



# MORECAMBE



FLOTATION ENERGY

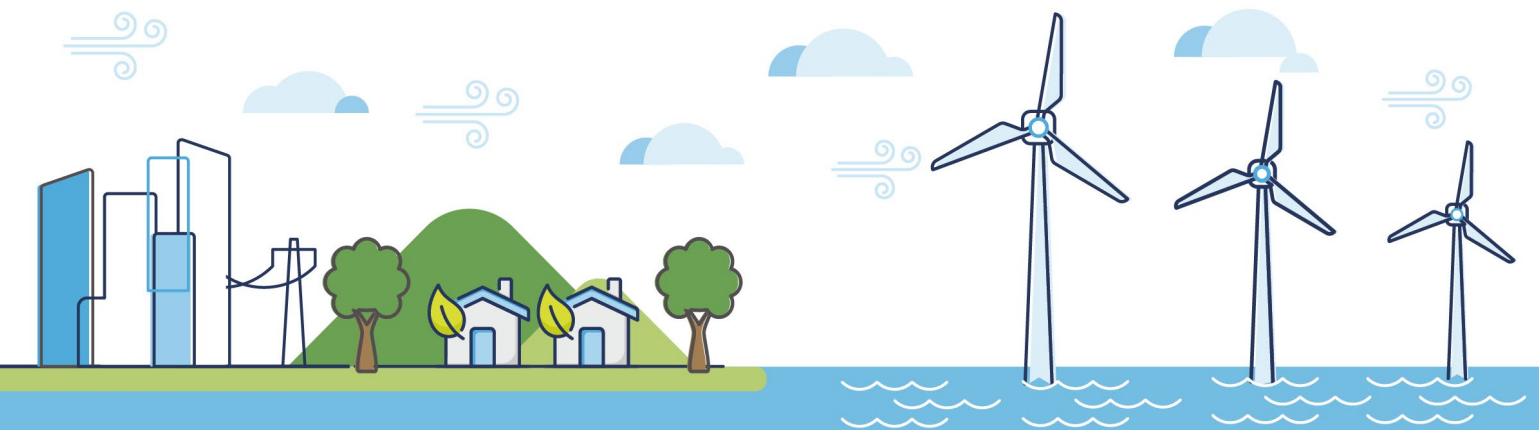
## Morecambe Offshore Windfarm: Generation Assets Procedural Deadline A

### Volume 8

### The Applicant's Response to Relevant Representations

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## Glossary of Acronyms

ADD	Acoustic Deterrent Device
AEOI	Adverse Effect on Integrity
AEZ	Archaeological Exclusion Zone
AFBI	Agri-Food and BioSciences Institute
AfL	Agreement for Lease
AL	Action Level
ALARP	As Low As Reasonably Possible
AltMoC	Alternative Means of Compliance
AIS	Automatic Identification System
ALARP	As Low As Reasonably Practicable
AON	Apparently Occupied Nests
AMC	Acceptable Means of Compliance
ASAP	As Soon As Possible
ASSI	Areas of Special Scientific Interest
ATC	Air Traffic Control
ATZ	Air Traffic Zone
BAP	Biodiversity Action Plan
BBC	Big bubble curtains
BDMPS	Biologically Defined Minimum Population Scale
bp	bp Alternative Energy Investments Ltd.
BTO	British Trust for Ornithology
C-BASS	C-Band All Sky Survey
CAT	Commercial Air Transport
CAP	Civil Aviation Publication
CAA	Civil Aviation Authority
CPA	Closest Point of Approach
CDSAL	Carbon Dioxide Appraisal and Storage License
CEA	Cumulative Effects Assessment
Cefas	Centre for Environment, Fisheries and Aquaculture Science
CGNS	Celtic and Greater North Seas

CIA	Cumulative Impact Assessment
CCUS	Carbon Capture, Usage and Storage
CIS	Celtic and Irish Sea
CO <sub>2</sub>	Carbon Dioxide
CRM	Collision Risk Model
CRNRA	Cumulative Regional Navigational Risk Assessment
cSAC	candidate Special Areas of Conservation
CSIP	Cetacean Strandings Investigating Project
DAERA	Department of Agriculture, Environment and Rural Affairs
DCO	Development Consent Order
DEP	Dudgeon Extension Project
DESNZ	Department for Energy Security and Net Zero
DIO	Defence Infrastructure Organisation
DML	Deemed Marine Licence
EA	Environment Agency
EEA	European Economic Area
EDR	Effective Deterrence Range
EEA	European Economic Area
EIA	Environmental Impact Assessment
EnBW	Energie Baden-Württemberg AG
ENG	Environmental Net Gain
EPP	Evidence Plan Process
EPS	European Protected Species
ES	Environmental Statement
ESO	Electricity System Operator
ERRV	Emergency Response and Rescue Vessel
ETG	Expert Topic Group
EU	European Union
ExA	Examining Authority
FBC	Fylde Borough Council
FLCP	Fisheries Liaison and Co-existence Plan
FLOWW	Fisheries Liaison with Offshore Wind and Wet Renewables Group

