicant assumes that Natural England are referring to ref: D20 of Natural England's relevant representation, which relates to comments on projects to be included and reflected in the final CEA and in-combination assessments.</p> <p>The following projects were screened out of the physical processes CEA as they are located beyond the Morgan Generation Assets physical processes CEA study area:</p> <ul style="list-style-type: none"> • Awel Y Mor Offshore Wind Farm • Mersey Tidal Power Project • Liverpool Bay aggregate production area (Area 457) • Site Z Disposal Area • HyNet - Carbon Capture Storage Licence (CS004).

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Reference	Relevant Representation Comment	Applicant's response
	<p>Recommendation: Natural England will provide further comment once in-combination assessments have been updated</p>	<p>Note: the Site Z Disposal Area is included within Mersey Channel and River Maintenance Dredge Disposal Renewal, along with the other projects cited, in the long list provided in Volume 3, Annex 5.1: Cumulative effects screening matrix of (APP-031). For further information on the Morgan Generation Assets physical processes CEA study area please see RR-026.D.22. The Applicant can therefore confirm that the CEA and in-combination assessments with respect to the MCZ assessment includes all relevant projects in relation to physical processes.</p>

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Response to Relevant Representation relating to Fish and Shellfish Ecology (Natural England Appendix E)

Reference	Relevant Representation Comment	Applicant Response
RR-026.E.1	<p>Appendix E – Fish and Shellfish Ecology</p> <p>In formulating these comments, the following documents have been considered:</p> <ul style="list-style-type: none"> • [APP-021] F2.3 Fish and Shellfish Ecology • [APP-099] E1.4 HRA Stage 1 Screening report • [APP-028] F3.3.1 Underwater Sound Technical Report • [APP-051] F4.3.1 Fish and Shellfish Ecology Technical Report • [APP-072] J17 Outline Marine Mammal Mitigation Protocol 	<p>The Applicant notes Natural England's comment and the documents referred to for the representation.</p>
RR-026.E.2	<p>Table 1 Summary of Key Issues – Fish and Shellfish Ecology E1</p> <p>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.</p> <p>Natural England's Recommendations to resolve Issues.</p> <p>Do not include these measures as appropriate mitigation for impacts to fish species.</p>	<p>This position is acknowledged by the Applicant. The soft start and ramp up measures may minimise the likelihood of injury from elevated underwater sound to some fish species in the immediate vicinity of piling operations, allowing reactive individuals to move away from the area before sound levels reach a level at which injury may occur. The Outline marine mammal mitigation protocol (APP-072) will act alongside other primary measures including minimum and maximum separation between concurrent piling locations, alongside measures outlined in the Outline underwater sound management plan (APP-068) to manage overall potential underwater sound impacts on some fish receptors. The Applicant does not advocate that the Outline marine mammal mitigation protocol (APP-072) will be of benefit to all fish species, given the wide diversity within this group of organisms, but that it may be of benefit to some species who may show higher levels of reactivity to underwater sound, as outlined within section 3.8 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021). Soft-start and ramp up measures will however minimise the total acoustic energy entering the environment from piling operations, which will be of benefit to fish receptors.</p>
RR-026.E.3	<p>HRA and EIA- Document Used: [APP-021] F2.3 Fish and Shellfish Ecology; [APP-072] J17 Outline Marine Mitigation Protocol; [APP-099] E1.4 HRA Stage 1 Screening report</p>	<p>This is noted by the Applicant.</p>
RR-026.E.4	<p>Table 2 Natural England's Detailed Advice and Recommendations – Screening and identified Impacts, E2, Vol 2.3 & Vol 2.4</p> <p>Natural England acknowledges and agrees with the findings of no or negligible impacts to Annex II fish species.</p>	<p>The Applicant notes Natural England's response and that Natural England agrees with the conclusions of no or negligible impacts to Annex II fish species.</p>

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Reference	Relevant Representation Comment	Applicant Response
	<p>Natural England's Recommendations to resolve Issues. No further comment.</p>	
RR-026.E.5	<p>Table 2 Natural England's Detailed Advice and Recommendations – Have the impacts been avoided/reduced by the use of appropriate mitigation? E3 Vol 17 England do not agree with the use of the Outline Marine Mammal Mitigation Protocol (OMMMP) methods of soft start and ramp up as a means of mitigation for fish species. This mitigation is designed primarily for cetaceans and seals that regularly exhibit consistent fleeing behaviours, i.e. detect noise and move away from the area of influence. The few studies investigating fish fleeing responses do not show consistent, directional fleeing out of the area of influence. Fish responses to underwater noise are highly variable, and rarely directional (e.g. shoaling in place, or in haphazard directions, flinching or fleeing into shelter).</p> <p>Natural England's Recommendations to resolve Issues. Do not include these measures as appropriate mitigation for impacts to fish species.</p>	<p>The soft start and ramp up measures may minimise the likelihood of injury from elevated underwater sound to some fish species in the immediate vicinity of piling operations, allowing reactive individuals to move away from the area before sound levels reach a level at which injury may occur. The Outline marine mammal mitigation protocol (APP-072) will act alongside other primary measures including minimum and maximum separation between concurrent piling locations to limit overall potential underwater sound impacts on fish receptors, as detailed in the Outline underwater sound management plan (APP-068). The assessment considers a wide range of evidence on the behavioural responses of fish to underwater sound, including avoidance behaviour. However, the Applicant does not advocate that the Outline marine mammal mitigation protocol (APP-072) will be of benefit to all fish species, given the wide diversity within this group of organisms, but that it may be of benefit to some species who may show higher levels of reactivity to underwater sound, as outlined within section 3.8 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021).</p>
RR-026.E.6	<p>Table 2 Natural England's Detailed Advice and Recommendations – Have the impacts been avoided/reduced by the use of appropriate mitigation? E6 Vol 13.3.1 Table 1.33 Whilst underwater noise modelling has been conducted to determine noise thresholds for impacts to fish as both moving and static receptors, it is Natural England's view that fish should only be considered as static receptors when modelling underwater sound thresholds and assessments should be based on the static animal modelling results.</p> <p>Natural England's Recommendations to resolve Issues. No further comments. See above comment for reasoning.</p>	<p>Fish have been modelled as both stationary receptors and those moving away from the sound source to ensure representation of both potential response scenarios, with assessment conclusions based upon the static animal modelling results due to this representing the maximum potential impact on fish receptors.</p> <p>Full modelling results are presented in Volume 3, Annex 3.1: Underwater sound technical report (APP-028).</p>
RR-026.E.7	<p>Table 2 Natural England's Detailed Advice and Recommendations</p>	<p>Please see Annex 3.6_Morgan Gen_Response to RR-026_Natural England_FSF.</p>

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Reference	Relevant Representation Comment	Applicant Response
	<p>Have the impacts been avoided/reduced by the use of appropriate mitigation? Vol 3.3.1 Table 1.33 E7 Vol. 3.3.1 Table 1.3.3</p> <p>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.</p> <p>Natural England's Recommendations to resolve Issues Provide a contour map for TTS range.</p>	

Response to Relevant Representation relating to Benthic (Natural England Appendix F)

Reference	Relevant Representation Comment	Applicant's response
RR-026.F.1	<p>Table 1 Summary of Key Issues – Benthic Subtidal Ecology. F1 Summary of Key Concerns</p> <p>In most cases Natural England agrees with the position on WCS, except the following:</p> <ul style="list-style-type: none"> • Maximum Design Scenario (MDS) for sandwave clearance impact width for inter-array and interconnector cables; and • Cable crossings; • MDS figures for cable protection during construction; and • MDS figures for maintenance of cables and offshore infrastructure during operation and maintenance phase. <p>Natural England's Recommendations to Resolve Issues. Natural England advises the Applicant to provide the necessary updated project parameters, evidence and assessment in updated Application documents as discussed in detailed comments.</p>	<p>Please see response to Natural England's Position on Worst Case Scenario or Scenarios in RR-026.F.6 and RR-026.F.7 below.</p>
RR-026.F.2	<p>Table 1 Summary of Key Issues – Benthic Subtidal Ecology. F2 Summary of Key Concerns</p> <p>Impacts on SPAs and SACs: Natural England notes that the Applicant's current assessments of pressures/impacts on supporting benthic habitats for</p>	<p>The Morgan Array Area does not overlap with any SAC and is located over 29 km from the nearest SAC with benthic habitat features (the Shell Flat and Lune Deep SAC). As outlined in the Habitats Regulations Assessment (HRA) Stage 1 Screening Report (APP-099), due to this distance, there will be no direct or indirect effects to habitats of any SAC as a result of the construction, operations and maintenance and</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>mobile Special Protection Area (SPA) and Special Areas of Conservation (SACs) features and impacts to prey availability lacks rationale and robustness.</p> <p>Natural England's Recommendations to Resolve Issues. Natural England advises that full consideration of the likely nature, extent, duration, and significance of impacts upon SPA and SAC supporting habitats is required to inform a robust assessment of the likely impacts upon designated ornithological and marine mammal features.</p>	<p>decommissioning of the Morgan Generation Assets. As such, impacts to benthic features of SACs were screened out of the HRA Stage 2 Information to support an appropriate assessment, Part 2: Special areas of conservation (SACs) assessments (APP-097). Similarly, as the Shell Flat and Lune Deep SAC, and all other Marine Protected Areas (MPAs; including Marine Conservation Zones) are located outwith the zone of influence of the Morgan Generation Assets, impacts to SACs and MCZs were not considered in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020).</p> <p>With respect to SPAs, the Morgan Array Area is located 10 km from the nearest SPA, the Liverpool Bay SPA. As such, the impact pathway of 'temporary habitat loss/disturbance and increased suspended sediment concentrations (SSCs)' was screened out of the HRA Stage 2 Information to support an appropriate assessment, Part 3: Special Protection Areas (SPA) and Ramsar Site assessments (APP-098). The impacts of 'temporary habitat loss/disturbance and increased SSCs' across all phases of the Morgan Generation Assets are fully assessed in Volume 2, Chapter 5: Offshore ornithology (APP-023), including connectivity between the Morgan Generation Assets and SPA colonies. Overall, for all receptors, effects of negligible adverse significance, which is not significant in EIA terms, were predicted.</p>
RR-026.F.3	<p>Table 1 Summary of Key Issues – Benthic Subtidal Ecology. F3 Summary of Key Concerns</p> <p>Natural England advises that all proposed mitigation measures are secured in any consent issued. In addition to mitigation proposed by the Applicant, we advise that further consideration is given to the following mitigation measures for benthic subtidal ecology:</p> <ul style="list-style-type: none"> • Commitment to remove infrastructure at the time of decommissioning. <p>Natural England's Recommendations to Resolve Issues. Natural England advises that all embedded mitigation measures proposed are secured in the DCO/dML. In addition to the mitigation proposed by the Applicant, we advise that further mitigation in considered by the Applicant as discussed in the detailed comments.</p>	<p>Table 2.17 in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) outlines all of the commitments made by the Applicant to reduce the potential for impacts on benthic subtidal ecology and confirms that these are secured within the deemed marine licences of the draft development consent order (DCO) (AS-003). In particular, these measures are secured in the offshore construction method statement and the offshore environmental management plan, which are secured through the conditions 20(1)(d) and 20(1)(e) of the deemed marine licences in schedules 3 and 4 of the draft DCO (AS-003).</p> <p>Section 2.11 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) presents an assessment of the decommissioning of the Morgan Generation Assets and the Applicant has adopted a maximum design scenario approach. As outlined in section 3.11 of Volume 1, Chapter 3: Project description (APP-010), the project position is that cable protection will preferably be left <i>in situ</i>, but removal has been assessed where this represents the maximum design scenario for relevant impacts for benthic receptors (e.g. removal of hard substrates). Conversely, where leaving cable protection in situ represents the maximum design scenario this has been assessed for relevant impacts (e.g. long term habitat loss). No significant effects on benthic receptors were predicted as a result of decommissioning activities in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020).</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>As outlined in section 3.11 of Volume 1, Chapter 3: Project description (APP-010), no offshore decommissioning works will take place until a written decommissioning programme has been approved by the Secretary of State for the Department for Energy Security and Net Zero, a draft of which will be submitted prior to the construction of the Morgan Generation Assets. The scope of the decommissioning works, and methods of decommissioning, will be determined by the relevant legislation and guidance at the time of decommissioning (i.e. including latest guidance on good practice for the decommissioning of cables and associated cable/scour protection including new technology). It is the Applicant's intention to secure decommissioning activities through separate standalone marine licences at the relevant time.</p>
<p>RR-026.F.4</p>	<p>Table 1 Summary of Key Issues – Benthic Subtidal Ecology. F4 Summary of Key Concerns</p> <p>Future monitoring should be secured, in the DCO, to test assumptions made in the ES. As per our response to the physical processes chapter, monitoring should be secured for sandwave recovery and of scouring around turbines.</p> <p>Natural England's Recommendations to Resolve Issues. 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 the seabed has recovered from construction activities. In this case, we advise monitoring the recovery of sandwaves.</p>	<p>No significant effects on benthic receptors were predicted in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020), and therefore, no monitoring is considered to be required to test the predictions of the EIA.</p>
<p>RR-026.F.5</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology.</p> <p>Project Parameters - Document(s) Used: [APP-020] F2.2 Benthic subtidal ecology; [APP-050] F4.2.1 Benthic subtidal ecology technical report Project description, F5, Vol 2.2 General</p> <p>Comment</p> <p>We advise that further detail is required in the project description to inform the Maximum Design Scenario (MDS) and Environmental Impact Assessment (EIA). Please see detailed comments in relevant headings of this table.</p>	<p>Please see response to Natural England's Position on Worst Case Scenario or Scenarios in RR-026.F6 and RR-026.F.7 below.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Recommendation N/a</p>	
<p>RR-026.F.6</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. Project Parameters - Document(s) Used: [APP-020] F2.2 Benthic subtidal ecology; [APP-050] F4.2.1 Benthic subtidal ecology technical report Natural England's Position on Worst Case Scenario or Scenarios, F6, Vol 2.2 Table 2.16</p> <p>Comment MDS for sandwave clearance impact width for inter-array and interconnector cables – Natural England acknowledges and welcome that the Applicant has reduced the MDS parameters for sandwave clearance and seabed preparation in the Morgan array area during the pre-application phase from 104m to 80m for interarray cables, but remains unchanged at 104m for interconnector cables.</p> <p>Despite the reduction, this seems to be an exceptionally large impact width in comparison to other projects of a similar scale. Natural England queries if the width MDS parameters are realistic?</p> <p>Recommendation Natural England advises that further evidence is required to support the realistic MDS parameters as set out in the DCO/dML.</p>	<p>The Applicant acknowledges Natural England's comments on the interconnector cable corridor sandwave clearance impact width remaining unchanged since PEIR (compared to the reductions in the width for inter-array cables). The Applicant has now been able to further consider the results of the initial surveys for the Morgan array area, and can confirm the reduction of the interconnector cable corridor sandwave clearance width from 104m to 80m. This will lead to a decrease in the sandwave clearance volumes, with updated figures provided at Deadline 1. This update will be secured through the total disposal captured within Schedules 3 and 4, Condition 2(g) of the Draft DCO being updated at Deadline 1.</p> <p>The Applicant highlights that the geophysical surveys to date have indicated that certain sections of the Morgan Array Area contain sandwaves up to 8m high. For sections of the cable corridor with such high sandwaves, the Applicant expects the maximum design scenario of 80 m in width of sandwave clearance. The Applicant notes that the cable corridors will cross sand waves with a lower average height, however the maximum design scenario of 80 m in width of sandwave clearance has been retained on a precautionary basis for the purposes of the environmental impact assessment.</p> <p>The reduction in interconnector cable corridor sandwave clearance width and volume does not change the conclusion of the physical processes assessment presented in Volume 2, Chapter 1: Physical processes (APP-013) which determined that there would be no significant impacts and the significance of effects on physical processes receptors remain negligible adverse. In terms of suspended sediment concentrations during sandwave clearance, these will remain unchanged as the same activity is being undertaken. There will however be a reduction in both the spatial extent and duration of the sediment plumes due to the reduction in the footprint of the activities and the reduced volume of material being relocated. The region has active sediment transport systems and it is anticipated that in the months following installation infilling would become evident. The reduction in sandwave clearance will therefore also lessen the period required for sandwave reformation.</p> <p>The reductions in the parameters for sandwave clearance for inter-connector cables will result in a reduction in the total temporary habitat loss/disturbance predicted to arise during the construction phase of the Morgan Generation Assets.</p> <p>This reduction does not, however, change the magnitude of the impact predicted in section 2.9.2 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020), and the magnitude of the potential impact of temporary habitat loss/disturbance during the</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>construction phase is predicted to remain as low. As such, the overall conclusions of the assessment presented in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) are unchanged and the effect of temporary habitat loss/disturbance during the construction phase on all benthic subtidal receptors will remain as minor adverse significance, which is not significant in EIA terms.</p> <p>Surveys are still ongoing, and the precise cable routing and final Cable Burial Risk Assessment (CBRA) are yet to be completed. Until that work has completed, the Applicant is unable to refine the MDS parameters further at this stage of design.</p>
<p>RR-026.F.7</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. Project Parameters - Document(s) Used: [APP-020] F2.2 Benthic subtidal ecology; [APP-050] F4.2.1 Benthic subtidal ecology technical report Natural England's Position on Worst Case Scenario or Scenarios, F7</p> <p>Comment Cable crossings – Natural England notes that there is limited information pertaining to cable crossings. In [APP- 013] the MDS parameters are given as up to 10 cable crossings, with a height of 4m, width of 36m and length of up to 80m. There is no information on location of crossings, volume of cable protection to be used in relation to crossings or impacts from sediments plumes (unless this is elsewhere in the ES). Additionally, no cross-section or plan schematics of cable crossing layout, it would be helpful if these could be provided and updated in the final ES.</p> <p>Recommendation To better understand any potential disruption to marine processes and benthic habitats, Natural England advises that further information on cable crossings is provided in line with best practice guidance as set out in Natural England's Best Practice Guidance Phase III. Namely:</p> <ul style="list-style-type: none"> • Method(s) to be used; • Specific locations (informed by acoustic data); • Total area of impact; • Overlap with MPA(s); 	<p>Details of the cable protection material included in the project design for the Morgan Generation Assets, including volumes, methods and area of impact, are outlined in sections 3.5.9 and 3.5.10 of Volume 1, Chapter 3: Project description (APP-010). There is no overlap between the Morgan Generation Assets and any MPA.</p> <p>As outlined in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020), the benthic ecology assessment has been undertaken on a MDS of up to ten crossings. The ten crossings have been included in the project design on a precautionary basis. The location of these crossings, if any are required, is not currently known but will be specified in the cable specification and installation plan in adherence to the Applicant's commitments secured under Schedule 4, Condition 20(1)(d) of the Draft DCO (AS-003).</p> <p>Section 2.9.5 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) describes the habitats that could be affected by cable protection and cable crossings and includes a full assessment of the associated impacts which, for all receptors, will be of minor adverse significance, which is not significant in EIA terms.</p> <p>With respect to impacts from sediment plumes during installation of cable protection, the resulting increase in SSCs would be minimal. The Applicant is, therefore, confident that the impacts from sediment plumes during installation of cable protection is covered by the MDS and assessment for increased SSC and associated deposition in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020).</p>

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Reference	Relevant Representation Comment	Applicant's response
	<ul style="list-style-type: none"> • Habitats impacted; • Presence of sensitive species and habitats; • Where applicable total volume of external cable protection; • Method(s) (as it generally requires external cable protection the points above also apply); and • Impacts from sediment plumes. <p>Once this is provided, we believe that this matter can be readily resolved.</p>	
<p>RR-026.F.8</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. Baseline Characterisation - Document(s) Used: [APP-020] F2.2 Benthic subtidal ecology; [APP-050] F4.2.1 Benthic subtidal ecology technical report Survey Data Acquisition, F8, Vol 2.2 Vol 4.2.1</p> <p>Comment Natural England agrees that the data included in the baseline characterisation for benthic ecology is sufficient to characterise the study area.</p> <p>Therefore, unless there is a change in the project design parameters, we will provide no further comment on the data during examination.</p> <p>Recommendation N/A</p>	<p>This is noted and welcomed by the Applicant.</p>
<p>RR-026.F.9</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. Baseline Characterisation - Document(s) Used: [APP-020] F2.2 Benthic subtidal ecology; [APP-050] F4.2.1 Benthic subtidal ecology technical report Data Gaps, F9, Vol 2.2 1.7.1</p> <p>Comment</p>	<p>The Gardline (2022) and XOcean (2022) documents have been previously provided to Natural England by the Applicant (11th July 2023) as part of the EWG process. The Fugro report is commercially sensitive and the Applicant is unable to provide a copy of it. The Fugro report covers geotechnical information, whereas the Applicant considers that Natural England would only require the reports on the geophysical surveys from Gardline and XOcean. This was discussed with Natural England at the EWG meeting in July 2023 and no issue raised.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Natural England notes that there are site specific surveys referenced throughout the chapter which have not been provided with the ES reports. It would be useful to see these reports:</p> <ul style="list-style-type: none"> • Guardline (2022); • XOcean (2022); and • Furgo (2022). <p>We advise that these should be provided to ensure there are no issues with the EIA as presented.</p> <p>Recommendation Natural England advises that all reference documents should be presented into examination. Please provide these reports or a link to them in the updated ES.</p>	
RR-026.F.10	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. Environmental Impact Assessment - Document Used: [APP-020] F2.2 Benthic subtidal ecology; [APP-050] F4.2.1 Benthic subtidal ecology technical report Identified impacts, F10. Vol 2.2 Table 2.16</p> <p>Comment Natural England notes that boulder clearance is proposed within the footprint of other installation activities. We advise that impacts should be minimised as much as possible, with consideration being given to the deposition locations in similar habitat type and avoiding sensitive habitats such as Habitats of Principal Importance listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.</p> <p>Recommendations Natural England advise that this is considered further by the Applicant and updated in the ES accordingly. And any mitigation measures to minimise the impacts secured within the DCO/dML or within a named plan.</p>	<p>Any boulders identified as likely to impact installation will need to be moved to the side (i.e. side cast), away from the immediate location of the cable infrastructure. There are two key methods of clearing boulders, boulder plough and boulder grab. Where a high density of boulders is seen, the expectation is that a plough will be required to clear the cable installation corridor. Where medium and low densities of boulders are present, a subsea grab is expected to be employed. Boulder clearance will occur within the footprint of other site preparation activities. All boulders will remain in the vicinity (i.e. side cast only) of the area they were cleared from and therefore there will be no significant alteration to the composition of the seabed or impacts to different habitats. Mitigation measures are therefore not deemed necessary for boulder clearance.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-026.F.11	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. Environmental Impact Assessment - Document Used: [APP-020] F2.2 Benthic subtidal ecology; [APP-050] F4.2.1 Benthic subtidal ecology technical report Methodology, F11, Vol 2.2 General</p> <p>Comment Impacts on SPAs: Natural England notes that the Applicant's current assessments of pressures/impacts on supporting benthic habitats for Special Protection Area (SPA) and Special Areas of Conservation (SACs) features and impacts to prey availability lacks rationale and robustness.</p> <p>Recommendation Natural England advises that full consideration of the likely nature, extent, duration, and significance of impacts upon SPA and SAC supporting habitats is required to inform a robust assessment of the likely impacts upon designated ornithological and marine mammal features.</p>	<p>The Morgan Array Area does not overlap with any SAC and is located over 29 km from the nearest SAC with benthic habitat features (the Shell Flat and Lune Deep SAC). As outlined in the HRA Stage 1 Screening Report (APP-099), due to this distance, there will be no direct or indirect effects to habitats of any SAC as a result of the construction, operations and maintenance and decommissioning of the Morgan Generation Assets. As such, impacts to benthic features of SAC were screened out of the HRA Stage 2 Information to support an appropriate assessment, Part 2: Special areas of conservation (SACs) assessments (APP-097). Similarly, as the Shell Flat and Lune Deep SAC, and all other MPAs (including Marine Conservation Zones) are located outwith the zone of influence of the Morgan Generation Assets, impacts to SACs and MCZs were not considered in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020).</p> <p>With respect to SPAs, the Morgan Array Area is located 10 km from the nearest SPA, the Liverpool Bay SPA. As such, the impact pathway of 'temporary habitat loss/disturbance and increased suspended sediment concentrations (SSCs)' was screened out of the HRA Stage 2 Information to support an appropriate assessment, Part 3: Special Protection Areas (SPA) and Ramsar Site assessments (APP-098). The impacts of 'temporary habitat loss/disturbance and increased SSCs' across all phases of the Morgan Generation Assets are fully assessed in Volume 2, Chapter 5: Offshore ornithology (APP-023), including connectivity between the Morgan Generation Assets and SPA colonies. Overall, for all receptors, effects of negligible adverse significance, which is not significant in EIA terms, were predicted.</p>
RR-026.F.12	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. Environmental Impact Assessment - Document Used: [APP-020] F2.2 Benthic subtidal ecology; [APP-050] F4.2.1 Benthic subtidal ecology technical report Have the impacts been avoided/reduced by the use of appropriate mitigation? F12, MMP 1.4.3;BSEC Vol 4 Annex 2.1;Vol 6 Table1.3; Draft DCO Section 23</p> <p>Comment Natural England welcomes the commitment to implementation of a mitigation hierarchy with the UXO clearance which will also reduce benthic impacts. Natural England also notes that the UXO clearance method statement will be secured in the dML/ Draft DCO and should be agreed pre-construction in consultation with the relevant SNCB.</p>	<p>This is noted and welcomed by the Applicant.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Therefore, unless there is a change in the project design parameters, we will provide no further comment on the data during examination.</p> <p>Recommendation N/A</p>	
<p>RR-026.F.13</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. Environmental Impact Assessment - Document Used: [APP-020] F2.2 Benthic subtidal ecology; [APP-050] F4.2.1 Benthic subtidal ecology technical report</p> <p>Have the impacts been avoided/reduced by the use of appropriate mitigation? F13, Vol 2.2 Table 2.17</p> <p>Comment Natural England acknowledges the commitment of the Applicant to develop and adhere to an Offshore Construction Method Statement (CMS), which will include a Cable Specification Installation Plan (CSIP), incorporating a Cable Burial Risk Assessment (CBRA).</p> <p>Recommendation Natural England advises that pre construction geotechnical data should be used to inform the CBRA. We also advise that Natural England should be consulted on the suitability of the CMS ahead of commencement activities. This should be secured in the DCO/dML.</p>	<p>The Applicant can confirm that pre-construction geotechnical data will be used to inform the cable burial risk assessment (CBRA). The Offshore Construction method statement (CMS) is secured within the deemed marine licences of the draft DCO (AS-003) (condition 20(1)(d) in each deemed marine licence) and Natural England will be consulted in the development of the Offshore CMS.</p>
<p>RR-026.F.14</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. Environmental Impact Assessment - Document Used: [APP-020] F2.2 Benthic subtidal ecology; [APP-050] F4.2.1 Benthic subtidal ecology technical report</p> <p>Have the impacts been avoided/reduced by the use of appropriate mitigation? F14 Vol 2.2 General</p>	<p>No significant effects on benthic receptors were predicted in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020), and therefore, no monitoring is considered to be required to test the predictions of the EIA.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Comment Natural England has concerns relating to the lack of future data analysis to test predictions made within the impact assessment. We note that the such future monitoring is encouraged in National Policy Statement (as recognised in the NPS for Renewable Energy Infrastructure (EN-3) 3.8.98). We would welcome and encourage the commitment from the Applicant to consider this further, in order to inform the baseline of future projects and their alone and in-combination assessments.</p> <p>Recommendation 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 the seabed morphological features such as sandbanks has recovered from construction activities, and these are secured in an In Principle Monitoring Plan.</p>	
<p>RR-026.F.15</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. Environmental Impact Assessment - Document Used: [APP-020] F2.2 Benthic subtidal ecology; [APP-050] F4.2.1 Benthic subtidal ecology technical report</p> <p>Have the impacts been avoided/reduced by the use of appropriate mitigation? F15 Vol 2.2 Table 2.16</p> <p>Comment Natural England advises that the Applicant needs to consider the potential impacts from UXO detonation on benthic habitats and/or mitigation measures for making the UXO safe without impacting on benthic habitats.</p> <p>Recommendation Further detail is required on the potential impacts of UXO detonation on</p>	<p>Impacts of temporary habitat loss on benthic receptors associated with the clearance of UXOs is fully assessed in paragraph 2.9.2.9 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020). The development of, and adherence to, a UXO clearance method statement is a requirement of the dMLs in the draft DCO (AS-003) (condition 23 in each dML). The requirement for the implementation of a mitigation hierarchy with regard to UXO clearance, as outlined in Volume 2, Chapter 4 Marine mammals (APP-022), will also prevent and reduce impacts to benthic habitats. The mitigation hierarchy is as follows:</p> <ul style="list-style-type: none"> • Avoid UXO • Clear UXO with low order techniques • Clear UXO with high order techniques.

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Reference	Relevant Representation Comment	Applicant's response
RR-026.F.16	<p>benthic habitats and/or mitigation measures to prevent impacts to benthic habitats.</p> <p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. Environmental Impact Assessment - Document Used: [APP-020] F2.2 Benthic subtidal ecology; [APP-050] F4.2.1 Benthic subtidal ecology technical report</p> <p>Have the impacts been avoided/reduced by the use of appropriate mitigation? F16 Vol 2.2 Table 2.16</p> <p>Comment Natural England We notes that the Applicant is proposing to leave scour and cable protection <i>in-situ</i>. We advise that regardless of legislation or being outside of designated sites, the Applicant should aim to remove infrastructure. Decommissioning should aim to remove infrastructure to avoid irreversible (permanent) habitat loss, thus returning the seabed habitat to its pre-developed baseline status as required by OSPAR.</p> <p>Recommendation Natural England advises that the Applicant considers using scour and cable protection which is more readily removable at the time of decommissioning. We would welcome and encourage this to be secured as a commitment. Ideally this would also be included in an Outline Decommissioning Plan submitted to support the consenting phase. We highlight that it is a requirement to prepare a decommissioning programme under Section 105 of the Energy Act 2004.</p>	<p>As outlined in section 3.11 of Volume 1, Chapter 3: Project description (APP-010), no offshore decommissioning works will take place until a written decommissioning programme has been approved by the Secretary of State for the Department for Energy Security and Net Zero, a draft of which will be submitted prior to the construction of the Morgan Generation Assets. The scope of the decommissioning works, and methods of decommissioning, would be determined by the relevant legislation and guidance at the time of decommissioning (i.e. including latest guidance on good practice for the decommissioning of cables and associated cable/scour protection). It is the Applicant's intention to secure decommissioning activities through separate standalone marine licences at the relevant time.</p>
RR-026.F.17	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. HRA - Document Used: Volume 1.4 Morgan Gen HRA stage 1 screening report; [APP-020] F2.2 Benthic subtidal ecology Screening. F17 Vol 1.4 section 1.3.2.15</p>	<p>This is noted and welcomed by the Applicant.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Comment Natural England agrees that the approach used for determining LSE on European sites with Annex I habitats as features is appropriate. Therefore, unless there is a change in the project design parameters, we will provide no further comment on the Habitat Regulations during examination.</p> <p>Recommendation N/A</p>	
<p>RR-026.F.18</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. HRA - Document Used: Volume 1.4 Morgan Gen HRA stage 1 screening report; [APP-020] F2.2 Benthic subtidal ecology Screening. F18 Vol 2 section 1.5.2.3</p> <p>Comment Natural England agrees with the conclusions of the MCZ screening for benthic habitat features of MCZs. Therefore, unless there is a change in the project design parameters, we will provide no further comment on the MCZ assessment during examination.</p> <p>Recommendation N/A</p>	<p>This is noted and welcomed by the Applicant.</p>
<p>RR-026.F.19</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. HRA - Document Used: Volume 1.4 Morgan Gen HRA stage 1 screening report; [APP-020] F2.2 Benthic subtidal ecology In-combination, F19 Vol 2.2 General</p> <p>Comment Natural England agrees that appropriate plans and projects have been identified. Therefore, unless there is a change in the project design parameters, we will provide no further comment on other plans and projects during examination.</p>	<p>This is noted and welcomed by the Applicant.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Recommendation N/A</p>	
<p>RR-026.F.20</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. HRA - Document Used: Volume 1.4 Morgan Gen HRA stage 1 screening report; [APP-020] F2.2 Benthic subtidal ecology Have the impacts been avoided/reduced by the use of appropriate mitigation? F20, Vol 2.2 Table 2.17 Comment Natural England acknowledge the implementation of a Biosecurity Risk Assessment and an Invasive Non-Native Species (INNS) Management Plan to be conditioned within the Offshore EMP which will be secured as a condition of the deemed Marine Licence(s) within the draft DCO. As the following plans are mitigation measures, these should be considered at the time of consent:</p> <ul style="list-style-type: none"> • Biosecurity Risk Assessment • Outline EMP • Marine Pollution Control Plan (MPCP) <p>Recommendation To inform consenting, these plans should be provided as part of the application and submitted into Examination.</p>	<p>An Offshore EMP, including a Marine Pollution Contingency Plan, will be produced, as secured in Condition 20(1)(e)(i), Part 2, Schedule 3 and Part 2, Schedule 4 of the draft DCO (AS-003). The Offshore EMP will also include measures to minimise the potential spread of invasive non-native species. These plans will be produced post-consent, and prior to construction, following refined project design.</p>
<p>RR-026.F.21</p>	<p>Table 2 Natural England's Detailed Advice and Recommendations – Benthic Subtidal Ecology. MCZ Assessment - Document Used: Volume 2 Marine Conservation Zone screening report Screening F21, Vol 2 Comment Natural England agrees with the MCZ screening conclusions. Therefore, unless there is a change in the project design parameters, we will provide no further comment on MCZs during examination..</p>	<p>The Applicant acknowledges and welcomes Natural England's agreement with the MCZ screening conclusions.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Recommendation N/A</p>	
<p>RR-026.F.22</p>	<p>Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses</p> <p>Natural England (NE) has drafted this note in order to provide clarity on how we consider cable protection to be covered in marine licences, and what information needs to be provided in an assessment to support those licences. The advice applies to all marine license applications for cable protection, at various stages of the project lifecycle, not just those considered under the NSIP consenting process. Much of the advice is also applicable to interconnector cables. This is intended to complement the Marine Management Organisation's (MMO) position on scour and cable protection licensing requirements during the Operation and Maintenance (O&M) phase.</p>	<p>Natural England's advice regarding the inclusion of cable protection in marine licences is noted and also notes that this focuses predominantly on MPAs. The Applicant would, however, highlight that that Morgan Array Area does not spatially overlap with the boundary of any European marine site (i.e. SAC or SPA) or any other MPA (including MCZs). Therefore, the requirement for cable protection within designated sites is not relevant to the Morgan Generation Assets DCO application.</p>
<p>RR-026.F.23</p>	<p>Section 1: Application stage</p> <p>In the Environmental Statement (ES) for a project there must be a full assessment of the worst-case scenario for cable protection to enable a decision to be made regarding the impacts of a project over the lifetime and in combination with other impacts and activities. In the case of European Marine sites (SACs and SPAs) the assessment must contain sufficient information to allow it to be ascertained (by the process of "appropriate assessment,"¹ and beyond reasonable scientific doubt) whether the project will have an adverse effect on the integrity of the site. If an absence of adverse effect on integrity cannot be demonstrated – see footnote 2.</p>	<p>Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.</p>
<p>RR-026.F.24</p>	<p>It is acknowledged that the worst-case scenario used for lifetime predictions is not the most desirable environmentally and, as more project specifics and environmental data emerge post-consent, the structure of plans and proposals can be amended to allow for the impacts to be reduced. This is in line with the avoid-reduce-mitigate hierarchy, which should be followed in relation to environmental impacts.</p>	<p>Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-026.F.25	<p>Not everything that is assessed in the Environmental Statement is permitted through the Deemed Marine Licence (DML) for the project, as some aspects require further updating and consultation (i.e. requirement to provide a scour and cable protection installation plan preconstruction, which sets out what is actually permitted). However, provision of the full project lifecycle information in the Environmental Statement at this stage is required to inform and support the decision making for the project and to provide a level of comfort that the lifetime impacts have been considered.</p>	<p>Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.</p>
RR-026.F.26	<p>Where cable protection is proposed within an SAC or SPA it should be assumed that there will be a likely significant effect due to lasting habitat loss from the cable protection and an “appropriate assessment” would need to demonstrate that there would not be an adverse effect from the proposal. This is likely to be challenging in an SAC designated for its benthic habitats, therefore all alternatives will need to be fully explored. If it is not possible to avoid an adverse effect, then the derogations route under Article 6(4) of the Habitats Directive² could be considered.</p> <p>Similarly, a Marine Conservation Zone (MCZ) assessment would be requirement where cable protection was proposed in an MCZ. For clarity and to fit with subsequent marine licensing requirements, Natural England advise that this information should be presented separately for the following phases with the impacts assessed for each phase and together in total:</p> <ul style="list-style-type: none"> - Amount of cable protection to be laid during the construction phase³ of the project. - Amount of cable protection required for the maintenance of that laid during construction over the lifetime of the project. - Amount of additional/ new cable protection that may be required to protect assets that become exposed during operation of the windfarm. <p>Total amount of cable protection to be left in situ at the time of decommissioning (this may be the total of the above).</p>	<p>Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.</p>
RR-026.F.27	<p>For cable protection to be laid during construction under the DML, an in-principle scour and cable protection plan should be provided as part of the application. This should be updated and resubmitted pre-construction and should reflect up to date information informed by any new survey data, the cable burial risk assessment and additional</p>	<p>Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>information in relation to a navigation risk assessment and alternatives. Use of cable protection which leads to lasting habitat loss should be the final consideration after other alternatives have been exhausted and must be minimised as much as possible to reduce environmental impacts.</p>	
RR-026.F.28	<p>Where impacts are within a Marine Protected Area (MPA4), the assessment should consider the total amounts of cable protection proposed to be laid across the phases outlined above as an area and percentage of the MPA feature to be impacted. The significance of the proposal then needs to be considered against the Conservation Objectives for the site. Natural England's position paper on 'Small Scale Losses' sets out what is required by the Applicant to demonstrate that there are no Adverse Effects on site Integrity (AEol).</p>	<p>Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.</p>
RR-026.F.29	<p>Natural England will advise that a condition should be applied to all DMLs with wording similar to that outlined below, which will require return of information in relation to the as-built scenario, including the location, volume, area and coordinates of the cable protection laid.</p>	<p>Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.</p>
RR-026.F.30	<p><i>Not more than 4 months following completion of the construction phase of the authorised scheme, the undertaker must provide the MMO and the relevant statutory nature conservation bodies with a report setting out details of the cable protection used for the authorised scheme.</i></p> <p><i>(2) The report must include the following information:</i></p> <p><i>(a) location of the cable protection.</i></p> <p><i>(b) volume and area of cable protection; and</i></p> <p><i>(c) any other information relating to the cable protection as agreed between the MMO and the undertaker.</i></p> <p><i>(3) For any subsequent deployments of cable protection following the completion of construction, the undertaker will provide an updated report as defined in (1) and (2) not more than 4 months following deployment of the cable protection.</i></p>	<p>Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.</p>
RR-026.F.31	<p>Section 2: Construction and maintenance</p> <p>The period of construction finishes when developers notify the MMO of the end of construction. However, there will need to be agreement on what is considered the construction period given that this could stretch several years. The cable protection laid during the period of construction is permitted under the DML and restricted to total volumes</p>	<p>Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.</p>

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	within the DML, although every effort should be made to minimise these volumes going into construction through the avoid-reduce-mitigate hierarchy.	
RR-026.F.32	As outlined above, the in-principle scour and cable protection plan provided during the application phase should be updated and resubmitted pre-construction and should reflect up to date information informed by any new survey data, the cable burial risk assessment and additional information in relation to a navigation risk assessment and alternatives.	Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.
RR-026.F.33	Natural England considers it is permissible to maintain cable protection that was placed at time of construction for the lifetime of the project through an Operations and Maintenance plan by adding additional cable protection to that which was laid during construction. We support the MMO's position that under an operations and maintenance plan submitted under the DCO maintenance material placement cannot exceed the seabed footprint of the cable protection laid during construction. As per the MMO's advice various timescales and information requirements will apply to these plans. A condition requiring return of information in relation to the as built scenario including the location, volume, area and coordinates of the cable protection laid should be secured as part of these plans.	Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.
RR-026.F.34	Section 3: Operational phase Natural England considers that any new/additional cable protection to be laid during the operational lifetime of the windfarm is not permitted under the DML and requires a separate marine licence. We acknowledge that there is a desire for longer term licences and support the MMO's position that 10-year licences can be considered for laying of additional cable protected in areas outside MPAs.	Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.
RR-026.F.35	This is not to say that cable protection will not be permitted over the lifetime of the project (out with MPAs); but a separate marine licence process (to that of the DCO/DML) is advised to ensure that proposals can be adequately assessed using up to date information on which to base the assessment (which may be several years after the Environmental Statement data was collected), and enable sufficient transparency of decision making and stakeholder consultation. Data less than 5 years old will be required to support laying of additional	Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.

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Reference	Relevant Representation Comment	Applicant's response
	<p>cable protection along with descriptions of the seabed habitat and information regarding what cable protection has been laid to date. Justification will need to be made as to why cable protection is necessary considering risk and alternatives and every effort made to minimise amounts required to reduce environmental impact.</p>	
RR-026.F.36	<p>The amount of cable protection proposed in the new licence application should not be more than that assessed overall in the ES and should ideally be reduced to reflect the reduction in parameters from the Rochdale Envelope. Any reduction in design parameter should be reflected in this licence e.g. decreased number of cables installed therefore proportionally less cable protection is permitted to reflect this. Should the volumes proposed be greater than that assessed in the ES at the time of consenting then it will be necessary to redo the assessment for cable protection that was undertaken in the ES with up-to-date information and parameters to inform the licence application.</p>	<p>Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.</p>
RR-026.F.37	<p>Section 4: Cable protection within MPA during the operational phase of a project Natural England considers that replenishment of cable protection/scour prevention over the life time of the projects which doesn't increase the footprint of existing protection and is outside of benthic designated sites may be considered on a case by case basis as part of the DCO/dML.</p>	<p>Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.</p>
RR-026.F.38	<p>Natural England advises that a precautionary approach is taken to cable protection within MPAs with each campaign of cable protection requiring a new marine licence along with a full assessment. This is for a number of reasons including that our understanding of impacts, the habitat that is there and its condition evolves over time as well as changes in law. Therefore, each time new cable protection is to be laid it will require a new assessment and an Appropriate Assessment or Marine Conservation Zone assessment.</p>	<p>Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.</p>
RR-026.F.39	<p>Where further cable protection is proposed within an SAC or SPA during the operational phase of a project, it should be assumed that there will be a likely significant effect due to lasting habitat loss from the cable protection and an "appropriate assessment" would need to demonstrate that there would not be an adverse effect from the proposal. This is likely to be challenging in an SAC designated for its</p>	<p>Please see response to Annex 1: Cable protection paper Natural England advice on cable protection assessment for offshore windfarms and inclusion in marine licenses in RR-026.F.22 above.</p>

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Reference	Relevant Representation Comment	Applicant's response
	benthic habitats, therefore all alternatives will need to be fully explored. If it is not possible to avoid an adverse effect, then the derogations route under Article 6(4) of the Habitats Directive (see footnote 2) could be considered. Similarly, a Marine Conservation Zone (MCZ) assessment would be requirement where cable protection was proposed in an MCZ.	

Response to Relevant Representation relating to Other Plans (Natural England Appendix G)

Reference	Relevant Representation Comment	Applicant's response
RR-026.G.1	<p>Appendix G – Other Marine Plans</p> <p>In compiling this response, the following documents have been considered:</p> <ul style="list-style-type: none"> • [APP-010] F1.3 Volume 1, Chapter 3: Project description;[APP-020] F2.2 Volume 2.2 Benthic Subtidal Ecology; •[APP-105] J3 Grid Connection and Cable Detail Statement; •[APP-079] J9 Outline Offshore Operations and Maintenance Plan (OOMP); and •[APP-066] J11 Offshore In Principle Monitoring Plan (IPMP). 	This is noted by the Applicant.
RR-026.G.2	<p>Summary:</p> <p>These comments pertain to the plans submitted as part of volume J (Additional Information and Outline Plans), where these relate to the offshore aspects. We advise that these comments should be read in conjunction with our comments, key concerns and stipulations within the various thematic chapters and the DCO/dML.</p>	The Applicant notes Natural England's comments on the Morgan Generation Assets application and has provided responses to each point raised by Natural England.
RR-026.G.3	<p>Natural England note that many of these plans are outline plans, which will be developed post consent. We advise that as part of the consenting process sufficient clarity and information should be provided to allow the potential environmental impacts to be fully understood, as well as how these will be mitigated and monitored. Where sufficient detail is not provided at this stage, it is unclear how the finalised post consent plan will be checked against the assessments made in the ES, MCZ Assessment, and HRA. We also advise that in this situation there is a risk to the Applicant that further requirements in relation to mitigation and monitoring may be raised</p>	This is noted by the Applicant.

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Reference	Relevant Representation Comment	Applicant's response
	<p>post-consent, which is likely to draw out the process of signing off such plans.</p>	
RR-026.G.4	<p>We advise that evidence is provided across these plans which demonstrates lessons learnt from previous projects.</p>	<p>The Applicant had regard to previous offshore wind development consent orders when preparing this application.</p>
RR-026.G.5	<p>Document: [APP-066] J11 Offshore in Principle Monitoring Plan (IPMP) G1 Executive Summary Comment: We advise that this is the first time Natural England has had sight of the IPMP, and that we have not been involved in its development.</p> <p>Natural England's Recommendations to Resolve Issues: We look forward to working with the Applicant to defining the parameters of the plan to ensure it is fit for purpose.</p>	<p>This is noted by the Applicant who look forward to working with Natural England on the IPMP.</p>
RR-026.G.6	<p>G2 IPMP Comment: In providing our advice Natural England is drawing on our wealth of experience of post-consent monitoring discussions and implementation. We strongly advise that rather than focusing on the exact details of the surveys, and as highlighted by the Applicant, the IPMP should set out the fundamental hypotheses/questions that will be tested by the monitoring based on the outcomes of the HRA, EIA and address issues of uncertainty and/or residual impacts.</p> <p>In addition, Natural England highlights that, while there is agreement that IPMPs are finalised post consent based on project design and timescales; this should not limit updating and agreeing the IPMP prior to consent. Lessons have been learnt since the development of the IPMP for other offshore wind projects, drawing on ongoing and recurring post- consent discussions with developers on ecological monitoring requirements and survey effort required in order demonstrate key predictions of the Environmental Statement (ES) and/or Habitats Regulations Assessment (HRA).</p>	<p>This is noted by the Applicant who acknowledge that further advice will be provided on the IPMP at Deadline 1.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Natural England's Recommendations to Resolve Issues: Because this is a fundamental plan relating to all project phases - Natural England will submit detailed advice on the offshore IPMP at Deadline 1. We will continue to work on this plan with the Applicant through the Examination process.</p>	
RR-026.G.7	<p>G3 DCO Comment: Natural England is concerned with how the purpose of the monitoring is conditioned within the DCO. We advise that the DCO/dML conditions should ensure that the monitoring is relevant to the issues raised, and that adaptive management is secured should post-construction monitoring identify impacts that are significantly outside of those predicted in the Application.</p> <p>Natural England's Recommendations to Resolve Issues: Natural England will work with the developer to ensure that all monitoring conditions are sufficiently fit for purpose.</p>	<p>The Applicant considers that the conditions within the deemed marine licences providing for monitoring reflect the potential impacts of the project and are fit for purpose.</p> <p>The Applicant notes that Natural England has requested a range of additional ecological monitoring (RR-026.A.13). The Applicant considers this unnecessary for the reasons set out in response to RR-026.A.13. No amendment to the deemed marine licence is proposed.</p>
RR-026.G.8	<p>Document used: [APP-010] F1.3 Volume 1, Chapter 3: Project description; [APP-105] J3 Grid Connection and Cable Detail Statement; [APP-020] F2.2 Volume 2.2 Benthic Subtidal Ecology G4 General Comment: Natural England advises that a key consideration is that the type of scour protection used will be removable upon decommissioning. Natural England advises that options that involve introducing plastic to the marine environment have the potential to degrade during the lifetime of the project and raise concerns with regards to marine pollution.</p> <p>Natural England's Recommendations to Resolve Issues: We advise further consideration is given to this issue and that the Applicant seeks to identify the most sustainable and removable form of scour protection.</p>	<p>The Applicant acknowledges Natural England's concerns and recognises the importance of sustainable and removable scour protection. The project design is considering multiple options, including rock, concrete mattresses, and artificial frond mattresses. As noted in Volume 1, Chapter 3: Project description [APP-020], the use of artificial frond mattresses, Seabed Scour Control Systems (SSCS), installed in the North Sea in 1984 and remain in place today and have required no maintenance because of degradation since being deployed.</p> <p>The selection of scour protection methods, where required, will be evaluated and further considered post-consent in the Offshore Construction Method Statement, focusing on both engineering suitability and environmental recoverability. The Offshore Construction Method Statement is secured in Condition 20(1)(d) of Schedule 4 of C1 Draft development consent order [AS-003].</p> <p>A draft of the decommissioning plan for the Morgan Generation Assets, which will include an assessment of the removal of scour protection, will be submitted prior to the commencement of construction. This decommissioning plan and programme will be updated throughout the assets' lifespan to incorporate changing best practice and new technologies.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-026.G.9	<p>G5 General</p> <p>Comment: Natural England advises that we should be consulted on the final scour prevention and cable protection plan and the requirements for future surveys.</p> <p>Natural England's Recommendations to Resolve Issues: We advise that consultation of Natural England on this plan is stipulated in the DCO.</p>	<p>The Applicant does not consider it necessary for Natural England to be a consultee on the discharge of pre-construction plans and documentation as required by condition 20 of the deemed marine licences. It is standard practice for the MMO to discharge those conditions in consultation with Trinity House, the MCA and UKHO as appropriate. None of the conclusions of the environmental impact assessment for the Morgan Generation Assets would justify a departure from this usual practice.</p>
RR-026.G.10	<p>G6 General</p> <p>Comment: We advise the Applicant considers lessons learnt from other wind farm projects in relation to potential scour and cable exposure, particularly around Wind Turbine Generations (WTGs).</p> <p>Natural England's Recommendations to Resolve Issues: We advise that industry experience regarding these matters is considered and evidenced within the plan.</p>	<p>The Applicant acknowledges Natural England's recommendation to consider lessons learned from other wind farm projects regarding potential scour and cable exposure, particularly around Wind Turbine Generators (WTGs) foundations. The Applicant is considering industry experience and lessons learnt which will inform the Offshore Construction Method Statement (CMS).</p>
RR-026.G.11	<p>G7 General</p> <p>Comment: Natural England advises that the Applicant should produce a decommissioning plan that outlines all decommissioning options (maintain, full removal and partial removal). These options can be assessed and refined closer to the time of decommissioning itself in consultation with Natural England. Natural England reserves its position until a draft plan is submitted at which point we will provide further advice.</p> <p>Natural England's Recommendations to Resolve Issues: We advise that the Applicant should produce an Outline Decommissioning Plan submitted to support the consenting phase. The plan should outline all decommissioning options (maintain, full removal and partial removal). We highlight that it is a requirement to prepare a decommissioning programme under Section 105 of the Energy Act 2004.</p>	<p>Requirement 5 of the draft DCO requires the written decommissioning programme to be submitted to the Secretary of State prior to works commencing. The final decommissioning programme would be developed at the relevant time based on prevailing good practice and guidance available.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-026.G.12	<p>G8 Volume 2.2 Table 2.17</p> <p>Comment: We acknowledge the commitment of the Applicant to develop and adhere to an Offshore Construction Method Statement (CMS), which will include a Cable Specification Installation Plan (CSIP), incorporating a Cable Burial Risk Assessment (CBRA). Natural England recommends that the developer provides more detail on cable protection, scour protection and cable burial within further outline plans that Natural England will be consulted on.</p> <p>Natural England's Recommendations to Resolve Issues: We recommend that the Applicant provides further detail on cable protection, scour protection and cable burial which would ideally be included in the final version of the CBRA.</p> <p>We advise that the CBRA should be informed by geotechnical data to further understand the scour and cable protection requirements to ensure that a realistic worst-case scenario is presented.</p>	<p>The details regarding the cable protection materials, their volumes, methods, and area of impact are presented in sections 3.5.9 and 3.5.10 of Volume 1, Chapter 3: Project description (APP-010). Geophysical surveys are still ongoing, and the survey data analysed will be analysed post consent. Therefore, the specific routing and precise methodologies for offshore cable installation and protection cannot yet be further detailed.</p> <p>The Applicant can confirm that the geotechnical survey data will inform the CBRA, and will provide details on where cables can be buried to the required target depths, and where additional protective measures may be necessary. CBRA will form a part of the CSIP, which will be included within the CMS. This will be secured within the deemed marine licences of the draft DCO [AS-003] (condition 20(1)(d) in each deemed marine licence) and Natural England will be consulted in the development of the Offshore CMS.</p>
RR-026.G.13	<p>G9 J3 Section 1.7 F1.3.3.5.9.7 - 3.5.9.11</p> <p>Comment: Natural England notes that many different cable protection methodologies are included within the Cable Detail and Grid Connection Statement; some of which are not conducive to minimising the impact footprint and maximising recovery, as committed to in the mitigation measures. Therefore, we advise that it is critical that engineering decisions include a hierarchy of the different methodologies and their relative environmental impacts, and that these work areas are progressed in tandem. We advise that the options for scour prevention and cable protection should be limited to those which sufficiently meet both engineering and ecological requirements and this is agreed as part of the consenting phase. Natural England advise that post-installation/decommissioning recovery will need to be demonstrated by monitoring, particularly for methods where full recovery has not been achieved previously in similar sedimentary conditions.</p> <p>Natural England's Recommendations to Resolve Issues: We advise the Applicant refines the scour prevention and cable</p>	<p>In some cases where the minimum cable burial depth cannot be achieved, alternative methods such as rock placement, concrete mattresses, or other cable protection systems will be necessary to protect the cable from external damage. Cable burial remains the preferred method, and additional protection will only be used as a contingency. The specific form of cable protection, whether buried or through additional methods, will depend on local ground conditions, which may include exposed bedrock or pre-existing cables and pipelines.</p> <p>Until the geophysical surveys are complete and analysed post-consent, the Applicant seeks to retain all options for cable protection to ensure the most appropriate solution can be implemented. The Cable Burial Risk Assessment (CBRA), which will be included in the Offshore Construction Method Statement (CMS) and Cable Specification and Installation Plan (CSIP), will be informed by these surveys and will detail the final methodologies and materials used.</p> <p>The requirement for monitoring has been assessed within the Offshore in principle monitoring plan (APP-066) as part of the Environmental Impact Assessment (EIA). This includes the post-construction phase commitment to periodic validation surveys of cable burial and protection, secured within the Construction Method Statement (Condition 20(1)(d) of Schedule 4 of C1 Draft development consent order (AS-003)). For the</p>

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Reference	Relevant Representation Comment	Applicant's response
	protection options included within the outline plan for 'J3 grid connection and cable detail statement'.	decommissioning phase, no significant effects were predicted, and therefore, no monitoring is considered necessary to test the predictions of the EIA.
RR-026.G.14	<p>G10 General</p> <p>Comment: Natural England understand that the Offshore Environmental Management Plan (OEMP) will be produced prior to construction and will be developed following the detailed design process. We advise that until these details are fully understood Natural England cannot provide final comment on the suitability of the management measures proposed. Therefore, we advise that more detail is provided within an outline plan and submitted into examination to provide the information needed to appraise the suitability of management measures proposed. We advise a holistic approach to the final plan to bring together all agreed measures across the ES and to ensure that the contractor is fully aware of all commitments.</p> <p>Natural England's Recommendations to Resolve Issues: We advise that an outline OEMP is submitted into examination and that Natural England are consulted on the final version prior to construction.</p>	<p>The Applicant does not intend to submit an outline Offshore Environmental Management Plan into the examination. The Offshore Environmental Management Plan will provide a framework for implementing the commitments made by the Applicant, all of which are already set out within the Mitigation and monitoring schedule (APP-076) and secured within the Draft development consent order (AS-003).</p> <p>Offshore Environmental Management Plans are standard measures for offshore wind developments and the Applicant will consult with Natural England on the Offshore Environmental Management Plan to be prepared post-consent.</p>
RR-026.G.15	<p>G11 Marine Pollution Contingency Plan</p> <p>Comment: We advise that pollution incidents, reports, and situation updates should be emailed to the Natural England Marine Incidents Mailbox: marineincidents@naturalengland.org.uk. We note that a Marine Pollution Contingency Plan will be included within the Offshore EMP. Therefore, we cannot comment on the suitability of the measures to be included at this point.</p> <p>Natural England's Recommendations to Resolve Issues: We advise this contact is added to the plan. We advise that an outline OEMP is submitted into examination and that Natural England are consulted on the final version prior to construction.</p>	<p>Please see response to comment RR-026.G.14 above.</p> <p>The Applicant welcomes the contact details provided and will continue engagement with Natural England to ensure the up to date contact details are provided in the Marine Pollution Contingency Plan to be submitted post-consent.</p>
RR-026.G.16	<p>G12 Biodiversity Risk Assessment and INNS Management Plan</p> <p>Comment: We note that the Offshore EMP will include a Biosecurity Risk</p>	Please see response to comment RR-026.G.14 above.

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Reference	Relevant Representation Comment	Applicant's response
	<p>Assessment and INNS Management plan. We advise that until this plan has been produced, we cannot comment on the suitability of the measures to be included</p> <p>Natural England's Recommendations to Resolve Issues: We advise that an updated plan is submitted into examination and that Natural England are consulted on the final version prior to construction.</p>	
<p>RR-026.G.17</p>	<p>Document used: [APP-079] J9 Outline Offshore Operations and Maintenance Plan (OOMP) G13 Volume 9 section 1.4</p> <p>Comment: Natural England understands that this is an outline plan, which will be developed post consent. We advise that clarity should be provided regarding how the potential impacts of the finalised plan will be checked against the assessments made in the ES, MCZ Assessment, HRA etc. We advise that sufficient information should be provided at the pre-consent stage to allow operations and maintenance (O&M) activities to be fully assessed</p> <p>Natural England's Recommendations to Resolve Issues: We advise that this plan is developed further pre-consent to provided sufficient certainty in the accuracy of what is included in the assessments.</p>	<p>The Applicant has provided an Outline offshore operations and maintenance plan (APP-079) as part of the Morgan Generation Assets application. The purpose of this outline plan is to provide an overview of the reasonably foreseeable offshore operations and maintenance activities that the Applicant may need to undertake.</p> <p>The assessments within each relevant topic chapter of the Morgan Generation Assets Environmental Statement have considered the maximum design scenario for the operations and maintenance activity parameters from the project design envelope. These parameters include the maximum major component replacements at the wind turbines and offshore substation platforms, cable repair and reburial events and the type and maximum number of vessels used to undertake those activities. These parameters are presented within the Outline offshore operations and maintenance plan (APP-079) with cross-references provided to where the activity has been assessed in the relevant chapters of the Environmental Statement.</p> <p>The final operations and maintenance plan will not result in any additional impacts as the final design will be selected from the project design envelope presented and fully assessed in the Morgan Generation Assets application. The project design envelope approach ensures that the realistic worst case scenario is assessed and provides flexibility in the project design.</p>
<p>RR-026.G.18</p>	<p>G14 Volume 9 Table 1.2</p> <p>Comment: Whilst some activities have been deemed as licensable, but not included in this application – such as additional cable protection - we advise that all reasonably predictable activities should be considered within the ES at the pre-consent stage, and sufficient data should be gathered to avoid the need for further licences unless something unpredictable occurs. The Applicant should be aware that depending on the situation a non-material or material amendment to the DCO/dML may be required. In relation to unpredictable works, we advise that the Applicant seeks to understand what may have been</p>	<p>The Applicant has sought to include all reasonably predictable operations and maintenance activities within the Morgan Generation Assets application. The Outline offshore operations and maintenance plan (APP-079) describes the process which has been carried out in order to identify the operations and maintenance activities to be included in the Morgan Generation Assets application. This included a screening exercise to identify typical operations and maintenance activities carried out for offshore wind farms, informed by experience and research of publicly available marine licences and DCOs.</p> <p>The Applicant can include the following definition of emergency in the final offshore operations and maintenance plan, as defined by the MMO: "Emergency" means a</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>required on other offshore wind projects to date to inform their predictions at the pre-consent stage. We also advise including a definition of what constitutes emergency work.</p> <p>Natural England's Recommendations to Resolve Issues: Natural England advise that sufficient information needs to be gathered regarding likely O&M requirements at the consenting stage, to minimise the requirements for unexpected further licences.</p>	<p>serious, unexpected, and often dangerous situation requiring immediate action' (MMO, 2019).</p>
<p>RR-026.G.19</p>	<p>G15 General Comment</p> <p>Comment: We advise undertaking required monitoring and recording and in turn this should be used to inform 5 yearly reviews of the activities, which Natural England wish to be consulted on.</p> <p>Natural England's Recommendations to Resolve Issues: We advise this is stipulated and is a condition of the DCO/dML.</p>	<p>The potential environmental impacts of operations and maintenance activities have been fully assessed in the relevant chapters of the Morgan Generation Assets Environmental Statement. All impacts assessed were concluded to be not significant in EIA terms, therefore no monitoring of this nature is proposed.</p>
<p>RR-026.G.20</p>	<p>G16 General Comment</p> <p>Comment: We advise that deployment of scour/cable protection under the DCO should be no later than 10 years post construction. Permission for any further cable protection works after that time should be sought through a new Marine Licence.</p> <p>Natural England's Recommendations to Resolve Issues: The Applicant should update the dMLs to secure the maximum period of ten years post construction for deployment of cable protection.</p>	<p>As noted in response to point G14, the Applicant has included all reasonably predictable operations and maintenance activities within the Morgan Generation Assets application and assessed the potential impacts of those within the Environmental Statement. The Applicant does not consider there to be any reasonable basis on which to impose a time-limit on the activities authorised by the deemed marine licences in the manner suggested by Natural England.</p>
<p>RR-026.G.21</p>	<p>G17 General Comment</p> <p>Comment: Where seabed disturbance is necessary and use of equipment such as jack-up vessels are required, the Applicant should provide details showing how they will ensure the avoidance of sensitive features such as Habitats of Principal Importance listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act and Annex I features (as identified in the benthic and fish ecology chapters). We advise that consideration needs to be given to</p>	<p>The Applicant notes that that Morgan Array Area does not spatially overlap with the boundary of any European marine site (i.e. SAC or SPA) or any other MPA (including MCZs). No Annex I habitats were recorded within the Morgan Array Area and therefore no Annex I habitats have the potential to be directly affected by the Morgan Generation Assets. Annex I low resemblance stony reef was recorded at two stations within the Morgan Array Area Zone of Influence. The assessment of potential indirect effects to this habitat in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) concluded that significant effects will not occur. Similarly, the assessment of impacts to all other benthic habitats present within the Morgan Generation Assets in Volume 2, Chapter 2: Benthic subtidal ecology (APP-020) concluded that significant effects will not occur. On this</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>ongoing data collection required to inform micro-siting of activities during the lifetime of the project.</p> <p>Natural England's Recommendations to Resolve Issues: We advise this is considered and further details provided as part of the consenting phase.</p>	<p>basis, a condition to micro-site specifically for features of conservation importance would be disproportionate to the potential impacts which are not significant. As such, the Applicant does not consider it necessary to include any further detail in outline plans or the deemed marine licences.</p>
<p>RR-026.G.22</p>	<p>G18 General Comment</p> <p>Comment: Natural England would support reburial where exposure has occurred, or where cable repair/replacement is required, over the placement of rock protection. This would potentially allow recovery following reburial, whereas the addition of scour protection would lead to permanent habitat change/loss.</p> <p>Natural England's Recommendations to Resolve Issues: We advise that the Applicant includes a cable burial hierarchy which makes reburial the priority.</p>	<p>The Applicant has committed to the development of, and adherence to, an offshore Construction Method Statement which includes a Cable Specification and Installation Plan (CSIP). The CSIP will incorporate a Cable Burial Risk Assessment (CBRA). Reburial will be considered where possible as the preferred option for cable protection.</p> <p>The offshore Construction Method Statement will include details of cable monitoring, including details of cable protection until the authorised scheme is decommissioned, which includes a risk based approach to the management of unburied or shallow buried cables.</p> <p>The Applicant notes Natural England's advice on a cable burial hierarchy to prioritise the reburial of cables where exposure has occurred over the placement of rock protection.</p>
<p>RR-026.G.23</p>	<p>G19 General Comment</p> <p>Comment: We note that there is currently no information on how the impacts of O&M works will be monitored. We advise that clarity is needed on this.</p> <p>Natural England's Recommendations to Resolve Issues: We advise that the Applicant considers this further in an updated plan.</p>	<p>The potential environmental impacts of operations and maintenance activities have been fully assessed in the relevant chapters of the Morgan Generation Assets Environmental Statement. All impacts assessed were concluded to be not significant in EIA terms, therefore no monitoring is proposed.</p> <p>As described in the Offshore in-principle monitoring plan (APP-066), monitoring of the cables and their burial status will take place, as secured by condition 20(1)(d)(cc) of the deemed Marine Licences (Schedules 3 and 4) within the Draft Development Consent Order (AS-003).</p>

2.27 Natural Resources Wales

Table 2.27: RR-027 – Natural Resources Wales.

Reference	Relevant Representation Comment	Applicant's response
RR-027.1	<p>Introduction</p> <p>The statutory purpose of NRW is set out by the Environment (Wales) Act 2016. In the exercise of its functions NRW must pursue sustainable management of natural resources in relation to all of its work in Wales and apply the principles of sustainable management of natural resources in so far as that is consistent with the proper exercise of its functions. NRW's duty (in common with the other public bodies covered by the Well-Being of Future Generation (Wales) Act 2015) is to carry out sustainable development. This means, in general terms, looking after air, land, water, wildlife, plants, and soil to improve Wales' well-being, and provide a better future for everyone. NRW are also advisors to the Welsh Government on the natural heritage and resources of Wales and its coastal waters. NRW is satisfied that the advice below is consistent with its general purpose of pursuing the sustainable management of natural resources in relation to Wales and applying the principles of sustainable management of natural resources.</p>	<p>The Applicant welcomes NRW's representation and NRW's role is noted.</p>
RR-027.2	<p>Introduction</p> <p>NRW have identified key concerns relating to the matters detailed below. It should be noted that NRW will be commenting only on matters considered to be cumulative impacts and/or migratory species in relation to Welsh designated sites. All other matters pertaining to the development will be deferred to Natural England/JNCC.</p> <ul style="list-style-type: none"> • Marine Ornithology • Marine Mammals <p>The above matters are those that we advise either require amendments to the project, and/or substantial additional information, and/or amendments to the draft Development Consent Order ('DCO'). We also provide comments below on matters that may need minor amendments and / or clarification.</p> <p>These are matters that we can provide further details on in our Written Representations and / or can be addressed in our on-going dialogue with the Applicant in the preparation of Statement of Common Grounds (SoCGs).</p>	<p>The Applicant notes NRW's comments on cumulative impacts and migratory species in relation to Welsh designated sites. The Applicant notes that other matters shall be deferred to Natural England/JNCC. The Applicant has consulted with Natural England and JNCC as required.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-027.3	<p>Introduction</p> <p>NRW will continue to provide further advice to the Applicant on all the required matters, through correspondence and meetings, with the aim of reaching as many positions of agreement and common ground as possible on outstanding matters prior to the examination of the proposal. Our Relevant Representation is based solely on the information provided within the application documents. Any changes in our position will be reflected in our full Written Representation and SoCG.</p>	<p>The Applicant thanks NRW for all advice received throughout the pre-application and pre-examination phases of the project.</p>
RR-027.4	<p>Introduction</p> <p>NRW has reviewed the application and, notwithstanding our key concerns and other issues raised herein, consider the submission, on balance, to be comprehensive and of a good quality. NRW is pleased to note that many of our previous concerns, as raised during the pre-application process, have been appropriately addressed.</p>	<p>The Applicant has provided responses to the points raised by NRW through the relevant representations and welcomes that NRW consider the application to be comprehensive and of a good quality.</p>
RR-027.5	<p>Introduction</p> <p>Our comments are made without prejudice to any further comments NRW may wish to make in relation to this application and examination, whether in relation to the ES, provisions of the draft DCO and its Requirements, SoCGs or other evidence and documents provided by Bp-Enbw and their consultants ('the Applicant'), the Examining Authority (ExA) or other interested parties. The following paragraphs comprise our Relevant Representation as a Statutory Party under the Planning Act 2008 and Infrastructure Planning (Interested Parties) Regulations 2015 and as an 'interested party' under s102(1) of the Planning Act 2008.</p>	<p>The Applicant notes NRW's comments and has provided responses to each comment raised by NRW.</p>
RR-027.6	<p>Introduction</p> <p>Please note that the advice provided in this relevant representation relates only to the potential cumulative impacts and effects to Welsh protected sites and associated migratory species. For sites outside of Wales, the relevant Statutory Nature Conservation Body (SNCB) should be consulted.</p>	<p>The Applicant notes that NRW relevant representations relate only to potential cumulative impacts and effects on Welsh protected sites and associated migratory species. The Applicant has consulted with other relevant Statutory Nature Conservation Bodies where required.</p>
RR-027.7	<p>MARINE ORNITHOLOGY</p> <p>Key Issues</p> <p>1. As detailed above, NRW (A)'s area of interest for offshore ornithology for this project relates to impacts on Welsh designated sites. However, we have also provided advice on the overall methodological approaches taken for offshore ornithology as these are relevant to the assessment of impacts to Welsh designated sites, including:</p>	<p>This is noted by the Applicant. Please see responses to specific comments below.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<ul style="list-style-type: none"> • 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. 	
RR-027.8	<p>2. Whilst we consider that the predicted impacts from the Morgan generation assets project alone to Welsh designated sites are likely to be small and result in no adverse effects, the assessment and process of reaching the predicted impacts in the submission documents is currently unclear in places (e.g. how bird density data has been input to the sCRM, the CRM input parameters the CRM predictions in the HRA Stage 2 ISAA part 3 are based on, age class apportioning methods for the non-breeding season). Therefore, we advise clarification and/or updates are required to the assessment considering the comments below to add clarity and confidence in the predicted levels of impact.</p>	<p>This is noted by the Applicant. The Applicant welcomes the statement that the predicted impacts from the Morgan Generation Assets project alone to Welsh designated sites are likely to be small and result in no adverse effects. Please see responses to specific comments below.</p>
RR-027.9	<p>Detailed Comments</p> <p>Methodological Issues:</p> <p>Seabird Collision Risk Modelling (CRM)</p> <p>3. NRW (A) understand that the collision risk modelling has been undertaken using the stochastic collision risk model (sCRM) 'Shiny App'. Clarification is required as to how the Applicant has entered the bird density data into the sCRM, e.g. has the 1,000 bootstrapped samples per survey been uploaded into the sCRM tool via the .csv file template that is available in the tool? If the bootstrapped data has been uploaded, then we request that these files are provided. We also repeat our advice provided on the Preliminary Environmental Information Report (PEIR) that the log .csv files (input and output) the sCRM produces should be provided in order for the sCRM to be verified and for the correct data to be available for use by future projects if required for cumulative/in-combination assessments.</p>	<p>Collision risk modelling has been undertaken using the code associated with the stochastic collision risk model developed by McGregor et al. (2018) which has been run within R studio. This has used the density data as reported in Table 1.5 of Volume 4, Annex 5.3 Offshore ornithology collision risk modelling technical report (APP-055). The confidence intervals presented in Table 1.5 reflect the distribution of values and can therefore be expected to provide the same answer as a modelling process using bootstrapped values.</p> <p>Volume 4, Annex 5.3 Offshore ornithology collision risk modelling technical report (APP-055) provides all input values used in collision risk modelling and outputs from the sCRM. The inputs provided in Volume 4, Annex 5.3 Offshore ornithology collision risk modelling technical report (APP-055) have been used in the sCRM and can be used in future analyses of the collision risk associated with the Morgan Generation Assets.</p>
RR-027.10	<p>4. The Applicant has presented sCRM outputs considering a range of flight speeds and avoidance rates in Section 1.4 of Volume 4, Annex 5.3 'collision risk technical report' [APP-055], along with a review of uncertainty regarding</p>	<p>Please see responses to specific comments below.</p>

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RR-027.11	<p>these parameters in Section 1.5 of Volume 4, Annex 5.3 [APP-055]. With regard to the Applicant's review and conclusions, we note the following:</p> <p>5. Flight speeds: NRW (A) acknowledge that bird flight speeds are an important issue in the context of collision risk modelling (CRM). However, it should be noted that it is not as simple as changing one parameter (i.e. flight speed to the Skov et al. 2018 speeds) in the CRM, there is also a need to consider how this fits in the wider CRM in terms of the other input parameters. E.g. there is likely to be a relationship between flight speed and height and this needs to be taken into consideration (Natural England 2019) and, incorporating behaviour into collision risk models may also require the estimation of different avoidance rates as the current recommended avoidance rates have been derived from the generic currently advised flight speeds (Cook et al. 2023).</p>	<p>As discussed in Volume 4, Annex 5.3 Offshore ornithology collision risk modelling technical report (APP-055) the flight speed data presented in both Alerstam (2007) and Pennycuick (1987) are fundamentally flawed, do not represent bird behaviour offshore and have associated sample sizes that would not be considered robust in any scientific analysis. The use of these values significantly undermines any assessment based on resultant collision risk estimates. The presence of a value for any parameter should not necessitate its use when data of far greater quality are available. Previous criticisms of the Skov et al. (2018) flight speeds are valid. However, these criticisms also apply to the flight speed data in Alerstam (2007) and Pennycuick (1987) to a much greater extent. It is considered that the use of more robust flight speeds (i.e. from Skov et al., 2018) creates no more uncertainty than the incorporation of flight speeds of significantly lower data quality into the currently recommended avoidance rates.</p> <p>The Applicant notes that NRW, as part of the first EWG meeting, recommended: "Due to uncertainty NRW (A) recommend the use of a wide variety of parameters. NRW (A) advise that collision risk assessments need to present data and predicted impacts in a way that allows the full range of uncertainty (e.g. around input data, analysis, methodology) to be understood and evaluated. Assessments should use the information on uncertainty and variability in the input parameters (e.g. bird densities, flight heights, avoidance rates, nocturnal activity) to allow consideration of the range of values predicted impacts may fall within, and to allow an assessment of confidence in the conclusions made regarding adverse effects on site integrity and significance of impacts for populations." A range of collision risk estimates have been progressed through all stages of the assessments presented, with the calculations of both the Applicant's preferred parameters and the collision risk estimates calculated using the parameters advocated by NRW presented.</p>
RR-027.12	<p>6. Avoidance rates: The use of species-specific versus species-group avoidance rates was discussed with the Expert Working Group (EWG) and the SNCBs (NE/NRW/JNCC) advised that due to the paucity of offshore, species-specific data that undermines the confidence we can place in species-specific rates at this stage, we currently advise that the species group avoidance rates are used in assessments.</p>	<p>One of the main purposes of the Ozsanlav-Harris et al. (2023) paper was to incorporate new datasets into the calculation of avoidance rates. One of these datasets, the ORJIP BCA study, represents one of the largest (if not the largest) dataset on bird avoidance behaviour in the offshore environment.</p> <p>It is not considered that the use of species-specific avoidance rates results in any further uncertainty associated with resulting collision risk estimates than the use of grouped avoidance rates. The exclusion of species-specific</p>

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		<p>avoidance rates from assessments is contrary to NRW's position on other aspects of offshore wind farm assessments where much wider ranges are recommended to account for uncertainty. As there is uncertainty with grouped avoidance rates due to the inclusion of onshore data and data for other species it stands to reason that the use of species-specific avoidance rates should be encouraged to show the true range of uncertainty.</p> <p>There are differences between the species-specific avoidance rates, for example when comparing great black-backed gull and the two other large gull species (herring gull and lesser black-backed gull). This suggests that the behaviour of these species is different and provides a good justification for the use of species-specific avoidance rates.</p> <p>Cook et al. (2021), the precursor to Ozsanlav-Harris et al. (2023), suggests that a minimum of ten sites may be used as an arbitrary threshold sample size to inform the selection of species-specific avoidance rates over group-specific estimates. The species-specific rates calculated for all species in Ozsanlav-Harris et al. (2023) reaches this threshold for all species except kittiwake. The EWG has recommended that the 'all gull' rate be used for kittiwake. The 'all gull' rate is calculated using data from all species of gull, many of whom are likely to exhibit different flight behaviour than kittiwake. The 'all gull' rate may therefore not reflect the behaviour of kittiwake, a much more marine-based species than all other gulls for which data is available.</p> <p>Irrespective of the discussion above, collision risk estimates calculated using the EWG's recommended parameters have been progressed through all stages of the assessments presented.</p>
RR-027.13	<p>7. We welcome that the Applicant has presented predicted collision impacts for each relevant species using the various flight speeds they have considered, including the SNCB advised speeds, and both the species group and species-specific avoidance rates. NRW (A) will base its advice on the predicted impacts resulting from the SNCB advised flight speeds (from Alerstam et al. (2007) or Pennycuick (1997)) and species group avoidance rates (which are the SNCB agreed recommended rates for use in collision risk modelling).</p>	<p>The Applicants notes NRW's response.</p>
RR-027.14	<p>Impacts to Sites of Special Scientific Interest (SSSIs) (Volume 2, Chapter 5, APP-023)</p> <p>8. We welcome that quantitative assessments of displacement impacts to the guillemot and razorbill features and collision impacts to the kittiwake feature of</p>	<p>The Applicant notes that NRW welcomes the quantitative assessments of impacts to features of Pen y Gogarth / Great Orme's Head SSSI in Volume 2, Chapter 5 Offshore ornithology (APP-023). The Applicant notes NRW's response and does not expect calculations using an adult only baseline mortality rate to change the assessment conclusions on site integrity as</p>

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	<p>the Pen y Gogarth / Great Orme's Head SSSI have been undertaken in Volume 2, Chapter 5 [APP-023]. However, clarification is required regarding the following:</p> <ul style="list-style-type: none"> • How the apportionment values of <0.01 for the site in the non-breeding seasons (presented in Tables 5.41, 5.44 and 5.52 of Volume 2, Chapter 5, APP-023) have been calculated, as no information is provided on non-breeding season apportionment to non-SPA colonies in Volume 4, Annex 5.5 'Apportioning Technical Report' [APP-057]. • Whether the SSSI population numbers of individuals given in Tables 5.41, 5.44 and 5.52 of Volume 2, Chapter 5 [APP-023] are the number of breeding adults or the number of birds of all ages (adults and immatures). We suggest that these are based on the number of adults. • What mortality rates have been used for the calculations of baseline mortality and the proportions of baseline mortality that the predicted impacts equate to. We suggest these should use the adult mortality rates. 	<p>detailed in Volume 2, Chapter 5 Offshore ornithology (APP-023). The Applicant intends to provide a clarification note, detailing responses to these comments at Deadline 1.</p>
RR-027.15	<p>9. Additionally, the apportioned impacts across the SNCB advised range of % displacement (30-70%) and % mortality (1-10%) rates should also be provided in addition to the Applicant's preferred rates of 50% displacement and 1% mortality.</p>	<p>The Applicant intends to provide a clarification note for Deadline 1, detailing responses to these comments.</p>
RR-027.16	<p>10. We note that (contrary to the information in tables 5.14, 5.36, 5.38, 5.42, 5.45 and 5.53) guillemot, razorbill and kittiwake are not qualifying features of Creigiau Rhiwledyn / Little Ormes Head SSSI – the only seabird feature of this site is breeding cormorant.</p>	<p>Noted. Cormorant was not identified as a Valued Ornithological Receptor in relation to impacts associated with the Morgan Generation Assets as no cormorant were recorded during baseline characterisation surveys of the project.</p>
RR-027.17	<p>Cumulative Assessments (Volume 2, Chapter 5, APP-023)</p> <p>11. Data gaps: The cumulative impact assessments contain numerous data gaps and cannot be considered comprehensive. This issue was raised as a concern by NRW (and also NE and JNCC) in the PEIR responses and discussed during the EWG. We highlight that NRW (A) advised the Crown Estate Round 4 plan-level Habitats Regulations Assessment (HRA) to undertake quantitative 'gap-filling' for historic projects. It is unfortunate that this advice was not adopted as we do consider this an imperative issue that needs to be implemented at the strategic level. Nonetheless, the SNCBs supplied joint bespoke advice to the Applicant (and other Round 4 projects in the Irish Sea) detailing a hierarchical method to 'gap-fill' the Irish Sea cumulative and in-combination assessments. The advice to the Applicant was to generate indicative estimates for currently unknown impacts, which have been assumed</p>	<p>The Applicant has presented an approach that goes beyond that presented for any previous offshore wind farm application, quantifying the impacts for projects where quantitative project-specific information is available and, where such data are not available, considering any available qualitative project-specific information. In doing so, the Applicant has included all available information for all projects that may act cumulatively/in-combination with the Morgan Generation Assets. The Applicant has not assumed that the impact from any project is zero and has discussed the likely impact associated with projects for which quantitative information is unavailable throughout the cumulative and in-combination assessments in Volume 2, Chapter 5 Offshore ornithology (APP-023) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098), respectively.</p>

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	<p>to be zero. Adopting such an approach that would allow indicative estimates to be made (rather than assuming zero) which would then enable more informed expert judgement to be made on the likelihood of adverse effects, and thus enable an understanding as to whether any further investigation by a more rigorous assessment was needed.</p>	<p>The assessments have been undertaken based on the best evidence available, combining modelling with professional judgement. The assessments have been taken in line with the process undertaken on other offshore wind farms. Based on that approach, robust and precautionary conclusions have been reached in in Volume 2, Chapter 5: Offshore ornithology (APP-023) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098).</p> <p>This matter is not unique to the Morgan Generation Assets with the Secretary of State having recently granted consent for the Awel y Môr offshore wind farm, which is located just to the south of the Morgan Generation Assets and was not required to provide quantified CEA data for all historic projects. This is also applicable to every other offshore wind farm project in UK waters with the Secretary of State having granted consent despite impacts for some projects not having been quantified within cumulative and in-combination assessments.</p> <p>The Applicant undertook a collaboration exercise with the Applicant's for the Mona and Morecambe offshore wind farms. This process was complete in time for the Morgan and Morecambe applications and as a result the values used for other projects in the respective cumulative assessments should be comparable.</p> <p>However, noting SNCBs concerns raised pre- and post-application with respect to the potential contribution of historical projects to the offshore ornithology Cumulative Effects Assessments (CEAs) and in-combination assessment for the Morgan Generation Assets, the Applicant is engaging with SNCBs on the proposed methodology and the Applicant will produce a technical note regarding the 'gap-filling' exercise in accordance with the SNCB Advice Note at Deadline 1.</p>
RR-027.18	<p>12. However, the Applicant has not followed the suggested SNCB advice and has instead presented a qualitative summary for the projects with no data, and essentially the impacts from these projects remain assumed as zero. We do not consider that the qualitative assessments presented by the Applicant are sufficient to give confidence in the conclusions drawn with respect to the level of significance of accumulating scale of impacts to some species. Our advice therefore remains as detailed in the original SNCB advice provided to the Applicant.</p>	<p>Please see response above. The Applicant has not assumed that the impact from any project is zero and has discussed the likely impact associated with projects for which quantitative information is unavailable in the EIA and HRA. It is considered that the calculation of indicative estimates would introduce considerable levels of uncertainty into associated assessments due to the assumptions involved in calculating such estimates. Many of the projects for which quantitative information is unavailable are nearing the end of their consented lifetimes and therefore the associated impacts will not persist across the lifetime of the Morgan Generation Assets.</p>

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RR-027.19	13. However, there are ongoing internal discussions surrounding the development of an approach that may help to address this issue, which will be shared with the Applicant for consideration in due course.	Noted, the Applicant welcomes further discussion on the development of an approach.
RR-027.20	14. Data included for other projects in cumulative assessments: We advise that the Applicant reviews and if necessary updates the figures included in the cumulative tables for the various projects as there are several errors in the figures included and/or several differences between the figures included by Morgan Generation Assets and those included by the Mona project in their submission for the same projects. Given that both the Morgan Generation Assets project and the Mona project are being determined and in examination concurrently (albeit at different stages) at the same time, and both projects are located within the Irish Sea, there will be a need for both projects to be assessing the same cumulative (and hence in-combination) total impacts. Therefore, we suggest that the two projects work together collaboratively to ensure the assessments are consistent. 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 cumulative totals also presented for the species-group avoidance rates as advised by NE/NRW/JNCC. Clarification is required from the Applicant regarding the approach taken to do this. It appears that the figures included for Awel y Môr for large gulls are those for Band Option 2, however, clarification is required as to whether this is the case.	<p>The Applicant is unaware of any errors within the Morgan Generation Assets cumulative assessments presented but would welcome any further correspondence that provides details of specific values that are believed to be incorrect.</p> <p>Collision risk estimates for all projects have been updated using the avoidance rates from Ozsanlav-Harris et al. (2023). This is standard practice within cumulative and in-combination assessments across offshore wind farm projects both since and before the publication of Ozsanlav-Harris et al. (2023). It is understood that SNCBs advise against this as these avoidance rates have been calculated using certain values for other parameters which may not align with the parameters used in the collision risk modelling conducted for cumulative projects. There have been no updates to SNCB advice in relation to other parameters since the Band (2012) model was introduced and, it is these collision risk estimates that are generally incorporated into cumulative and in-combination assessments. It is therefore unlikely that parameters different to those used to calculate the avoidance rates in Ozsanlav-Harris et al. (2023) have been used in the collision risk modelling for projects considered cumulatively.</p> <p>The assessments have used Option 2 for all species for Awel y Môr with the exception of herring gull for which outputs from Option 3 were used. However, the use of Option 2 for herring gull would make no difference to the conclusions reached in Volume 2, Chapter 5 Offshore ornithology (APP-023) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098).</p>
RR-027.21	15. Therefore, we advise that the cumulative assessments are updated to address these issues where required before we can make any conclusions on the level of impacts.	Please see previous response.
RR-027.22	16. Additionally, the numbers included for the Morecambe generation assets project are based on data from the PEIRs for this project, which was based on only 12 months of data and are therefore, subject to change and have a degree of uncertainty associated with them. We understand that the application for the Morecambe generation assets project has recently been submitted to PINS and so there is the potential for the Morecambe generation assets project to also be in examination during the Morgan generation assets	The Applicant has used the most recent available data at the time of the Morgan Generation Assets application within Volume 2, Chapter 5: Offshore ornithology (APP-023). The latest publicly available information at the point of the Morgan Generation Assets application for the Morecambe Offshore Windfarm Generation Assets was limited to the first 12 months of their survey campaigns, as this was included in their Preliminary Environmental Information Report (PEIR). The Applicant notes that since the Morgan

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	examination, and hence there will be a need to ensure that the cumulative totals assessed by the projects are consistent.	Generation Assets application was accepted, the Morecambe Offshore Windfarm Generation Assets has been accepted for examination by the Planning Inspectorate.
RR-027.23	<p>HRA Related Issues:</p> <p>17. 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.</p>	Please see responses to specific comments below.
RR-027.24	<p>LSE screening</p> <p>18. We reiterate the advice provided during the EWG discussions on the approach to the HRA Screening of likely significant effects (LSE), that where there is potential connectivity to a very large number of sites, but the likelihood of substantial impacts is generally low, the approach taken in this assessment may be considered appropriate regarding the project 'alone' assessment for Morgan. It should be acknowledged however, that this approach will not necessarily be appropriate for all offshore windfarm cases. Impacts from other offshore windfarm projects are unlikely to be low. Additionally, if a designated site that has potential connectivity with an offshore windfarm project is in unfavourable condition and/or has a restore Conservation Objective (CO) target (and a population which may be in decline), then even a small impact may adversely impact the COs and integrity of the European site(s) in question.</p>	The Applicant welcomes this agreement on the approach taken.
RR-027.25	<p>19. Liverpool Bay SPA: 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 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</p>	The Applicant welcomes and agrees with NRW's conclusion of likely no adverse effect on the integrity of the Liverpool Bay SPA.