GBBG	Great Black-Backed Gull
GBS	Gravity Based Structure
GM	Guidance Material
GIS	Geographic Information System
HAT	Highest Astronomical Tide
HE	Historic England
HGV	Heavy Goods Vehicle
HRA	Habitat Regulations Assessment
HNDR	Holistic Network Design Review
HSE	Health, Safety, and Environment
HPAI	Highly Pathogenic Avian Influenza
IBTS	International Council for the Exploration of the Sea International Bottom Trawl Survey
ICES	International Council for the Exploration of the Sea
IRPA	Individual Risk Per Annum
IFP	Instrument Flight Procedures
INNS	Invasive Non-Native Species
IMC	Instrument Meteorological Conditions
IoM	Isle of Man
iPCoD	Interim Population Consequences of Disturbance Model
IPMP	In-Principle Monitoring Plan
JNCC	Joint Nature Conservation Committee
LBBG	Lesser Black-backed Gull
LBBGCSG	Lesser Black-Backed Gull Compensation Steering Group
LCI	Lower Confidence Limit
LF	Low Frequency
LFA	Low Flying Area
M&DE	Morecambe Bay and Duddon Estuary
MAC	Maritime Area Consent
MBES	Multibeam Echo Sounder
MCA	Maritime and Coastguard Agency
MCAA	Marine and Coastal Access Act

MCZ	Marine Conservation Zone
MCZA	Marine Conservation Zone Assessment
MDS	Maximum Design Scenario
MGN	Marine Guidance Note
MHWS	Mean High Water Springs
MMMP	Marine Mammal Mitigation Protocol
MMO	Marine Management Organisation
MMOb	Marine Mammal Observer
MNEF	Marine Navigation Engagement Forum
MOU	Memorandum of Understanding
MNR	Marine Nature Reserve
MNZ	Morecambe Net Zero Project
MOD	Ministry of Defence
MOWF	Morecambe Offshore Windfarm
MPA	Marine Protected Area
MSY	Maximum Sustainable Yield
MU	Management Unit
NAS	Noise Abatement System
NATS	National Air Traffic Service
NE	Natural England
NASTA	National Science Teaching Association
NEQ	Net Explosive Quantity
NFFO	National Federation of Fishermen's Organisations
NIHLS	Northern Irish Herring Larvae Survey
NPS	National Policy Statements
NPWS	National Parks and Wildlife Service
NPI	Non-production Installations
NRA	Navigation Risk Assessment
NRHE	National Record for the Historic Environment
NRW	Natural Resources Wales
NSIP	National Infrastructure Planning
NUI	Normally Unmanned Installations
NW	North West



NWWT	North West Wildlife Trust
OBS	Offshore Booster Station
OC	Organochlorine Pesticides
OEL	Ocean Ecology Limited
OEI	One Engine Inoperative
OFTO	Offshore Electricity Transmission
OHID	Office for Health Improvement and Disparities
OMP	Operations and Maintenance Plan
ORA	Operational Risk Assessment
OOMP	Offshore Operation and Maintenance Plan
OREIs	Offshore Renewable Energy Installations
ORESS	Offshore Renewable Electricity Support Scheme
OSP	Offshore Substation Platform
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
OTNR	Offshore Transmission Network Review
OWEC	Offshore Wind Evidence and Change
OWF	Offshore Windfarm
PA 2008	Planning Act 2008
PAD	Principal Areas of Disagreement
PADSS	Principal Areas of Disagreement Summary Statement
PAHs	Polycyclic Aromatic Hydrocarbon
PAM	Passive Acoustic Monitoring
PATP	Port Access and Transport Plan
PBDEs	Polybrominated Diphenyl Ethers
PCBs	Polychlorinated Biphenyl
PEIR	Preliminary Environmental Information Report
PFEER	Prevention of Fire and Explosion, and Emergency Response
PEMP	Project Environmental Management Plan
PINS	Planning Inspectorate
PSA	Particle Size Analysis
PSR	Primary Surveillance Radar