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	<p>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 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.</p>	
RR-027.26	<p>Features of Welsh SPAs/Ramsar sites</p> <p>20. The qualifying features of some of the Welsh SPA/Ramsar sites listed in the HRA related documents [APP-098, APP-099, APP-100] should be checked and updated accordingly:</p> <ul style="list-style-type: none"> • Skomer, Skokholm, and seas off Pembrokeshire (SSSP) SPA qualifying features are: Manx shearwater, European storm petrel, lesser black-backed gull, Atlantic puffin and a seabird assemblage. Guillemot, razorbill and kittiwake are not features in their own right but are named components of the seabird assemblage feature. • Waterbird assemblages are also features of The Dee Estuary Ramsar, Burry Inlet Ramsar and Severn Estuary Ramsar. 	<p>It is standard practice in HRA assessments to assess assemblage features as features in their own right and this has been followed in the assessments for the Morgan Generation Assets. As a result all of the features mentioned were considered in the HRA Stage 1 Screening Report (APP-099) with kittiwake, lesser black-backed gull, guillemot, razorbill and Manx shearwater progressed to HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098).</p> <p>No LSE was concluded for all features of The Dee Estuary Ramsar, Burry Inlet Ramsar and Severn Estuary Ramsar and this conclusion applies equally to the waterbird assemblages at these sites.</p>
RR-027.27	<p>Age class apportionment for seabirds (Volume 4, Annex 5.5, APP-057)</p> <p>21. We do not consider the use of the kittiwake adult proportion that was calculated for Hornsea 2 to be appropriate to apply to Morgan as 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). Hence there is uncertainty around the appropriateness of the approach. Therefore, we advise a more appropriate approach for the breeding season would be to use the proportion (84.11%) of adults recorded in the Morgan site-specific Digital Aerial Survey (DAS) data, or to take the precautionary approach and assume all birds are adults.</p>	<p>The methodology used for Hornsea Two has been applied, incorporating site-specific data from the Morgan Generation Assets. 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.</p> <p>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 under-estimated immature proportion (that therefore over-estimate the adult proportion).</p> <p>To assume that 100% of the kittiwake present at the Morgan Generation Assets are adults does not represent a precautionary approach, rather it represents an ecologically invalid approach that does not use the best available evidence as it is well documented that immature kittiwake visit natal waters during the breeding season (e.g. Coulson, 2011) and will therefore be present at the Morgan Generation Assets. The use of 84.11% would represent a known over-estimate, as it is known that the older immature kittiwake, whose plumage is inseparable from that of breeding adults, visit natal waters during the breeding season (e.g. Coulson, 2011). The percentage of adults calculated</p>

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		by the Applicant (58.95%) takes into account all immature age classes whilst remaining precautionary, and has therefore been applied in the assessments.
RR-027.28	22. Clarification is required as to the approach that has 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 is unclear from Volume 4, Annex 5.5 'Apportionment Technical Report' [APP-057]. For example, has the precautionary approach of assuming all birds recorded are adults been taken?	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 is applicable to gannet, kittiwake, great black-backed gull, herring gull and lesser black-backed gull. 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 applies to guillemot, razorbill, fulmar and Manx shearwater. Consideration is given within the assessments presented to the uncertainty this creates within the effect estimates calculated.
RR-027.29	23. The approach taken to age class apportioning in the non-breeding season is unclear from Volume 4, Annex 5.5 'Apportionment Technical Report' [APP-057]. It would appear from Appendix A of the HRA Stage 1 Screening Report [APP-099] that all birds are assumed to be adults in the non-breeding season(s). However, clarification is required that this is the case.	The approach to apportioning in the non-breeding season follows standard practice which aligns with Natural England guidance (Natural England, 2022c). This approach 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. For some species this approach may not provide an accurate reflection of the proportion of adults from a specific colony within a given sea area and this is discussed within the assessments presented in Volume 2, Chapter 5 Offshore ornithology (APP-023) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098), where applicable.
RR-027.30	<p>Apportionment of impacts to seabird designated sites</p> <p>24. Non-breeding season: We advise that the Applicant reviews and if necessary updates 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. Based on our calculations the apportionment to this SPA for this species should be: 8.26% in the spring and autumn migration seasons (rather than 3.05% as presented in Table 1.16) and 9.37% in the winter season (rather than 4.85% as presented in Table 1.16). However, we note that the apportionment values in Table A.5 of Appendix A of the HRA Stage 1 Screening Report [APP-099] look to be correct and that the apportioned impacts to this colony look to be correct.</p>	The apportioning values presented for lesser black-backed gull at the Skomer, Skokholm and seas off Pembrokeshire SPA in the non-breeding season in Table 1.16 of Volume 4, Annex 5.5 Offshore ornithology apportioning technical report (APP-057) are incorrect. However, this is purely a transcription error; the erroneous values were not used within the calculations informing any of the analyses or assessments presented in HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098), HRA Stage 1 Screening Report (APP-099) or any other document supporting the application. The correct values are those stated by NRW. This has been noted in the Applicant's errata document.
RR-027.31	<p>Apportioned impacts from project alone</p> <p>25. In paragraph A.1.2.1.1 of Appendix A of the HRA Stage 1 Screening report</p>	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

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	<p>[APP-099], the Applicant indicates that the impact estimates used in the apportionment of impacts to designated sites has used those impacts calculated using Natural England's (NE) recommended parameters for use in CRM. During the EWG, NRW (A) were in agreement with the parameters recommended by NE. However, based on the CRM outputs presented in Tables 1.6-1.11 of the 'CRM Technical Report' (Volume 4, Annex 5.3 APP-055), we note that the CRM impact estimates used in the apportioning by the Applicant are in fact those based on the NE/SNCB advised avoidance rates but those using the flight speeds from Skov et al. (2018), which are not the flight speeds recommended by the SNCBs. We reiterate our comments in Section 1.1 above regarding the use of the Skov et al. (2018) flight speeds with the current calculated avoidance rates. Therefore, we advise that before we can reach conclusions on the level and significance of impacts to Welsh designated site features from the project alone, the Applicant should provide apportioned collision impacts using the full SNCB advised input parameters.</p>	<p>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). This has been noted in the Applicant's errata document.</p>
RR-027.32	<p>Stage 2 ISSA Part 3 (SPAs and Ramsars), Step 1 assessments [APP-098]:</p> <p>26. 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. To account for uncertainty in displacement and mortality rates we recommend 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.</p>	<p>The Applicant intends to submit a clarification note at Deadline 1, detailing responses to these comments.</p>
RR-027.33	<p>27. The Applicant has chosen to support their assessment on auk displacement by referencing Trinder et al. (2024) but has fundamentally misunderstood the conclusions of the study. The study did not assess macro-avoidance in a way that is compatible with impact assessment methodology, i.e., testing for a reduction in abundance/density within the array and 2km buffer. While the study did show abundance increased in the post-operational period over the whole study area, the proportion of the auk population within the array area showed a decrease, indicative of a displacement effect. Therefore, the statement made by the Applicant in paragraph 15.3.9 of AP-098 that "The abundance of both guillemot and razorbill increased significantly from the pre-construction period into the post-construction period. This would suggest that these species are not displaced by offshore wind farms..." is incorrect. NRW advise that it would be beneficial if the applicant critically review a wider scope of evidence for points they are trying to emphasise and</p>	<p>The Applicant has used Trinder (2024) as part of a larger discussion relating to the appropriate evidence-based displacement and mortality rates to use for assessment. This includes APEM (2022) and Dierschke et al. (2016) which provide literature reviews of relevant evidence to derive displacement and mortality rates for a number of species.</p> <p>As highlighted in previous responses, the APEM (2022) review is the most comprehensive review of displacement rates undertaken and the Applicant is unaware of NRW having undertaken a similar published review to support their preferred rates.</p> <p>NRW have indicated it is inappropriate to base parameters on individual studies. Therefore, the Applicant has incorporated findings from multiple studies, including comprehensive literature reviews, to define evidence-based displacement and mortality rates for all species.</p>

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	present the full study conclusions in their assessments and reference appropriately, rather than selectively appraise the limited scope of evidence that has been presented.	
RR-027.34	28. Clarification is required as to what the range of predicted 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. For example, are these based on the range of predicted collision impacts across the various avoidance rates and flight speeds modelled by the Applicant, or are they the range of predicted impacts from the sCRM based on the Applicant's preferred avoidance rates and flight speeds? Noting our comments above regarding advised avoidance rates and flight speeds.	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. This is described in paragraph 1.4.7.11 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098).
RR-027.35	29. Clarification is required as to the survival and hence mortality rates used to calculate the baseline mortality and proportions of baseline mortality predicted impacts equate to presented in Step 1 of the HRA Stage 2 ISSA Part 3 (SPAs and Ramsars) report [APP-098]. We assume that the species adult survival rates from e.g. Horswill & Robinson (2015) have been used in these calculations, but this needs to be made clear.	The baseline 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 sourced from Horswill and Robinson (2015).
RR-027.36	30. We also advise that for species where impacts of collision and displacement are assessed (e.g. gannet and kittiwake) that the apportioned predicted impacts for collision (noting NRW will base advice on impacts predicted using the species group avoidance rates and flight speeds that have been advised to the Applicant by the SNCBs), displacement, and collision plus displacement are presented, as this will assist with verification.	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. The only features for which assessments of combined displacement and collision risk impacts have been considered in HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) are for 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.
RR-027.37	Grassholm SPA gannet:	The Applicant welcomes NRW's comment and agrees with the information presented by NRW.

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	<p>31. We welcome the approach the Applicant has taken for apportionment of impacts to this colony. However, we note that tracking data (e.g. from Votier et al. 2010) and utilisation distributions (e.g. Wakefield et al. 2013) suggest that gannets have been shown to display spatial segregation between colonies and that it is unlikely that gannets from Grassholm SPA will forage in the Morgan area. Therefore, it is likely that the breeding season apportionment value calculated by the Applicant and hence the apportioned collision and displacement impacts to the colony in the Applicant's assessment are precautionary.</p>	
RR-027.38	<p>32. We advise the Applicant checks the date of the Grassholm SPA count, as a count of 72,022 breeding adult gannets is not from the SMP for 2023, it is the count from 2015.</p>	<p>The population provided in Table 1.26 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) is incorrect. This is a transcription error; the 2023 population has been used within the analyses presented in Table 1.26. This has been noted in the Applicant's errata document.</p>
RR-027.39	<p>In-combination (HRA Stage 2 ISAA Part 3, SPAs and Ramsars, APP-098)</p> <p>33. From paragraph 1.4.7.8 of the HRA Stage 2 ISAA Part 3 (SPAs and Ramsars) report [APP-098], the Applicant has taken an approach where if the predicted impact from the project alone equates to less than 0.05% of baseline mortality of a designated site then it is deemed non-material and within natural fluctuations of the population and is therefore screened out of in-combination assessment. This has resulted in all Welsh SPAs being screened out of in-combination assessment. Whilst this approach may be appropriate for this project where predicted impacts from the project alone are likely very small, it 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. It also does not mean that impacts from the Morgan project should be excluded from in-combination totals for future project assessments.</p>	<p>The Applicant welcomes this agreement on the approach taken.</p>
RR-027.40	<p>34. Additionally, the predicted impacts are based solely on the Applicant's preferred ranges of % displacement and % mortality rates for displacement and no consideration has been made of the ranges of predicted displacement impacts as advised by the SNCBs. It is also unclear as to the input parameters (particularly avoidance rates and flight speeds) that the apportioned collision predictions are based on. We again note that the apportioned collision predictions based on the full SNCB input parameters should be provided.</p>	<p>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</p>

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		<p>next stage of the assessment. This is described in paragraph 1.4.7.11 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098).</p> <p>The Applicant intends to submit a clarification note discussing displacement rates for Deadline 1.</p>
RR-027.41	<p>35. Based on the comments above, we suggest that the approach/sites and species combinations taken forward for in-combination assessment is revisited once any updates have been made. If this then leads to more sites and species combinations being taken through to in-combination assessments, the comments above regarding cumulative assessments need to be considered.</p>	<p>Please see response to previous comments.</p>
RR-027.42	<p>Key Issues</p> <p>36. 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 due to vessel use, traffic and other non-piling sound producing activities.</p>	<p>The Applicant has provided further justification, supported by an extensive literature review, to demonstrate a magnitude of low is appropriate for the assessment of the cumulative effects of injury and disturbance to marine mammals from vessel use. The impact assessment is considered to be precautionary as the 7 km range of disturbance applied to the assessment (derived from a literature review of empirical studies) was greater than the modelled disturbance range of ~4 km (which is itself precautionary) and therefore applied a 3 km around the greatest extent of disturbance for the purposes of quantifying the magnitude of effects from the project alone. For the cumulative assessment, the approach considered the largest ranges presented across a suite of different vessels at each of the cumulative projects. Please see Annex 3.2_Morgan Gen Response to RR-020_MMO_UWS_4.9.5 TO 4.9.9, impacts on Marine Mammals from Elevated Underwater Sound due to Vessel Use.</p>
RR-027.43	<p>37. The general cumulative effects assessment has not included the in-combination effects of other key offshore projects.</p>	<p>The Applicant notes that formatting of Table 4.50 of Volume 2, Chapter 4 Marine Mammals (APP-022) is incorrect, which resulted in multiple columns being hidden (as identified by NRW in their Relevant Representation, reference number 42 (RR-027.48)). The Applicant confirms that this 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).</p>
RR-027.44	<p>38. Inadequate justification has been provided to support the absence of assessing potential barrier effects as a result of the development.</p>	<p>Following Section 42 consultation, the potential barrier effects from the Morgan Generation Assets have been considered within Volume 2, Chapter 4: Marine mammals (AS-010) for grey seal, harbour seal and bottlenose dolphin. The project alone assessment concluded there would be no barrier effects from the Morgan Generation Assets. A detailed response to this has been</p>

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		<p>provided against NRW's Relevant Representation number 42 (RR-027.48 (see below)).</p> <p>The Applicant highlights that a commitment has been made to preparing an Underwater Sound Management Strategy (UWSMS) in accordance with the Outline UWSMS (APP-068) which includes consideration of potential impacts from piling, and therefore any potential disturbance effects are likely to be further reduced with the implementation of the final UWSMS which will be submitted to and approved in writing by the MMO in consultation with the relevant statutory nature conservation body post-consent. As stated in reference number 46 (RR-027.52) of NRW's Relevant Representation, NRW welcomes the UWSMS and agrees the UWSMS could reduce the magnitude of impacts to an acceptable level.</p>
RR-027.45	39. Inadequate justification has been provided to support the conclusions of interrelated effects on marine mammals receptors.	See Annex 3.4_Morgan Gen_Response to RR-026_NE and RR-027_NRW_Marine Mammals_Interrelated effects.
RR-027.46	40. Impacts from additional disturbance caused as a result of the large-scale use of ADDs need to be considered.	The Applicant acknowledges the potential effect of ADDs themselves should not be overlooked. The Applicant agrees that the reliance on ADDs as a primary mitigation tool should be considered carefully, and on a case-by-case basis, but this does not change the outcome or robustness of the assessment in Volume 2, Chapter 4: Marine mammals (AS-010) which uses an indicative 30 minutes of ADD activation. The quantitative assessment of disturbance from piling has incorporated the additional disturbance of ADDs as part of the piling process and further explanation of this is provided in the Applicant's response to NRW's more detailed Relevant Representation number 45 (RR-027.51).
RR-027.47	<p>Detailed Comments</p> <p>Cumulative effects: Injury and disturbance to marine mammals from elevated underwater sound due to vessel use, traffic and other (non-piling) sound producing activities [APP-022].</p> <p>41. NRW (A) acknowledge and welcome the information provided regarding vessel traffic data (Vol. 2, Chapter 4: Marine Mammals; Figs 4.24 & 4.25). However, there is inadequate justification for an overall assigned magnitude score of low. We note that the estimated numbers of animals disturbed by vessels and any subsequent conclusions were based on static impact radii. Given the known sensitivity of harbour porpoise, in particular to vessel noise and the large increase in number of vessels in the area compared to baseline</p>	Please see Annex 3.5_Morgan Gen_Response to RR-026_NE and RR-027_NRW_Marine Mammals_UWS due to Vessel Use, which provides a detailed justification of the magnitude of effects of injury and disturbance to marine mammals from elevated sound due to vessel use. The Applicant highlights that the assessment presented in Volume 2, Chapter 4 Marine Mammals (AS-010) is conservative and proportionate and that there is no further need to revise the assessment for the Project alone or in-combination with other plans or assessments.

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Reference	Relevant Representation Comment	Applicant's response
	vessel traffic, NRW (A) advise that the assessment is revised and quantified both for the project alone and in-combination.	
RR-027.48	<p>Cumulative Effects Assessment [APP-022].</p> <p>42. NRW (A) consider that in-general the Cumulative Effects Assessment (Section 4.11) is missing 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 (A) notes that considerable information is missing from the 'List of other projects, plans and activities considered within the CEA (Table 4.50, Section 4.10), we advise this should be addressed by the Applicant.</p>	<p>The Applicant notes that the formatting of Table 4.50 of Volume 2, Chapter 4 Marine Mammals (APP-022) was incorrect, which resulted in multiple columns being hidden (as identified by NRW in their Relevant Representation, reference number 42 (RR-027.48)). The Applicant confirms that this issue has now been rectified and all columns of Table 4.50 are now visible meaning that all relevant information relating to cumulative projects, and that was considered in the impact assessment, is shown in this table. The updated version of the chapter was submitted on 5 August 2024 (AS-010).</p> <p>The assessment considered the potential for subsea noise from cumulative projects to lead to potential hearing impairment and behavioural responses on marine mammal with the quantification of the magnitude of effects (i.e. spatial extent and numbers of animals affected) based on the respective projects maximum design scenarios. However, the CEA did not explicitly go into further detail on barrier effects for cumulative projects and therefore the Applicant interprets this Relevant Representation as NRW being largely concerned with the potential for barrier effects to occur as a result of the Morgan Generation Assets alongside the Mona Offshore Wind Project, Morecambe Offshore Wind Farm: Generation Assets and other relevant offshore projects.</p> <p>With the respect to barrier effects, the Applicant highlights that following Section 42 consultation, this potential effect from the Morgan Generation Assets has been considered within Volume 2, Chapter 4: Marine mammals (AS-010) for grey seal, harbour seal and bottlenose dolphin. The project alone assessment concluded there would be no barrier effects from the Morgan Generation Assets, and therefore any contribution from the Morgan Generation Assets to cumulative barrier effects is unlikely.</p> <p>As stated under sections 4.9.2.97 and 4.9.2.111 of Volume 2, Chapter 4: Marine mammals (AS-010), it is considered that grey seal and harbour seal close to the coast could experience very mild disturbance but that this would be highly unlikely to lead to barrier effects (i.e. preventing animals from using the foraging grounds in waters along the coast), as animals are unlikely to be excluded from the coastal areas. Underwater sound contours modelled at the west location (i.e. greatest overlap with high grey seal density) show that 145 dB re 1 μPa_{2s} single strike Sound Exposure Level (SEL_{ss}) contours (i.e. level expected to result in any behavioural reactions) do not reach the high density areas in the Dee Estuary and therefore as given in section 4.9.2.97, no barrier effects on seals travelling to or from haul out sites is expected. As stated in</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>section 4.9.2.98, grey seal could move to alternative foraging grounds during piling, or avoid the offshore areas entirely where received levels during piling exceed thresholds for strong disturbance close to the piling location. Whilst some short term avoidance in marine mammals has been shown during piling and other construction activities (Benhemma-Le Gall et al., 2021, Graham et al., 2019, Graham et al., 2017, Russell et al., 2016) there is evidence that seals exposed to pile-driving at close range, even at distances shorter than 30 km, returned to the same area on subsequent trips. Animals exposed to the lower sound levels in the outer disturbance contours are likely to experience mild disruptions of normal behaviours but prolonged or sustained behavioural effects, including displacement, are unlikely to occur (Southall et al., 2021).</p> <p>As stated under paragraph 4.9.2.70 of Volume 2, Chapter 4: Marine mammals (AS-010) for bottlenose dolphin, it is considered that animals are unlikely to be excluded from the coastal areas given the low level disturbance reaching the coast and therefore unlikely to lead to barrier effects which would prevent movement between Cardigan Bay and the Isle of Man or around the coastline (given the inshore ecotype in the Irish Sea). Bottlenose dolphin are highly mobile and frequently travel large distances across the Irish Sea. As set out in section 4.9.2.70 of Volume 2, Chapter 4: Marine mammals (AS-010), potential levels of underwater sound near the coast are predicted to reach maximum SELss levels of 135 dB re 1 μPa²s, which is broadly equivalent to 145 re 1 μPa SPLrms and therefore below the NMFS (2005) threshold for 'strong' disturbance (=160 re 1 μPa SPLrms) and therefore likely to elicit less severe disturbance reactions. Barrier effects which prevent movement around the coast are therefore highly unlikely (4.9.2.70 of Volume 2, Chapter 4: Marine mammals (AS-010)). As detailed in section 4.9.2.70 of Volume 2, Chapter 4: Marine mammals (AS-010), area-based modelled contours for 'mild' disturbance (140 re 1 μPa SPLrms) could potentially overlap coastal habitats, however, these are likely to be low level marine mammal disturbances such as small disruptions of behaviour, but no displacement or prevention of regular movements is predicted to occur and animals are expected to recover quickly.</p> <p>Furthermore, underwater sound from construction activities (predicted using a worst-case scenario) will be temporary, localised, and not be continuous across the construction period and animals are likely to have recovery time between activities. Any areas affected would be relatively small in comparison to the range of marine mammals. Therefore, there is unlikely to be the potential for any barrier effects that could significantly restrict the movements of marine mammals. Furthermore, the Morgan Generation Assets is located 58.5 km (31.6 nm) from the Anglesey coastline, 37.13 km (20.1 nm) from the</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>northwest coast of England, and 22.22 km (12 nm) from the Isle of Man (when measured from Mean High Water Springs (MHWS)), and therefore barrier effects are even less likely.</p> <p>Therefore, for the Morgan Generation Assets alone, there are no identified barrier effects for key species which utilise coastal areas (grey seal, harbour seal or bottlenose dolphin), and consequently no potential for cumulative effects in combination with other projects. It is acknowledged in section 4.11.1 of Volume 2, Chapter 4 Marine mammals (AS-010) that if piling at the Morgan Generation Assets coincides exactly with piling at other nearby wind farms (e.g. Morecambe Offshore Windfarm: Generation Assets, Mona Offshore Wind Farm, Awel y Môr Offshore Wind Farm) there may be potential for larger areas of disturbance, however these areas are highly unlikely to overlap temporally and the area of overlap of 'strong' disturbance (i.e. the level to induce barrier effects or displacement) is expected to be very small given the extent of the 160 dB re 1µPa SPLrms contour from the Morgan Generation Assets project alone (see Figure 4.13 in Volume 2, Chapter 4 Marine mammals (AS-010)). As discussed in Volume 2, Chapter 4 Marine mammals (AS-010) and HRA Stage 2 Information to support an appropriate assessment Part 2: Special areas of conservation assessments (APP-097), different projects utilise different approaches to assessing strong disturbance and therefore direct quantification of overlapping areas (e.g. comparing 160 dB threshold versus Effective Deterrence Range (EDR) ranges versus 143 dB threshold) would not be appropriate. However, in the context of the wider habitat available within the Irish Sea and wider Celtic Sea regional marine mammal study area, and the relevant MU's used in the assessment, it is not anticipated that cumulative impacts will result in a significant barrier effect.</p> <p>Furthermore, the Applicant has committed to preparing an Underwater Sound Management Strategy (UWSMS) in accordance with the Outline UWSMS (APP-068) which includes consideration of potential impacts from piling, and therefore any potential cumulative disturbance effects are likely to be further reduced with the implementation of the final UWSMS (which will also consider noise abatement systems (NAS) and noise mitigation systems (NMS) as potential measures). The Final UWSMS will be submitted to and approved in writing by the MMO in consultation with the relevant statutory nature conservation body post-consent. As stated in NRW's Relevant Representation reference number 46, NRW welcomes the UWSMS and agrees the UWSMS could reduce the magnitude of impacts to an acceptable level.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-027.49	<p>Barrier Effects [APP-022].</p> <p>43. As similarly mentioned above, limited justification has been provided for the absence of cumulative assessment of barrier effects. Clarification and potentially further assessment is required.</p>	<p>Please see response to NRW Relevant Representation, reference number 42 (RR-027.48).</p>
RR-027.50	<p>Interrelated Effects [APP-022].</p> <p>44. There is inadequate 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 Environmental Statement. Thus, this assessment needs to be given the appropriate credence and the outcomes of the inter-related effects assessment should be presented adequately in the outcomes of the inter-related effects assessment in this report. In particular, the inter-related effects from disturbance should be assessed adequately.</p>	<p>See Annex 3.4_Morgan Gen_Response to RR-026_NE and RR-027_NRW_Marine Mammals_Interrelated effects.</p>
RR-027.51	<p>Injury from elevated underwater sound due to piling [APP-022].</p> <p>45. We note a conclusion of negligible magnitude has been assigned based on the inclusion of the potential indicative use of designed-in measures (30 minutes of Acoustic Deterrent Devices (ADDs)). However, whilst we acknowledge that the proposed mitigation strategy outlined in the Environmental Statement [APP-022], Marine Mammal Mitigation Protocol (MMMP) [APP-072] and Underwater Sound Management Strategy (UWSMS) [APP-068] is to be agreed post consent, we note that any additional disturbance caused as a result of the large-scale use of ADDs has not been considered. Furthermore, the predicted impact ranges for permanent threshold shift (PTS) without ADDs should be used to determine the appropriate duration of ADD with the purpose to deter marine mammals from the full extent of the PTS zone, taking into account the species-specific fleeing speeds, as well as other suitable mitigation measures.</p>	<p>The Applicant acknowledges the potential effect of ADDs themselves should not be overlooked. The Applicant agrees that the reliance on ADDs as a primary mitigation tool should be considered carefully, and on a case-by-case basis, but this does not change the outcome or robustness of the assessment in Volume 2, Chapter 4: Marine mammals (AS-010) which uses an indicative 30 minutes of ADD activation. The use of an ADD contributes an additional 30 minutes of underwater sound to the underwater sound from piling (up to a total of 4.5 hours of piling per pile; Table 4.16 in Volume 2, Chapter 4: Marine mammals (AS-010)), however, the magnitude of effects from the ADD (i.e. range over which disturbance could occur) is considerably lower compared to piling (see below for more detail on ADD disturbance ranges). It is acknowledged that ADDs were not assessed separately in the Morgan Generation Assets application for disturbance to marine mammals (although they were factored into the assessment for injury; Table 4.25 and Table 4.26 in Volume 2, Chapter 4: Marine mammals (AS-010)), however, the Applicant highlights that this approach is typical for offshore wind farm assessments (e.g. Awel y Mor (RWE Renewables UK (2022), Mona Offshore Wind Project (BPEBW, 2024), Berwick Bank Offshore Wind Farm (SSE 2022)) and that this concern was not raised by NRW or other stakeholders during the EWG consultation process or in the Section 42 consultation response. The Applicant also highlights that the assessment of disturbance effects due to elevated underwater sound is, in any case, precautionary as the population model</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>assumes that for days on which there is piling (and therefore the same days on which the ADD is activated), marine mammals would be disturbed for the entire day plus the subsequent day over the ranges predicted for piling. Thus, given that the ranges of disturbance during ADD activation are considerably less than those predicted for piling and that ADD activation forms part of the piling construction sequence, it is not considered necessary to consider this as a separate impact as it is captured in the assessment of disturbance from piling. The Applicant therefore maintains that the assessment is precautionary and conclusions of significance are robust and valid with respect to disturbance from ADDs.</p> <p>The Applicant also highlights that the 30 minute activation period is not a fixed time period and the final ADD duration will be agreed post-consent in the final MMMP (as secured under conditions 20(1)(h) of each dML within the Draft Development Consent Order (APP-005) and Outline MMMP (APP-072)), in consultation with the relevant statutory nature conservation body, and will consider the balance between allowing an animal time to move away from the injury zone and reducing unnecessary additional noise which may cause disturbance.</p> <p>In reference to the paper highlighted by NRW, Elmegaard et al. (2023) investigated the physiological and behavioural responses of harbour porpoise to a commercial ADD in Danish waters. Six harbour porpoises were tagged with DTAGs (sound and movement recording tags), recording sound, 3D-movement, and GPS or electrocardiogram and were then exposed to ADDs for 15 minutes. All animals displayed a mixture of acoustic startle responses, swimming away responses, altered echolocation behaviour, and increased heart rate while diving. However, five harbour porpoise (out of six) returned to feeding within 16 to 42 minutes after exposure to the ADD (the tag fell off the sixth harbour porpoise, shortly after exposure). The study demonstrated harbour porpoise reacted to ADDs more than 7 km from the ADD (consistent with identified 7.5 km to 12 km ranges by other similar studies (Brandt et al., 2013, Dähne et al., 2013)). Therefore, whilst deterrence devices need to be effective to avoid auditory injury from construction activities, the risk and effect caused by the deterrence should not exceed the risk and effect of the activity the animals are deterred from.</p> <p>Therefore, the Applicant understands the need for proportionate and judicious application of ADDs, and this will be considered carefully when finalising the ADD deployment duration post-consent but does not change the conclusions</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-027.52	<p>Outline Underwater Sound Management Strategy (UWSMS) [APP-068].</p> <p>46. We welcome the inclusion of an outline UWSMS and acknowledge the commitments made therein by the Applicant to reducing residual impacts and the use of noise attenuation technologies, if required. We agree that the UWSMS could reduce the magnitude of impacts to an acceptable level. It should be noted, however, that whilst we anticipate that the proposed mitigation methods may be sufficient to support the current conclusions of “not significant”, the strategy as currently presented is high-level. NRW (A) welcome the opportunity to work with the Applicant on further developing the UWSMS pre and post-consent.</p>	<p>or validity of the assessment within Volume 2, Chapter 4: Marine mammals (APP-022).</p> <p>The Applicant notes and welcomes your response and support for the UWSMS. The Applicant will engage with NRW in the development of the UWSMS.</p>
RR-027.53	<p>47. Under Water Technical Report [find reference number]</p> <p>48. Final ADD duration will be determined post-consent and therefore we do not agree to including 30 minutes ADD duration at this stage. The assessment needs to be based on the modelling scenarios with no ADD to represent the worst case scenario based on which the appropriate ADD duration can be determined.</p>	<p>The Applicant agrees that the reliance on ADDs as a primary mitigation tool should be considered carefully, and on a case-by-case basis, but this does not change the outcome or robustness of the assessment in Volume 2, Chapter 4: Marine mammals (AS-010) which presents impact ranges both with and without 30 minutes of ADD. The Applicant highlights that this approach is typical for offshore wind farm assessments. The Applicant highlights that this was raised at Section 42 consultation and discussed during the EWG consultation process (Marine Mammals EWG05, 29/06/2023).</p> <p>The use of ADDs is incorporated into the underwater noise modelling and assessment, in line with the implementation of current guidance on marine mammal mitigation measures for piling (Joint Nature Conservation Committee (JNCC), 2010a)). The application of 30 minutes ADD is considered to be embedded/designed-in mitigation and is therefore considered part of the design basis for assessment, as is standard practice. Given that ADDs are considered a designed-in measure, noise modelling without the inclusion of ADDs would not be considered proportionate, and would give rise to impact ranges beyond those which could be reasonably predicted to occur. As such, no further information is provided.</p> <p>The Applicant also highlights that the 30 minute activation period is not a fixed time period and the final ADD duration will be agreed post-consent in the final MMMP (as secured under conditions 20(1)(h) within each dML within the Draft Development Consent Order (AS-003) and Outline MMMP (APP-072)), in consultation with the relevant statutory nature conservation body. This will consider the balance between introducing sufficient sound via an ADD to allow</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-027.54	<p>49. While we do not disagree with an overall conclusion of minor adverse significance (disturbance and injury) for site investigation surveys, within the Underwater Sound Technical Report, the impact ranges for sparkers appears relatively small in contrast with non-pulsed sub-bottom profiler methods presented. Given sparkers tend to be more omnidirectional source, they would be expected to have a bigger impact range.</p>	<p>an animal time to move away from the injury zone and limiting unnecessary additional noise which may cause unnecessary disturbance.</p> <p>As detailed in Table 1.11 of the Underwater sound technical report (APP-028) the source level for the Sub-Bottom Profilers (SBP) is up to 240 dB re 1 μPa (rms), which for a pulse width of 1.5 metres per second (m/s) (Table 1.11 in APP-028) equates to a per pulse Sound Exposure Level (SEL) of 212 dB re 1 μPa²s or, assuming the worst case rate of 4 pulses per second (Table 1.11 APP-028), a per second SEL of 218 dB re 1 μPa²s.</p> <p>In contrast, the per pulse SEL of the sparker is 182 dB re 1 μPa²s which is ~30 dB lower than the SBP. Furthermore, the sparker shot rate is lower (once every 1.5 seconds) than the SBP (four times per second). It is also worth noting that the frequency range for the sparker (up to 4 kHz) sits outside the peak sensitivity of High Frequency (HF) and Very High Frequency (VHF) cetaceans, whereas the SBP worst case reaches up to 14 kHz which is within the most sensitive region for these hearing groups.</p> <p>Therefore, the modelling in the Underwater sound technical report (APP-028) (on which the marine mammal assessment presented in Volume 2, Chapter 4 Marine mammals (AS-010) has been based) has been undertaken using compounded worst-case assumptions including:</p> <ul style="list-style-type: none"> That the highest possible source level will be used during the survey That the fastest pulse rate will be used That the longest pulse duration will be used <p>Where frequencies are selectable, that the worst-case (in terms of potential injury range) frequencies will be used.</p> <p>In reality, it is unlikely that all these compounded worst-case assumptions would occur at once. Pulse rate and pulse duration are selected based upon factors such as water depth to ensure that each pulse can be reflected back before the next pulse is transmitted, in order to avoid interference between pulses. Therefore, it is the Applicant's understanding that using a faster pulse rate would necessitate use of a shorter pulse duration. Likewise, higher source levels would only be selected where required for operational reasons, for example, where there are issues detecting the reflected pulse due to a low signal-to-noise ratio.</p> <p>Consequently, real-world permanent threshold shift (PTS) and temporary threshold shift (TTS) ranges are likely to be lower than the worst-case scenarios predicted in the assessment under section 4.9.6 of Volume 2,</p>

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		Chapter 4 Marine mammals (AS-010) and therefore the assessment has applied the precautionary principle and the conclusions remain valid and robust.
RR-027.55	<p>Outline Marine Mammal Mitigation Protocol (MMMP) [APP-072].</p> <p>50. 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 (A) 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.</p>	The Applicant notes NRW's concerns regarding soft start scare charges and is aware that there may be new guidance being published soon by JNCC on UXO clearance mitigation measures. At the point of submission, the Applicant put forward mitigation measures as part of an Outline MMMP (APP-072) that were considered as industry good practice, however, the final MMMP 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. The use of mitigation measures (e.g. ADDs or soft start charges), should a high order clearance be necessary, will be discussed and agreed as part of the final MMMP with all relevant stakeholders.
RR-027.56	51. NRW (A) welcomes the conservative mitigation zone of 1700 m for piling, in accordance with the modelling. Although suitably conservative, it is a large mitigation zone, given the average is usually 500 m. 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.	<p>The Applicant notes that the 1,700 m conservative mitigation zone may not be able to be covered with Marine Mammal Observers (MMO)/Passive Acoustic Monitoring (PAM) alone. MMO and PAM techniques are developing and changing, and technologies are already available which allow successful monitoring of mitigation zones over 500 m; 'bigeye' binoculars are already regularly used for research and mitigation purposes, and alternative visual strategies such as the application of unmanned aerial vehicles (UAV) could be considered. As such, alternative monitoring strategies will be discussed and agreed as part of the final MMMP with all relevant stakeholders. The final MMMP will include a detailed explanation of how the required mitigation zone will be monitored.</p> <p>Furthermore, the Applicant will revisit 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.</p>
RR-027.57	<p>HRA Stage 2 ISAA Part 2 – SAC Assessments [APP-097].</p> <p>52. For impulsive sources both APP-022 and APP-097 reference that changes in the impulsive characteristics of impulsive sound at range implies that disturbance thresholds for piling noise should be precautionary at long range (i.e. a few kilometres). While this may be plausible for thresholds derived from observations close to the source, NRW (A) does not agree with this conclusion, given that the dose response curves applied as thresholds for</p>	The recent Offshore Renewables Joint Industry Programme (ORJIP) report (ORJIP Offshore Wind, 2024), for which NRW is part of the Project Expert Panel, showed a decrease in impulsiveness as sounds travel further away from the source. Four metrics of impulsiveness collected from the pile driving dataset (kurtosis, crest factor, peak sound pressure level, and high frequency content) were modelled to investigate changes with range and other variables and to assess at what distance impulsive sounds transition to being non-impulsive, based on thresholds from the scientific literature. Whilst it was not

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Reference	Relevant Representation Comment	Applicant's response
	<p>piling noise, as well as the 143 dB single strike Sound Exposure Level (SEL) threshold, are based on field observations collected at up to several km from piling activities. NRW (A) therefore recommend that this technical error is rectified for this project and future projects adopting the same techniques.</p>	<p>possible to establish a range of distances from which these sounds are no longer impulsive, a marked decrease was noted in all metrics of impulsiveness within the first five kilometres from the piling location.</p> <p>Both the frequency content (as well as impulsivity (i.e. time based characteristics) and the sound level will have a bearing on the response of an animal. At much larger ranges the original impulse will have dispersed to such an extent that the different frequencies of sound reach the location in question at different times; the pulse exhibits different frequency characteristics and is dispersed in a way that is more reflective of the characteristics of continuous sound, than impulsive. The dose-response approach differs from a threshold approach in that it assumes a particular received sound level (in SELss) equates to a specific proportional response. However, these ranges predicted for the Morgan Generation Assets are much larger than the ranges measured in the Beatrice Offshore Wind Farm study (which was used to develop the dose-response curve) (Graham et al., 2019), meaning that the frequency spectrum of sound used to derive the dose-response for the Beatrice project will differ and, for the same sound level (measured as SELss), the proportion of animals affected would likely be greater at closer distances compared to larger distances as the pulse characteristics of the sound are less dispersed. Thus, a proportional response curve from a study predicting smaller ranges will be more conservative when applied to a study predicting larger ranges. At these larger ranges, most of the sound within the peak hearing sensitivity of harbour porpoise will have dissipated, leaving primarily low frequency sound which they are less sensitive to, and may not even be able to hear.</p> <p>As discussed in paragraph 4.9.1.27 et seq. of Volume 2, Chapter 4, Marine mammals (AS-010), the 143 dB re 1µPa2s unweighted threshold for harbour porpoise was derived from empirical data collected from different offshore wind farm monitoring studies in Germany looking at behavioural response (Brandt et al., 2018). In 6 out of 7 of the wind farms, noise mitigation systems (NMS) were applied at source to reduce the received noise levels, therefore again the ranges of disturbance would be smaller compared to those for the Morgan Generation Assets, in which case the frequency content would differ and again the application of this threshold to the Morgan Generation Assets assessment (as recommended by NRW) would be conservative.</p> <p>In summary, the Applicant considers the statement “should be considered precautionary at long range (i.e. a few kilometres)” aligns with the latest scientific guidance. However, dose response curves and 143 dB re 1µPa SELss have still been used in the assessments presented in Volume 2,</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>Chapter 4 Marine mammals (AS-010) and HRA Stage 2 Information to support an appropriate assessment Part 2: Special areas of conservation assessments (APP-097)) and are considered themselves be conservative. Therefore, the feedback provided does not change the validity of the assessment within Volume 2, Chapter 4: Marine mammals (AS-010), and the conclusions of significance and Likely Significant Effect (LSE) still stand.</p>
RR-027.58	<p>53. In line with NRW's position statement on the use of Management Units, in view of the strong evidence supporting the idea that the populations of Cardigan Bay and Pen Llyn a'r Sarnau Special Areas of Conservation (SAC) are highly connected, and that there is likely a single genetic population across the management unit, when conducting an appropriate assessment the two protected sites should be considered together.</p>	<p>The Applicant notes that this request was not highlighted in the Section 42 consultation responses or raised throughout the EWG process by NRW, but notes the connectivity of bottlenose dolphin between the coastal waters of the English/Welsh coast and the Isle of Man has been considered in detail in the HRA.</p> <p>In line the NRW Position Statement on 'the use of Marine Mammal Management Units (MMUs) for screening and assessment in Habitats Regulations Assessments for Special Areas of Conservation (SACs) with marine mammal features' (NRW, 2022) which states "For bottlenose dolphin: An Appropriate Assessment should be carried out on both bottlenose dolphin SACs: Pen Llŷn a'r Sarnau and Cardigan Bay", an Appropriate Assessment has been carried out on both bottlenose dolphin SACs: Pen Llŷn a'r Sarnau and Cardigan Bay (see HRA Stage 2 Information to support an appropriate assessment Part 2: Special areas of conservation assessments (APP-097)).</p> <p>Both sites have been considered in detail separately in line with the HRA process, and the information is sufficient for the competent authorities to undertake the assessment. The bottlenose dolphin population is considered as a single population that may inhabit either site and the Irish Sea MU covers this single population. However, for HRA purposes, sections 1.6.4 and 1.6.5 of the assessment presented in HRA Stage 2 Information to support an appropriate assessment Part 2: Special areas of conservation assessments (APP-097) considers the effect on bottlenose dolphin as a feature of a particular site against that site's conservation objectives and therefore it is not suitable to combine the two sites as such but noting that both sites are assessed against a single population.</p> <p>For piling, there was no overlap of the 160 dB re 1 µPa SPLrms (strong disturbance) contour with either the Llyn Peninsula and the Sarnau/Pen Llyn a'r Sarnau SAC and Cardigan Bay/Bae Ceredigion SAC, and the assessment detailed that piling would not impede the movement of bottlenose dolphin within this region. There was no residual risk of injury during piling for either SAC.</p>

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Reference	Relevant Representation Comment	Applicant's response
		HRA Stage 2 Information to support an appropriate assessment Part 2: Special areas of conservation assessments (APP-097) concluded that for all impacts assessed for Pen Llŷn a'r Sarnau/Lleyn Peninsula and the Sarnau SAC, there was no adverse effect on the integrity of the site. Similarly, for Cardigan Bay/Bae Ceredigion SAC, it was concluded there was no adverse effect on the integrity of the site for all impacts.
RR-027.59	54. NRW (A) 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 Lake/Afon Dyfrdwy a Llyn Tegid SAC, and Afon Gwyrfai a Llyn Cwellyn SAC.	The Applicant notes NRW (A)'s response. The Applicant welcomes the statement that NRW (A) agree with the screening undertaken in the HRA Stage 1 Screening Report [APP-099] and the HRA stage 2 information to support an appropriate assessment Part 1 - Introduction [APP-096] and HRA Stage 2 Information to support an appropriate assessment Part 2: Special areas of conservation assessments [APP-097] and the overall conclusion of no risk of an adverse effect on the integrity of diadromous fish features from the Welsh protected sites.
RR-027.60	55. As the development is within English territorial waters, NRW (A) defer to advice from Natural England on all fish species not originating from Welsh protected sites.	The Applicant notes NRW (A)'s response.
RR-027.61	56. 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 (A) at PEIR stage even though the Morgan Generation Assets are entirely in offshore English waters. However, NRW (A) are not in the position to raise these concerns at statutory consultation as the project footprint is not in our territorial jurisdiction, but falls under the responsibility of the JNCC and NE. 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 (A) will be deferring to JNCC/NE for these matters.	This is noted by the Applicant.
RR-027.62	57. 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 indirectly, NRW (A) defers all benthic subtidal and intertidal ecology advice to JNCC/NE.	This is noted by the Applicant.

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Reference	Relevant Representation Comment	Applicant's response
RR-027.63	<p>Biodiversity benefit and Green Infrastructure Statement</p> <p>58. NRW (A) 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.</p>	<p>The Applicant welcomes your response.</p>
RR-027.64	<p>Biodiversity benefit and Green Infrastructure Statement</p> <p>59. 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.</p>	<p>The Applicant welcomes and notes your response. The Applicant has applied a step-wise approach to developing the proposed biodiversity benefit measures presented in J18 Biodiversity benefit statement (APP-073). Table 3.1 of J18 Biodiversity benefit statement (APP-073) sets out how this has been applied and where further information on each step (i.e. avoid, minimise, mitigate/restore, biodiversity benefit on site and off site) can be found within the application documents.</p> <p>Mitigation is defined in each of the topic chapters and set out in J6 Mitigation and monitoring schedule (APP-076). The mitigation measures are separate to the biodiversity enhancement measures being considered as set out in J18 Biodiversity benefit statement (APP-073). The Applicant will continue to consider biodiversity enhancement opportunities and engage with stakeholders including Natural Resources Wales.</p>
RR-027.65	<p>Biodiversity benefit and Green Infrastructure Statement</p> <p>60. NRW (A) 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 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 (A)'s approach to advising on the inclusion of restoration or enhancement elements in a marine or coastal development proposal and encourages engagement with NRW (A).</p>	<p>The Applicant welcomes and notes your response. The Applicant notes the recommendation to review NRW Guidance Note 59 if developing intertidal and offshore biodiversity benefit measures in Welsh waters. The Applicant will continue to consider biodiversity enhancement opportunities and will continue to engage with stakeholders including Natural Resources Wales.</p>
RR-027.66	<p>Biodiversity benefit and Green Infrastructure Statement</p> <p>61. 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</p>	<p>This is noted and welcomed by the Applicant.</p>

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Reference	Relevant Representation Comment	Applicant's response
	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.	
RR-027.67	62. Our 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.
RR-027.68	63. 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]. We note these have been updated since the PEIR stage: <ul style="list-style-type: none"> • Scenario 1 - 96 x 293m tall turbines • Scenario 2 - 68 x 364m tall turbines 	This is noted by the Applicant. For clarity, the Applicant notes that the maximum design scenario for the assessment on seascape, landscape and visual resources during the operations and maintenance phase as presented in Volume 2, Chapter 10: Seascape, landscape and visual resources (APP-014) considers 68 wind turbines with a maximum blade tip height (above Lowest Astronomical Tide) of 364 m.
RR-027.69	64. NRW (A) 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.
RR-027.70	65. 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.
RR-027.71	66. 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. The Applicant notes that Viewpoint 55 Trwyn Eilian (Point Lynas) is shown within Figure 19.1 and Figure 19.2 within Volume 4, Annex 10.6: Seascape visualisations Part 3 (Figures 16.4 – 25) (APP-041) and Figure 65 and Figure 66 within Volume 4, Annex 10.6: Seascape visualisations Part 6 (Figures 62 – 74) (APP-044).

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Reference	Relevant Representation Comment	Applicant's response
RR-027.72	67. 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.	This is acknowledged by the Applicant.

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2.28 Newton Resident's Association

Table 2.28: RR-028 – Newton Resident's Association.

Reference	Relevant Representation Comment	Applicant's response
RR-028.1	<p>The Morecambe and Morgan Windfarm project proposal for two new offshore wind farms (Morgan & Morecambe) in the Irish Sea will have an irreparable impact on the Fylde which we believe is not fully appreciated. The installation of onshore underground power cables from landfall at Blackpool Airport to the National Grid connection point at Penwortham, plus the construction of two new and very large substations will affect all Fylde residents. This is before you even start to consider the fact that the substations are to be sited on greenbelt land between Kirkham, Freckleton and Newton with Scales together with the associated new access roads and service compounds. Impact on Newton with Scales. Cable trenches: The on-shore cables will be run and buried under ground. The cable trench will run from Blackpool Airport across the Fylde towards the new substations to the western side of Newton with Scales and then onward to existing large substation at Penwortham. The cable trench will be a maximum of 35Km in length and, during the construction phase, it will be 120m wide. The total construction phase is estimated to 5 to 8 years. In addition to the cable trench itself, there will be a number of new access roads and storage compounds required. Some of these will be retained permanently. The current proposal is for the cable trench run to leave the substations on the western side of Newton and head east, running just to the south of Newton Bluecoats School, before crossing the A583 just to the east of Clifton. Much of this detail has not yet been shared with the general public.</p> <p>Substations: Two new substations planned as part of this project. The first will be placed on land adjacent to Lower Lane close to its junction with Strike Lane. The second is planned for land adjacent to Lower Lane and adjacent to HM Prison Kirkham. Both are exceptionally large and intrusive industrial installations that will operate and be illuminated 24 hours per day, every day. Each substation will occupy approximately 34 acres of land (about 18 football pitches) plus associated access roads. The maximum height of each substation will be 25m. The operation of each substation will emit noise, light and electromagnetic pollution. The proposed sites are close to schools and residential properties which will all be adversely affected by these emissions. Loss of Greenbelt land and Best and Most Valuable agricultural land: The two</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>substations are to be sited on Greenbelt land to the west and southwest of Newton with Scales. The cable trenches, access roads and storage compounds will also be on Greenbelt land. Greenbelt designation is important to the community as it prevents encroachment of urban sprawl and maintains the pleasant countryside of the Fylde and the distinct identities of each village. It is very difficult to see how these proposals align with the protection of Greenbelt. Furthermore, these proposals will effectively see the western boundary of Newton become an industrial zone, forever changing the character of the village. The highly valued amenity value of walking, riding or cycling along the area's lanes, bridleways and footpaths will be gone forever. To make matters even worse the proposed substation sites are, in part, classified as Best and Most Valuable agricultural land which will be lost forever through compulsory purchase when the substations are constructed. This may well render some farms and small holdings and businesses unviable. Surely, food production is just as important as energy production, there must be a way to construct this important infrastructure on brown field or low-grade land. It is exceedingly difficult to believe that alternative solutions have been adequately investigated.</p> <p>Transport: The project team anticipates an increase of 600 to 700% in HGV movements in the area during the 5-to-8-year construction phase. Our local roads are in a poor state of repair now, what will be left when the construction ends? Consultation: To date there are no publicly available renderings of what the substations will look like as they will appear in the locations where they are to be constructed. This makes it very difficult for many people to visualise what is proposed. The public consultation has been flawed with only limited and targeted feedback since objections to the plans were submitted back in November 2023. Were any of the objections even considered? Have the plans been modified at all? There are alternative brown field sites available for the substations, but they seem to have been rejected out of hand in favour of the established preferred plan. The preference for the southerly siting of the Morecambe substation and the cable trench routing just to the south of Newton and Newton Bluecoats school have not been publicly consulted on at all. This is just another example of the inadequacies of the consultation process. Noise: Noise is a major concern for many residents with many stories in the press regarding excessive noise emissions from other similar substations. The project details state noise levels are not yet known. Much more clarity is required for residents to feel they have been properly informed in an effective consultation. To date, no clear statement of the upper limits for</p>	<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>noise, light and electromagnetic emissions have been made public. Neither has any process for regular measurement of these emissions and by whom. Most importantly, what will the enforcement process be if any of these emissions are found to exceed authorised limits?</p> <p>Land Drainage: Water cannot presently escape quickly enough through our local dyke system and overloaded sewers. The substations and associated hard standings and access routes will worsen those problems for adjacent land. No drainage plans have been made public to date.</p>	

2.29 Northern Ireland Fishermen's Federation

Table 2.29: RR-029 – Northern Ireland Fishermen's Federation.

Reference	Relevant Representation Comment	Applicant's response
RR-029.1	<p>We would like to make representation on behalf of the Northern Ireland fishing industry with regards to potential impacts on spawning behaviour of Herring and disruption to feeding and migratory behaviour of other commercially important fish and shellfish species.</p>	<p>The Applicant notes the response and has responded to the points raised below.</p> <p>Herring spawning:</p> <p>Impacts to herring at the Douglas Bank spawning ground during the spawning season from underwater sound generated by piling during the construction phase have been fully assessed in section 3.9.3 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021).</p> <p>The Applicant has committed to developing an Underwater Sound Management Strategy (UWSMS) to mitigate the effects of underwater sound on spawning herring (and other species), to ensure that significant effects do not occur. An Outline UWSMS is provided within the Application (APP-068), and development of this strategy is secured as a condition within the deemed marine licence(s) within the Draft development consent order (APP-005).</p> <p>The UWSMS represents a process of investigating a range of options to manage underwater sound with regular consultation with relevant stakeholders. It will include full consideration of the final project design and construction programme to ensure the measures proposed (if required, following design and programme refinement) are robust in reducing the effects of underwater sound on spawning herring to non-significant.</p> <p>Other Commercially Important Fish and Shellfish:</p> <p>Commercial fish and shellfish species are fully characterised within the defined fish and shellfish ecology study area in Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051).</p> <p>The impact assessment for fish and shellfish ecology is presented in Volume 2, Chapter 3: Fish and shellfish ecology (APP-021); assessments for the Morgan Generation Assets alone are outlined within section 3.9, and for Morgan Generation Assets cumulatively with other projects and plans are presented in section 3.11.</p> <p>Aside from potential significant effects to spawning herring and cod through underwater sound from piling, no other significant effects to commercial fish and shellfish receptors are predicted as a result of the assessment within</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), including through disruption to feeding and/or migratory behaviour.</p> <p>The Applicant has committed to developing an UWSMS to mitigate the effects of underwater sound on spawning herring and cod, to ensure that significant effects do not occur. An Outline UWSMS is provided within the Application (APP-068).</p>

2.30 Northern Ireland Fish Producers' Organisation

Table 2.30: RR-030 – Northern Ireland Fish Producers' Organisation.

Reference	Relevant Representation Comment	Applicant's response
RR-030.1	<p>NIFPO is an organisation representing the commercial fishing industry who are active in the proposed site. Our specific interest in this site is with regard to concerns about displacement and the negative effect of offshore operations on crustaceans and spawning / juvenile herring.</p>	<p>The Applicant notes the NIFPO response. The Applicant is working to facilitate co-existence with existing commercial fishing activity and minimise disruption as far as is practicably possible. Early engagement was established with fisheries stakeholders in June 2021 to understand stakeholder requirements for co-existence and will continue throughout the lifetime of the project. A Fisheries Liaison and Coexistence Plan (FLCP) is being developed by the Applicant through ongoing consultation with fisheries stakeholders. An Outline fisheries liaison and co-existence plan (APP-065) has been included with the Application.</p> <p>Limiting displacement, enabling co-existence and indeed, co-location was a key aim for the Applicant. This ambition underpins the Applicant's commitments to not close the entire development area during construction, the scallop mitigation zone (SMZ) and the orientation and spacing of infrastructure. 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 adopted as part of the Morgan Generation Assets such as the SMZ, minimum infrastructure spacing of 1,400 m and roughly north-to-south alignment of wind turbine rows (as set out in APP-065), will provide the space for continued fishing within the Morgan Array Area, and fishing vessels will be able to transit through this area.</p> <p><u>Spawning Herring</u></p> <p>Impacts to herring at the Douglas Bank spawning ground during the spawning season from underwater sound generated by piling during the construction phase have been fully assessed in section 3.9.3 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021).</p> <p>The Applicant has committed to developing an Underwater Sound Management Strategy (UWSMS) to mitigate the effects of underwater sound on spawning herring, to ensure that significant effects do not occur. An Outline UWSMS is provided within the Application (APP-068), and development of this strategy is secured as a condition within the deemed marine licence(s) within the Draft development consent order (AS-003).</p> <p>The UWSMS represents a process of investigating a range of options to manage underwater sound with regular consultation with relevant</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>stakeholders. It will include full consideration of the final project design and construction programme to ensure the measures proposed (if required, following design and programme refinement) are robust in reducing the effects of underwater sound on spawning herring to non-significant.</p> <p><u>Juvenile Herring:</u></p> <p>Juvenile herring are considered of lower sensitivity to the effects of underwater sound due to them not being reliant on specific sediment conditions during the nursery stage, and therefore not being as spatially restricted. Mapped nursery grounds are also comparatively widespread along the north and east coasts of the east Irish Sea. Avoidance behaviour displacing juvenile herring into adjacent nursery areas in the short-term during active piling is not expected to result in significant effects, with juvenile herring expected to return to avoided areas soon after cessation of piling.</p> <p>No significant effects to juvenile herring are predicted as a result of the assessment presented within Volume 2, Chapter 3: Fish and shellfish ecology (APP-021).</p> <p><u>Crustaceans:</u></p> <p>Shellfish (including crustaceans) are considered in the assessments presented throughout section 3.9 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021) for the Morgan Generation Assets alone, and in section 3.11 for the Morgan Generation Assets cumulatively with other projects and plans. The assessment resulted in no predicted significant effects to shellfish species (including crustaceans) defined as Important Ecological Features (IEFs) as result of the project alone or cumulatively with other projects and plans.</p>

2.31 North West Wildlife Trusts

Table 2.31: RR-031 – North West Wildlife Trusts.

Reference	Relevant Representation Comment	Applicant's response
RR-031.1	<p>This is a response from The North West Wildlife Trusts (NWWT), covering Cumbria WT, Lancashire WT and Cheshire WT.</p> <p>TWT are a movement of 46 independent Wildlife Trusts (including NWWT) covering the UK, the Isle of Man and Alderney, and are the largest UK voluntary organisation dedicated to conserving all the UK's habitats and species, whether in the countryside, towns or at sea. We improve places for wildlife and strengthen the relationship between people and the natural environment. Our aim is to protect and create resilient ecosystems on land and in the sea.</p> <p>Our general comments can be found in Annex 1.</p>	<p>The Applicant notes your response and has responded to each of the points in Annex 1 below.</p>
RR-031.2	<p><u>Annex 1:</u> <u>Summary of key points:</u> We are supportive of offshore wind generation, but development must not be at the expense of nature.</p> <p>We welcome the strategic coordination of energy generation and transmission infrastructure</p> <p>We expect Morgan OWF to aim to achieve an overall net positive impact on biodiversity and ecology in the marine environment.</p> <p>We are disappointed that a future monitoring plan of many of the ecological receptors has not been embedded into the project to validate predictions in the ES and inform future projects</p> <p>We have concerns over the large maximum design parameters</p> <p>We are pleased to see that the Morgan OWF will not pass through any designations. However, please note that there is potential for this scheme to have adverse impacts outside of designated areas.</p> <p>We welcome that there will be the development of, and adherence to, a Marine Mammal Mitigation Protocol (MMMP)</p> <p>Ornithology - we expect that all impacts are minimised through the project design and best use of available technology e.g. minimum tip height of</p>	<p>The response is noted by the Applicant who has responded to all the key points made by North West Wildlife Trusts (NWWT) in the subsequent sections of this table.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>turbines to reduce impacts, minimising moving parts and/or the number of turbine blades, slower rotation speeds, and blunt edges on the structure, slow start procedures for turbines.</p> <p>Transboundary issues - we are concerned that given the number of proposed offshore wind farms in the eastern part of the Irish Sea, there will be a 'belt' of wind farms from the Isle of Man down to Wales resulting in significant barrier effects.</p>	
RR-031.3	<p><u>Our position on offshore wind development:</u></p> <p>We support action to tackle climate change and recognise the serious threat to nature if action is not taken. However, we also face an ecological emergency with 41% of species in decline in the UK. There is an inextricable link between the climate and nature crises, which means efforts to solve one crisis will be futile if they do not also address the other. Consequently, fulfilling UK ambitions for energy infrastructure as a major decarbonisation pathway to limit climate change will fail if they do not achieve environmental protection, recovery, and enhancement of marine and onshore habitats, species, and carbon stores.</p> <p>The scale of OWF planned in the Irish Sea make makes it one of the most significant activities with the potential to impact on wildlife and ecology in our coastal waters and the wider Irish Sea, arguably second only to fishing. To realise the potential contribution of OWF to decarbonising the energy sector and helping to mitigate the worst impacts of climate change on society and nature, it must protect and support nature's recovery on land and at sea.</p>	The response is noted by the Applicant.
RR-031.4	<p><u>Strategic coordination of energy generation and transmission infrastructure</u></p> <p>The Wildlife Trusts (TWT), of which the NWWTs are members, have long advocated for greater strategic coordination in the planning, design, and delivery of offshore electricity generation together with the offshore and onshore electricity transmission infrastructure needed to distribute electricity generated offshore to where it is needed, to reduce environmental and consenting risks.</p> <p>To this end TWT is represented on the Offshore Transmission Network Review (OTNR) Expert Advisory Group and participates in strategic forums such as the Offshore Wind Evidence and Change (OWEC) Programme.</p>	The response is noted by the Applicant.

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Reference	Relevant Representation Comment	Applicant's response
	<p>We therefore welcome that the Morecambe and Morgan OWF have been scoped into the Pathways to 2030 Workstream under the OTNR and will therefore share transmission assets.</p>	
RR-031.5	<p><u>Strategic compensation and enhancement:</u></p> <p>One opportunity of strategically planned offshore energy generation and electricity transmission infrastructure (including onshore elements) is for strategic approaches to compensating for residual environmental impacts that cannot be avoided or adequately mitigated. There is significant potential for such measures to have a greater overall positive impact on the environment and biodiversity and take compensation beyond the level of no net loss into achieving net positive effects.</p> <p>Whilst we recognise that Biodiversity Net Gain policies and delivery frameworks are more developed for terrestrial and intertidal habitats than they are for the marine environment, we would still expect Morgan OWF to aim to achieve an overall net positive impact on biodiversity and ecology in the marine environment.</p>	<p>The Applicant welcomes your response. The Applicant has incorporated a number of measures into the project design that will further reduce the already non-significant impacts on offshore receptors. The Applicant will provide mitigation measures if there remains a residual significant effect, to reduce any potential impacts to a level that is not significant. For the avoidance of doubt the results of the ISAA concluded there would be no Adverse Effect on Integrity (AEol) on any European sites as a result of the Morgan Generation Assets alone or in-combination with other plans and projects. Therefore, no derogation case nor compensatory measures are required.</p> <p>The Morgan Generation Assets will aim to conserve habitats through a number of measures adopted as part of the Morgan Generation Assets to reduce the magnitude of impacts (e.g. see section 2.8 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020)). The Biodiversity benefit statement (J18 Biodiversity benefit statement (APP-073)) in accordance with the National Policy Statement EN-1 (e.g. paragraph 5.4.19 (Department for Energy Security & Net Zero, 2023)), outlines the approach of the Morgan Generation Assets to biodiversity enhancement.</p>
RR-031.6	<p><u>Monitoring plans</u></p> <p>We are disappointed that there is not a future monitoring plan embedded within the project for many of the ecological receptors.</p> <p>The applicant states that in terms of physical processes, no specific monitoring is recommended beyond those related to undertaking maintenance activities outlined in the project description. Additionally, the applicant has concluded that there will be 'no significant effects' to benthic ecology receptors as a result of the Morgan Generation Assets alone or cumulatively with other projects and so no monitoring has been proposed. However, we would expect that monitoring to be carried out to determine whether the predictions are accurate.</p> <p>Would like to see monitoring of fishing patterns. Conversations with local fisherman suggest they believe that windfarms have impacted their catch over the past number of years. There is currently no evidence other than anecdotal to prove or disprove this theory, this provides an opportunity to collect data to inform future decisions.</p>	<p>With the implementation of the measures adopted as part of the Morgan Generation Assets, no significant effects were predicted with the EIA, and therefore, no ecological pre- or post-construction monitoring is considered to be required to test the predictions of the EIA.</p> <p>Monitoring related to undertaking routine maintenance activities is outlined in the Offshore in-principle monitoring plan (APP-066). During the operations and maintenance phase of the project, routine inspections will be made of cable and scour protection in line with the Offshore in-principle monitoring plan (APP-066). Monitoring will be undertaken to record the effect of sediment transport and sediment transport pathways on cable burial. This is secured as a condition in the dMLs within the Draft DCO (AS-003).</p> <p>In addition, asset integrity surveys of the foundations will likely be undertaken at least every four years during the operations and maintenance phase using a remotely operated vehicle. As outlined in section 2.9.12 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-020), any suitable DDV data available from this monitoring will be reviewed for the identification of INNS in accordance with the INNS Management Plan which will be included in the Offshore EMP</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>(subject to data quality). No further INNS monitoring is proposed as no significant effect from INNS was predicted within the Environmental Statement, therefore further monitoring is not considered to be required.</p> <p>Noise monitoring will be undertaken of the first four piled foundations to allow comparison against predictions for received sound levels as presented in Volume 3, Annex 3.1: Underwater sound technical report (APP-028). Such monitoring will validate the predictions in the underwater sound modelling, and as such the fish and marine mammal assessments (Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), Volume 2, Chapter 4: Marine mammals (AS-010) and Outline underwater sound management plan (APP-068)).</p> <p>With regard to monitoring of fishing patterns, the Applicant has assessed the impacts to commercial fisheries and no significant effects were predicted within the EIA, and therefore, no further monitoring is considered to be required to test the predictions of the EIA.</p> <p>The Applicant is working to facilitate co-existence with existing commercial fishing activity and minimise disruption as far as practicable. Early engagement was established with fisheries stakeholders in June 2021 to understand stakeholders' requirements for co-existence and will continue throughout the lifetime of the project. A Fisheries Liaison and Coexistence Plan is being developed by the Applicant through ongoing consultation with fisheries stakeholders. An outline of this plan has been included with the Application (APP-065), which is secured through the deemed marine licences (Schedules 3 and 4 of the DCO, condition 20) (APP-005).</p> <p>Mitigation and monitoring commitments are set out within the Environmental Statement chapters and the Mitigation and monitoring schedule (APP-076).</p>
RR-031.7	<p><u>Large maximum design parameters</u></p> <p>We note that the maximum design parameters are very large (i.e. for sandwave clearance and cable protection), however we would like to see more refined parameters that are closer to the realistic to be properly informed.</p>	<p>The Project Design Envelope (PDE) approach, also known as the Rochdale Envelope approach, has been adopted for the Environmental Impact Assessment (EIA) of the Morgan Generation Project. This approach, used in all recent wind farm applications, sets out design assumptions and parameters forming a realistic worst-case Maximum Design Scenario (MDS). The final design, including the precise location of the wind turbine generators (WTGs) and cable routes on the seabed are currently unknown, and will be determined post-consent during the detailed design phase.</p> <p>The Applicant has taken steps to refine the parameters where possible. For example, the removal of the monopile foundation option, and the reduction of the inter-array cable corridor sandwave clearance width from 104m to 80m from the PEIR to the Environmental Statement. Additionally, the Applicant has</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>now been able to further consider the results of the initial surveys for the Morgan array area, and can confirm the reduction of the interconnector cable corridor sandwave clearance width from 104m to 80m. This will lead to a decrease in the sandwave clearance volumes, with updated figures provided at Deadline 1. This update will be secured through the total disposal captured within Schedules 3 and 4, Condition 2(g) of the Draft DCO being updated at Deadline 1.</p> <p>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.</p>
RR-031.8	<p><u>Designated sites</u></p> <p>Energy cables and infrastructure, placed in the wrong location, can cause habitat damage and loss. Several Marine Protected Areas (MPAs) are in unfavourable condition due to the impact of cabling infrastructure. 2 We are pleased to see that the Morgan OWF will not pass through any designations. However, please note that there is potential for this scheme to have adverse impacts outside of designated areas. The developer must assess these and other potential impacts on marine ecology outside MPAs and propose suitable mitigation and compensation to achieve an overall benefit to these habitats and wider marine ecology from the scheme. Further, we expect designated sites that are close to the site to be fully considered, particularly those that fall within the ZOI.</p>	<p>The Applicant has assessed all potential impacts on marine ecology associated with the Morgan Generation Assets including those outside designated sites in the respective ecological topic chapters of the Environmental Statement, i.e., Volume 2, Chapter 2: Benthic subtidal ecology (APP-020), Chapter 3: Fish and shellfish ecology (APP-021), Chapter 4: Marine mammals (APP-022) and Chapter 5: Offshore ornithology (APP-023). All the ecological chapters of the Environmental Statement concluded, taking into consideration mitigation where required, that there would be no significant residual impacts as a result of the Morgan Generation Assets. Marine Protected Areas have also been assessed within E1.1 to E1.3 HRA Stage 2 Information to support appropriate assessment (Parts 1 and 2 (APP-096 to APP-098), HRA Stage 1 screening report (APP-099), HRA Integrity Matrices (APP-100) and E2 Marine conservation zone screening report (APP-101). The predicted Zone of Influence (ZOI), which is the geographical extent of impacts, of the Morgan Generation Assets for each receptor was taken into account when designated sites for inclusion in the HRA and MCZ assessments were selected. Where a designated site and its qualifying features overlapped with the ZOI it was screened into the assessment.</p> <p>The assessments presented in E1.1 to E1.3 HRA Stage 2 Information to support appropriate assessment (Parts 1 and 2 (APP-096 to APP-098) concluded that, when taking into consideration the mitigation where required, there would be no adverse effect on site integrity for any European site as a result of the project alone and/or in-combination, and therefore no compensation is required. The E2 Marine conservation zone screening report (APP-101) concluded that there is no significant risk of the Morgan Generation Assets hindering the achievement of the conservation objectives stated for any</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-031.9	<p>Noise mitigation</p> <p>We expect the assessment and proposed mitigation and management of underwater noise disturbance impacts on marine mammals during the construction, operation, and decommissioning of the proposed Morgan OWF will be carried out in accordance with guidance or any future guidance that might supersede it. A significant number of high noise generating activities will take place in the Irish Sea during the survey and construction period for Morgan. Although there is currently no regulatory mechanism in place for managing the in-combination underwater noise impacts and the development will not need a Site Integrity Plan, it is vital that the applicant mitigates the noise impacts generated from the project as much as possible. We welcome that there will be the development of, and adherence to, a Marine Mammal Mitigation Protocol (MMMP).</p>	<p>MCZ and therefore a Stage 1 MCZ assessment was not required for any MCZ for the Morgan Generation Assets.</p> <p>The Applicant confirms the assessment of underwater sound impacts on marine mammals (injury and disturbance) during the construction, operation, and decommissioning of the proposed Morgan Offshore Wind Project: Generation Assets is carried out accordance with the current latest guidance and industry best practice at the point of submission. The Applicant thanks NWWT for their relevant representation which welcomes the Outline marine mammal mitigation protocol (MMMP) (APP-072) and maintains that the primary and tertiary measures put forward in the Outline MMMP (APP-072) were considered to be effective for reducing the risk of injury in respect of project-related activities (e.g. piling, site-investigation surveys and high order UXO clearance up of ordnance up to 130 kg).</p> <p>The Final Marine Mammal Mitigation Protocol (MMMP), as illustrated in the Outline MMMP (APP-072), focuses on measures to reduce the risk of injury to marine mammals and will be developed post-consent and in line with any new advice and guidance. The Final MMMP will sit alongside the Final Underwater Sound Management Strategy (UWSMS), as illustrated in the Outline underwater sound management strategy (APP-068), an overarching management strategy to provide additional measures to reduce injury or disturbance to marine mammals once the project design envelope has been refined post-consent and if there remains a residual significant effect. The Outline UWSMS has been secured in the deemed marine licences (under Schedule 3 and 4, Condition 22 (1) within the Draft Development Consent Order (AS-003)), demonstrating the Applicant's full commitment to mitigating the impacts associated with elevated underwater sound generated by the project as far as possible.</p> <p>The Applicant highlights that the UWSMS is akin to a Site Integrity Plan in respect of harbour porpoise SACs in England and Wales and to a Piling Strategy in respect of key sensitive species of marine mammals and fish in Scotland. The Outline UWSMS (APP-068) demonstrates that measures will be implemented to ensure no residual significant effects remain relating to underwater sound from the Morgan Offshore Wind Project: Generation Assets alone or in-combination with other plans or projects. The Final UWSMS will be developed, and agreed, in consultation with the licensing authority and Statutory Nature Conservation Bodies (SNCB), in advance of construction activities.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-031.10	<p><u>Ornithology</u></p> <p>We expect that all impacts are minimised through the project design and best use of available technology e.g. minimum tip height of turbines to reduce impacts, minimising moving parts and/or the number of turbine blades, slower rotation speeds, and blunt edges on the structure, slow start procedures for turbines. Given the number of OWF being developed in the Irish Sea, we expect a full cumulative impact assessment to be undertaken, including consideration of transboundary impacts. Concerns are raised over the possible disturbance, displacement and barrier effects on sensitive receptors, particular black-legged kittiwake and northern gannet.</p>	<p>The Applicant has incorporated a number of measures into the project design that will further reduce the already non-significant impacts on offshore ornithological receptors (section 5.8 of Volume 2, Chapter 5 Offshore ornithology (APP-023)). These included commitment to a minimum lower blade tip height (creating a greater air draught) of 34 m above LAT to reduce collision impacts, an offshore EMP that will reduce disturbance impacts on rafting birds and a Marine Pollution Contingency Plan.</p> <p>Full cumulative and in-combination assessments for all relevant receptors are provided in section 5.11 of Volume 2, Chapter 5 Offshore ornithology (APP-023) and section 1.6.3 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098). These assessments include kittiwake and gannet where relevant. No significant effects are concluded in the offshore ornithology chapter (Volume 2, Chapter 5 Offshore ornithology (APP-023)) and in the ISAA no adverse effects on site integrity are concluded for all species for both project alone and in-combination (Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098)).</p>
RR-031.11	<p><u>Transboundary</u></p> <p>Given the proximity to Welsh waters and Isle of Man, we expect there to be full consideration of transboundary effects and cumulative impacts across borders. The Irish Sea is a busy regional sea, under significant pressure and the cumulative and in-combination effects on the marine environment from building offshore infrastructure on such a large scale could have significant impacts on the marine environment if not managed correctly. We are concerned that given the number of proposed offshore wind farms in the eastern part of the Irish Sea, there will be a 'belt' of wind farms from the Isle of Man down to Wales resulting in significant barrier effects.</p>	<p>As described in Volume 3, Annex 5.2 Transboundary impacts screening (APP-032), transboundary impacts have been screened in for any impact that has the potential to affect a state within its Exclusive Economic Zone (EEZ). The Morgan Generation Assets is a project within UK waters, therefore transboundary impacts are considered in relation to any applicable state outside of the UK. The Isle of Man is a Crown Dependency of the UK and not a European Economic Area (EEA) State, therefore, Regulation 32 of the EIA Regulations does not apply to the Isle of Man.</p> <p>As such, potential impacts upon environmental receptors within Wales (also UK waters) and the Isle of Man are not considered to be transboundary. Potential impacts upon environmental receptors within Wales and the Isle of Man, including potential cumulative impacts, are therefore fully considered in the relevant chapters of the Morgan Generation Assets Environmental Statement.</p> <p>Disturbance and displacement from infrastructure (and barrier effects) are assessed in the cumulative effects assessment within Volume 2, Chapter 5 Offshore ornithology (APP-023).</p> <p>The potential for barrier effects has also been assessed in the marine mammal chapter (Volume 2, Chapter 4: Marine mammals (AS-010) and full</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>consideration has been given to the potential for cumulative effects and transboundary effects for marine mammals in Volume 2, Chapter 4: Marine mammals (AS-010).</p> <p>The potential barrier effects from Morgan Generation Assets have been considered within Volume 2, Chapter 4: Marine mammals (AS-010) for grey seal, harbour seal and bottlenose dolphin. The project alone assessment concluded there would be no barrier effects from the Morgan Generation Assets, and therefore, any contribution from the Morgan Generation Assets to cumulative barrier effects is unlikely. As stated under paragraphs 4.9.2.97 and 4.9.2.111 of Volume 2, Chapter 4 Marine Mammals (AS-010), it is considered that grey seal and harbour seal close to the coast could experience very mild disturbance but that this would be highly unlikely to lead to barrier effects (i.e. preventing animals from using the foraging grounds in waters along the coast), as animals are unlikely to be excluded from the coastal areas. Underwater sound contours modelled at the west location (i.e. closest to areas of high grey seal density) show that 145 dB re 1μPa²s SEL_{ss} contours (i.e. level expected to result in any behavioural reactions) do not reach high density areas and therefore as given in paragraph 4.9.2.97, no barrier effects on seals travelling to or from haul-out sites are expected.</p> <p>As stated in paragraph 4.9.2.98, grey seal could move to alternative foraging grounds during piling, or avoid the offshore areas entirely where received levels during piling exceed thresholds for strong disturbance close to the piling location. Whilst some short-term avoidance in marine mammals has been shown during piling and other construction activities (Benhemma-Le Gall <i>et al.</i>, 2021, Graham <i>et al.</i>, 2019, Graham <i>et al.</i>, 2017, Russell <i>et al.</i>, 2016), there is evidence that seals exposed to pile-driving at close range, even at distances shorter than 30 km, returned to the same area on subsequent trips (Aarts <i>et al.</i>, 2018).</p> <p>Animals exposed to the lower sound levels in the outer disturbance contours are likely to experience mild disruptions of normal response behaviours but prolonged or sustained behavioural effects, including displacement, are unlikely to occur (Southall <i>et al.</i>, 2021). As stated under paragraph 4.9.2.70 of Volume 2, Chapter 4 Marine Mammals (AS-010) for bottlenose dolphin, it is considered that animals are unlikely to be excluded from the coastal areas given the low-level disturbance reaching the coast and, therefore, unlikely to lead to barrier effects which would prevent movement between Cardigan Bay and the Isle of Man or around the coastline (given the inshore ecotype in the Irish Sea).</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Reference	Relevant Representation Comment	Applicant's response
		<p>Bottlenose dolphin are highly mobile and frequently travel large distances across the Irish Sea. As set out in paragraph 4.9.2.70 of Volume 2, Chapter 4 Marine Mammals (AS-010), potential levels of underwater sound near the coast are predicted to reach maximum SEL_{ss} levels of 135 dB re 1µPa²s, which is broadly equivalent to 145 re 1 µPa SPL_{rms} and therefore below the NMFS (2005) threshold for strong disturbance (=160 re 1 µPa SPL_{rms}) and therefore likely to elicit less severe disturbance reactions. Barrier effects which prevent movement around the coast are, therefore, highly unlikely (4.9.2.70 of AS-010). Detailed in paragraph 4.9.2.70 of AS-010, area-based modelled contours for mild disturbance (140 re 1 µPa SPL_{rms}) could potentially overlap coastal habitats.</p> <p>However, these are likely to be low-level marine mammal disturbances, such as small disruptions of behaviour, but no displacement or prevention of regular movements is predicted to occur, and animals are expected to recover quickly. Furthermore, underwater sound from construction activities will be temporary, localised, and not continuous across the offshore construction period, and animals are likely to have recovery time between activities. Any areas affected would be relatively small in comparison to the range of marine mammals. Therefore, there is unlikely to be the potential for any barrier effects that could significantly restrict the movements of marine mammals.</p> <p>Therefore, for the Morgan Generation Assets alone, there are considered to be no barrier effects for key species which utilise coastal areas (grey seal, harbour seal or bottlenose dolphin) and consequently no potential for cumulative effects or in combination with other projects. It is acknowledged in section 4.11.1 of Volume 2, Chapter 4 Marine Mammals (AS-010) that if piling at Morgan Generation Assets coincides exactly with piling at other nearby wind farms (e.g. Awel y Mor, Mona Offshore Wind Project), there may be potential for larger areas of strong disturbance, however, these areas of strong disturbance are highly unlikely to overlap temporally and the area of overlap of strong disturbance (i.e. the level to induce barrier effects or displacement) is expected to be very small given the extent of the 160 dB re 1µPa SPL_{rms} contour from the project alone, Volume 2, Chapter 4 Marine Mammals (AS-010). As discussed in Volume 2, Chapter 4 Marine Mammals (AS-010) and Part Two: Special Areas of Conservation (SACs) Assessment of the HRA Stage 2 Information to Support an Appropriate Assessment (APP-097), different projects utilise different approaches to assessing strong disturbance so direct quantification of overlapping areas (e.g. comparing 160 dB threshold versus Effective Disturbance Ranges (EDR) versus 143 dB re 1µPa²s SEL_{ss} threshold) would not be appropriate but in the context of the wider habitat</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>available within the Irish Sea and wider Celtic Sea regional marine mammal study area, and the relevant MU's used in the assessment, it is not anticipated that cumulative impacts will result in a significant barrier effect.</p> <p>In addition, as above, the Outline UWSMS (APP-068) demonstrates that measures will be implemented to ensure no residual significant effects remain, relating to underwater sound from the Morgan Generation Assets alone or cumulatively with other plans or projects. The Final UWSMS will be developed, and agreed, in consultation with the licensing authority and Statutory Nature Conservation Bodies (SNCB), in advance of construction activities.</p>

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2.32 Ørsted Burbo (UK) Limited

Table 2.32: RR-032 – Ørsted Burbo (UK) Limited.