PTS	Permanent Threshold Shift
PVA\	Population Viability Analysis
PSV	Platform Supply Vessel
QA	Quality assurance
QRA	Quick Reaction Alert
R4	Round 4
R&AE	Ribble and Alt Estuaries
RADAR	Radio Detection and Ranging
RAG	Red Amber Green
RCS	Radar Cross Section
RIAA	Report to Inform Appropriate Assessment
RNLI	Royal National Lifeboat Institute
REWS	Radar Early Warning Systems
ROV	Remotely Operated Vehicle
RoRo	Roll-on /Roll-off
RR	Relevant Representation
RSPB	Royal Society for the Protection of Birds
RTD	Red-Throated Diver
SAC	Special Area of Conservation
SACO	Supplementary Advice on Conservation Objectives
SASK	Submarine Academy for Skills and Knowledge
SATCO	Senior Air Traffic Control Officer
SCI	Sites of Community Importance
SCOS	Special Committee on Seals
sCRM	Stochastic Collision Risk Model
SCR	Single Central Record
SECE	Safety and Environmentally Critical Elements
SEL	Sound Exposure Level
SELss	Single Strike Sound Exposure Level
SEP	Sheringham Extension Project
SERA	Standardised European Rules of the Air

SLVIA	Seascape, Landscape and Visual Impact Assessment
SOLAS	Safety of Life at Sea
SMASS	Scottish Marine Animal Stranding Scheme
SMP	Seabird Monitoring Plan
SNCB	Statutory Nature Conservation Bodies
SoCG	Statement of Common Ground
SPA	Special Protection Area
SPL	Sound Pressure Level
SPL <sub>peak</sub>	Peak Sound Pressure Level
SSS	Side Scan Sonar
SSSI	Sites of Special Scientific Interest
SW	South-West
TA	Transport Assessment
TCPA	Time to the Closest Point of Approach
TAEZ	Temporary Archaeological Exclusion Zone
TCE	The Crown Estate
TH	Trinity House
TMZ	Transponder Mandatory Zone
TOPA	Technical and Operational Assessment
TEMPSC	Totally Enclosed Motor Propelled Survival Craft
TSC	Territorial Seas Committee
TTS	Temporary Threshold Shift
TWT	The Wildlife Trusts
UCI	Upper Confidence Interval
UK	United Kingdom
UKHO	UK Hydrographic Office
UKHSA	UK Health Security Agency
UWN	Underwater noise
UXO	Unexploded Ordnance
VHF	Very-High Frequency
VTMP	Vessel Traffic Management Plan
VMS	Vessel Monitoring System

VMC	Visual Meteorological Conditions
VFR	Visual Flying Rules
WFA-CPC	Welsh Fishermen's Association
WoDS	West of Duddon Sands
WSI	Written Scheme of Investigation
WTG	Wind Turbine Generator
Zol	Zone of Influence

## Glossary of Unit Terms

dB	Decibel
ft	feet
GT	Gigatonne
GW	Gigawatt
km	kilometre
km <sup>2</sup>	square kilometre
kV	kilovault
kWh	kilowatt-hour
m	metre
m <sup>2</sup>	square metre
m <sup>3</sup>	cubic metre
m/s	metres per second
MW	Megawatt
nm	nautical mile
μPa	micropascal
μPa <sup>2</sup> s	Square micropascal second

## Glossary of Terminology

Agreement for Lease (AfL)	This refers to the Applicant's application for a Development Consent Order (DCO). An application consists of a series of documents and plans which are published on the Planning Inspectorate's (PINS) website.
Applicant	Morecambe Offshore Windfarm Ltd
Application	This refers to the Applicant's application for a Development Consent Order (DCO). An application consists of a series of documents and plans which are published on the Planning Inspectorate's (PINS) website.
Biologically defined minimum population scale (BDMPS)	The estimated population size of a species within a defined biogeographic area during a biologically relevant season, as defined by Furness (2015). For many seabird species present in UK waters there are two defined biogeographic areas; UK Western waters and UK North Sea and Channel. However, some species have different defined BDMPS areas, dependent on the distribution and movements of the species population through the year. Furness (2015) defines the BDMPS for non-breeding seasons; the breeding season BDMPS is defined as the breeding population within foraging range from the project, plus non-breeders and immatures.
Cetaceans	Commonly known as whales, dolphins or porpoises.
Collision	The act or process of colliding (crashing) between two moving objects.
Controlled airspace	Controlled airspace is airspace of defined dimensions within which pilots must follow Air Traffic Control (ATC) instructions implicitly. In the UK, Class A, C, D and E are areas of controlled airspace.
Diadromous	Migrating between fresh and salt water.
Evidence Plan (EPP)	A voluntary consultation process with specialist stakeholders to agree the approach, and information to support, the Environmental Impact Assessment (EIA) and Habitats Regulations Assessment (HRA) for certain topics. The EPP provides a mechanism to agree the information required to be submitted to the Planning Inspectorate as part of the Development Consent Order Application. This function of the EPP helps Applicants to provide sufficient information in their Application, so that the Examining Authority can recommend to the Secretary of State (SoS) whether or not to accept the application for examination and whether an appropriate assessment is required.
Expert Topic Group (ETG)	A forum for targeted engagement with regulators and interested stakeholders through the EPP.
Fishery	The group of vessel voyages which target the same species or use the same gear.
Fleet	A physical group of vessels sharing similar characteristics (e.g. nationality).
Fmsy	Fmsy is a biological reference point for fisheries management. It is the fishing pressure that gives the maximum sustainable yield in the long term. In the past, overfishing has been a common feature in most sea areas. Overfishing means that fishing pressure is higher than Fmsy.