Reference	Relevant Representation Comment	Applicant's response
RR-032.1	<p>Ørsted Burbo (UK) Limited owns the Burbo Bank Wind Farm, an operational offshore windfarm with a s36 Electricity Act 1989 consent and relevant marine licences (“our Development”). Its proximity to Morgan Offshore Wind Farm (“MOWF”) can be seen in MOWF’s Environmental Statement (the “ES”) (F2.9 at Figure 9.4 and Table 9.8). Our Development does not object to the principle of MOWF however we do at present require to object to certain elements of it where we may wish to participate in the DCO Examination to make representations about the potential impacts on and interactions with our Development and, where appropriate, to secure appropriate mitigations.</p>	<p>The Applicant notes your response.</p> <p>Burbo Bank offshore wind farm is a minimum of 61.6 km from the Morgan Offshore Wind Project: Generation Assets as stated in Table 9.8 of Volume 2, Chapter 9: Other sea users (APP-027).</p> <p>Potential impacts on the Burbo Bank offshore wind farm project operator have been identified and assessed in section 9.9.3 of Volume 2, Chapter 9: Other sea users (APP-027) and has been considered in the cumulative effects screening for each topic where appropriate.</p>
RR-032.2	<p>Concerns were previously highlighted to MOWF via a s48 consultation response and subsequent meeting. Our concerns as raised in the s48 response remain extant and we expect further meaningful engagement to seek to address the issues raised below and previously. We are open to addressing such matters within or outside the Examination process.</p>	<p>Engagement has occurred with Ørsted Burbo (UK) Limited during the pre-application phase of the Morgan Offshore Wind Project: Generation Assets and will continue as required throughout the examination phase.</p>
RR-032.3	<p>Our Development expects to continue to operate and be maintained in the long-term. It may be upgraded and repowered in future, and will then be decommissioned. Co-existence with our Development must be considered and protected over the long-term – and the acceptability of cumulative and in-combination impacts – must be properly assessed taking into account each of the above stages of our Development’s life. Our Development requires that its operations, consents (including conditions), and any stakeholder agreements entered into by it are unaffected by MOWF. Our Development’s concerns include the following.</p>	<p>The potential impacts of the Morgan Generation Assets on other sea users, including Burbo Bank offshore wind farm, have been fully assessed for the project alone and cumulatively in Volume 2, Chapter 9: Other sea users (APP-027). The potential cumulative and in-combination impacts of the Morgan Generation Assets, alongside other relevant projects and plans, have been fully assessed in the various topic chapters of the Environmental Statement and HRA. It should be noted that the cumulative and in-combination assessments consider the project information available at the time of the Morgan Generation Assets application, which for Burbo Bank offshore wind farm, includes all existing project consents. Any plans for future upgrading and repowering of Burbo Bank offshore wind farm will be subject to separate consents and/or approvals, and therefore cannot be assessed by the Applicant at this stage. Ørsted Burbo (UK) Limited will need to carry out its own EIA and HRA for any proposals to extend the project lifetime beyond that originally consented on the basis of the original ES and HRA, and this will need to include consideration of the Morgan Generation Assets in their cumulative/in-combination assessment.</p> <p>As set out in Table 9.13 of Volume 2, Chapter 9: Other sea users (APP-027) the Applicant has committed to continued communication with other offshore</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-032.4	<p>Issue One: Following review of the ES, we seek engagement with MOWF to discuss a number of environmental concerns relating to ornithology and the cumulative impact assessment. We are not convinced that the assessments are robust and we require to analyse this further and engage with MOWF.</p>	<p>energy operators to promote and maximise cooperation between parties and minimise both spatial and temporal interactions between conflicting activities.</p> <p>The Applicant has undertaken a robust assessment of all potential impacts on offshore ornithology informed by appropriate data sources from site-specific surveys and detailed desktop studies, in accordance with relevant guidance. The assessment of potential impacts to offshore ornithology is presented in Volume 2, Chapter 5: Offshore ornithology (APP-023).</p> <p>The evidence to inform the baseline and the approach to predicting effects on offshore ornithology were discussed and agreed through an Evidence Plan Process which included an Expert Working Group (EWG) for offshore ornithology as set out in section 4.4 of the Consultation Report (APP-088). To inform the Environmental Statement, site-specific surveys were undertaken, as agreed with the offshore ornithology EWG, across the Morgan Array Area plus a buffer extending up to 10 km (Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053)). Further, and on advice from the offshore ornithology EWG, additional data sources were identified post-scoping that were used to inform the baseline characterisation (Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053)). The Applicant is therefore confident that the assessment of likely significant effects on offshore ornithology presented in Volume 2, Chapter 5: Offshore ornithology (APP-023) is based on the most scientifically robust evidence available and that sufficient precaution is built into the assessment. With respect to potential cumulative or in-combination effects, the assessment has considered all reasonably foreseeable (i.e. those with information in the public domain) projects, plans and activities.</p> <p>As set out in Table 9.13 of Volume 2, Chapter 9: Other sea users (APP-027) the Applicant has committed to continued communication with other offshore energy operators.</p>
RR-032.5	<p>Issue Two: We believe that MOWF will adversely affect the energy yield of our Development. Due to the proximity outlined in the above-referenced figure and table, we believe that MOWF will interfere with wind speed or direction at our Development causing reduction in energy output. This requires to be properly assessed and appropriately mitigated / compensated.</p>	<p>Volume 2, Chapter 9: Other sea users (APP-027) assesses the potential impacts of the Morgan Generation Assets on offshore energy receptors, including offshore wind farm operators. Burbo Bank offshore wind farm has been identified as an offshore energy receptor in the baseline environment (section 9.5.2.6-15).</p> <p>Volume 2, Chapter 9: Other sea users (APP-027) sets out that NPS EN-3 (paragraph 2.8.196) recognises that offshore wind development will occur in or close to areas where there is other offshore infrastructure. The project boundary requirements in The Crown Estate's (TCE's) Round 4 Information</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>Memorandum specified that no offshore wind projects could be located within 7.5 km of an existing offshore wind farm. As described in section 9.5.2, Table 9.8 and Figure 9.4 of Volume 2, Chapter 9: Other sea users (APP-027), there are no other operational offshore wind farms located within 7.5 km of the Morgan Array Area and therefore the Morgan Generation Assets location adheres to the TCE siting criteria and it was considered that no further assessment was required.</p> <p>The Morgan Array Area has been reduced following the statutory pre-application consultation, as described in Volume 1, Chapter 4: Site selection and consideration of alternatives (APP-011). This has increased the distance from the nearest existing operational offshore wind farm by 0.6 km to 8.1 km, and also increased the distance from a number of other operational offshore wind farms. The distance between the Morgan Array Area and the Burbo Bank offshore wind farm is 61.6 km.</p>

2.33 Preston and Wildfowlers Association

Table 2.33: RR-033 – Preston and Wildfowlers Association.

Reference	Relevant Representation Comment	Applicant's response
RR-033.1	<p>PDWA own the shooting rights on Longton and Hutton marshes within the corridor of the project. These areas are of high conservation value (SSSI, Ramsar, SPA). The areas are of great importance to overwintering and breeding wildfowl and waders and other wildlife species. PDWA undertake significant conservation work in the area and need to ensure no/minimal impact from the project. We have 110 members who may partake in legal harvesting of wildfowl from these areas and we need to ensure no/minimal impact on this pastime. Our conservation projects are gaining national and international recognition and we are a potential recipient of contingency funding to help offset the impact of the project.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.34 P Wilson and Company LLP

Table 2.34: RR-034 – P Wilson and Company LLP.

Reference	Relevant Representation Comment	Applicant's response
RR-034.1	Impact of onshore apparatus on farming clients.	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

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2.35 Royal Society for the Protection of Birds

Table 2.35: RR-035 – Royal Society for the Protection of Birds.

Reference	Relevant Representation Comment	Applicant's response
RR-035.1	<p>INTRODUCTION</p> <p>The UK is of outstanding international importance for its breeding seabirds and wintering marine birds. As with all Annex I and regularly migratory species, the UK has a responsibility under the Conservation of Habitats and Species Regulations 2017 (as amended) to secure their conservation. Their survival and productivity rates can be impacted by offshore windfarms directly (i.e. collision) and indirectly (e.g. displacement from foraging areas, additional energy expenditure, potential impacts on forage fish and wider ecosystem impacts such as changes in stratification).</p>	<p>The Applicant notes this response.</p>
RR-035.2	<p>The RSPB supports the deployment of renewable energy projects, providing that they are sited in appropriate places and designed to avoid potential adverse impacts on wildlife. We are grateful for the constructive pre-application discussions that have taken place with Morgan Offshore Wind Farm in respect of this proposal, particularly through the Evidence Plan process.</p>	<p>The Applicant welcomes and notes this response and thanks RSPB for engaging in the Evidence Plan process throughout the pre-application stage of the project.</p>
RR-035.3	<p>As set out in Searle et al (2023) assessing impacts of offshore windfarms and other renewables developments is inherently uncertain. This uncertainty is propagated throughout the impact assessments, as there are not only direct impacts, but ecosystem wide impacts that can change, for example, the abundance and availability of prey. Multiple data sources and modelling techniques are used to capture a simplified version of reality. They do not fully capture the complexity of seabird behavioural or demographic processes in a dynamic marine environment. Not recognising these uncertainties risks poorly informed decisions being made.</p>	<p>The Applicant has incorporated a range of parameters into the analyses used as part of the assessments presented in both Volume 2, Chapter 5: Offshore ornithology (APP-023) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) in order to account for the uncertainty inherent in the impacts presented.</p>
RR-035.4	<p>Furthermore, an underestimation of impacts will have repercussions when consenting later offshore wind development. If a precautionary approach is taken from the beginning, the likelihood of irreversible damage occurring is reduced even whilst our knowledge base is incomplete, and modelling improves. The precautionary principle requires the Applicant to demonstrate with scientific certainty that something would not be harmful. The concept of something being overly precautionary dismisses the inherent uncertainty in modelling and overlooks the simplistic version of reality that the modelling captures.</p>	<p>The Applicant considers that the assessments presented in both Volume 2, Chapter 5: Offshore ornithology (APP-023) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) capture the uncertainty inherent in the parameters incorporated into associated analyses, are of a precautionary nature and do not under-estimate impacts.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-035.5	The RSPB have significant methodological concerns with the Applicant's assessment, despite progress towards resolving a number of issues being made during the pre-application discussions for this project. As such, we are unable reach conclusions with regard to the significance of predicted impacts and have significant concerns relating to the project's in-combination and cumulative collision risk and displacement impacts.	Please see responses to specific comments below.
RR-035.6	This relevant representation outlines the RSPB's position on the offshore ornithology impacts of the Morgan application. The RSPB has engaged with the Applicant throughout the pre-application stage to provide our constructive advice as the Applicant has developed its project. We will continue, as far as practicable, to seek to engage with the Applicant throughout the Examination period. However due to the number of offshore wind farm project applications coming forward during 2024 we will face significant demands on our limited capacity. As a consequence, we will not be able to engage with any hearings associated with this application and will engage through written communications only and limited to when capacity allows.	The Applicant notes this response. The Applicant thanks RSPB for providing Relevant Representations and will seek to continue to engage with RSBP on relevant matters.
RR-035.7	OFFSHORE ORNITHOLOGY IMPACTS - SUMMARY OF RSPB POSITION We have significant concerns regarding the findings of some of the impact assessments. As a result of the methodological concerns, set out below, the RSPB considers that the impacts have not been adequately assessed and, as such consider Adverse Effect on Integrity (AEOI) cannot be ruled out beyond reasonable scientific doubt for collision impacts arising through the project alone and in combination with other projects.	The Applicant disagrees with this point and considers the assessments to be thorough and to have been undertaken in line with guidance. Please see responses to specific comments.
RR-035.8	Project alone – RSPB AEOI conclusions We are unable to reach conclusions with regard to AEOI on Manx shearwater in relation to the following Special Protection Areas: <ul style="list-style-type: none"> • Irish Sea Front SPA • Copeland Islands SPA • Glannau Aberdaron ac Ynys Enlli/Aberdaron Coast and Bardsey Island SPA • Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA • Rum SPA • Isles of Scilly SPA • St Kilda SPA. 	The Applicant considers the conclusions of the assessments to be clear with regards to no AEOI alone and in-combination for all species (HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098)). Please see responses to specific comments below.

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RR-035.9	<p>Project in combination with other plans and projects RSPB AEOI conclusions</p> <p>We conclude there will be an adverse effect on site integrity on the following features of the Isles of Scilly SPA</p> <ul style="list-style-type: none"> The impact of collision mortality on the Great Black-backed Gull (GBBG) population AEOI cannot be ruled out beyond reasonable scientific doubt for impacts arising through collision and distributional change arising through the project in combination with other projects on a range of species/SPA combinations due to methodological concerns as to how historical data were incorporated into these. 	<p>The Applicant has concluded no adverse effect on the site integrity of the Isles of Scilly SPA as a result of in-combination collision impacts on the great black-backed gull feature of the SPA. The Applicant considers that there is no connectivity between offshore wind farms in the north-eastern Irish Sea and great black-backed gull from the Isles of Scilly SPA based on ringing data (Wernham <i>et al.</i>, 2002; Spina <i>et al.</i>, 2022) and the information presented in Furness (2015) (please see section 1.6.3 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) for the full assessment). This therefore means that the only projects that could potentially contribute to an in-combination impact on the great black-backed gull population of the Isles of Scilly SPA are those located in the south-west (and therefore does not include Morgan Generation Assets or other offshore wind farms in the north-eastern Irish Sea due to no connectivity). Recent assessment of impacts on the great black-backed gull population of the Isles of Scilly SPA have been undertaken as part of the Erebus offshore wind farm (located in the Celtic Sea) which concluded no adverse effect on the SPA and was granted planning consent by the competent authority for the project, and the Celtic Sea Floating Offshore Wind leasing round HRA which also concluded no adverse effect on the SPA (The Crown Estate, 2024).</p>
RR-035.10	<p>We have also noted that the Morecambe Offshore Wind Farm application documents have been published recently and that they explore the issue of in-combination impacts on, inter alia, the Herring Gull and Lesser Black-backed Gull (LBBG) features of the Morecambe Bay and Duddon Estuary SPA and the LBBG feature of the Ribble and Alt Estuaries SPA. They go on to consider, on a without prejudice basis, possible compensation measures in relation to LBBG for both SPAs. The RSPB will need to consider the Morecambe Offshore Wind Farm application documents in detail and what, if any implications, they may have for the Morgan Offshore Wind Farm. We also consider that the Assessment has not fully considered Ecosystem impacts arising from the proposed development and has not properly accounted for potential for population scale impacts to be magnified through effects of Highly Pathogenic Avian Influenza.</p>	<p>The assessments have been undertaken based on the best evidence available, combining modelling with professional judgement. The assessments have been taken in line with the process undertaken on other offshore wind farms. Based on that approach, robust and precautionary conclusions have been reached in in Volume 2, Chapter 5: Offshore ornithology (APP-023) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098).</p> <p>The Applicant has concluded no adverse effect due to in-combination collision effects on both the herring gull and lesser black-backed gull features of the SPAs mentioned.</p> <p>The predicted impact from the Morgan Generation Assets alone on the populations of lesser black-backed gulls at the Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuaries SPA is considered to be negligible representing between <0.1 and 0.1 birds/annum. This represents less than a 0.05% increase in the baseline mortality of both SPA populations. It is therefore considered that the Morgan Generation Assets</p>

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		<p>will not make a measurable contribution to the existing in-combination impact and that a conclusion of no AEOI is reached.</p> <p>There is considered to be no connectivity between herring gull from the Morecambe Bay and Duddon Estuary SPA and the offshore environment as illustrated by Thaxter <i>et al.</i> (2017). The impact on herring gull at this SPA is therefore considered to be negligible and a conclusion of no AEOI reached. The Applicant has incorporated this information into the assessments presented in section 1.6.3 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098). Therefore no derogation case including compensation is required for the Morgan Generation Assets.</p> <p>The effect of Highly Pathogenic Avian Flu (HPAI) has been considered within the assessments presented. Please see paragraph 5.6.2.4 in Volume 2, Chapter 5: Offshore ornithology (APP-023) and assessments for individual species in section 5.9. Within HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) the Applicant has used the most recent population counts for all SPAs, some of which incorporate the impacts of HPAI, expressed as a reduction in population size.</p> <p>The impacts to be considered within the assessments for offshore ornithological receptors were presented in the scoping report for the project. The scoping opinion provided by the Planning Inspectorate agreed with the impacts identified and identified additional impacts for consideration. The impacts for consideration were also discussed with the EWG for the project and agreed upon.</p> <p>Research into potential wider ecosystem impacts is a developing theoretical area of research which has yet not shown any impacts on species occupying higher trophic levels. Inter-related effects are assessed in Volume 2, Chapter 15: Inter-related effects (APP-019). Where an impact is likely to have a synergistic impact on multiple receptors within the environs of the Morgan Generation Assets, the impact has been assessed.</p>
RR-035.11	<p>IMPACT ASSESSMENT – METHODOLOGICAL CONCERNS</p> <p>The RSPB's key concerns with the impact assessment relate to:</p> <ul style="list-style-type: none"> - 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 	Please see responses to specific comments below.

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Reference	Relevant Representation Comment	Applicant's response
	<ul style="list-style-type: none"> - 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. 	
RR-035.12	<p>MANX SHEARWATER</p> <p>Baseline characterisation Manx shearwater can be active throughout the day and night, with different levels of activity at different times. Such activity is variable, for example, for birds tracked from Skomer, diving occurred during the day and peaked in the evening (Shoji et al., 2016), while nocturnal foraging was observed from tracking of birds from High Island, Ireland (Kane et al., 2020). These diel variations in activity mean that the somewhat limited amount of time digital aerial surveys (DAS) were carried out is unlikely to properly characterise the activity of Manx shearwater at the Application site, (only one of the 24 survey flights for the baseline characterisation started before 0700). For these reasons the RSPB does not have confidence in the baseline densities of Manx shearwater presented, and therefore it is impossible to make any conclusions as to the significance of impacts.</p>	<p>The Applicant has followed Natural England guidance in relation to baseline surveys (Parker <i>et al.</i>, 2022), and has undertaken 24 months of DAS which is standard for all offshore wind farm assessments. The methodology for the baseline characterisation surveys proposed for the Morgan Generation Assets was discussed and agreed with the EWG as part of the Evidence Plan process (please see Technical engagement plan appendices Part 4 (Appendix D) (APP-092)).</p> <p>Whilst the baseline survey data represents the primary data source for the project, Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053) also considers other data sources included Waggitt <i>et al.</i> (2020) and any available tracking data. Tracking data available for Manx shearwater in the Irish Sea shows that there is limited connectivity between the Morgan Generation Assets and Manx shearwater from any SPA colony (Dean <i>et al.</i>, 2012).</p> <p>Therefore, the Applicant considers the approach taken with regards to the assessment of impacts on Manx shearwater to be appropriate and in line with guidance and EWG consultation.</p>
RR-035.13	<p>Issues of detectability are not only whether the nocturnal and crepuscular nature of some of the at-sea behaviours means that they are not captured by the survey flights but also whether the size and flight characteristics of the species make them harder to detect. Evidence that the surveys are recording Manx Shearwaters should not be taken as evidence that all of this species occurrence within the footprint during surveys has been detected.</p>	<p>The Applicant has followed Natural England guidance in relation to baseline surveys (Parker <i>et al.</i>, 2022). The methodology for the baseline characterisation surveys proposed for the Morgan Generation Assets was discussed and agreed with the EWG as part of the Evidence Plan process (please see Technical engagement plan appendices Part 4 (Appendix D) (APP-092)).</p> <p>Therefore, the Applicant considers the approach taken with regards to the gathering of Manx shearwater baseline data to be appropriate and in line with guidance and EWG consultation.</p>
RR-035.14	<p>Deakin et al., 2023 highlight a need for experimental validation of these potential biases in aerial survey methods, including detectability, identification and diel variation. Without addressing these concerns, we are unable to rely on the densities of Manx Shearwater presented in the assessment and therefore unable to reach conclusions as to the significance of adverse impacts.</p>	<p>The Applicant has followed Natural England guidance in relation to baseline surveys (Parker <i>et al.</i>, 2022). The methodology for the baseline characterisation surveys proposed for the Morgan Generation Assets was discussed and agreed with the EWG as part of the Evidence Plan process (please see Technical engagement plan appendices Part 4 (Appendix D) (APP-092)).</p>

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		Therefore, the Applicant considers the approach taken with regards to the gathering of Manx shearwater baseline data to be appropriate and in line with guidance and EWG consultation.
RR-035.15	Potential impacts arising through collision In respect of Manx shearwater, the Applicant has concluded no adverse impact arising through collision with rotating turbines. We disagree that such a conclusion can be reached because the manner in which the calculations have been carried out do not reflect potential behaviour in the vicinity of turbines.	Please see specific responses to comments below.
RR-035.16	Fundamental to the consideration of collision risk for this species is the extent to which nocturnally active seabirds, such as Manx shearwaters, may be attracted to the illuminations required for turbines, support vessels and the construction or expansion of ports. Such attraction will cause behaviour change, which could in turn increase collision risk, for example if birds fly higher when attracted to lights. There is abundant evidence of light-induced disorientation of Manx shearwaters. This evidence includes the grounding of fledglings in lit areas (Miles et al., 2010) and collision with lighthouses and other illuminated structures (Guilford et al., 2019, Archer et al., 2015).	<p>The RSPB's concerns in relation to the attraction of Manx shearwater to artificial light are valid and form the basis of Deakin <i>et al.</i> (2022). However, whilst this review provides a comprehensive review of the attraction of Manx shearwater to artificial light, it fails to account for the characteristics of lighting associated with offshore wind farms. The review highlights the attraction of Manx shearwater to light sources such as village lights (grounding of fledglings from a nearby breeding colony), lighthouses and hydrocarbon platforms. It is notable that the intensity of light associated with these sources is significantly greater than that associated with an offshore wind farm. This was highlighted by Furness (2018) which concluded that the lights associated with offshore wind turbines are unlikely to have any detectable effect on birds.</p> <p>Attraction to light is especially relevant to juvenile birds on maiden flights. The Morgan Generation Assets are over 120 km from the nearest significant breeding colony of Manx shearwaters and therefore there will no attraction effect associated with lighting at the Morgan Generation Assets.</p> <p>The Morgan Generation Assets are not within close proximity of any large colony of Manx shearwaters and therefore, irrespective of the information provided above, attraction of a significant number of birds is considered highly unlikely.</p>
RR-035.17	If light-induced disorientation leads to individual birds circling the navigation lights on the nacelle or tower of turbines for protracted periods (as has been reported for birds disorientated by lighthouses or gas flares) the probability of collision with turbine blades or other surfaces is vastly increased. Alongside this increased collision risk, the energetic costs of attraction and disorientation may be sufficient to impact on long term survival and the ability to successfully rear young.	The Applicant would again highlight the conclusions of Furness (2018) and highlight that the intensity of light associated with lighthouses and gas flares is far greater than that associated with an offshore wind farm.
RR-035.18	GANNET: THE APPLICATION OF A MACRO-AVOIDANCE CORRECTION FACTOR TO BASELINE DENSITIES FOR COLLISION RISK MODELLING The Applicant has applied a reduction of 70% to the baseline densities	The application of a 70% correction factor to the densities of gannet used in collision risk modelling follows guidance from UK SNCBs (Natural England 2023; Natural England have provided interim guidance on collision risk

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	inputted into the gannet collision risk modelling in order to account for macro-avoidance, in APP-055. This approach follows suggestions in Cook (2021). The current evidence of a strong macro avoidance of wind farms by gannets, established from observed behaviour, is almost entirely derived from non-breeding birds (Cook 2021). The evidence for macro avoidance during the breeding season is limited with the exception of a study of gannets breeding on Helgoland in the German North Sea.	modelling avoidance rates when responding on offshore wind project applications, such as Hornsea Four in March 2023). The Applicant has also presented uncorrected density values for gannet in Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report (APP-055).
RR-035.19	However, it is unclear from this study what the breeding status of the tracked birds was, or how their behaviour differed from what would have been expected pre-construction as two of the three wind farms were already operational during the first year of tracking. What the study does clearly show is that breeding gannets do fly through offshore wind farms, often showing no avoidance behaviour at all. While some tracks show clear avoidance others do not and may even show attraction to the wind farm.	The application of a 70% correction factor to the densities of gannet used in collision risk modelling follows guidance from UK SNCBs. The Applicant has also presented uncorrected density values for gannet in Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report (APP-055).
RR-035.20	In the Cook (2021) report that suggests the application of macro avoidance to baseline densities, the suggestion is based on reviews that do not include this German tracking study, although it does acknowledge that it shows clear differences between individuals in relation to their response to wind farms. The previous gannet recommended avoidance rate was based on 'all gulls' data because no gannet data were available. The evidence of macro avoidance of gulls in response to wind farms is equivocal, so this rate was only calculated from 'within wind farm' avoidance.	The application of a 70% correction factor to the densities of gannet used in collision risk modelling follows guidance from UK SNCBs. The Applicant has also presented uncorrected density values for gannet in Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report (APP-055).
RR-035.21	As gannets can show macro avoidance it therefore was suggested that this was applied to the baseline densities, and then collision risk modelling was carried out using the 'all gull' avoidance rate, so effectively applying avoidance twice. Notwithstanding the above, the RSPB does not agree with the approach for two reasons.	The application of a 70% correction factor to the densities of gannet used in collision risk modelling follows guidance from UK SNCBs. The Applicant has also presented uncorrected density values for gannet in Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report (APP-055).
RR-035.22	Firstly, it does not take into account the likely seasonal variation in macro avoidance as described above. Secondly, by basing the 'within wind farm' avoidance rate on the 'all gull' rate, it assumes that gannets will have the same 'within wind farm' reactive flight response as gulls. This assumption is very unlikely to be met, as gannets have much lower flight manoeuvrability than gulls. This will result in a lesser ability to make rapid reactions and consequently have a greater risk of collision. This should be reflected in the 'within wind farm' avoidance rate if any further changes are to be made.	The application of a 70% correction factor to the densities of gannet used in collision risk modelling follows guidance from UK SNCBs. The Applicant has also presented uncorrected density values for gannet in Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report (APP-055).
RR-035.23	Any evidence of macro avoidance should also be seen in the context of recent work in Belgian offshore windfarms that has shown potential habituation to the presence of turbines. This effectively results in lower	The application of a 70% correction factor to the densities of gannet used in collision risk modelling follows guidance from UK SNCBs. The Applicant has

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	<p>macro avoidance and so an elevated risk of collision. It is also important to acknowledge that corpses of Northern Gannets with injuries consistent with collisions with offshore wind farms have been recovered (Rothery et al., 2009), and the imperfect detection of these corpses indicate that there may be many more. Due to these concerns with the Applicant's application of additional macro-avoidance the RSPB are concerned that the predicted Gannet mortalities arising from collision are not robust, and therefore cannot come to any conclusions with regard to any adverse effects on site integrity.</p>	<p>also presented uncorrected density values for gannet in Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report (APP-055).</p>
RR-035.24	<p>FLIGHT SPEEDS USED AS PARAMETERS IN COLLISION RISK MODELLING</p> <p>The Band Collision Risk Model requires parameterisation with the characteristics of potentially impacted birds and of the turbines. The bird characteristics include flight speed, and the model has been shown to be highly sensitive to variation in this parameter (Masden et al., 2021). Flight speed will be influenced by a wide range of variables including time of year, sex, age, weather, and behaviour and therefore also vary with location.</p>	<p>The Applicant agrees with this comment and highlights that to account for uncertainty, a range of parameter values have been incorporated into the collision risk modelling conducted for the assessments provided for the Morgan Generation Assets.</p>
RR-035.25	<p>This means that models using a single generic value for flight height and speed incorporate errors associated with variability and uncertainty. In the assessment of impacts arising from direct mortality through collision with the rotating turbine blades, the Applicant has gone against the advice of Natural England, as well as other SNCBs and the RSPB, and parameterised the collision risk model with flight speeds obtained from Skov et al. (2018).</p>	<p>The Applicant has modelled both the flight speed values from Skov <i>et al.</i> (2018) and those recommended by the EWG. The collision risk estimates associated with both flight speed values have been progressed throughout all assessments. Where any value within this range of estimates surpasses the baseline mortality thresholds defined, the SPA feature is progressed to the next stage of the assessment. Therefore, the Applicant has aligned with the advice of the EWG, and has not gone against the advice of Natural England, other SNCBs or RSPB.</p>
RR-035.26	<p>This reported on a study which estimated flight speed for some species through the manual use of rangefinders by observers on turbine platforms of an operational wind farm. The study was hampered by being carried out only at two turbines at a single site, observations were skewed toward the non-breeding season and the study did not include consideration of the potential biases arising from the use of rangefinders. These include selection bias of the observers' picking targets, bias toward good weather conditions, (both to access the turbines and to operate the rangefinder), bias arising through difficulties in target locking in the view finder and lack of calibration and validation in an offshore environment.</p>	<p>As discussed in section 1.5 of Volume 4, Annex 5.3: Offshore ornithology collision risk modelling technical report (APP-055), the criticisms raised by the RSPB in relation to the flight speeds from Skov <i>et al.</i> (2018) also apply to an even greater extent to the flight speeds from Alerstam (2007) and Pennycuick <i>et al.</i> (1987).</p> <p>The flight speed data presented in both Alerstam (2007) and Pennycuick (1987) are fundamentally flawed, do not represent bird behaviour offshore, do not provide data across the annual cycle, provide no consideration of any biases associated with the techniques used to obtain flight speed data and have associated sample sizes that are unlikely to be considered robust in any scientific analysis. The use of these values significantly undermines any assessment based on resultant collision risk estimates. The presence of a value for any parameter should not necessitate its use when data of far greater quality are available.</p>

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RR-035.27	<p>The results of the study have not succeeded in being published in a peer reviewed scientific journal. Furthermore, the Applicant has used these flight speed without amending the avoidance rate used in the collision model. This is problematic for two reasons.</p>	<p>The study underpinning the Skov <i>et al.</i> (2018) was conducted by experts in ornithological behaviour with advisors including the BTO and Bill Band. The project had a Discretionary Project Steering Committee, including representatives from regulatory bodies and a Project Expert Panel which included representatives from statutory advisory bodies (including Natural England), NGOs (including the RSPB) and offshore wind consultants and researchers. These panels acted as a peer-review process for the study and included a wider range of experts than would be incorporated into a peer review process for a scientific paper.</p> <p>The Applicant notes that data from the study in relation to avoidance rates have been incorporated into other reports advised for use in offshore wind farm assessments (e.g. Ozsanlav-Harris <i>et al.</i> 2023).</p> <p>It was not the aim of the ORJIP project to publish peer-reviewed papers in relation to specific parameters, and the absence of publication should not detract from the validity of this study.</p>
RR-035.28	<p>Estimates of avoidance rates are sensitive to many of the parameters that CRMs are sensitive to, including flight speed. The avoidance rates presented by Ozsanlav-Harris <i>et al.</i> (2023) calculated avoidance rates using the Band collision risk model, parameterised with the SNCB recommended flight speed. As a consequence, those Avoidance Rates are only specific to modelling carried out using the same flight speed parameter. If different flight speed are to be used, the calculations of avoidance rate would need to be re-run using the different flight speeds.</p>	<p>Please see response to previous comment on collision modelling. The Applicant considers that the uncertainty associated with the use of flight speeds from Skov <i>et al.</i> (2018) is not greater than the uncertainty associated with the use of flight speed data from Alerstam (2007) and Pennycuik (1987).</p>
RR-035.29	<p>Secondly, Avoidance Rate is not simply a quantification of avoidance behaviour in the vicinity of turbines. They are a correction factor which refers, in part, to the avoidance behaviour of a bird but that also includes general elements of error (both in terms of errors in the model itself and in relation to the input parameters). As such, any change in the model parameters, such as flight speed, will require amendment of the Avoidance Rate.</p>	<p>Please see response to previous comment on collision modelling. The Applicant considers that the uncertainty associated with the use of flight speeds from Skov <i>et al.</i> (2018) is not greater than the uncertainty associated with the use of flight speed data from Alerstam (2007) and Pennycuik (1987).</p>
RR-035.30	<p>While the Applicant has presented results using model parameterised with both the SNCB recommended flight speeds and their own in the Collision Risk Modelling Technical Report, it is unclear whether this the SNCB recommendation have been followed in the predicted mortalities taken forward to the Information to Support and Appropriate Assessment. For these reasons, the RSPB does not have confidence in the predicted mortalities arising through collision for Gannet, Kittiwake, Lesser Black-backed Gull, Herring Gull and Great Black backed-Gull.</p>	<p>The Applicant has modelled both the flight speed values from Skov <i>et al.</i> (2018) and those recommended by the EWG. The collision risk estimates associated with both flight speed values have been progressed throughout all assessments, including those of gannet, kittiwake, lesser black-backed gull, herring gull and great black backed-gull. Where any value within this range of estimates surpasses the baseline mortality thresholds defined, the SPA feature is progressed to the next stage of the assessment.</p>

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RR-035.31	<p>METHODOLOGY FOR ASSESSMENT OF CUMULATIVE/IN-COMBINATION IMPACTS</p> <p>The RSPB recognise the difficulties with carrying out a full in combination assessment for a number of species SPA combinations because of the difficulties in obtaining historical data and the limitations in how it was collected and analyses.</p>	<p>The Applicant has presented an approach that goes beyond that presented for any previous offshore wind farm application, quantifying the impacts for projects where quantitative project-specific information is available and, where such data are not available, considering any available qualitative project-specific information. In doing so, the Applicant has included information for all projects that may act cumulatively/in-combination with the Morgan Generation Assets. The Applicant has not assumed that the impact from any project is zero and has discussed the likely impact associated with projects for which quantitative information is unavailable throughout the cumulative and in-combination assessments in Volume 2, Chapter 5: Offshore ornithology (APP-023) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098), respectively.</p> <p>The assessments have been undertaken based on the best evidence available, combining modelling with professional judgement. The assessments have been taken in line with the process undertaken on other offshore wind farms. Based on that approach, robust and precautionary conclusions have been reached in in Volume 2, Chapter 5: Offshore ornithology (APP-023) and HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098). This matter is not unique to the Morgan Generation Assets with the Secretary of State having recently granted consent for the Awel y Môr offshore wind farm, which is located just to the south of the Morgan Generation Assets and therefore would be subject to the same data gaps. This is also applicable to every other offshore wind farm project in UK waters with the Secretary of State having granted consent, despite impacts for some projects not having been quantified within cumulative and in-combination assessments.</p> <p>The Applicant undertook a collaboration exercise with the Applicant's for the Mona and Morecambe offshore wind farms. This process was complete in time for the Morgan and Morecambe applications and as a result the values used for other projects in the respective cumulative assessments should be comparable.</p>
RR-035.32	<p>Regardless of these difficulties, it is important that such an assessment is carried out with consideration of these sites and Natural England have produced what we consider to be a practical and pragmatic solution, while fully acknowledging that it is imperfect; less so for displacement than</p>	<p>Please see response to previous comment on cumulative and in-combination assessments.</p>

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	collision risk but both are to a greater or lesser extent indicative of the potential scale rather than absolute quantification of impact.	
RR-035.33	While it is acceptable for the Applicant to present alternative methodologies, it would be preferable for the outputs to be presented alongside those obtained following the recommendations of the Statutory Agencies. The RSPB are particularly concerned in regard to in combination impacts in relation to Great Black-backed Gull at the Isles of Scilly SPA.	Please see response to previous comment on alternative methodologies and the Applicant aligning with the EWG recommended approach.
RR-035.34	Great Black-backed Gull breeding numbers (AON) declined by 52% in the UK between the Seabirds 2000 and Seabirds Count censuses (Lewis, 2023), although the majority of decline happened in Scottish colonies. However, a further decline was recorded by surveys carried out in response to the outbreak of Highly Pathogenic Avian Influenza (HPAI) Tremlett, et al., 2024. The total number of Great Black-backed Gull AONs recorded across all sites surveyed in 2023 decreased by 20% compared with the pre-HPAI baseline count for these sites, and a 32% decline was recorded in the Isles of Scilly SPA.	Please see response to previous comment on HPAI.
RR-035.35	The Applicant has not included these recent counts in their assessment and for reason given above, we cannot rely on their estimates for collision mortality and for cumulative impacts. However, their own calculations indicate that the impacts arising from collision associated with the Morgan Wind Farm in-combination with other projects are predicted to result in the annual population growth rate of Great Black-backed Gull at the Isles of Scilly SPA declining, with a ratio of impacted to unimpacted population growth rate of between 0.906 and 0.908. This means that after the 35-year lifetime of the Wind Farm, the population size of the SPA is expected to be between 2.8-3.1% of what it would have been in the absence of the development in-combination with other projects, representing a 97% decline in the population. While, as described, there are likely errors in the assessment, these results can be considered indicative of the scale of impact and are clearly unacceptable.	<p>The HPAI Seabird Surveys Project (Tremlett <i>et al.</i>, 2024) involved a mixture of existing planned surveys, additional volunteer-led surveys and RSPB-led surveys of a number of SPA colonies for 14 priority seabird species (Leach's petrel, gannet, Arctic skua, great skua, black-headed gull, lesser black-backed gull, herring gull, great black-backed gull, kittiwake, Sandwich tern, roseate tern, common tern, Arctic tern and guillemot).</p> <p>It is understood that these HPAI surveys were not intended to fully update the Seabirds Count data (for example, there were gaps in coverage of some sites, some counts lacked key information such as survey time, some survey counts were estimates rather than accurate counts) and therefore it is still appropriate to apply the Burnell <i>et al.</i>, (2023) Seabirds Count data to the assessments. However, the RSPB HPAI report (Tremlett <i>et al.</i>, 2024) is a useful indicator of how certain species are faring in light of the recent HPAI outbreak.</p> <p>Whilst the Applicant has used PVA modelling to assess the predicted impact in the first instance, the assessments presented in HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (APP-098) provide additional information that shows there is no connectivity between great black-backed gull from the Isles of Scilly SPA and the Morgan Generation Assets. The predicted impact presented is therefore considered to be a significant over-estimate. The population against which the assessments are conducted is therefore</p>

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Reference	Relevant Representation Comment	Applicant's response
		immaterial to the assessment conclusions. Please also see responses to previous comment on HPAI.
RR-035.36	<p>ECOSYSTEM IMPACTS</p> <p>The RSPB would welcome an inclusion consideration of the potential wider ecosystem impacts that may arise through the construction and operation of the wind farm (Isaksson et al, 2023). These could occur, for example, through changes in water column stratification arising from the presence of the wind farm ultimately altering the availability of prey to seabirds.</p>	<p>The impacts to be considered within the assessments for offshore ornithological receptors were presented in the scoping report for the project. The scoping opinion provided by the Planning Inspectorate agreed with the impacts identified and identified additional impacts for consideration. The impacts for consideration were also discussed with the EWG for the project and agreed upon.</p> <p>Research into potential wider ecosystem impacts is a developing theoretical area of research which has yet not shown any impacts on species occupying higher trophic levels. Inter-related effects are assessed in Volume 2, Chapter 15: Inter-related effects (APP-019). Where an impact is likely to have a synergistic impact on multiple receptors within the environs of the Morgan Generation Assets, the impact has been assessed.</p>
RR-035.37	<p>HIGHLY PATHOGENIC AVIAN INFLUENZA</p> <p>The current H5N1 strain of Highly Pathogenic Avian Influenza (HPAI) has affected UK wild bird populations on an unprecedented scale since it was first recorded in the country in Great Skuas in summer 2021, with seabirds and waterfowl particularly affected. The extent of reported mortalities attributed to HPAI in the UK and across Europe in 2022 demonstrated that HPAI had become one of the biggest immediate conservation threats faced by multiple seabird species, including some for which the UK population is of global importance. Many species impacted by HPAI are of conservation concern in the UK, and the outbreak comes on top of widespread declines reported by the latest seabird census (Burnell et al, 2023).</p>	<p>The effect of Highly Pathogenic Avian Flu has been considered within the assessments presented. Please see paragraph 5.6.2.4 of in Volume 2, Chapter 5: Offshore ornithology (APP-023) and assessments for individual species in section 5.9.</p>
RR-035.38	<p>It is currently unclear what the population scale impacts of the outbreak will be, but it is likely that they will be severe. This scale of impact means that seabird populations will be much less robust to any additional mortality arising from offshore wind farm developments. It also means that there may need to be a reassessment of whether SPA populations are in Favourable Conservation Status. With such uncertainty as to the future of these populations, there is the need for a high level of precaution to be included in examination of impacts arising from the proposed development. The RSPB do not consider that these concerns have been adequately considered in the Assessment. Finally, the RSPB reserves the right to add to and/or amend its position in light of changes to or any new information submitted by the Applicant.</p>	<p>The effect of Highly Pathogenic Avian Flu has been considered within the assessments presented. Please see paragraph 5.6.2.4 of in Volume 2, Chapter 5: Offshore ornithology (APP-023) and assessments for individual species in section 5.9.</p> <p>The Applicant has incorporated HPAI into the assessments as best as possible, based on the available information.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-035.39	<p>REFERENCES</p> <p>Archer, M., Jones, P. H., & Stansfield, S. D. (2015) Departure of Manx Shearwater Puffinus puffinus fledglings from Bardsey, Gwynedd, Wales, 1998 to 2013 Seabird, 48 43-47</p> <p>Burnell, D., Perkins, A.J., Newton, S.F., Bolton, M, Tierney, T.D. & Dunn, T.D. 2023. Seabirds Count, A census of breeding seabirds in Britain and Ireland (2015–2021). Lynx Nature Books, Barcelona</p> <p>Cook (2021) Additional analysis to inform SNCB recommendations regarding collision risk modelling. BTO Research Report 739.</p> <p>Deakin, Z., Cook, A., Daunt, F., McCluskie, A., Morley, N., Witcutt, E., Wright, L. and Bolton, M., 2022. A review to inform the assessment of the risk of collision and displacement in petrels and shearwaters from offshore wind developments in Scotland. Report to Marine Scotland Science</p> <p>Guilford, T., Padget, O., Bond, S., & Syposz, M. M. (2019). Light pollution causes object collisions during local nocturnal manoeuvring flight by adult Manx Shearwaters Puffinus puffinus. Seabird, 31</p> <p>Isaksson, N., Scott, B.E., Hunt, G.L., Benninghaus, E., Declerck, M., Gormley, K., Harris, C., Sjöstrand, S., Trifonova, N.I., Waggitt, J.J. and Wihsgott, J.U., 2023. A paradigm for understanding whole ecosystem effects of offshore wind farms in shelf seas. ICES Journal of Marine Science, p.fsad194.</p> <p>Kane, A., Pirota, E., Wischniewski, S., Critchley, E. J., Bennison, A., Jessopp, M., & Quinn, J. L. (2020). Spatio-temporal patterns of foraging behaviour in a wide-ranging seabird reveal the role of primary productivity in locating prey. Marine Ecology Progress Series, 646, 175-188</p> <p>Miles, W., Money, S., Luxmoore, R., & Furness, R. W. (2010). Effects of artificial lights and moonlight on petrels at St Kilda. Bird Study, 57(2), 244-251</p> <p>Ozsanlav-Harris, L., Inger, R., & Sherley, R. (2023). Review of data used to calculate avoidance rates for collision risk modelling of seabirds. JNCC Report 732 (Research & review report), JNCC, Peterborough, ISSN 0963-8091. https://hub.jncc.gov.uk/assets/de5903fe-81c5-4a37-a5bc-387cf704924d</p> <p>Rothery, P., Newton, I., & Little, B. (2009). Observations of seabirds at offshore wind turbines near Blyth in northeast England. Bird Study, 56(1), 1-14.</p>	The Applicant notes this response.

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Reference	Relevant Representation Comment	Applicant's response
	<p>Searle, K. R., S. H. O'Brien, E. L. Jones, A. S. C. P. Cook, M. N. Trinder, R. M. McGregor, C. Donovan, A. McCluskie, F. Daunt, and A. Butler. "A framework for improving treatment of uncertainty in offshore wind assessments for protected marine birds." ICES Journal of Marine Science (2023): fsad025.</p> <p>Shoji, A., Dean, B., Kirk, H., Freeman, R., Perrins, C. M., & Guilford, T. (2016). The diving behaviour of the Manx Shearwater Puffinus puffinus. Ibis, 158(3), 598-606</p> <p>Skov, H., Heinänen, S., Norman, T., Ward, R., & Méndez, S. (2018). ORJIP Bird avoidance behaviour and collision impact monitoring at offshore wind farms. The Carbon Trust: London, UK.</p> <p>Tremlett, C.J., Morley, N., and Wilson, L.J. (2024). UK seabird colony counts in 2023 following the 2021- 22 outbreak of Highly Pathogenic Avian Influenza. RSPB Research Report 76. RSPB Centre for Conservation Science, RSPB, The Lodge, Sandy, Bedfordshire, SG19 2DL</p>	

2.36 Scottish Fishermen's Federation (SFF)

Table 2.36: RR-036 – Scottish Fishermen's Federation (SFF).

Reference	Relevant Representation Comment	Applicant's response
RR-036.1	To comment on the impacts of the proposed project/development on 'Fish and Shellfish', 'Commercial Fisheries', 'Shipping and Navigation' including the 'Fisheries Liaison and Co-Existence Plan'.	<p>The Applicant notes the SFF's response and interest in the topics set out.</p> <p>The Applicant has assessed all impacts that have the potential to impact on fish and shellfish ecology within the fish and shellfish ecology chapter (APP-021) and all impacts that have the potential to impact on shipping and navigation within the shipping and navigation chapter and the navigation risk assessment (APP-025). These assessments have informed the assessment of potential impacts on commercial fisheries (APP-024).</p> <p>The Applicant is working to facilitate co-existence with existing commercial fishing activity and minimise disruption as far as is practicably possible. Early engagement was established with fisheries stakeholders in June 2021 to understand stakeholder requirements for co-existence and will continue throughout the lifetime of the project. A Fisheries Liaison and Coexistence Plan is being developed by the Applicant through ongoing consultation with fisheries stakeholders. An outline of this plan has been included with the Application (APP-065).</p>

2.37 Scottish Pelagic Fishermen's Association

Table 2.37: RR-037 – Scottish Pelagic Fishermen's Association.

Reference	Relevant Representation Comment	Applicant's response
RR-037.1	<p>We have two member vessels that operate in this sea basin that may be impacted by these developments. Our principle concerns are around impact on fishing activity, navigation and the potential disturbance of gravel areas which are key to the successful breeding of herring.</p>	<p>This response is noted by the Applicant. With regards to fishing activities and navigation the Applicant is working to facilitate co-existence with existing commercial fishing activity and minimise disruption as far as is practicably possible. Early engagement was established with fisheries stakeholders in June 2021 to understand stakeholder requirements for co-existence and will continue throughout the consenting of the Project, construction and beyond through the lifetime of the project. A Fisheries Liaison and Coexistence Plan is being developed by the Applicant through ongoing consultation with fisheries stakeholders. An Outline fisheries liaison and co-existence plan (APP-065) was submitted as part of the application.</p> <p>Regarding disturbance of gravel areas and herring breeding a substrate suitability assessment was undertaken during baseline characterisation (see Volume 4, Annex 3.1: Fish and shellfish ecology technical report (APP-051), which determined low potential for the presence of seabed habitats suitable for herring spawning within the Morgan Generation Assets. Direct disturbance to gravel habitats which support herring spawning, through loss of habitat, or change in substrate composition are therefore not expected to occur.</p> <p>Impacts to herring at the Douglas Bank spawning ground during the spawning season from underwater sound generated by piling during the construction phase was assessed to potentially result in a significant effect should piling occur during the spawning season, based upon the current project design (see section 3.9.3 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021).</p> <p>The Applicant has committed to developing an Underwater Sound Management Strategy (UWSMS) to mitigate the effects of underwater sound on spawning herring, to ensure that significant effects do not occur. An Outline UWSMS is provided within the Application (APP-068), and development of this strategy is secured as a condition within the deemed marine licence(s) within the Draft development consent order (APP-005).</p> <p>The UWSMS established a process of investigating a range of options to manage underwater sound (such as seasonal planning) with regular consultation with relevant stakeholders. It will include full consideration of the final project design and construction programme to ensure the measures proposed (if required, following design and programme refinement) are robust</p>

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Reference	Relevant Representation Comment	Applicant's response
		in reducing the effects of underwater sound on spawning herring to non-significant.

2.38 Scottish Whitefish Producers Association

Table 2.38: RR-038 – Scottish Whitefish Producers Association.

Reference	Relevant Representation Comment	Applicant's response
RR-038.1	<p>A number of vessels within the SWFPA have enormous fishing interests in the area of development, predominantly Queen Scallops. This fishery is one of the most important Queen Scallop beds in Europe if not the world. The physical presence of an offshore wind farm is obviously a concern, however the impact on the ecosystem and the marine environment is even greater. Spat dispersion to unsuitable substrate would mean the end of this fishery, and more importantly the coastal communities that this fisheries supports. The precautionary principle has never been implemented with regard to the offshore wind industry which we believe is a grave error of judgement. The SWFPA look forward to engaging further through this process.</p>	<p>The Applicant is working to facilitate co-existence with existing commercial fishing activity and minimise disruption as far as is practicably possible. Early engagement was established with fisheries stakeholders in June 2021 to understand stakeholder requirements for co-existence and will continue with ongoing engagement through the project's examination phase, and beyond throughout the lifetime of the project. A Fisheries Liaison and Coexistence Plan (FLCP) is being developed by the Applicant through ongoing consultation with fisheries stakeholders. The Outline fisheries liaison and co-existence plan (APP-065) was included with the Application which is secured through the deemed marine licence of the draft DCO. Mitigation and monitoring commitments are set out within the environmental statement chapters and the Mitigation and monitoring schedule (APP-076).</p> <p>Enabling co-existence and indeed, co-location was a key aim for the Applicant. This ambition underpins the Applicant's commitments to not close the entire development area during construction, the scallop mitigation zone (SMZ) and the orientation and spacing of infrastructure. 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 adopted as part of the Morgan Generation Assets such as the SMZ, minimum infrastructure spacing of 1,400 m and roughly north-to-south alignment of wind turbine rows (as set out in APP-065), will provide the space for continued fishing within the Morgan Array Area and fishing vessels will be able to transit through this area.</p> <p>Impacts to queen scallop from 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.</p> <p>Due to the nature of the sediment disturbance and the relatively rapid reintegration of disturbed sediments into the existing sediment transport regime, suitable sediment is anticipated to be available to support spat settlement 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).</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>Areas subject to resettlement of significant thicknesses of suspended sediments during construction activities are expected to be close to the source, and with this sediment material reintegrated into the sediment transport regime within a few tidal cycles, reducing the potential for long term changes to the substrate/habitat composition, as discussed within paragraph 3.9.4.16 of Volume 2, Chapter 3: Fish and shellfish ecology (APP-021), and with further details of the modelled deposition of suspended sediments presented within Volume 2, Chapter 1: Physical processes (APP-013) and Volume 4, Annex 1.1: Physical processes technical report (APP-033).</p>

2.39 Stena Line Ltd

Table 2.39: RR-039 – Stena Line Ltd.

Reference	Relevant Representation Comment	Applicant's response
RR-039.1	<p>Stena line operates six passenger and freight RoRo vessels in this area on three separate routes. We have engaged with the developers of the project from the outset and have submitted a commentary on their PEIR, identifying what we consider to be increased navigational safety risks to our operation which is amplified by the fact that there is a potential for three other new offshore wind farms to be constructed right on the course lines of these strategic services. The route which is most affected is our Belfast to Liverpool service which is served by two passenger RoRo vessels, capable of carrying 1000 persons and one freight RoRo vessel. Each vessel potentially transiting twice per daily. We acknowledge that the developer has made some concessions to reduce the Red line boundary after cumulative simulation exercises which have resulted in risk reduction. While this is welcomed there is still a residual increased risk above the current situation which will fall to us as operators to continue to manage for the lifetime of the project. We have further expressed concerns in relation to the increased transit time for the three vessels and the effect this will have on not only our increased carbon emissions along with its associated carbon tax. This will additionally have an effect on our bunker consumption and turn-around times in port. We are happy to continue to explore this with the developer and Planning Inspectorate. Kind Regards Capt Michael Proctor DPA & CSO.</p>	<p>The Navigation Risk Assessment (NRA) and Shipping and Navigation Chapter of the Preliminary Environmental Impact Report (PEIR) (April 2023) identified that in normal and adverse weather conditions, ferries would necessitate deviations around the Morgan Generation Assets Array Area, and this would result in greater transit distance, fuel costs, schedule disruptions, and more frequent cancellations to lifeline ferry services.</p> <p>Following the PEIR and Section 42 consultation responses, the Applicant modified the boundaries of the wind farm array area which increased the available searoom to minimise the impacts to ferries, and reduced the deviations required (as set out in section 7.9 and 7.11 of Volume 2, Chapter 7: Shipping and navigation (APP-025) and in section 4.11.2 of Volume 1, Chapter 4: Site selection and consideration of alternatives (APP-011)).</p> <p>The Applicant has worked together with the developers of the Mona Offshore Wind Project and Morecambe Offshore Windfarm: Generation Assets who have also amended the boundaries of their respective projects to increase searoom and reduce the cumulative impacts on ferries.</p> <p>The ferry companies and other key stakeholders have inputted to this process through attendance at navigation simulations and NRA hazard workshops. As a result of these boundary amendments and further commitments to control measures (e.g. development and adherence to an Aids to Navigation Management Plan, Design Plan, an Offshore Environmental Management Plan that includes a Fisheries Liaison and Co-existence Plan, an Offshore Construction Method Statement, which includes a Cable Specification and Installation Plan, a Vessel Traffic Management Plan, an Emergency Response and Cooperation Plan and use of notice to mariners), have been identified, as set out in section 7.8 of Volume 2, Chapter 7: Shipping and navigation (APP-025). These control measures are all secured within the deemed marine licences in Schedules 3 and 4 of the Draft development consent order (APP-005). Noting that a residual risk over the baseline remained, the NRA Hazard Workshop concluded that all hazards, previously identified as unacceptable at PEIR, had been reduced to As Low As Reasonably Practicable (ALARP) following the boundary amendments.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>The Applicant understands that the Stena Line Ltd Belfast to Liverpool service intersects with the Morgan Array Area. For this service a revised passage plan was developed that would necessitate an additional 2.3 to 7.9 minutes of steaming time per trip (dependent on route taken) to accommodate the Morgan Generation Assets alone. On an eight-hour service, with greater existing operational variation in transit duration and turnaround time, the deviation is not anticipated to result in significant operational impacts for the Morgan Generation Assets alone.</p> <p>Cumulatively with other projects, plans and activities (the Mona Offshore Wind Project and the Morecambe Offshore Windfarm: Generation Assets), this service would necessitate an extra 13 to 16 minutes of steaming time per trip. Cumulatively with these other projects, plans and activities, this impact is assessed as being of moderate adverse significance and may result in Stena Line more frequently taking the more common route to the west of the Isle of Man.</p> <p>The Applicant is committed to further engagement with Stena Line Ltd on the residual impacts throughout the examination phase of the Morgan Generation Assets.</p>

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2.40 T & C Laycock

Table 2.40: RR-040 – T & C Laycock.

Reference	Relevant Representation Comment	Applicant's response
RR-040.1	<p>There will be a serious loss of income and we will struggle to feed 200 head of cattle and continue our tree business because of the disruption. The potential time element of 66 months for 2 different companies to have access to the amount of land the scheme requires causes interference to the agricultural operation and maintenance of watercourses will be dire. The environmental impact in the area will be greatly affecting the wild life, like the deer population, the barn owl feeding grounds along the drains, the vole population and the feeding grounds of migratory birds which have been pushed away from the Moss due to housing developments. Stress due to not being able to travel around the farm, fields being cut in half, social aspects, economical factors and mental strain for such a long period of time. The land drains all run into Branch main river drain and if these land drains are affected then potential flooding will occur and will have consequences on surrounding fields, (not just the ones you are working in.). It will cause water displacement and the Environment Agency knows this. We have spent £1000's on new drains recently and this scheme is going to undo all that we have done. It will lower the value of Agricultural Land and it's potential uses. The cables may move and come to the surface as other cables in the area have done. The traffic disruption will occur due to the fact that the moss roads are not fit for purpose with heavy goods vehicles that in the past due to the poor quality and lack of maintenance of the roads wagons have ended up veering off the road and ending up on their sides. 5 last year. I can see some roads may have to be shut due to the 3 compounds by our farm. The land will take 20 years to get it back to the way it is farmed today if at all. The cables corridor is enormous in width, wider than a motorway and this causes great concern as it will scar the Fylde area. There will also be a loss of business potentially to Lytham We will not be able to plan for the farms succession of the next generation and in this area there are a number of youngsters who desperately have the agricultural skills and wish to continue to farm because it is their passion.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

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2.41 UK Chamber of Shipping

Table 2.41: RR-041 – UK Chamber of Shipping.

Reference	Relevant Representation Comment	Applicant's response
RR-041.1	<p>The UK Chamber of Shipping is the trade association for the UK shipping industry, representing some 200 members, operating 900 vessels equalling 18 million GT in capacity, trading around the UK and globally. The Chamber represents the full breadth of the industry, including dry and wet trades, passenger transport (cruise & ferry), offshore supply and construction, towage, and specialist, as well as professional service providers with shipping interests.</p>	<p>The Applicant has engaged with the UK Chamber of Shipping throughout the pre-application period, primarily through the Marine Navigation Engagement Forum (MNEF). The MNEF was created early in the pre-application phase as a forum to discuss shipping and navigation matters with stakeholders and met six times between 2021 and 2024 (see section 1.3.1. in the Technical engagement plan (APP-094) for further information). The UK Chamber of Shipping has been represented through both hazard workshops and has observed some of the navigation simulation sessions undertaken and submitted within Volume 4, Annex 7.1 Navigational risk assessment (NRA) (APP-060).</p>
RR-041.2	<p>The Chamber fully supports the Government's obligations to achieve Net Zero Carbon by 2050 and welcomes the development of offshore renewable energy to succeed in this obligation. The ports and shipping industries play an essential in enabling those targets to be achieved by providing bases and vessels for construction, operation & maintenance, and decommissioning.</p>	<p>The Applicant notes this response.</p>
RR-041.3	<p>The Chamber also asserts that the planning process and framework must support the wider shipping industry through site selection which avoids or minimises disruption or economic loss to the shipping and navigation industries, with particular regard to approaches to ports and to strategic routes essential to regional, national and international trade, lifeline ferries, as stated within Paragraph 2.8.328 of NPS EN-3. The Chamber seeks to ensure navigational safety is upheld and that developments are appropriately positioned to enable existing and future commercial navigation to continue safely and efficiently. Shipping is the greenest form of cargo transport and proposed offshore renewable developments must take fully into consideration the routeing and operations of commercial shipping to enable this to continue.</p>	<p>The Shipping and Navigation assessment has been undertaken with due regard to the relevant policies of the National Policy Statement as outlined in Section 7.2 of Volume 2, Chapter 7: Shipping and navigation (APP-025). This included impacts to approaches to ports, strategic routes and lifeline ferry services. Impacts described within Section 7.9.3, 7.9.4, 7.11.3 and 7.11.4 of the shipping and navigation assessment (APP-025) address these impacts.</p>
RR-041.4	<p>The Chamber has been closely involved in the planning process for Morgan OWF prior to DCO application, through Scoping, PEIR, Simulation Exercises with international scheduled Roll-on Roll-off and Passenger Ferry services, and Hazard Workshops in the development of the Navigational Risk Assessment. The Chamber found the development as initially presented is unacceptable on grounds of navigation safety in isolation and cumulatively,</p>	<p>The NRA and Shipping and Navigation Chapter of the PEIR (April 2023) identified that in normal and adverse weather conditions, ferries would necessitate deviations around the Morgan Generation Assets Array Area and this would result in greater transit distance, fuel costs, schedule disruptions, and more frequent cancellations to lifeline ferry services.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>and has advocated for enhanced mitigation measures. The Chamber has welcomed constructive manner the Red Line Boundary (development area) has been amended to take in account of navigational safety concerns for national and international scheduled services, however asserts 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.</p>	<p>Following the PEIR and Section 42 consultation responses, the Morgan Generation Assets modified the boundaries of the wind farm array area which increased the available searoom to minimise the impacts to ferries, and reduced the deviations required (as set out in section 7.9 and 7.11 of Volume 2, Chapter 7: Shipping and navigation (APP-025) and in section 4.11.2 of Volume 1, Chapter 4: Site selection and consideration of alternatives (APP-011).</p> <p>The Shipping and Navigation assessment completed as part of the Application (APP-025) concluded that in normal and adverse weather conditions, ferries would necessitate deviations around the Morgan Generation Assets which would result in greater steaming time. For Morgan alone in adverse weather, this could have a significant effect on strategic routes and lifeline ferry services in the eastern Irish Sea, as described within section 7.9 of Volume 2, Chapter 7: Shipping and navigation (APP-025). Cumulatively with other adjacent proposed offshore wind projects, in normal and adverse weather, this could have a significant effect on strategic routes and lifeline ferry services in the eastern Irish Sea, as described within section 7.11 of Volume 2, Chapter 7: Shipping and navigation (APP-025). The Applicant is committed to further engagement with affected operators on the residual impacts throughout the examination phase of the Morgan Generation Assets.</p> <p>Furthermore, Volume 2, Chapter 13: Socio-economics (APP-017) assesses the potential effects of the Morgan Generation Assets on economic, social and tourism receptors. The potential socio-economic impacts on the Isle of Man associated with potential adverse effects on lifeline ferry services have also been considered. No significant adverse effects have been identified. Potential socio-economic impacts on the Isle of Man associated with potential adverse effects on lifeline ferry services were minor adverse for all stages of the project.</p> <p>The focus of the socio-economic assessment considered potential impacts on freight-dependant sectors such as retail and wholesale, construction, and manufacturing, and the passenger-dependant visitor and leisure economy.</p>
RR-041.5	<p>The cumulative impact to the commercial shipping industry of Morgan OWF in addition to Mona and Morecambe which are entering the DCO process is unprecedented in its simultaneous nature. The Chamber therefore requests the opportunity to provide further representation in the area of navigational safety and impact upon commercial routeing at Examination where appropriate.</p>	<p>The Applicant notes this response.</p>

2.42 UK Health Security Agency

Table 2.42: RR-042 – UK Health Security Agency.

Reference	Relevant Representation Comment	Applicant's response
RR-042.1	<p>Thank you for your consultation regarding the above development. The UK Health Security Agency (UKHSA) welcomes the opportunity to comment on your proposals at this stage of the project. Please note that we request views from the Office for Health Improvement and Disparities (OHID) and the response provided is sent on behalf of both UKHSA and OHID. We can confirm that: With respect to Registration of Interest documentation, we are reassured that earlier comments raised by us on 14th July 2022 have been addressed.</p>	<p>The response is noted by the Applicant.</p>
RR-042.2	<p>In addition, we acknowledge that the Environmental Statement (ES) has not identified any issues which could significantly affect public health. Following our review of the submitted documentation we are satisfied that the proposed development should not result in any significant adverse impact on public health. On that basis, we have no additional comments to make at this stage and can confirm that we have chosen NOT to register an interest with the Planning Inspectorate on this occasion. Please do not hesitate to contact us if you have any questions or concerns.</p>	<p>Agreement is welcomed that the Morgan Generation Assets should not result in any significant adverse impact on public health, including for vulnerable groups, as concluded in Volume 2, Chapter 14: Human health assessment (APP-018).</p>

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2.43 Walney Extension Limited
Table 2.43: RR-043 – Walney Extension Limited.

Reference	Relevant Representation Comment	Applicant's response
RR-043.1	<p>Walney Extension Limited owns the Walney Extension Windfarm comprising Walney 3 and 4, an operational offshore windfarm with a Development Consent Order (DCO) and relevant marine licences ("our Development"). Its proximity to Morgan Offshore Wind Farm ("MOWF") can be seen in MOWF's Environmental Statement (the "ES") (F2.9 at Figure 9.4 and Table 9.8). Our Development does not object to the principle of MOWF however we do at present require to object to certain elements of it where we may wish to participate in the DCO Examination to make representations about potential impacts on and interactions with our Development and, where appropriate, to secure appropriate mitigations.</p>	<p>The Applicant notes your response.</p> <p>Walney Extension offshore wind farm is a minimum of 8.1 km from the Morgan Offshore Wind Project: Generation Assets as stated in Table 9.8 of Volume 2, Chapter 9: Other sea users (APP-027).</p> <p>Potential impacts on the Walney Extension offshore wind farm project operator have been identified and assessed in section 9.9.3 of Volume 2, Chapter 9: Other sea users (APP-027) and has been considered in the cumulative effects screening for each topic where appropriate.</p>
RR-043.2	<p>Concerns were previously highlighted to MOWF via a s48 consultation response and subsequent meeting. Our concerns as raised in the s48 response remain extant and we expect further meaningful engagement to seek to address the issues raised below and previously. We are open to addressing such matters within or outside the Examination process.</p>	<p>Engagement has occurred with Walney Extension Limited during the pre-application phase of the Morgan Offshore Wind Project: Generation Assets and will continue as required throughout the examination phase.</p>
RR-043.3	<p>Our Development expects to continue to operate and be maintained in the long-term. It may be upgraded and repowered in future, and will then be decommissioned. Co-existence with our Development must be considered and protected over the long-term – and the acceptability of cumulative and in-combination impacts – must be properly assessed taking into account each of the above stages of our Development's life. Our Development requires that its operations, consents (including conditions), and any stakeholder agreements entered into by it are unaffected by MOWF. Our Development's concerns include the following.</p>	<p>The potential impacts of the Morgan Generation Assets on other sea users, including Walney Extension offshore wind farm, have been fully assessed for the project alone and cumulatively in Volume 2, Chapter 9: Other sea users (APP-027). The potential cumulative and in-combination impacts of the Morgan Generation Assets, alongside other relevant projects and plans, have been fully assessed in the various topic chapters of the Environmental Statement and HRA. It should be noted that the cumulative and in-combination assessments consider the project information available at the time of the Morgan Generation Assets application, which for Walney Extension offshore wind farm, includes all existing project consents. Any plans for future upgrading and repowering of Walney Extension offshore wind farm will be subject to separate consents and/or approvals, and therefore cannot be assessed by the Applicant at this stage. Walney Extension Limited will need to carry out its own EIA and HRA for any proposals to extend the project lifetime beyond that originally consented on the basis of the original ES and HRA, and this will need to include consideration of the Morgan Generation Assets in their cumulative/in-combination assessment.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>As set out in Table 9.13 of Volume 2, Chapter 9: Other sea users (APP-027) the Applicant has committed to continued communication with other offshore energy operators to promote and maximise cooperation between parties and minimise both spatial and temporal interactions between conflicting activities.</p>
RR-043.4	<p>Issue One: Following review of the ES, we seek engagement with MOWF to discuss a number of environmental concerns relating to ornithology and the cumulative impact assessment. We are not convinced that assessments are robust and we require to analyse this further and engage with MOWF.</p>	<p>The Applicant has undertaken a robust assessment of all potential impacts on offshore ornithology informed by appropriate data sources from site-specific surveys and detailed desktop studies, in accordance with relevant guidance. The assessment of potential impacts to offshore ornithology is presented in Volume 2, Chapter 5: Offshore ornithology (APP-023).</p> <p>The evidence to inform the baseline and the approach to predicting effects on offshore ornithology were discussed and agreed through an Evidence Plan Process which included an Expert Working Group (EWG) for offshore ornithology as set out in section 4.4 of the Consultation Report (APP-088). To inform the Environmental Statement, site-specific surveys were undertaken, as agreed with the offshore ornithology EWG, across the Morgan Array Area plus a buffer extending up to 10 km (Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053)). Further, and on advice from the offshore ornithology EWG, additional data sources were identified post-scoping that were used to inform the baseline characterisation (Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053)). The Applicant is therefore confident that the assessment of likely significant effects on offshore ornithology presented in Volume 2, Chapter 5: Offshore ornithology (APP-023) is based on the most scientifically robust evidence available and that sufficient precaution is built into the assessment. With respect to potential cumulative or in-combination effects, the assessment has considered all reasonably foreseeable (i.e. those with information in the public domain) projects, plans and activities.</p> <p>As set out in Table 9.13 of Volume 2, Chapter 9: Other sea users (APP-027) the Applicant has committed to continued communication with other offshore energy operators.</p>
RR-043.5	<p>Issue Two: The ES (F4.7.1/F2.7) conveys a change in risk related to our Development relating, for instance, to increased risk of a pollution event between the respective array areas. The ES commits to stakeholder engagement (F2.7 at 7.14.1.1). We require to be involved in such engagement to ensure that the risk is appropriate mitigated and our consents, agreements, and operations are not adversely affected by MOWF.</p>	<p>The Applicant has committed to preparing an Offshore Environmental Management Plan (EMP), which includes a Marine Pollution Contingency Plan (MPCP) to minimise and manage the risk of marine pollution events. The Offshore EMP will detail the minimum environmental management requirements expected of the Applicant and all contractors and subcontractors, to ensure accidental pollution into the marine environment is minimised, through the development of and adherence to the MPCP, for</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>approval prior to commencement of construction. Measures will be adopted to ensure that the potential for release of pollutants from construction, operations and maintenance, and decommissioning activities is minimised, which will include accidental spills planning, response and notification requirements. The Offshore EMP is secured as a condition of the deemed Marine Licences within the draft Development Consent Order (APP-005).</p> <p>As set out in Table 9.13 of Volume 2, Chapter 9: Other sea users (APP-027) the Applicant has committed to continued communication with other offshore energy operators to promote and maximise cooperation between parties and minimise both spatial and temporal interactions between conflicting activities.</p>
RR-043.6	<p>Issue Three: We believe that MOWF will adversely affect the energy yield of our Development. Due to the proximity outlined in the above-referenced figure and table, we believe that MOWF will interfere with wind speed or direction at our Development causing reduction in energy output. This requires to be properly assessed and appropriately mitigated / compensated.</p>	<p>Volume 2, Chapter 9: Other sea users (APP-027) assesses the potential impacts of the Morgan Generation Assets on offshore energy receptors, including offshore wind farm operators. Walney Extension offshore wind farm has been identified as an offshore energy receptor in the baseline environment (section 9.5.2.6-15).</p> <p>Volume 2, Chapter 9: Other sea users (APP-027) sets out that NPS EN-3 (paragraph 2.8.196) recognises that offshore wind development will occur in or close to areas where there is other offshore infrastructure. The project boundary requirements in The Crown Estate's (TCE's) Round 4 Information Memorandum specified that no offshore wind projects could be located within 7.5 km of an existing offshore wind farm. As described in section 9.5.2, Table 9.8 and Figure 9.4 of Volume 2, Chapter 9: Other sea users (APP-027), there are no other operational offshore wind farms located within 7.5 km of the Morgan Array Area and therefore the Morgan Generation Assets location adheres to the TCE siting criteria and it was considered that no further assessment was required.</p> <p>The Morgan Array Area has been reduced following the statutory pre-application consultation, as described in Volume 1, Chapter 4: Site selection and consideration of alternatives (APP-011). This has increased the distance from the nearest existing operational offshore wind farm by 0.6 km to 8.1 km, and also increased the distance from a number of other operational offshore wind farms. The distance between the Morgan Array Area and the Walney Extension offshore wind farm is 8.1 km.</p>
RR-043.7	<p>Issue Four: Our Development is implementing appropriate mitigation in relation to potential impacts on the Warton Airfield Primary Surveillance Radar. We require assurance that MOWF will not adversely affect or increase the cost of such mitigation, and that, in the event that MOWF makes use of</p>	<p>As described in Volume 2, Chapter 11: Aviation and radar (APP-015), the Ministry of Defence (MOD) in response to the Morgan Generation Assets PEIR stated that they do not envisage an impact to the Warton Primary Surveillance Radar (PSR), therefore potential impact to the Warton PSR was</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>this mitigation, MOWF will contribute to the purchase, installation and maintenance costs.</p>	<p>not considered further. The Applicant has since received an objection from the MOD Defence Infrastructure Organisation (DIO) dated 09 August 2024 in relation to the Air Traffic Control (ATC) radar at BAE Warton, and the Applicant is seeking further discussion with the MOD on this matter.</p> <p>The Applicant has no reason to believe that the Morgan Generation Assets might adversely affect or increase the cost of the mitigation put in place by Walney Extension Limited related to Warton Aerodrome PSR.</p>

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2.44 Walney (UK) Offshore Windfarms Limited

Table 2.44: RR-044 – Walney (UK) Offshore Windfarms Limited.

Reference	Relevant Representation Comment	Applicant's response
RR-044.1	<p>Walney (UK) Offshore Windfarms Limited owns the Walney 1 and 2 windfarms, an operational offshore windfarm with a s36 Electricity Act 1989 consent and relevant marine licences (“our Development”). Its proximity to Morgan Offshore Wind Farm (“MOWF”) can be seen in MOWF’s Environmental Statement (the “ES”) (F2.9 at Figure 9.4 and Table 9.8). Our Development does not object to the principle of MOWF however we do at present require to object to certain elements of it where we may wish to participate in the DCO Examination to make representations about the potential impacts on and interactions with our Development and, where appropriate, to secure appropriate mitigations.</p>	<p>The Applicant notes your response.</p> <p>Walney 1 and 2 offshore wind farms are a minimum of 13.3 km from the Morgan Offshore Wind Project: Generation Assets as stated in Table 9.8 of Volume 2, Chapter 9: Other sea users (APP-027).</p> <p>Potential impacts on the Walney 1 and 2 offshore wind farm projects operator have been identified and assessed in section 9.9.3 of Volume 2, Chapter 9: Other sea users (APP-027) and has been considered in the cumulative effects screening for each topic where appropriate.</p>
RR-044.2	<p>Concerns were previously highlighted to MOWF via a s48 consultation response and subsequent meeting. Our concerns as raised in the s48 response remain extant and we expect further meaningful engagement to seek to address the issues raised below and previously. We are open to addressing such matters within or outside the Examination process.</p>	<p>Engagement has occurred with Walney (UK) Offshore Windfarms Limited during the pre-application phase of the Morgan Offshore Wind Project: Generation Assets and will continue as required throughout the examination phase.</p>
RR-044.3	<p>Our Development expects to continue to operate and be maintained in the long-term. It may be upgraded and repowered in future, and will then be decommissioned. Co-existence with our Development must be considered and protected over the long-term – and the acceptability of cumulative and in-combination impacts – must be properly assessed taking into account each of the above stages of our Development’s life. Our Development requires that its operations, consents (including conditions), and any stakeholder agreements entered into by it are unaffected by MOWF. Our Development’s concerns include the following.</p>	<p>The potential impacts of the Morgan Generation Assets on other sea users, including Walney 1 and 2 offshore wind farms, have been fully assessed for the project alone and cumulatively in Volume 2, Chapter 9: Other sea users (APP-027). The potential cumulative and in-combination impacts of the Morgan Generation Assets, alongside other relevant projects and plans, have been fully assessed in the various topic chapters of the Environmental Statement and HRA. It should be noted that the cumulative and in-combination assessments consider the project information available at the time of the Morgan Generation Assets application, which for Walney 1 and 2 offshore wind farms, includes all existing project consents. Any plans for future upgrading and repowering of Walney 1 and 2 offshore wind farms will be subject to separate consents and/or approvals, and therefore cannot be assessed by the Applicant at this stage. Walney (UK) Offshore Windfarms Limited will need to carry out its own EIA and HRA for any proposals to extend the project lifetime beyond that originally consented on the basis of the original ES and HRA, and this will need to include consideration of the Morgan Generation Assets in their cumulative/in-combination assessment.</p>

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Reference	Relevant Representation Comment	Applicant's response
RR-044.4	<p>Issue One: Following review of the ES, we seek engagement with MOWF to discuss a number of environmental concerns relating to ornithology and the cumulative impact assessment. We are not convinced that the assessments are robust and we require to analyse this further and engage with MOWF.</p>	<p>As set out in Table 9.13 of Volume 2, Chapter 9: Other sea users (APP-027) the Applicant has committed to continued communication with other offshore energy operators to promote and maximise cooperation between parties and minimise both spatial and temporal interactions between conflicting activities.</p> <p>The Applicant has undertaken a robust assessment of all potential impacts on offshore ornithology informed by appropriate data sources from site-specific surveys and detailed desktop studies, in accordance with relevant guidance. The assessment of potential impacts to offshore ornithology is presented in Volume 2, Chapter 5: Offshore ornithology (APP-023).</p> <p>The evidence to inform the baseline and the approach to predicting effects on offshore ornithology were discussed and agreed through an Evidence Plan Process which included an Expert Working Group (EWG) for offshore ornithology as set out in section 4.4 of the Consultation Report (APP-088). To inform the Environmental Statement, site-specific surveys were undertaken, as agreed with the offshore ornithology EWG, across the Morgan Array Area plus a buffer extending up to 10 km (Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053)). Further, and on advice from the offshore ornithology EWG, additional data sources were identified post-scoping that were used to inform the baseline characterisation (Volume 4, Annex 5.1: Offshore ornithology baseline characterisation (APP-053)). The Applicant is therefore confident that the assessment of likely significant effects on offshore ornithology presented in Volume 2, Chapter 5: Offshore ornithology (APP-023) is based on the most scientifically robust evidence available and that sufficient precaution is built into the assessment. With respect to potential cumulative or in-combination effects, the assessment has considered all reasonably foreseeable (i.e. those with information in the public domain) projects, plans and activities.</p> <p>As set out in Table 9.13 of Volume 2, Chapter 9: Other sea users (APP-027) the Applicant has committed to continued communication with other offshore energy operators.</p>
RR-044.5	<p>Issue Two: We believe that MOWF will adversely affect the energy yield of our Development. Due to the proximity outlined in the above-referenced figure and table, we believe that MOWF will interfere with wind speed or direction at our Development causing reduction in energy output. This requires to be properly assessed and appropriately mitigated / compensated.</p>	<p>Volume 2, Chapter 9: Other sea users (APP-027) assesses the potential impacts of the Morgan Generation Assets on offshore energy receptors, including offshore wind farm operators. Walney 1 and 2 offshore wind farms has been identified as an offshore energy receptor in the baseline environment (section 9.5.2.6-15).</p> <p>Volume 2, Chapter 9: Other sea users (APP-027) sets out that NPS EN-3 (paragraph 2.8.196) recognises that offshore wind development will occur in or</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>close to areas where there is other offshore infrastructure. The project boundary requirements in The Crown Estate's (TCE's) Round 4 Information Memorandum specified that no offshore wind projects could be located within 7.5 km of an existing offshore wind farm. As described in section 9.5.2, Table 9.8 and Figure 9.4 of Volume 2, Chapter 9: Other sea users (APP-027), there are no other operational offshore wind farms located within 7.5 km of the Morgan Array Area and therefore the Morgan Generation Assets location adheres to the TCE siting criteria and it was considered that no further assessment was required.</p> <p>The Morgan Array Area has been reduced following the statutory pre-application consultation, as described in Volume 1, Chapter 4: Site selection and consideration of alternatives (APP-011). This has increased the distance from the nearest existing operational offshore wind farm by 0.6 km to 8.1 km, and also increased the distance from a number of other operational offshore wind farms. The distance between the Morgan Array Area and the Walney 1 and 2 offshore wind farms is 13.3 km.</p>

2.45 West Coast Sea Products Ltd

Table 2.45: RR-045 – West Coast Sea Products Ltd.

Reference	Relevant Representation Comment	Applicant's response
RR-045.1	<p>Similar to the Mona project which we recently registered our representation, we stand to be significantly impacted by the proposed windfarm. This is since we have harvested Queen and King Scallops from within the Morgan proposal area an annual basis for the last 40+ years which supports our processing business on land with over 100 people employed. Much of our fishing is concentrated in the western extents of the development area and much of the development area to the east supports unfished nursery / spawning ground for Queen Scallops. We are extremely worried about the introduction of buried cables and construction of the wind turbines which has the potential to permanently alter the unique ground (sandy gravelly) substrate for which Queen Scallops thrive on. A coexistence plan has been included with the application, but we have grave concerns about the viability of our business as we fear we will have a situation where we may have room to operate to fish, but the seabed will have been altered so significantly that the stock will no longer be there to be sustainably harvested. Queen Scallops are extremely vulnerable and 'flighty' as we have seen with other marine projects in the past; especially compared to King Scallops. The Morgan proposal area may be considered as just one development area over the stock, but if it considered in terms of cumulative impacts with the Mona windfarm proposal we are going to be significantly impacted. This is since both projects are going to be situated on the strip of sandy gravelly unique ground where Queen Scallops thrive from the Isle of Man down to Anglesey. I look forward to making further comments regarding our representation on this proposal.</p>	<p>The Applicant notes the West Coast Sea Products Ltd's response. The Applicant is working to facilitate co-existence with existing commercial fishing activity and minimise disruption as far as is practicably possible. Early engagement was established with fisheries stakeholders in June 2021 to understand stakeholder requirements for co-existence and will continue throughout the lifetime of the project. A Fisheries Liaison and Coexistence Plan is being developed by the Applicant through ongoing consultation with fisheries stakeholders. An outline of this plan has been included with the Application (APP-065) which is secured through the deemed marine licence of the draft DCO. Mitigation and monitoring commitments are set out within the environmental statement chapters and the Mitigation and monitoring schedule (APP-076). Enabling co-existence and indeed, co-location is a key aim for the Applicant. This ambition underpins the Applicant's commitments to not close the entire development area during construction, the scallop mitigation zone (SMZ) and the orientation and spacing of infrastructure. 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 adopted as part of the Morgan Generation Assets such as the SMZ, minimum infrastructure spacing of 1,400 m and roughly north-to-south alignment of wind turbine rows (as set out in APP-065), will provide the space for continued fishing within the Morgan Array Area and fishing vessels will be able to transit through this area.</p> <p>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), 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 phases, with no further specific mitigation measures required beyond the measures adopted as part of the project.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>Impacts to queen scallop from 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.</p> <p>Due to the nature of the sediment disturbance and the relatively rapid reintegration of disturbed sediments into the existing sediment transport regime, 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).</p> <p>Areas subject to resettlement of significant thicknesses of suspended sediments during construction activities are expected to be close to the source, with this sediment 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, 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).</p>

2.46 Hilary Margaret Angus

Table 2.46: RR-046 – Hilary Margaret Angus.

Reference	Relevant Representation Comment	Applicant's response
RR-046.1	<p>The Fylde is an area of rural, greenbelt, agricultural, coastal, greenbelt and urban landscapes. The potential damage and destruction caused by the construction and installation of the proposed onshore cables and substations through the proposed route will be enormous. Rural land will be ruined, livelihoods affected, effects of heavy lorries and machinery will cause chaos on our local roads. A large area of the planned cable corridor and the siting of the substations is already liable to flooding and will be made worse. I believe that there are alternative options available which would avoid the potential devastation of a beautiful area of Lancashire.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.47 Peter Armitage

Table 2.47: RR-047 – Peter Armitage.

Reference	Relevant Representation Comment	Applicant's response
RR-047.1	<p>This project will have both short term and long term impacts on the local area. How much traffic disruption is likely? What are the long term impacts on noise and light pollution? Are there any benefits for the local area?</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.48 Luke Banks

Table 2.48: RR-048 – Luke Banks.

Reference	Relevant Representation Comment	Applicant's response
RR-048.1	I am a land agent acting on behalf of a number of clients and would like to be kept informed.	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

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2.49 Louise Barker

Table 2.49: RR-049 – Louise Barker.

Reference	Relevant Representation Comment	Applicant's response
RR-049.1	<p>The Morecambe and Morgan Windfarm project proposal for two new offshore wind farms (Morgan & Morecambe) in the Irish Sea will have an irreparable impact on the Fylde which we believe is not fully appreciated. The installation of onshore underground power cables from landfall at Blackpool Airport to the National Grid connection point at Penwortham, plus the construction of two new and very large substations will affect all Fylde residents. This is before you even start to consider the fact that the substations are to be sited on greenbelt land between Kirkham, Freckleton and Newton with Scales together with the associated new access roads and service compounds. Impact on Newton with Scales. Cable trenches The on-shore cables will be run and buried under ground. The cable trench will run from Blackpool Airport across the Fylde towards the new substations to the western side of Newton with Scales and then onward to existing large substation at Penwortham. The cable trench will be a maximum of 35Km in length and, during the construction phase, it will be 120m wide. The total construction phase is estimated to 5 to 8 years. In addition to the cable trench itself, there will be a number of new access roads and storage compounds required. Some of these will be retained permanently. The current proposal is for the cable trench run to leave the substations on the western side of Newton and head east, running just to the south of Newton Bluecoats School, before crossing the A583 just to the east of Clifton. Much of this detail has not yet been shared with the general public. Substations. Two new substations planned as part of this project. The first will be placed on land adjacent to Lower Lane close to its junction with Strike Lane. The second is planned for land adjacent to Lower Lane and adjacent to HM Prison Kirkham. Both are exceptionally large and intrusive industrial installations that will operate and be illuminated 24 hours per day, every day. Each substation will occupy approximately 34 acres of land (about 18 football pitches) plus associated access roads. The maximum height of each substation will be 25m. The operation of each substation will emit noise, light and electromagnetic pollution. The proposed sites are close to schools and residential properties which will all be adversely affected by these emissions. Loss of Greenbelt land and Best and Most Valuable agricultural land. The two substations are to be sited on Greenbelt land to the west and southwest of Newton with Scales. The cable trenches, access roads and</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>storage compounds will also be on Greenbelt land. Greenbelt designation is important to the community as it prevents encroachment of urban sprawl and maintains the pleasant countryside of the Fylde and the distinct identities of each village. It is very difficult to see how these proposals align with the protection of Greenbelt. Furthermore, these proposals will effectively see the western boundary of Newton become an industrial zone, forever changing the character of the village. The highly valued amenity value of walking, riding or cycling along the area's lanes, bridleways and footpaths will be gone forever. To make matters even worse the proposed substation sites are, in part, classified as Best and Most Valuable agricultural land which will be lost forever through compulsory purchase when the substations are constructed. This may well render some farms and small holdings and businesses unviable. Surely, food production is just as important as energy production, there must be a way to construct this important infrastructure on brown field or low-grade land. It is exceedingly difficult to believe that alternative solutions have been adequately investigated. Transport. The project team anticipates an increase of 600 to 700% in HGV movements in the area during the 5-to-8-year construction phase. Our local roads are in a poor state of repair now, what will be left when the construction ends? Consultation. To date there are no publicly available renderings of what the substations will look like as they will appear in the locations where they are to be constructed. This makes it very difficult for many people to visualise what is proposed. The public consultation has been flawed with only limited and targeted feedback since objections to the plans were submitted back in November 2023. Were any of the objections even considered? Have the plans been modified at all? There are alternative brown field sites available for the substations, but they seem to have been rejected out of hand in favour of the established preferred plan. The preference for the southerly siting of the Morecambe substation and the cable trench routing just to the south of Newton and Newton Bluecoats school have not been publicly consulted on at all. This is just another example of the inadequacies of the consultation process. Noise. Noise is a major concern for many residents with many stories in the press regarding excessive noise emissions from other similar substations. The project details state noise levels are not yet known. Much more clarity is required for residents to feel they have been properly informed in an effective consultation. To date, no clear statement of the upper limits for noise, light and electromagnetic emissions have been made public. Neither has any process for regular measurement of these emissions and by whom. Most importantly, what will the enforcement process be if any of these emissions are found to exceed authorised limits? Land Drainage. Water</p>	<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>cannot presently escape quickly enough through our local dyke system and overloaded sewers. The substations and associated hard standings and access routes will worsen those problems for adjacent land. No drainage plans have been made public to date.</p>	

2.50 Judy Battersby

Table 2.50: RR-050 – Judy Battersby.

Reference	Relevant Representation Comment	Applicant's response
RR-050.1	Migration birds and area of scientific interest Noise pollution Agricultural impact Mental health impact Impact on local and regional economy	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

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2.51 Dr Charles Colston Baylis

Table 2.51: RR-051 – Dr Charles Colston Baylis.

Reference	Relevant Representation Comment	Applicant's response
RR-051.1	<p>As a resident of Newton with Scales village I cannot agree with the proposal to build two sub-stations which will extend the village with an extensive industrial site equivalent to about 13 football pitches. Key Issues are: - 1 A large industrial site is not in keeping with a village in which residents have a reasonable expectation of a quiet, rural life. 2 The planned location lies within the Kirkham / Newton Area of Separation Zone and Fylde Borough Council's Green Belt. It appears this was not considered when applying the Red, Amber, Green (RAG) colour coding assessment. Note paragraph 6 below. 3 The impact of having the sub-stations near residents' homes does not appear to have been considered in the RAG assessment. Insufficient consideration is given to the mental health of those living in the locality of such industrial units. It is well known that large sub stations, even when damped/ insulated for noise, can create an irritating humming noise. (NOTE: Even small units such as heat pumps can cause noise pollution). The awareness and reporting of mental health issues within the population are increasing and this is estimated to be having a significant effect on the nation's economy due to its impact on individual's lives. 4 There is no resident friendly brochure giving an overview of the windfarm project which includes the building of sub-stations. An artist's impression of the sub-stations, from many viewpoints, should be available. 5 The information available is detailed and complex, which, I believe, is designed to discourage members of the public gaining a full appreciation of the project and therefore expressing their views. It is also consistent with the developers being made, by the Department for Energy Security and Net Zero, to find ways of speeding up the delivery of the required energy infrastructure. 6 According to Mark Menzies MP, when he was approached about the proposed windfarm by the developers, there was no mention of sub-stations on the Fylde. This, and the lack of appropriate public information, suggests to me the developers are not being transparent. Fylde Borough Council (FBC) should be protecting their local plan for the area and retaining their independence from corporate influences to avoid the appearance of impropriety. 7 I am aware of the need for developers to identify the lowest cost option for projects. However, as shown above, insufficient consideration has been given to residents of Newton and the impact of the sub-stations on their lives. As the people who will bear the brunt of the impact of this development</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>for many years to come, their needs should be at the forefront of your concerns. END</p>	<p>https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.52 Gordon Birt

Table 2.52: RR-052 – Gordon Birt.

Reference	Relevant Representation Comment	Applicant's response
RR-052.1	<p>This will have an irreversible impact on life for residents and wildlife. The project itself will cause many issues to travel, quality of life, wildlife habitats, farming land during its long implementation stage. The result won't necessarily offset the misery it will cause as the installation stage moves forward. The money would be better spent on subsidising home solar with batteries.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.53 Victoria Bryant-Funnell

Table 2.53: RR-053 – Victoria Bryant-Funnell.

Reference	Relevant Representation Comment	Applicant's response
RR-053.1	<p>As a resident of the Fylde I have concerns over: Disruption to services, roads and businesses during construction of pylons and cables. Length of time to undertake construction of pylons and cables. Affect on the environment during construction of pylons and cables ie wildlife, ecosystem, farmland and pollution. Affect on the environment to wildlife habitat, ecosystems and Fylde residents well-being due to the building of additional grid distribution centres on greenfield sites. I have concerns that planning will be rushed through in an attempt to meet net zero targets, but will have a long term negative impact on the environment. You have one chance to get this right. Do it properly and thoughtfully, not rushed to save money and prove your point.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p>

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		<p>https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.54 Ralph Cairns

Table 2.54: RR-054 – Ralph Cairns.

Reference	Relevant Representation Comment	Applicant's response
RR-054.1	<p>The collateral disruption caused by the proposed route is not justified. The disruption to the community as a whole which has had years of threats of fracking is life changing for the residents of Freckleton Newton Clifton and Penwortham - not to mention the ancillary disruption to the town of Blackpool and city of preston</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p>

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		<p>https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

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2.55 Philip Carr

Table 2.55: RR-055 – Philip Carr.

Reference	Relevant Representation Comment	Applicant's response
RR-055.1	<p>Please see below my response to the proposed Morgan & Morecambe Offshore Wind Farms : Transmission Assets, as invited in the consultation brochures. I have studied some of the handout documents namely; “Morgan and Morecambe Offshore Wind Farms: Transmission Assets: Statutory Consultation Brochure Oct 2023” : (SCB) “Morgan and Morecambe Offshore Wind Farms: Transmission Assets: Preliminary Environmental Information Report Oct 2023” : (PEIR) Plus Documents and Figures from the Project website. Firstly, can I say that the brochures show minimal information regarding the visual impact of the Transmission assets. There are many photographs of wind turbines but not a single photograph, artists impression or visualisation of the transmission assets / substations. On page 4 of the SCB, we are told EnBW and Flotation Energy are pioneers in offshore wind power and operate numerous offshore wind farms. Why then can you not give specific details and example photographs of the transmission assets? This total lack of transparency undermines the effectiveness of the consultation process and inhibits the understanding by the local community of the impact of the project. Without such basic information surely this “Statutory” consultation process must be null-and-void. There has been no obvious process outlined for the selection of the candidate sites for the substations. How many sites from the Blackpool Landfall to the Penwortham National Grid Substation Penwortham (NGSP) were considered (other than the 4 Zones subsequently documented)? For example, in your heat mapping exercise (shown in Figs 4.22a and 4.22b covering Topography, Utilities, Flood Risk, Overhead Lines, Protected Areas, Residential Properties and Roads) the summary Heat Map “Combined Heatmapping” shows the area just north of the river Ribble as a green “More Suitable” area. This land is not farmland but is waste / industrial brown field and has no impact on residential property. Why was this “More Suitable” area not considered at all? The SCB has many motherhood statements but no details to substantiate them and again falls below the requirement for a Statutory Consultation. For example, Pages 6 and 31 of the SCB talks about local employment. What employment opportunities will be afforded locally once the substations are operational? Can you give examples? Page 21 of the SCB states the size and positioning of the substations is still being developed. How can you undertake a Statutory</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the ‘Transmission Assets’). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Consultation when the basic details have yet to be defined – particularly the size of the substations? I understand the basic design has yet to be decided – Air Insulated Switchgear (AIS) versus Gas Insulated Switchgear (GIS). Given the differences in footprint, noise, safety and aesthetics, will GIS be the preferred option or will AIS be installed to save on cost? Surely the basic design should have been finalised before embarking on a Statutory Consultation. Can you confirm how the two designs would impact the size and visual appearance of the proposed substations by providing artists impressions or visualisations and give an indication of which design you are favouring? Does the consultation process give the local community a say in the design, given the significant differences in aesthetics they present? It is clear there are two companies involved in producing power from the offshore wind turbines, but why can the power not be routed through one combined substation thus reducing the size and disruption to the environment? After all, when it gets to Penwortham the power is combined when fed to the National Grid. The original proposals included sites in two Zones (3 & 4) adjacent to the NGSP. These options have been quickly dropped for reasons that are questionable. In Section 4.10.1 “Identification of Onshore Substations Search Area”, clause 4.10.1.2 mentions an 8 km buffer zone around the NGSP – what does this mean? Do the substations have to be within 8 km or are they excluded from the buffer zone? Why 8km – what is the relevance of this distance? Table 4.1 of PEIR states the maximum length of onshore cables is 25 km and the NGSP is 19km from the landfall at Blackpool so why not run the cables to Zone 4 next to the NGSP? Zone 4 already has electricity assets in the Zone and routing the cables to substations in this area would mean no cables or assets above ground within the Fylde. Clauses 4.10.1.3 and 4.10.1.4 specifically reference avoiding existing settlements and residential areas around Penwortham, Longton, Walmer Bridge, Hutton and New Longton but there is no reference to existing settlements north of the river Ribble, for example Kirkham, Freckleton and Newton-with-Scales. Why is it imperative to avoid South Ribble settlements and not Fylde settlements? Indeed, there are few significant, immediate population centres near Zone 4. Hutton is approximately 1000m away and Longton 1800m distant, unlike the proposed location in Zone 1 which is surrounded by villages and towns – namely Kirkham (400m to the North), Newton-with-Scales, (450m to the East), Freckleton (450m to the South) and Lower Lane (150m to the West). Table 4.13 – Summary of the Red, Amber, Green (RAG) Appraisal, appears to be working backwards to define Zone 1 as the preferred option, then Zones 3 and 4 colour coded to generate the desired result. It is also not clear how the</p>	<p>consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority’s Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

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	<p>scoring for R, A or G has been determined and whether some criteria have a higher weight than others. For example, weight seems to have been given to the fact that Zones 3 and 4 (adjacent to the NGSP) are near a Special Protection Area (SPA) – however these two zones are NOT in the SPA and therefore this is completely irrelevant. Zone 4 is also coloured red because there were a few “farmland” birds in the area and, whilst Zone 1 and Zone 4 both have hedgerow and mature trees, Zone 4 has been coloured Red while Zone 1 has been coloured Amber. Page 27 of the SCB states that Zones 3 and 4 are “rich” in sensitive habitats that support numerous protected species of birds – yet the RAG assessment identifies a few farmland birds and waders. If there is no specific designation for protection of wildlife, then there are not enough important species to prevent development and the land is no different to any other land. For the Criterion “Planning Policy and Future Development Potential” it has been recognised that Zone 1 is in a designated Green Belt but no cognisance that the area is designated as an “Area of Separation” in Strategic Policy GD3 of the Fylde Local Plan. The reason for the designation of this location as an Area of Separation is to protect the rural characteristic of the Fylde and to make sure that Newton with Scales and Kirkham do not merge together. The main reason for selecting Zone 1 is the supposed ease of transport access (a fact which was substantiated during discussions with Project personnel in the “Statutory” consultation meetings held in November) and specifically highlighted on Page 27 of the SCB where access to main highway networks is a reason for selecting Zone 1. The A583 however is a high-speed (50mph) highway and there have been many Road Traffic Accidents over the years including fatalities. While access seems easy, traffic movements during construction would be problematic and hazardous. By comparison, Zone 4 borders the main trunk road A59 and there is paved access to Zone 4 at What3words smiled.files.civil (off Walton Gardens road) which is only 430 m from the A59. Traffic speed is slower in this area (40mph limit) but in practice is much slower due to the calming nature of the Hutton Roundabout. Why therefore has Zone 4 been coloured Red when access is easy and traffic speeds are much lower than Zone 1? Again, there is a lack of transparency in how accessibility has been assessed. So, to summarise, whilst assessment of a zone’s suitability considers the potential impact on ecology and ornithology and its proximity to a main road, there appears to be little consideration for the impact on the humans living in the settlements in the Fylde and the main reason for choosing Zone 1 appears to be the spurious assertion that road links are better. Throughout the process there has been a repeated lack of transparency of the selection of sites for the substations.</p>	

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Reference	Relevant Representation Comment	Applicant's response
	<p>Such a lack of tangible information undermines the ability of the community to assess the impact of the project and therefore it is my opinion that the whole assessment procedure is flawed and should be subject to formal review. I note that Clause 5.1.5.5 states "Feedback and local knowledge provided to the projects will continue to be reviewed and considered as part of the route planning and site selection process". I am sure you will agree that feedback from myself and the numerous other respondents reinforces the need to reconsider the location of these substations and locate them in Zone 4 where there is already considerable electricity infrastructure.</p>	

2.56 Alwyn Clayton

Table 2.56: RR-056 – Alwyn Clayton.

Reference	Relevant Representation Comment	Applicant's response
RR-056.1	Distance to schools& homes / farming & wildlife , excess HGV traffic in construction all departmental to environment.	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.57 Andrew T Coney

Table 2.57: RR-057 – Andrew T Coney

Reference	Relevant Representation Comment	Applicant's response
RR-057.1	Just want to be kept informed	The Applicant notes this response.

2.58 Nigel Cook

Table 2.58: RR-058 – Nigel Cook.

Reference	Relevant Representation Comment	Applicant's response
RR-058.1	<p>I attended the consultation meeting at Newton Village Hall on 26th October 2023. I was most disappointed that whilst there was a lot of information available at the consultation there were no pictures or models of what the proposed onshore substations would look like. The project team advised that the design would only be available once consent had been given. In my view this is too late. Proper consultation should have all the relevant information available so people can make a fully informed decision. The information I did take away was that these on-shore substations would be 25 metres high and have a massive footprint – in excess of 30 acres. There was no mention of how the visual impact would be mitigated and how long that would take bearing in mind the rate in which trees grow. The visual impact of this in a rural community would be devastating; devastating for pasture land as well as the local community. These onshore substations will mean a change from a rural/agricultural landscape into an industrial one. In addition the compulsory purchase of land for the substations will mean that this agricultural land will be lost forever and place at risk the viability of small holdings and farms in the area. Having lived near a much smaller sub station in a different part of the country I am aware of noise emissions. There is no mention of noise mitigation and how this will be controlled. Nor is there any explanation of what could be expected in terms of light, vibration and EMR transmissions and its impact on animals and humans. With the proposed locations being close to local schools within the community this again suggests that the proposed siting of the substations is flawed. I have concerns with how the search zones for the substations were identified in the first place. How was the Fylde Borough Council local plan for identified enterprise zones or brownfield sites used in the decision-making process? How were other options considered. Options such as taking the transmission cables south of the Ribble direct to the Penwortham substation or establishing off shore substations (e.g., London Array in the Thames Estuary)? In addition to my concerns re the substations the trenches for the on shore cables will be circa 35km long and up to 120metres wide during the construction phase. With the construction phase estimated to be between 5 and 8 years and a 600% to 700% increase in HGV movements this represents excessive disruption and congestion for the Fylde.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.59 Andrew Dagers

Table 2.59: RR-059 – Andrew Dagers

Reference	Relevant Representation Comment	Applicant's response
RR-059.1	<p>I think that this proposal needs to be rejected This is as the impact on the fylde coast infrastructures and disruption to traffic for several years will be massive. Other options for location at existing sites such as Penwortham are a better solution.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.60 Bev Duckworth

Table 2.60: RR-060 – Bev Duckworth

Reference	Relevant Representation Comment	Applicant's response
RR-060.1	<p>The offshore windfarm scheme comes ashore at Blackpool and relies on connection to the National Grid at Penwortham. This in turn necessitates a 25km cable corridor, 120m wide, across the Fylde plus 2 permanent, huge substations, 25m high and covering 34 acres each on greenbelt land close to established communities. This work, during construction and once in operation will cause significant disruption to those communities and the permanent destruction of quality farmland and greenbelt. This prejudices the corresponding onshore transmission assets project which is yet to be submitted.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.61 Richard Ellis

Table 2.61: RR-061 – Richard Ellis

Reference	Relevant Representation Comment	Applicant's response
RR-061.1	<p>There will be huge amounts of damage to green belt land, wildlife and prime agricultural land when there are brownfield sites located nearby and nationally, for the cable routing and sub-stations to be sited in more appropriate surroundings.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.62 Angela Esslinger

Table 2.62: RR-062 – Angela Esslinger.

Reference	Relevant Representation Comment	Applicant's response
RR-062.1	<p>The intention is to build a substation next to our house which is just 2.5 years old. I support the scheme but not the current land route to connect to the National Grid. The project assumptions include a connection at Penwortham. We need reasons why a connection cannot be possible at 1. Stannah, 2. Heysham or 3 up the Ribble. We live next to greenbelt with lots of protected species including owls, toads, bats and great crested newts. We were not notified of the earlier consultation. The results have not been published. Our area is already known for flooding and these massive developments will increase surface run off and pose a threat to our homes. I know of no one locally who supports this current controversial land route for the connection point to the National Grid. This proposal as it stands will cause us massive disruption and mental health issues with the noise and associated industrialisation of our rural environment.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.63 Michelle Fare

Table 2.63: RR-063 – Michelle Fare.

Reference	Relevant Representation Comment	Applicant's response
RR-063.1	<p>I have many issues regarding the proposed development of the Morgan offshore windfarm development: Complete disregard for the impact on our livelihoods My family and I have been very angry, distressed and disappointed with the way that the proposals have been handled so far. We own and farm a 70 acre livestock farm in Freckleton that will be directly affected by the development, as it has been earmarked as the preferred location for the Morgan onshore substation. Whilst we have been aware of the potential development since Dalcour Maclaren contacted us in 2022 regarding non-intrusive ecological surveys on our land, at no point has the building of a substation ever been mentioned to us. The first we knew about this was in September 2023 when a neighbour contacted us following a local council meeting to ask if we knew about the proposed substation being built on our land – on the field directly opposite our house. To say that we were distressed and upset by this news was an understatement, made worse by the fact that no-one from Dalcour Maclaren had to courtesy and decency to contact us before this news was made public. Since then the proposed site has been moved to a different location, but we will still be hugely affected as it will require approximately 18 acres of our land (almost 20% of the area we farm) to be used for a temporary site during the building and development stages. Since then our lives have been turned upside down as we have had to live with the uncertainty and lack of clarity over what the development will look like, how it will affect our lives and our business, and the endless cycle of phone conversations, meetings and time that has been taken up by this. It is very difficult to do all this whilst trying to run a business and raise a family. Our family have lived here for over 30 years, and in that time we have worked hard to make the farm the successful business that it is today. Now we have no idea whether or not our family business will still be viable in the future as we cannot get any answers regarding the scale of the development and exactly where it will be located. A farming business is very much a long-term investment as decisions cannot be made overnight, and plans have to be put in place now to minimise the impact of developments that may happen in two or three years time. Flawed consultation The fact that we only received detailed maps and information on the proposed sites, despite them being on our land, less than a week prior to the consultation opening feels extremely</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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	<p>deceitful. We had our first meeting with representatives from Dalcour Maclaren, bP and Flotation Energy on the 26th of October (two weeks after the consultation opened), and even at this meeting there were more questions raised than answers given. How we can be expected to respond meaningfully to a consultation on a project which will have such a huge impact on our lives without providing us with all the relevant information such as access routes, cable routes, timescales, or any compensation strikes me as being very underhand and I would question the legality of this. Destruction of numerous farm businesses Our farming business is very closely linked to our neighbour, Mr Fare at Lower House Farm, as we rear all his replacement heifers for his dairy herd. If the proposals go ahead as planned it will mean that our neighbour's farm will no longer be viable, and as a result our business will also be devastated. To try and run your business each day with that level of uncertainty hanging over you, in addition to all the other variables affecting farming that we have no control over, is very difficult and stressful. Most of the farms which will be affected by the proposed development are livestock farms, with many of the stock being moved twice daily for milking. The level of disruption that will be caused by having to negotiate fences, construction work and new access points to fields will be huge as cattle do not like change and are very easily upset by a change in routine, thus affecting their productivity. In addition to this, the loss of land that is currently used for growing crops for the livestock to eat cannot be replaced as there will be no spare land available locally, and so inevitably farmers will have to reduce their stock numbers which could render their business unviable. Access to the site and dangerous traffic operations I am particularly concerned about the access which will be required to the sites, as these routes are not detailed in the plans as yet, and so I expect that additional land will need to be taken from us for the construction of access roads. Our farm is down a single-track road, which is also a busy public footpath and bridleway. It is absolutely unacceptable that this lane can even be considered for access to the sites as it simply is not suitable for large construction vehicles and increased traffic. There are young children living here and the thought that we could have an increased volume of traffic coming through our yard is very worrying from a safety perspective. The yard is also a working farmyard and any additional traffic will affect farming operations and disrupt the running of our business. Lower Lane is a small country road which is already in a very poor state of repair and regularly floods. If this is used to access the sites this will cause further damage and increased traffic which is dangerous and inconvenient. Negative effects on human and animal health The proposed substation site is located very close to</p>	<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

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	<p>our house and we have real concerns over the effects that this could potentially have both on our health and also the health of our livestock. I know that there are guidelines in place as to how far electricity substations need to be located away from schools and houses, but are there any studies which detail any negative effects there could be to grazing livestock which will be living on the adjacent land? Why is it deemed OK to subject livestock to any potential harm? Can we be categorically assured that there will be no negative effects on our health? The visual and auditory impact of the substation during construction, and also on completion, is a huge concern for us too. As well as being our livelihood and business, our farm is also our home and the place that we have chosen to bring up our daughter. We chose to come back to the farm after our daughter was born so that she could enjoy a safe upbringing in the country with space to play and have freedom. Having a substation so close to our home and losing some of our land was certainly not in the plan, and neither was the undue ongoing stress and upset that this has caused our family. I doubt whether anyone from bP or Flotation Energy would choose to live so close to a working substation, and yet you expect us to without any choice whatsoever in the matter. In addition to this the substation sites are very close to two schools and the potential effects on the health of the children in these schools must surely be considered. Impact on food security Whilst I appreciate that we need to use renewable sources of energy in order to secure our needs for the future, and I am certainly not against the windfarm development in principle, we also need to ensure that the country can continue to produce food to feed the growing population. If this project is to go ahead as planned with the huge destruction of vast areas of the Fylde for burying the transmission cables, I am certain that many farming businesses will cease to exist afterwards. The level of invasive work that will be required will ruin a great deal of the high quality farmland in the Fylde. Field drains will be destroyed by the work, and I doubt very much whether the new drains will ever be as effective as the current system as it has taken years and years of careful management and planning. Soil structure will be massively affected by compaction and it will be impossible to return the land to how it was before no matter how carefully the soil is stored and put back. Surely at a time when food security is so high on the public agenda, the loss of valuable farmland is not a sustainable option. The effects of building on large areas of farmland will also lead to massively increased risk of flooding in the local area. The land is already under huge pressure of flooding as main drains and ditches are no longer maintained meaning that water flow is restricted. The additional run-off from the concrete sites will mean that the current system will be unable to</p>	

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Reference	Relevant Representation Comment	Applicant's response
	<p>cope and will lead to more regular flooding, not only on the land that we are farming, but also in the towns and villages as the water will have nowhere to go. Impact on wildlife We have had numerous ecological surveys carried out across our land and, whilst we have not had any feedback on the findings of these yet (despite this being promised at the time when the surveys were being carried out), we know for a fact that the land supports a huge number of bird species and varied wildlife. We regularly see barn owls, bats, swans, geese, brown hares and huge numbers of wild birds, and the destruction of all their habitats will be devastating. We will lose many of our ponds, ditches and hedges, all of which are a haven for wildlife. Whilst I appreciate that remedial work will take place after the building work is completed, I fear that it will be too late and many of these species will never return. When we suggested the viability of using the River Ribble estuary or the adjacent marshland as the cable route we were told that it cannot even be considered due to its status as a SSSI. Are the animals and birds that live at our farm less important than the birds living near the river?</p>	

2.64 Jane Ferguson

Table 2.64: RR-064 – Jane Ferguson

Reference	Relevant Representation Comment	Applicant's response
RR-064.1	How this project will affect the lives of thousands of people	<p>The Applicant has submitted with this Application an 'Environmental Statement', which sets out the detail and conclusions of the potential effects that the Morgan Offshore Wind Project Generation Assets may have on the environment. This includes an assessment of the impact that the project could have on people, including through consideration of the following topics:</p> <ul style="list-style-type: none"> • Commercial fisheries • Shipping and navigation • Other sea users • Seascape, landscape and visual • Socio-economics • Human health

2.65 Colin Fisher

Table 2.65: RR-065 – Colin Fisher.

Reference	Relevant Representation Comment	Applicant's response
RR-065.1	There are better alternatives to this rather than destroy the green belt & damage the villages on its route	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.66 Neil Fox

Table 2.66: RR-066 – Neil Fox

Reference	Relevant Representation Comment	Applicant's response
RR-066.1	<p>This project will have significant adverse impact on the area as a whole and anyone living in this area which could be described as life changing. I understand that there are far more environmentally friendly ways of achieving the aims of this project which should be implemented. I accept the need for development, including housing and green energy but believe this project will be harmful and will not achieve significant net gains</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.67 Karen France

Table 2.67: RR-067 – Karen France

Reference	Relevant Representation Comment	Applicant's response
RR-067.1	Concerned about impact on local community & economy, effects on health and well being, and flooding	<p>The Applicant acknowledges your concerns towards the local community, economy and effects on health and wellbeing.</p> <p>Local community and economy</p> <p>Volume 2, Chapter 13 (APP-017) assesses the potential effects of the Morgan Generation Assets on economic, social and tourism receptors.</p> <p>The socio-economics study areas extend across the North West England region and North Wales sub-region, given the strategic nature of the scheme and the reach of potential socio-economic effects. This enables the assessment to consider the overall effects in proportion to the scale of the project.</p> <p>Potential economic effects have been assessed as listed below. No adverse effects have been identified.</p> <ul style="list-style-type: none"> • The potential impact on economic receptors including employment and GVA (North West England): <ul style="list-style-type: none"> – Construction: Minor (beneficial) – Operation: Minor (beneficial) – Decommissioning: Minor (beneficial) • The potential impact on economic receptors including employment and GVA (North Wales): <ul style="list-style-type: none"> – Construction: Minor (beneficial) – Operation: Moderate (beneficial) – significant in EIA terms – Decommissioning: Minor (beneficial) <p>Potential social effects have been assessed as listed below. No adverse effects have been identified.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<ul style="list-style-type: none"> • The potential impact on population, housing and accommodation (North West England): <ul style="list-style-type: none"> – Construction: Minor (beneficial) – Operation: Minor (neutral) – Decommissioning: Minor (beneficial) – The potential impact on population, housing and accommodation. (North Wales) – Construction: Moderate (beneficial) – significant in EIA terms – Operation: Minor (neutral) – Decommissioning: Minor (beneficial) <p>Human Health</p> <p>As described in Volume 1, Chapter 3 Project description (APP-010), paragraph 3.3.2.1, the Morgan Array Area (as shown in Figure 3.1) is 58.5 km (31.6 nm) from the Anglesey coastline, 37.13 km (20.1 nm) from the northwest coast of England, and 22.22 km (12 nm) from the Isle of Man (when measured from MHWS).</p> <p>Volume 2, Chapter 14: Human health assessment (APP-018) considers the population health implication due to changes from the Morgan Generation Assets. The assessment considers how the offshore changes (sources of impacts) may affect onshore receptors, including people on the Isle of Man and in North West England. The assessment concludes the Morgan Generation Assets should not result in any significant adverse impact on public health, including for vulnerable groups. The assessment has been reviewed by the UK Health Security Agency and the Department of Health and Social Care Office for Health Improvement and Disparities (statutory public health stakeholders) and they agree with this conclusion (refer to relevant representation RR-042).</p> <p>Flooding</p> <p>The Applicant notes the points raised with regards to flooding in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Reference	Relevant Representation Comment	Applicant's response
		<p>Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.68 Diana Freeman

Table 2.68: RR-068 – Diana Freeman

Reference	Relevant Representation Comment	Applicant's response
RR-068.1	This proposal is on green belt. The size will impact local residents; Light pollution. Use of green belt.	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.69 Susan Fucile

Table 2.69: RR-069 – Susan Fucile

Reference	Relevant Representation Comment	Applicant's response
RR-069.1	<p>The disruption and mess is too much for this rural area. People are losing their businesses and farms all for a project that is not wanted here. The noise and dirt would cause too much stress and disruption. The plans for this project are not taking into account our community or the beautiful area. Please rethink use an area that would not be so affected as the Fylde coast.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines, generators, offshore inter-array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer, Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project include offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.70 Richard Dennis Furnival

Table 2.70: RR-070 – Richard Dennis Furnival

Reference	Relevant Representation Comment	Applicant's response
RR-070.1	I represent a number of potentially affected landowners on the project so need to be able to input my comments and representations on their behalf	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.71 Michael Robert Gornall
Table 2.71: RR-071 – Michael Robert Gornall

Reference	Relevant Representation Comment	Applicant's response
RR-071.1	<p>I have a number of concerns over the proposed development as summarised below : Cable trenches The on-shore cables will be run and buried under ground. The cable trench will run from Blackpool Airport across the Fylde towards the new substations to the western side of Newton with Scales and then onward to existing large substation at Penwortham. The cable trench will be a maximum of 35Km in length and, during the construction phase, it will be 120m wide. The total construction phase is estimated to 5 to 8 years. In addition to the cable trench itself, there will be a number of new access roads and storage compounds required. Some of these will be retained permanently. The current proposal is for the cable trench run to leave the substations on the western side of Newton and head east, running just to the south of Newton Bluecoats School, before crossing the A583 just to the east of Clifton. The level of disruption created by these works will be devastating to local residents and be massively disruptive to residents, businesses and the local economy. Much of this detail of the routing and its impact has not yet been shared with the general public or included in the consultation. Substations Two new substations planned as part of this project. The first will be placed on land adjacent to Lower Lane close to its junction with Strike Lane. The second is planned for land adjacent to Lower Lane and adjacent to HM Prison Kirkham. Both are very large and intrusive industrial installations that will operate and be illuminated 24 hours per day, every day. Each substation will occupy approximately 34 acres of land (about 18 football pitches) plus associated access roads. The maximum height of each substation will be 25m. The operation of each substation will emit noise, light and electromagnetic pollution. The proposed sites are close to schools and residential properties which will all be adversely effected by these emissions. Loss of Greenbelt land and Best and Most Valuable agricultural land The two substations are to be sited on Greenbelt land to the west and southwest of Newton with Scales. The cable trenches, access roads and storage compounds will also be on Greenbelt land. Greenbelt designation is important to the community as it prevents encroachment of urban sprawl and maintains the pleasant countryside of the Fylde and the distinct identities of each village. It is very difficult to see how these proposals align with the protection of Greenbelt. Furthermore these proposals will effectively see the western boundary of</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Newton become an industrial zone, forever changing the character of the village. The highly valued amenity value of walking, riding or cycling along the areas lanes, bridleways and footpaths will be gone forever. To make matters even worse the proposed substation sites are, in part, classified as Best and Most Valuable agricultural land which will be lost forever through compulsory purchase when the substations are constructed.</p> <p>This may well render at least two large dairy farms plus small holdings and businesses unviable. Surely, food production is just as important as energy production, there must be a way to construct this important infrastructure on brown field or low grade land. It is very difficult to believe that alternative solutions have been adequately investigated. Transport The project team anticipates an increase of 600 to 700% in HGV movements in the area during the 5 to 8 year construction phase. This will be incredibly disruptive to the road infrastructure, which are already in a poor state of repair now, what will be left with when the construction ends? Consultation To date there are no publicly available renderings of what the substations will look like as they will appear in the locations where they are to be constructed. This makes it very difficult for many people to visualise what is proposed. No detail was provided as to the cable routings other than a broad band in which it could be located, nor was the finalisation of the Morecambe substation communicated. This detail has been shared with landowners but not consultees. The public consultation has been flawed in that only persons directly impacted are consulted, it should have been carried out across a wider area due to the level of disruption which will be created during construction. Only limited and targeted feedback has been issued since objections to the plans were submitted back in November 2023. Were any of the objections even considered? Have the plans been modified at all? There are alternative brown field sites available for the substations, but they seem to have been rejected out of hand in favour of the established preferred plan. The preference for the southerly siting of the Morecambe substation and the cable trench routing just to the south of Newton and Newton Bluecoats school have not been publicly consulted on at all. This is just another example of the inadequacies of the consultation process. Noise Noise is a major concern for many residents with many stories in the press regarding excessive noise emissions from other similar substations. The project details state noise levels are not yet known. Much more clarity is required for residents to feel they have been properly informed in an effective consultation. To date, no clear statement of the upper limits for noise, light and electromagnetic emissions have been made public. Neither has any process for regular measurement of these emissions and by whom.</p>	<p>consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Most importantly, what will the control and enforcement process be if any of these emissions are found to exceed authorised limits? Land Drainage Water cannot presently escape quickly enough through our local dyke system and overloaded sewers. The substations and associated hard standings and access routes will worsen those problems for adjacent land. No drainage plans have been made public to date. Thank you</p>	

2.72 Ian Andrew Grant

Table 2.72: RR-072 – Ian Andrew Grant.

Reference	Relevant Representation Comment	Applicant's response
RR-072.1	<p>Ruination of communities throughout the Fylde coast. Loss of valuable farmland. Total disruption of residents daily life for years due to roadworks and noise. There are alternative routes up the Ribble Estuary. Totally unnecessary to create this offensive concrete corridor over the Fylde. How does the Fylde benefit from this project?? No jobs created,no cheaper energy for residents.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.73 Norman James Harris

Table 2.73: RR-073 – Norman James Harris.

Reference	Relevant Representation Comment	Applicant's response
RR-073.1	<p>Where I live at [REDACTED] is adjacent to the proposed location of 2 sub stations which I understand could be up to 175ft tall! The cables from this wind farm off the Lytham coast should be run along the coast and down the River Ribble, to the existing Penwortham substation and NOT across the land to Newton!</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.74 Stephen Heath

Table 2.74: RR-074 – Stephen Heath.

Reference	Relevant Representation Comment	Applicant's response
RR-074.1	<p>This project represents years of negative impact on the local economy, inward investment, degradation of grade A farmland, loss of homes and businesses, massive and long term disruption to travel by private vehicles and public transport which will deter tourism aswell as affect travel to work to Blackpool, Preston and beyond. At the consultation early in 2024 there was no information about the proposed route from Lower Lane to Penwortham. The majority of the community are not aware of the cable route and the scale or duration of the disruption. It is difficult to believe alternative routes routes up the, estuary to Penwortham have been seriously explored or even rejected on the basis of impact on wildlife when the proposed route, well partial route as not all the route, has been published,will split the borough in half, destroying communities, livelihoods, closing businesses and threatening charities as volunteers find travel difficulty. The disruption to rail travel is bound to reduce tourism and after a 7 year period of construction it will take many more years to recover if it ever does as the scheme does not offer any benefits to the area, no increase in employment or enhancements to the area, nothing other than degrading what is already here. The alternative routes of Heysham Stalmine or direct to Penwortham provide an opportunity to avoid degrading Community and rural life aswell as wildlife.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.75 Lindsey Henderson

Table 2.75: RR-075 – Lindsey Henderson.

Reference	Relevant Representation Comment	Applicant's response
RR-075.1	<p>The disruption to thousands of residents from the building of the substations and laying of the cables. The light, noise and potential electromagnetic radiation from the site. The size and height of the substations Built close to Newton marsh a SSSI and cable being laid through the sand dunes at St Annes again a SSSI Disruption to natural wildlife Being built on greenbelt, displacing naturally draining rainwater potentially causing flooding in areas close . Displacing several farms and disrupting several others laying cables through crop and pasture land. All this disruption need not be caused by simply laying the cables up the Ribble estuary and bringing ashore in South Ribble much closer to the National Grid Howick Cross substation</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

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		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

2.76 Simon Henderson

Table 2.76: RR-076 – Simon Henderson.

Reference	Relevant Representation Comment	Applicant's response
RR-076.1	<p>The disruption to thousands of residents from the building of the substations and laying of cables. The light pollution from the site. The size and height of the sub stations. Background noise and potential electromagnetic radiation pollution from the site. Being built on greenbelt land. Displacement of naturally draining water. Potentially causing flooding elsewhere. Disruption to wildlife. Livelihood of farmers affected by the site and cable laying. Laying cables through the sand dunes a SSSI. Site is close to Newton SSSI. Devaluing of property near to the substations. All this need not be done if the cables were taken up the Ribble estuary and taken ashore in South Ribble close to the Howick Cross National Grid Station</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

2.77 Olivia Henderson

Table 2.77: RR-077 – Olivia Henderson.

Reference	Relevant Representation Comment	Applicant's response
RR-077.1	<p>The Morecambe and Morgan Windfarm project proposal for two new offshore wind farms (Morgan & Morecambe) in the Irish Sea will have an irreparable impact on the Fylde which we believe is not fully appreciated. The installation of onshore underground power cables from landfall at Blackpool Airport to the National Grid connection point at Penwortham, plus the construction of two new and very large substations will affect all Fylde residents. This is before you even start to consider the fact that the substations are to be sited on greenbelt land between Kirkham, Freckleton and Newton with Scales together with the associated new access roads and service compounds. Impact on Newton with Scales. Cable trenches The on-shore cables will be run and buried under ground. The cable trench will run from Blackpool Airport across the Fylde towards the new substations to the western side of Newton with Scales and then onward to existing large substation at Penwortham. The cable trench will be a maximum of 35Km in length and, during the construction phase, it will be 120m wide. The total construction phase is estimated to 5 to 8 years. In addition to the cable trench itself, there will be a number of new access roads and storage compounds required. Some of these will be retained permanently. The current proposal is for the cable trench run to leave the substations on the western side of Newton and head east, running just to the south of Newton Bluecoats School, before crossing the A583 just to the east of Clifton. Much of this detail has not yet been shared with the general public. Substations. Two new substations planned as part of this project. The first will be placed on land adjacent to Lower Lane close to its junction with Strike Lane. The second is planned for land adjacent to Lower Lane and adjacent to HM Prison Kirkham. Both are exceptionally large and intrusive industrial installations that will operate and be illuminated 24 hours per day, every day. Each substation will occupy approximately 34 acres of land (about 18 football pitches) plus associated access roads. The maximum height of each substation will be 25m. The operation of each substation will emit noise, light and electromagnetic pollution. The proposed sites are close to schools and residential properties which will all be adversely affected by these emissions. Loss of Greenbelt land and Best and Most Valuable agricultural land. The two substations are to be sited on Greenbelt land to the west and southwest of Newton with Scales. The cable trenches, access roads and</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Reference	Relevant Representation Comment	Applicant's response
	<p>storage compounds will also be on Greenbelt land. Greenbelt designation is important to the community as it prevents encroachment of urban sprawl and maintains the pleasant countryside of the Fylde and the distinct identities of each village. It is very difficult to see how these proposals align with the protection of Greenbelt. Furthermore, these proposals will effectively see the western boundary of Newton become an industrial zone, forever changing the character of the village. The highly valued amenity value of walking, riding or cycling along the area's lanes, bridleways and footpaths will be gone forever. To make matters even worse the proposed substation sites are, in part, classified as Best and Most Valuable agricultural land which will be lost forever through compulsory purchase when the substations are constructed. This may well render some farms and small holdings and businesses unviable. Surely, food production is just as important as energy production, there must be a way to construct this important infrastructure on brown field or low-grade land. It is exceedingly difficult to believe that alternative solutions have been adequately investigated. Transport. The project team anticipates an increase of 600 to 700% in HGV movements in the area during the 5-to-8-year construction phase. Our local roads are in a poor state of repair now, what will be left when the construction ends? Consultation. To date there are no publicly available renderings of what the substations will look like as they will appear in the locations where they are to be constructed. This makes it very difficult for many people to visualise what is proposed. The public consultation has been flawed with only limited and targeted feedback since objections to the plans were submitted back in November 2023. Were any of the objections even considered? Have the plans been modified at all? There are alternative brown field sites available for the substations, but they seem to have been rejected out of hand in favour of the established preferred plan. The preference for the southerly siting of the Morecambe substation and the cable trench routing just to the south of Newton and Newton Bluecoats school have not been publicly consulted on at all. This is just another example of the inadequacies of the consultation process. Noise. Noise is a major concern for many residents with many stories in the press regarding excessive noise emissions from other similar substations. The project details state noise levels are not yet known. Much more clarity is required for residents to feel they have been properly informed in an effective consultation. To date, no clear statement of the upper limits for noise, light and electromagnetic emissions have been made public. Neither has any process for regular measurement of these emissions and by whom. Most importantly, what will the enforcement process be if any of these emissions are found to exceed authorised limits? Land Drainage. Water</p>	<p>consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Reference	Relevant Representation Comment	Applicant's response
	cannot presently escape quickly enough through our local dyke system and overloaded sewers. The substations and associated hard standings and access routes will worsen those problems for adjacent land. No drainage plans have been made public to date.	

2.78 Thomas Anthony Frank Hilton

Table 2.78: RR-078 – Thomas Anthony Frank Hilton.

Reference	Relevant Representation Comment	Applicant's response
RR-078.1	Wrong place, to near residential properties and schools.	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

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		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.79 Wendy Hunt

Table 2.79: RR-079 – Wendy Hunt.

Reference	Relevant Representation Comment	Applicant's response
RR-079.1	The main issues are it is too near my home and will greatly reduce the value of it.	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.80 Linda Jane Ingham

Table 2.80: RR-080 – Linda Jane Ingham.

Reference	Relevant Representation Comment	Applicant's response
RR-080.1	<p>The substation and cable laying are at close proximity to our house and our village on prime arable land. The proposed site is close to schools and other villages. There are better situations to place this substation.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.81 Derrick Frank Ingram

Table 2.81: RR-081 – Derrick Frank Ingram.

Reference	Relevant Representation Comment	Applicant's response
RR-081.1	Concerns about visual impact, noise levels, effects on wild life, reduction of good agricultural land, and the reduction of the land of separation between communities. Serious disruption on roads during construction phase.	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS
2.82 Lin Jarrett
Table 2.82: RR-082 – Lin Jarrett

Reference	Relevant Representation Comment	Applicant's response
RR-082.1	<p>This project includes corridors to on shore. As the on shore route has not been disclosed and there are objections to the proposed routes, I believe that this should be seen as a whole. The DCO should look at the macro picture as there is a danger that the application could be influenced by sections of applications without it all being pulled together. Therefore bias and deception could occur. Another big concern is the lack of detail and the lack of an effective communication strategy. The Fylde community should be able to be actively involved and need to be educated and informed. Morgan and Morecambe have failed to provide any clarity and are failing to respond to questions raised by the affected community. I have written emails which have been ignored. It is woefully inadequate and irresponsible of any government to pass this whilst so much detail is missing</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

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		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p> <p>The Applicant notes the concern that separate applications may mean that the full environmental effects of the Morgan Offshore Wind Project as a whole is not assessed. As part of the Environmental Statement submitted with this application, the Applicant has included an assessment of potential cumulative effects between the Morgan Generation Project Generation Assets and the Transmission Assets. This ensures that the project as a whole can be considered as part of the determination of this application.</p>

2.83 David Jones

Table 2.83: RR-083 – David Jones.

Reference	Relevant Representation Comment	Applicant's response
RR-083.1	Unnecessary disruption to the communities and wildlife.	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.84 Paul Kelly

Table 2.84: RR-084 – Paul Kelly.

Reference	Relevant Representation Comment	Applicant's response
RR-084.1	My concern is that the contractor will use the least costly cable routes and substation sites instead of the considerations of the rural businesses and the local population	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.85 Andrew King

Table 2.85: RR-085 – Andrew King.

Reference	Relevant Representation Comment	Applicant's response
RR-085.1	<p>The project has been established on the basis that the connection to the grid should be at Penwortham with the feed coming onshore near Blackpool Airport. This routing and the substations involved will cause severe environmental damage to the Fylde and needs a complete rethink. The connection to the grid and landfall should be at Heysham where existing windfarm feeds come ashore and where Heysham 1 power station is due to be decommissioned in the next few years. Such a reappraisal will impact the offshore components of the project thus the offshore and onshore components of the project cannot be considered in isolation.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>
RR-085.2	<p>The offshore components of the project have taken a very simplistic view of the effect upon the Irish Sea Ferry services which provide a lifeline service to the Isle of Man. The restrictions imposed by the proposed structures in adverse weather conditions will significantly increase the risk of collision or cancellation of the services if the operators deem the risk too high. Any such cancellation is a serious issue for the Isle of Man and its economy.</p>	<p>The Navigation Risk Assessment (NRA) and Shipping and Navigation Chapter of the Preliminary Environmental Impact Report (PEIR) (April 2023) identified that in normal and adverse weather conditions, ferries would necessitate deviations around the Morgan Generation Assets Array Area and this would result in greater transit distance, fuel costs, schedule disruptions, and more frequent cancellations to lifeline ferry services.</p> <p>Following the PEIR and Section 42 consultation responses, the Applicant modified the boundaries of the wind farm array area which increased the available searoom to minimise the impacts to ferries, and reduced the deviations required (as set out in section 7.9 and 7.11 of Volume 2, Chapter 7: Shipping and navigation (APP-025) and in section 4.11.2 of Volume 1, Chapter 4: Site selection and consideration of alternatives (APP-011)).</p> <p>The Applicant has worked together with the developers of the Mona Offshore Wind Project and Morecambe Offshore Windfarm: Generation Assets who have also amended the boundaries of their respective projects to increase searoom and reduce the cumulative impacts on ferries.</p> <p>The ferry companies and other key stakeholders have inputted to this process through attendance at navigation simulations and NRA hazard workshops. As a result of these boundary amendments and further commitments to control measures (e.g. development and adherence to an Aids to Navigation Management Plan, Design Plan, an Offshore Environmental Management Plan that includes a Fisheries Liaison and Co-existence Plan, an Offshore Construction Method Statement, which includes a Cable Specification and Installation Plan, a Vessel Traffic Management Plan, an Emergency Response and Cooperation Plan and use of notice to mariners), have been identified, as set out in section 7.8 of Volume 2, Chapter 7: Shipping and navigation (APP-025). These control measures are all secured within the deemed marine licences in Schedules 3 and 4 of the Draft development consent order (APP-005). Noting that a residual risk over the baseline remained, the NRA Hazard Workshop concluded that all hazards, previously identified as unacceptable at</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Reference	Relevant Representation Comment	Applicant's response
		<p>PEIR, had been reduced to As Low As Reasonably Practicable (ALARP) following the boundary amendments.</p> <p>The Applicant understands that the Isle of Man Steam Packet Company Heysham to Douglas service intersects with the Morgan Array Area. For this service a revised passage plan was developed that would necessitate an additional 1.6 minutes of steaming time per trip in typical weather conditions to accommodate the Morgan Generation Assets alone. On a three hour and 45 minute service, with greater existing operational variation in transit duration and turnaround time, the deviation is not anticipated to result in significant operational impacts for the Morgan Generation Assets alone.</p> <p>In periods of adverse weather, a passage around the Morgan Array Area may be required which would necessitate approximately an additional 21.5 minutes of steaming time per trip on top of existing adverse weather delays. This impact was assessed as being of moderate adverse significance due to its impact on Isle of Man Steam Packet Company schedules and operations.</p> <p>The Applicant is committed to further engagement with the Isle of Man Steam Packet Company on the residual impacts throughout the examination phase of the Morgan Generation Assets.</p> <p>Furthermore, Volume 2, Chapter 13: Socio-economics (APP-017) assesses the potential effects of the Morgan Generation Assets on economic, social and tourism receptors. The potential socio-economic impacts on the Isle of Man associated with potential adverse effects on lifeline ferry services have also been considered. No significant adverse effects have been identified. Potential socio-economic impacts on the Isle of Man associated with potential adverse effects on lifeline ferry services were minor adverse for all stages of the project. The focus of the socio-economic assessment considered potential impacts on freight-dependant sectors such as retail and wholesale, construction, and manufacturing, and the passenger-dependant visitor and leisure economy.</p>

2.86 Francine Lang

Table 2.86: RR-086 – Francine Lang.

Reference	Relevant Representation Comment	Applicant's response
RR-086.1	<p>The adverse impact on the environment to insects and wildlife. The impact on the traffic. The area floods and this proposal will exacerbate this already dangerous situation on the main 50mph Blackpool Road.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.87 Mat Lattel

Table 2.87: RR-087 – Mat Lattel.

Reference	Relevant Representation Comment	Applicant's response
RR-087.1	I am against this project	The Applicant notes this response.

2.88 Karen Leeming

Table 2.88: RR-088 – Karen Leeming.

Reference	Relevant Representation Comment	Applicant's response
RR-088.1	<p>This application assumes that BP's preferred onshore route to Penwortham will be taken despite this requiring a separate DCO. I feel that this application should not state that the cables will be connected at Penwortham as this onshore route is being heavily contested.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.89 Deryck Lund and Michelle Fare

Table 2.89: RR-089 – Deryck Lund and Michelle Fare.

Reference	Relevant Representation Comment	Applicant's response
RR-089.1	<p>I act on behalf of Deryck Lund and Michelle Fare who farm at Greenbank Farm, Lower Lane, Freckleton, Preston PR4 1TS Greenbank Farm is a dairy livestock rearing farm which is impacted by the developer's scheme as the proposed substation site is in very close proximity to their farmhouse and buildings (less than 100M). This is a concern for their family health and wellbeing due to EMF radiation and noise from a substation plus the years of construction traffic which will include taking land for construction purposes and a permanent haul road across my client's land. There will be a 120m wide cable corridor during construction and a permanent easement for cables. The impact on this landscape and their property will be immeasurable. Substations proposed in close proximity to built up residential areas and schools is unacceptable. There are other locations including wasteland areas following the coastline and/or estuary.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.90 Meriel McGowan

Table 2.90: RR-090 – Meriel McGowan.

Reference	Relevant Representation Comment	Applicant's response
RR-090.1	I haven't any objections to wind farms as long as any residents and farmers are adequately compensated for any problems they are caused.	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.91 Nick Moore

Table 2.91: RR-091 – Nick Moore.

Reference	Relevant Representation Comment	Applicant's response
RR-091.1	<p>As a local resident, I am appalled by the fact that this project will destroy a large swathe of the countryside near me, for absolutely NO local gain whatever. Heavy traffic will massively increase on our already sub-standard b roads, there will be NO local jobs, and to rub salt into the wounds, WE will get none of the power running through our region.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.92 Philip James Morgan

Table 2.92: RR-092 – Philip James Morgan.

Reference	Relevant Representation Comment	Applicant's response
RR-092.1	<p>Morecambe and Morgan Off Shore Wind Farms Transmission Route and Substations We are writing to you to outline the impact of the proposed transmission route and substations for the proposed Morecambe and Morgan Off Shore Wind Farm. We would like to outline the proposals, the flawed engagement process, the impact of the proposals and outline what we would like you to do. The proposals The Wind Farm proposals will see wind turbines in the Irish Sea with the resulting transmission route coming ashore at Blackpool South Shore, crossing the Fylde and joining the National Grid at Penwortham. The cable route will be 110 metres wide along a 25km corridor and there will be two substations, covering 45 acres, with a further 45 acres lost during construction, and 20 metres high at sites between Newton and Freckleton. I attach a map showing the route, proposed substations and local communities. The engagement process The non-statutory consultation was flawed. Despite requests from Newton with Clifton Parish Council no consultation event was held in the village nor was one held in Freckleton. Postcards, which were not consistently delivered, were so vague and unspecific that local people did not understand the impact. The one opportunity for local engagement that was provided was by the insistence of Newton with Clifton Parish Council. No attempt was made to respond to any of the points raised making the process meaningless. That meant the first local opportunity for people in those two affected communities to understand and comment upon the project was after the route and sites for the substations had been decided. Flaws continued into the statutory consultation process. There were no viewpoints for the 20-metre-high substations from homes in the affected communities, despite being requested by Newton with Clifton Parish Council. There were no detailed maps provided at the consultation event, despite being made available to landowners, and no 3-D representations to allow local people to understand the visual impact. The route from the substations to Penwortham was only published to landowners a week after the close of the consultation window. Further gaps in information include noise levels, the design of the substations and impact on house prices. NO attempt was made to engage with the local schools close to the route and substations. Those events that did take place did not have people able to engage about the proposals, merely to explain them. The feedback form was not in plain English</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>and was overly complex, putting off many people from responding, and for those who did persevere the on-line version was liable to failure. Overall we do not believe that the consultation to date is sufficient, nor does it meet the requirements of Section 42 of the Planning Act 2008, nor regulation 12(2) of the Infrastructure Planning (Environmental Assessment) Regulations 2017. It does not meet the NE-5, Horlock Rules nor Rochdale envelope case. There should be no issuing of a Adequacy of Consultation notice. Our concerns about the route and its impact The scheme simply decided there was only one end point for the transmission route to join the National Grid at Penwortham. It would be useful to have an independent assessment of alternatives such as Heysham and Stannah. Likewise the choice for a single route was simply decided, without engagement, as being across the heart of the Fylde, without consideration of alternative routes. The National Grids Holistic Network Design Map shows a route to Penwortham to the south of the Ribble. It would be useful to have an independent assessment of alternatives along and south of the Ribble. Again there was a decision to only allow for four areas for the substations search area, which conveniently came to a single decision for location between Newton and Freckleton. This location include the Green Belt, and the Area of Separation between Newton and Kirkham, which are meant to be protected. The criteria for the choice of substation siting was not agreed nor consulted upon. No weighting was used. Important factors such as the impact on residents, preferred use of brownfield sites, impact on food security and impact on heritage assets were ignored. There was no ornithology survey for Zone 1 and feedback from local residents, and previous evidence of a range of rare bird and other species was not considered. Evidence of pink footed geese was ignored for Zone 1 but used to support avoiding other zones. Three of the four proposed sites were known to fail the set criteria making the end decision a fixed one, rather than one for engagement. The choice of an 8km search zone was not explained and previous schemes (Norfolk Vanguard) only had a 3km zone. The proposed substation sites are conveniently on the edge of the 8km search zone. We note that other countries with off shore wind are not allowing onshore substations. The Newton and Freckleton locations adjoin another proposed site for a solar farm and no attempt was made to identify cumulative impact of multiple schemes in the locality (which now also include a proposed solar farm in Clifton adjoining the transmission route). We understand the transmission route is avoiding the proposed solar farm, taking the route closer to Clifton. There is an inconsistency between avoiding a proposed use for land, but not avoiding existing farming use. The impact on the local environment and economy will</p>	<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

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	<p>be profound. Local farmers have indicated their concerns about the future viability of their farms. Local flooding, with additional run off and already the subject of a Fylde BC review , will be exacerbated. There will be 5 years of construction, with over 5 times the current level of HGV traffic, assuming the substations can be built concurrently, rather than consecutively. No detail is provided about the net biodiversity gain for the substations. As far as we are aware no substations of such scale have ever been built so close to residential properties, nor so close to local schools (Strike Lane and Carr Hill). Noise impacts are not yet known, nor any screening or the resulting visual impact.</p>	

2.93 Lone Nielsen

Table 2.93: RR-093 – Lone Nielsen.

Reference	Relevant Representation Comment	Applicant's response
RR-093.1	<p>The project is an example of how to ruin several villages which are nowhere near where the interested parties have their residence. It is going to destroy valuable farmland, interfere with school life, endanger normal people's lives due to the enormous heavy goods traffic during the construction period, a period which is a considerable amount of year. Green belts are going to be destroyed, and the overall environmental impact is going to be monumental. There's no evidence to prove that the flooding risks aren't greatly increased. And lastly why bulldoze on with this project, when there's already high voltage cables capable of taking the extra load, and if this is not acceptable, then surely cables buried in the estuary would be a much better solution.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.94 Gary William Nixon

Table 2.94: RR-094 – Gary William Nixon.

Reference	Relevant Representation Comment	Applicant's response
RR-094.1	This should be moved elsewhere as it will destroy our local environment!	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.95 T Parkinson

Table 2.95: RR-095 – T Parkinson.

Reference	Relevant Representation Comment	Applicant's response
RR-095.1	<p>I act on behalf of T Parkinson of Church Farm, Blackpool Road, Newton, nr Kirkham who farms in close proximity to the proposed Morgan project. The substation location is close to Newton Village, next door to two farms with dwellings and local schools. There are more suitable locations including coastal/estuary wasteland areas.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.96 Adam Pickervance MRICS

Table 2.96: RR-096 – Adam Pickervance MRICS.

Reference	Relevant Representation Comment	Applicant's response
RR-096.1	<p>I am a land agent acting on behalf of several affected landowners and wish to be involved as a consultee in the DCO and Inquiry for this proposed development scheme. With thanks.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

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		<p>been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at: https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.97 Alan Paynter

Table 2.97: RR-097 – Alan Paynter.

Reference	Relevant Representation Comment	Applicant's response
RR-097.1	Want to be kept up to date on progress.	The Applicant notes this response.

2.98 George Rawlinson

Table 2.98: RR-098 – George Rawlinson.

Reference	Relevant Representation Comment	Applicant's response
RR-098.1	The impact the scheme will have on the green belt area, property price in the area and environmental and mental issues that will be raised by them building substations next to my property	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.99 Nichola Rhodes

Table 2.99: RR-099 – Nichola Rhodes.

Reference	Relevant Representation Comment	Applicant's response
RR-099.1	<p>I object strongly to the proposed route of the link to the national grid for the offshore wind farm off the coast of Lancashire. The disruption to residents' lives will be immense. The impact on the local environment will not be repairable and the emotional impact upon the people affected will be long lasting and totally unnecessary. Reroute the link through the existing corridor at Heysham and foot the bill rather than have people pay with their well being.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.100 Yvonne Russell

Table 2.100: RR-100 – Yvonne Russell.

Reference	Relevant Representation Comment	Applicant's response
RR-100.1	Farmer/landowner and property, privately owned - yet to be advised on impact of this project to the address - financially, practically, lifestyle, etc	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.101 Eric John Sarti

Table 2.101: RR-101 – Eric John Sarti.

Reference	Relevant Representation Comment	Applicant's response
RR-101.1	A resident in the area expected to be impacted by the scheme, including its foreseen preparation, operation and maintenance programmes	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.102 Karen Sarti

Table 2.102: RR-102 – Karen Sarti.

Reference	Relevant Representation Comment	Applicant's response
RR-102.1	There better ways for our country to go greener. We should Not be destroying our countryside	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.103 James Scarborough

Table 2.103: RR-103 – James Scarborough.

Reference	Relevant Representation Comment	Applicant's response
RR-103.1	Go down the river, don't go through beautiful valuable countryside	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS
2.104 Mike Schofield
Table 2.104: RR-104 – Mike Schofield.

Reference	Relevant Representation Comment	Applicant's response
RR-104.1	<p>Morecambe & Morgan windfarms - comments on proposed windfarm substations Commentator: Mike Schofield Address: [REDACTED] Email: [REDACTED] I write as a resident of the small village (Newton) that is apparently to have the privilege of not one but two windfarm substations on its immediate borders.</p> <p>1. The presentations and documentation we have seen imply that there has been a well-advertised process of consultation carried out. In fact, the first time that my wife and I were made aware of these windfarms was from our local group, Newton Residents Association (NRA) followed by a letter from our local MP for the Fylde, Mark Menzies. Both these came to our (my wife and I) attention at the start of November leaving very little time to formulate any meaningful comments. There was apparently a public discussion of these proposals at our local village hall towards the end of October but by the time we were aware of this, the date had come and gone.</p> <p>2. The whole process gives the impression that the siting of the two substations has been decided on already. The maps made available show two proposals for Morecambe Bay and one for Morgan in zone 1 and no provision whatsoever in zones 2, 3 or 4. Why is this and what is the rationale behind the selection of the four sites in the first place. The documents made available to the public do not comment on this.</p> <p>3. Taking a cynical view, a decision appears to have been made that siting two substations at the side of a small village called Newton, which according to the 2021 census had a population of 1,507 people, would invoke less uproar and controversy than locating it in either Hutton (2,141) or Longton (10,904).</p> <p>4. It is not made clear as far as I can see why two substations are required. The electricity comes onshore at one point in Blackpool and finishes up at one station at Penwortham. Why then are two substations required to get the power there?</p> <p>5. No account appears to have been taken of the fact that Bluefield Renewable Developments Limited already have proposals in place to construct a solar farm on land to the west of Parrox Lane in Newton, which appears to lie within the confines of zone 1. This is projected to take up</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

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	<p>approximately 32 hectares of good agricultural land. At a time when food security is becoming an increasingly important matter in global terms, losing land like this from agricultural use is not justifiable.</p> <p>6. An important question to ask is why the cables are coming ashore at Blackpool and across the Fylde at all. Looking at a map, it would appear that a simpler route would be down the Ribble estuary and onshore around Bottom of Hutton where there is a far lower population density and a much shorter land journey to the main station at Penwortham. This question is not even considered in the proposals. The current proposals would appear to involve taking cables across either the A583 Blackpool Road or the A584 Preston New Road to access the power station at Penwortham. Either of these will doubtless cause further disruption and either major hold-ups to traffic with significantly increased journey times or major diversions again with increased journey times. Neither of these would seem to contribute to the country's target of reducing carbon emissions and hitting net zero.</p> <p>7. Another matter not dealt with anywhere is the impact on local house prices. A recent study by Oxford Brookes University suggested house prices within a short distance of a substation could decline by up to a third if overhead pylons were used to transmit the electricity. Other surveys indicate a potential fall of up to 10% if underground cables are used. What are the developers proposing to do to compensate local house owners for these potential falls in house values?</p> <p>8. A point raised in the proposals concerns the impact on biodiversity but no clear indications are given as to how zone 1 will regain its biodiversity after the project is completed. The argument seems to be that because there is more biodiversity at the other three zones, zone 1 is the choice. How has biodiversity been measured at the four sites and what is proposed to restore it once the substations are up and running?</p> <p>9. The impact of several years of construction works on the area is not addressed. The whole area, not just Newton, has been subject to more than three years of disruption to enable the construction of Edith Rigby Way from just to the west of Preston to the M55 motorway, a road of roughly four kilometres in length. Now it is being proposed that we undergo a further 4-5 years of building work. Where will access be to the proposed substation sites? It is not feasible to have construction traffic going into and out of the village on a regular basis. There is only one way out of the village – School Lane is no entry on to Blackpool Road, there are traffic lights at the junction of Bryning Lane and Blackpool Road at the Bell & Bottle pub which is the only viable way</p>	<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

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	<p>out and Parrox Lane is a single lane track that would not take the strain of continual use by heavy lorries and the like. Similarly Hall Cross is not served by roads of any size and access there is even more restricted than Newton which at least has the benefit of a major road to the north, the A583.</p> <p>10. The materials made available show the view of the offshore windfarms from several distant visas but nowhere are there any visual representations of what the substations would look like for various locations in and around the village. We understand that each substation will cover an area equivalent to thirteen football pitches, be over twenty metres tall and be lit up and operational day and night. They will doubtless produce considerable noise and inconvenience to residents. It is important that the visuals are presented to us the villagers so we can see exactly how they will impact on the environment and the enjoyment we can continue to get from living in what is currently a lively and friendly community. There are also no indications in the proposals as to what the permissible levels of light, noise vibration and emissions will be or how they will be monitored nor of the carbon cost of the development works and ongoing carbon cost of running the substations nor what actions will be taken by the developers to offset these. Why not?</p> <p>11. No detailed maps of the proposals have been made available to the public so it is not possible to accurately assess the impact the proposals will have on the village and the surrounding area. It seems that the proposals have been introduced with the hope that, as noted above, because the village population is relatively small, only limited objections will be raised and these can be easily brushed aside.</p> <p>12. Housebuilders have to enter into section 106 agreements with local authorities under which any new development work must have a tangible benefit on the local community. Whilst accepting that this is an infrastructure project, it is reasonable to ask what benefit will the village be getting out of this in return for having two large substations with all their attendant problems they will bring both during construction and afterwards. The proposals do not appear to address this fundamental question.</p> <p>13. As mentioned above at point 4, substantial grade A farmland is already likely to be lost if the proposed solar farm goes ahead. The two substations proposed in zone A will take away further high-quality agricultural land and impact on the nation's ability to secure its food security. Moreover, the amount of land required for the substations and the solar farm would render the existing agricultural businesses that use the land in question economically</p>	

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	<p>unviable, with resulting financial implications for both the land users and the people they employ.</p> <p>14. The documentation as provided is extremely lengthy and not easy to digest. Navigation is hard and neither the onshore route or the site selection criteria are mentioned or justified. There is supposed to be a green belt between Newton and Kirkham in order that the separate identities of the two communities can be maintained. This is under the Fylde Borough Council plans for the borough. The proposals appear to ride roughshod over this and in fact, taking into account the proposed solar farm as well, mean very intensive development for industrial purposes and a significant area of industrialisation in what up to now has been a rural farming community.</p> <p>15. There is no mention of any jobs becoming available to the local community should the substations get the go-ahead. What is the position vis-à-vis this? If no jobs are being created for local people from what are extremely large developments, why is this?</p>	

2.105 Sandra Schofield

Table 2.105: RR-105 – Sandra Schofield.

Reference	Relevant Representation Comment	Applicant's response
RR-105.1	<p>The proposed substation to transport the electricity to the existing substation at Howick, Penwortham will be built on greenbelt land close to our small village of Newton -with-Scales. The land is prime agricultural land and will mean that some of the farms will lose so much land that it will not be viable for them to continue. The route of the cables will be close to our local village school and we understand the work will take 5-8 years to complete, which will cause major disruption to the roads in the vicinity which are in poor repair. There have been no plans of the elevations of the substation to view, however I understand it will be as large as 18 football pitches and illuminated both day & night. I also understand the noise emitted by the substation will be very intrusive and can only have a detrimental effect on the value of houses in the locality</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.106 Anne Scupham
Table 2.106: RR-106 – Anne Scupham.

Reference	Relevant Representation Comment	Applicant's response
RR-106.1	<p>I support green energy but I have a very strong objection to this proposal as a blatant example of destructive dirty green energy. There has been a flagrant lack of integrity in the devious underhanded approach already undertaken to withhold information and mask the proposal, thereby deceiving the residents of Fylde in the very flawed heavily disguised consultation so far. Residents will be greatly adversely affected with a permanent disastrously reduced quality of life in what is a very pleasant and valued largely rural environment. Lower Lane agricultural land is inappropriate for building due to the high water table and the high risk to cause flooding to residential properties. Lower Lane itself is already often under water in places with water up to existing properties. Green energy is the way forward and welcome when properly approached. This proposal is not that, it is a seedy cost cutting cheapest way possible and to hell with the landscape, residents, environment and future NON GREEN plan. We have opportunity to build an admirable future without the need to cause any destruction to what little we already have that is good. I sincerely hope that with the new Government, matters will be conducted with the highest possible integrity in future with the Companies concerned being held to account to only use the many available brownfield and existing infrastructure options that are available here and at Heysham and additionally made to stay strictly underground with cabling. My interest is because my husband and I are relocating to the area.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.107 Louise Scupham

Table 2.107: RR-107 – Louise Scupham.

Reference	Relevant Representation Comment	Applicant's response
RR-107.1	<p>I am very aware of the need for, and am an advocate of, methods of green energy production. I understand the overall importance of wind energy, and therefore this project, in the country's aims to achieve net zero by 2050. What I cannot condone, however, is the proposed locations for the substations and cable routing, and how Morecambe and Morgan and all associated companies have approached this consultation period with deviousness and deception. This project is an example of 'dirty' green energy, which proposes to destroy greenbelt and Grade 1 Agricultural land, and irreparably damage the quality of life of the local community, instead of seeking brownfield development sites or modification of existing infrastructure as presented in Fylde borough council's local plan. The statutory consultation period has been deeply flawed, with inadequate efforts on the part of the Morgan and Morecambe project to inform the appropriate numbers of locals of the consultation period, and showed evidence of predetermined decisions and biased decision making processes. I strongly object and completely oppose development in this area. My objections are as follows; 1. The consultation process has been inadequate, incomplete, and flawed. - The PEIR shows evidence of a predetermined decision on the location for the substations in zone 1 and, a strong bias towards zone 1, flawed methods of decision making, and no concern for the local community. - The RAG assessment has a bias favouring zone 1, with inconsistent, subjective and factually incorrect survey ratings and no consideration to human factors. - The project has not informed the appropriate number of residences of the project and given the chance for them to respond. - The project has grossly understated the visual impact of these substations and during the consultation period has failed to provide any visual representations of the stations or the promised landscaping proposed to reduce their impact. - Project representatives have given conflicting and incomplete information to residents and deliberately misled our former MP. - Project representatives have not satisfactorily answered the concerns and questions of local residents. 2. The location of substations on Lower Lane is unacceptable. Other sites must be found. - The PEIR overlooks Fylde Borough Council's local plan identifying potential candidate zones not on greenbelt land and didn't investigate any of these potential locations. - Morecambe and Morgan have made this decision purely on a cost basis and</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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	<p>pushed aside environmental factors, the local community and our health, sensitivity for agriculture and wildlife, Fylde council strategy, noise pollution and other critical factors. - The development will irreparably damage the local area. It is far too close to numerous residential properties, nursery, primary and secondary schools. It will adversely impact local amenities, change the character of the area from rural to industrial, compromise safety, and devalue the assets, health, and quality of life of residents. - Regardless of levels of landscaping these substations will be visually appalling. Structures of 20 metres in height are unacceptable for an area where residents have a view of the Bowland hills. - These substations will result in destruction of large areas of green belt and Grade 1 agricultural land, and removal of green space separating villages, which is unacceptable. - Construction poses danger to the lives of children at local schools. - The 3-6 year construction period near to major roads serving Blackpool and Preston will cause prolonged and widespread disruption. - Impermeable constructions in land that holds water WILL increase the flood risks in the wider community as water is displaced, regardless of drainage. 3. Concerns surrounding access to the construction sites. - Must not use any point on Lower Lane to access construction sites, the road is unsuitable. - Must not have plant traffic any route close to a school or nursery school. - Adding construction traffic to an area already suffering from heavy traffic and serving major towns and industries such as BAE. In short, I reject the Morecambe and Morgan proposal to locate substations near Lower Lane, and object to them to the highest degree</p>	<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.108 Suzanna Shepherd

Table 2.108: RR-108 – Suzanna Shepherd.

Reference	Relevant Representation Comment	Applicant's response
RR-108.1	<p>One of the main impacts and reason I don't want this here is because of what it is going to do to the environment and our wildlife (which has already been hurt by all the house builds in the area) alongside this what it will do to our community including putting valued businesses out of business. The noise, traffic caused by the wind farm plus the destruction of valuable farming land is really upsetting and not acceptable. My daughter goes to one of the schools affected by these plans and it is hugely concerning. Having the noise all day long as they try to learn is not ok. I would also expect that house prices are going to massively hit by the monstrosities that are going to be installed, people are suffering enough without this and our community stands united that we do not want this in our area.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.109 Jayne Margaret Stackhouse

Table 2.109: RR-109 – Jayne Margaret Stackhouse.

Reference	Relevant Representation Comment	Applicant's response
RR-109.1	<p>The pipeline trenches proposed for this project are going straight through the middle of our dairy farm and will completely ruin the farm for many years to come and as a consequence, have a massive impact on our business, which includes a holiday cottage overlooking the site.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.110 Amber Sylvester

Table 2.110: RR-110 – Amber Sylvester.

Reference	Relevant Representation Comment	Applicant's response
RR-110.1	I am concerned about the impact that building this facility will have on our community. I am concerned about the additional traffic whilst it is being built and also the impact on our village life.	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.111 Melanie Tottoh

Table 2.111: RR-111 – Melanie Tottoh.

Reference	Relevant Representation Comment	Applicant's response
RR-111.1	<p>We are extremely concerned that the road and lane that we live on will be used as access or thoroughfares to this project. We are also concerned about the disruption caused to our lives by noise, pollution, dust, machinery, number of construction workers and the sheer scale of the final buildings and site which will be in the immediate vicinity of our home. A further concern we have is the impact on the environment owing to the cable trenches which are to be dug across the Fylde from Blackpool to the Morgan site. This will adversely affect existing farms and businesses and the local people's ability to move around freely.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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2.112 David Wertheim

Table 2.112: RR-112 – David Wertheim.

Reference	Relevant Representation Comment	Applicant's response
RR-112.1	<p>I am a resident of the Isle of Man. We depend on full and regular access by sea for our daily lives. There are two shipping lines handling freight. Air freight is not an option. Most of our foodstuffs and drinks are imported by sea; all our mail travels by sea and all of our goods imports (the majority of what we need) travels by sea. We depend on the Isle of Man Steam Packet Company's (IOMSPC) sailings between between Douglas and Heysham and Liverpool as well as the Mezeron sailing to and from Ramsey for freight and on the IOMSPC for passenger travel (both on foot and by car). The proposals put forward for wind farms appear to have a potential impact on the routes our vessels must use. This is not acceptable under any circumstances. It is unreasonable for the Isle of Man to have its whole transport infrastructure disrupted; solutions must be found without the need for our vessels to be re-routed as this would add significantly to the costs - even if it involves re-siting the wind farm locations. After all there is a lot of Irish Sea, but only a very limited number of viable shipping lanes.</p>	<p>The Navigation Risk Assessment (NRA) and Shipping and Navigation Chapter of the Preliminary Environmental Impact Report (PEIR) (April 2023) identified that in normal and adverse weather conditions, ferries would necessitate deviations around the Morgan Generation Assets Array Area and this would result in greater transit distance, fuel costs, schedule disruptions, and more frequent cancellations to lifeline ferry services.</p> <p>Following the PEIR and Section 42 consultation responses, the Applicant has modified the boundaries of the wind farm array area which has increased the available searoom to minimise the impacts to ferries, and has reduced the deviations required (as set out in section 7.9 and 7.11 of Volume 2, Chapter 7: Shipping and navigation (APP-025) and in section 4.11.2 of Volume 1, Chapter 4: Site selection and consideration of alternatives (APP-011)).</p> <p>The Applicant has worked together with the developers of the Mona Offshore Wind Project and Morecambe Offshore Windfarm: Generation Assets who have also amended the boundaries of their respective projects to increase searoom and reduce the cumulative impacts on ferries. The ferry companies and other key stakeholders have inputted to this process through attendance at navigation simulations and NRA hazard workshops.</p> <p>The Applicant understands that the Isle of Man Steam Packet Company Heysham to Douglas service intersects with the Morgan Array Area. For this service a revised passage plan was developed that would necessitate an additional 1.6 minutes of steaming time per trip in typical weather conditions to accommodate the Morgan Generation Assets alone. On a three hour and 45 minute service, with greater existing operational variation in transit duration and turnaround time, the deviation is not anticipated to result in significant operational impacts for the Morgan Generation Assets alone.</p> <p>In periods of adverse weather, a passage around the Morgan Array Area may be required which would necessitate approximately an additional 21.5 minutes of steaming time per trip on top of existing adverse weather delays. This impact was assessed as being of moderate adverse significance due to its impact on Isle of Man Steam Packet Company schedules and operations.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>The Applicant is committed to further engagement with the Isle of Man Steam Packet Company on the residual impacts throughout the examination phase of the Morgan Generation Assets.</p>

2.113 Caroline Whalley-Hunter

Table 2.113: RR-113 – Caroline Whalley-Hunter.

Reference	Relevant Representation Comment	Applicant's response
RR-113.1	I am a concerned resident within the Fylde Council area.	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.114 Claire Maree Whitehouse

Table 2.114: RR-114 – Claire Maree Whitehouse.

Reference	Relevant Representation Comment	Applicant's response
RR-114.1	The destructive route of the cable corridor through greenbelt lane must be rethought	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.115 Jonathan Mark Wilde

Table 2.115: RR-115 – Jonathan Mark Wilde.

Reference	Relevant Representation Comment	Applicant's response
RR-115.1	<p>This element should not be part of this DCO - "A separate development consent order is being sought for the transmission assets required to convey the electricity generated by the wind turbine generators within the Morgan Array Area to shore and onwards to the existing National Grid substation at Penwortham, Lancashire." Presuming the Onshore assets will connect at Penwortham pre-defines the route they will take. That route is heavily contested so this should not be assumed at this stage. There are alternative routes, which cost less money, would be quicker to implement and would not destroy greenbelt land, livelihoods and farmland as well as disrupting tourism and affecting physical and mental health.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.116 Gillian Womersley

Table 2.116: RR-116 – Gillian Womersley.

Reference	Relevant Representation Comment	Applicant's response
RR-116.1	<p>I disagree with the proposals to build the substation between freckleton and Kirkham. This is a rural area and this structure will have a huge negative effect on the environment from turbine noise and the traffic. The company must be required to look at alternatives and to consider less intrusive structures.</p>	<p>With regards to turbine noise, the Morgan Generation Assets will be located in the Irish Sea approximately 22.22 km from the east coast of the Isle of Man, 37.13 km from the north-west coast of England and 58.5 km from the north coast of Wales with no pathway for operational sound impacts on the onshore environment.</p> <p>The Applicant has considered construction sound impacts within the Airborne Construction Sound technical report (APP-049). This report concludes that there is no pathway for construction sound impacts on the onshore environment.</p> <p>The Applicant notes the points raised with regards to the land substation and traffic in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.117 Peter Woods

Table 2.117: RR-117 – Peter Woods.

Reference	Relevant Representation Comment	Applicant's response
RR-117.1	I would just like to know more about the impact on our village	The Applicant notes this response.

2.118 Alan Woolrich

Table 2.118: RR-118 – Alan Woolrich.

Reference	Relevant Representation Comment	Applicant's response
RR-118.1	<p>If this current route and site go ahead it will have a huge impact on the Fylde coast. The planned route for the cable will involve digging up swathes of countryside and the site itself will have a huge impact on the village of Newton. Destruction of a huge area of farmland and also have a huge impact from the constant noise that these sites produce. we have a coastline close to this site and can see no reason for digging up farmland. There is also adequate unpopulated areas along the banks of the ribble estuary where this site can be built I await your comments.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.119 Belinda Wright

Table 2.119: RR-119 – Belinda Wright.

Reference	Relevant Representation Comment	Applicant's response
RR-119.1	A shorter route needs to be found. There is no need for these cables to be laid over 27km over The Fylde when shorter routes are available.	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p>

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Reference	Relevant Representation Comment	Applicant's response
		<p>https://morecambeandmorgan.com/transmission/.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 5 August 2024 (PD-001), should the respondent wish to make a representation in regard to the transmission assets, this will need to be made once the Transmission Assets application is submitted and accepted for examination by the Planning Inspectorate.</p>

2.120 Michael Wright

Table 2.120: RR-120 – Michael Wright.

Reference	Relevant Representation Comment	Applicant's response
RR-120.1	<p>I'm concerned about the proposed locations for the substations. Both are currently to be sited on greenbelt agricultural land. No brownfield sites appear to have been considered.</p>	<p>The Applicant notes the points raised in this relevant representation but considers that the matters to be outside of the scope of this application, which seeks development consent for the Morgan Offshore Wind Project Generation Assets. The infrastructure included in this application only relates to the offshore wind turbines generators, offshore inter array cables, offshore interconnector cables and offshore substations. This application does not include the transmission assets infrastructure required to connect the offshore wind farm to the national grid and does not seek consent for any infrastructure on land.</p> <p>The transmission assets for this project are being developed in collaboration with another developer Morecambe Offshore Windfarm Ltd (a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd). Both the Morgan Offshore Wind Project and Morecambe Offshore Wind Project were scoped into the Pathways to 2030 workstream under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator is responsible for conducting a Holistic Network Design Review to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should both connect at Penwortham in Lancashire. The developers agreed to work collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morgan Offshore Wind Project includes offshore and onshore export cables and an onshore substation and associated infrastructure. This infrastructure will be subject to a separate application for development consent via the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project (referred to as the 'Transmission Assets'). This is in accordance with the section 35 direction issued by the Secretary of State under the Planning Act 2008. The Transmission Assets application has not yet been submitted to the Planning Inspectorate for consideration. Further information on the Transmission Assets project is available at:</p> <p>https://morecambeandmorgan.com/transmission/.</p>

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3 RESPONSE TO ADDITIONAL SUBMISSIONS

3.1 Defence Infrastructure Organisation (DIO) for the Ministry of Defence (MOD)

Table 3.1: The Applicant’s response to Defence Infrastructure Organisation (DIO) for the Ministry of Defence (MOD) additional submission.

Reference	Relevant Representation Comment	Applicant’s response
RR-AS-1.1	<p>The principal concerns of the MOD with respect to this proposed wind farm relate to the impact of the development on the operation and capability of air traffic control radar systems, and the potential to create a physical obstruction to air traffic movements.</p> <p>At this time the MOD must object to the proposed development on the basis that the scheme would have a significant and detrimental impact on the effective operation and capability of air traffic control radar deployed at BAE Warton.</p>	<p>The Applicant notes your response. Refer to responses in RR-AS- 1.2 and RR-AS-1.3 for the Applicants response.</p>
RR-AS-1.2	<p>Air Traffic Control (ATC) Radar</p> <p>The turbines would be 63 km from, detectable by, and would cause unacceptable interference to the ATC radar used by BAE Warton.</p> <p>Wind turbines have been shown to have detrimental effects on the performance of Primary Surveillance Radars. These effects include the desensitisation of radar in the vicinity of the turbines, shadowing and the creation of "unwanted" aircraft returns which air traffic controllers must treat as aircraft returns. The desensitisation of radar could result in aircraft not being detected by the radar and therefore not presented to air traffic controllers. Controllers use the radar to separate and sequence both military and civilian aircraft, and in busy uncontrolled airspace radar is the only sure way to do this safely. Maintaining situational awareness of all aircraft movements within the airspace is crucial to achieving a safe and efficient air traffic service, and the integrity of radar data is central to this process. The creation of "unwanted" returns displayed on the radar leads to increased workload for both controllers and aircrews. Furthermore, real aircraft returns can be obscured by a turbine's radar return, making the tracking of both conflicting unknown aircraft and the controllers’ own traffic much more difficult.</p>	<p>The MOD response to the Morgan Generation Assets PEIR confirmed that, based on the maximum design scenario for wind turbine tip height presented at PEIR of 324 m above lowest astronomical tide (LAT), there would be no operational impact on the radar system at Warton Aerodrome or RAF Valley. The MoD specifically stated that: <i>“The PEIR details the potential for radar systems to be affected by the proposed wind farm, highlighting the potential for the development to be within radar line of sight (RLoS) of radar systems at Warton and RAF Valley. I can confirm that we do not anticipate that the development would have an operational impact on either of the identified radars”</i>. See ‘Morg_0035_006_260623’ in section D.24.17 of the Consultation Report Appendices – Part 3 (APP-104).</p> <p>Following confirmation from MOD at PEIR that there would be no operational impact on the radar system at Warton Aerodrome or RAF Valley, the Applicant wrote to MOD on 2nd August 2023 to inform of an increase in wind turbine tip height from 324 m to 364 m above LAT. On 22nd December 2023, MOD responded to the Applicant in respect of the increased tip height that: <i>“The PEIR details the potential for radar systems to be affected by the proposed wind farm, highlighting the potential for the development to be within radar line of sight (RLoS) of radar systems at Warton and RAF Valley. I can confirm that</i></p>

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Reference	Relevant Representation Comment	Applicant's response
	<p>Our assessments have determined that, when operational, the proposed wind farm would cause unacceptable and unmanageable interference to the effective operation of air traffic control radar deployed at BAE Warton.</p>	<p><i>we do not anticipate that the development would have an operational impact on either of the identified radars."</i></p> <p>The Applicant continued to engage with the MOD after noting a Relevant Representation was not submitted and on 29th July 2024, the MOD confirmed they would commence reconsideration of the increased wind turbine tip height. On 9th August 2024, MOD informed the Applicant that the project has the capacity to impact on the operation and capability of air traffic control radar deployed at BAE Warton Aerodrome.</p> <p>At this stage discussions with the MOD are ongoing regarding the potential impacts and any mitigation measures required.</p> <p>The Applicant notes the conclusion of the MOD's assessment that there are potential for effects to the BAE Warton Primary Surveillance Radar (PSR) and will continue to engage with DIO and with Warton Aerodrome Air Traffic Control Management Team on suitable technical mitigation that will reduce the impact to the Warton Aerodrome PSR.</p> <p>The Applicant will continue to engage with the MOD throughout the Examination and notes that the Examining Authority has requested submission of an initial Statement of Common Ground (SOCG) between the parties at Deadline 1 (3rd October 2024).</p>
RR-AS-1.3	<p>Physical Obstruction</p> <p>In this case the development falls within Low Flying Area 17 (LFA 17). Within these areas fixed wing aircraft may operate as low as 250 feet or 76.2 metres above ground level to conduct low level flight training. The addition of turbines in this location would introduce a physical obstruction to low flying aircraft operating in the area.</p> <p>In the event that the applicant is able to overcome the objections listed above, MOD would require that conditions are added to any consent issued requiring the submission, approval and implementation of an aviation lighting scheme, and that sufficient data is submitted to ensure that structures can be accurately charted to allow deconfliction. The applicant has acknowledged the MOD requirement for MOD accredited aviation safety lighting in table 11.15 in Volume 2, Chapter 11, Aviation and Radar of the Offshore Environmental Statement (April 2024).</p>	<p>The Applicant agrees that the development falls within Low Flying Area 17 (LFA 17) and the addition of turbines in this location would introduce a physical obstruction to low flying aircraft operating in the area.</p> <p>The Applicant acknowledges the MOD requirement for MOD accredited aviation safety lighting and will incorporate measures required to meet legislative requirements or adopted standard industry practice for aviation lighting.</p> <p>The Morgan Generation Assets lighting and marking will conform to the following:</p> <ul style="list-style-type: none"> Red medium intensity combi aviation warning lights (of variable visual brightness between a maximum of 2,000 candela (cd)) to a minimum of 10% of the maximum which would be 200 cd) will be located on either side of the nacelle of significant peripheral wind turbines. These lights will flash simultaneously with a Morse W flash

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Reference	Relevant Representation Comment	Applicant's response
	<p>For the avoidance of any doubt, MOD objects to the proposal on the grounds of the unacceptable impact that the development would have on:</p> <ul style="list-style-type: none"> air traffic control radar system sited at BAE Warton. <p>The MOD will work with the applicant to produce a statement of common ground which will be submitted in due course.</p>	<p>pattern, will also include an infra-red component and be able to be switched on and off by means of twilight switches.</p> <p>Lighting requirements associated with aviation safety are secured under requirement 3 within Part 2, Schedule 2 of the Draft development consent order (AS-003).</p>

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