Generation Assets (the Project)	Generation Assets associated with the Morecambe Offshore Windfarm. This is infrastructure in connection with electricity production, namely the fixed foundation wind turbine generators (WTGs), inter-array cables, offshore substation platform(s) (OSP(s)) and possible platform link cables to connect OSP(s).
In-row	The distance separating WTGs in the main rows.
Inter-array	Cables which link the WTGs to each other and the OSP(s)
Inter-row	The distance between the main rows.
Landfall	Where the offshore export cables would come ashore
Landings	Quantitative description of the amount of fish returned to port for sale, in terms of value or weight.
Management Unit	Management units provide an indication of the spatial scales at which impacts of plans and projects alone, cumulatively and in-combination, need to be assessed for the key cetacean species in UK waters, with consistency across the UK.
Marine Guidance Note (MGN)	A system of guidance notes issued by the Maritime and Coastguard Agency which provide significant advice relating to the improvement of the safety of shipping and of life at sea, and to prevent or minimise pollution from shipping.
Mean High Water Spring	Mean High Water Spring (MHWS) refers to the average height of high tides during spring tides over a set period.
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 OSP(s) <sup>1</sup> , interconnector cables, Morgan offshore booster station, offshore export cables, landfall site, onshore export cables, onshore substations, 400kV cables and associated grid connection infrastructure such as circuit breaker infrastructure. Also referred to in this document as the Transmission Assets, for ease of reading.
National Federation of Fishermen's Organisations (NFFO)	A UK organisation comprised of members from Producers' Organisations, fishermen's groups and individuals, representing fishers in England, Wales, Northern Ireland, and the Channel Islands.
Offshore substation platform(s) (OSP(s))	A fixed structure located within the windfarm site, containing electrical equipment to aggregate the power from the WTGs and convert it into a more suitable form for export to shore.

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<sup>1</sup> At the time of writing the Environmental Statement (ES), a decision had been taken that the offshore substation platforms (OSP(s)) would remain solely within the Generation Assets application and would not be included within the Development Consent Order application for the Transmission Assets. This decision post-dated the Preliminary Environmental Information Report (PEIR) that was prepared for the Transmission Assets. The OSP(s) are still included in the description of the Transmission Assets for the purposes of this ES as the Cumulative Effects Assessment (CEA) carried out in respect of the Generation/Transmission Assets is based on the information available from the Transmission Assets PEIR.

Offshore export cables	The cables which would bring electricity from the offshore substation platform to the landfall.
Onshore substation	Part of an electrical transmission and distribution system. Substations transform voltage from high to low, or the reverse by means of electrical transformers.
Permanent Threshold Shift (PTS)	A permanent total or partial loss of hearing sensitivity caused by acoustic trauma. PTS results in irreversible damage to the sensory hair cells of the ear, and thus a permanent reduction of hearing acuity.
Platform link cables	An electrical cable which links one or more OSP(s).
Safety Zone	Safety Zone An area around a structure or vessel which should be avoided, as set out in Section 95 of the Energy Act 2004 and the Electricity (Offshore Generating Stations) (Safety Zones) (Application Procedures and Control of Access) Regulations 2007.
Scour protection	The constant sound level acting for one second, which has the same amount of acoustic energy, as indicated by the square of the sound pressure, as the original sound. It is the time-integrated, sound-pressure-squared level. SEL is typically used to compare transient sound events having different time durations, pressure levels, and temporal characteristics.
Seascape	Landscapes with views of the coast or seas, and coasts and adjacent marine environments with cultural, historical and archaeological links with each other
Sequential piling	A scenario where one pile is installed after another pile in the same 24 hour period (e.g. three monopiles in the same 24 hour period or four pin-piles in the same 24 hour period).
Sound Exposure Level (SEL)	The constant sound level acting for one second, which has the same amount of acoustic energy, as indicated by the square of the sound pressure, as the original sound. It is the time-integrated, sound-pressure-squared level. SEL is typically used to compare transient sound events having different time durations, pressure levels, and temporal characteristics.
Sound Pressure Level (SPL)	The sound pressure level or SPL is an expression of the sound pressure using the decibel (dB) scale, and the standard reference pressures of 1 $\mu$ Pa for water and 20 $\mu$ Pa for air.
Spawning	The act of releasing or depositing eggs (fish).
Stochastic Collision Risk Model (sCRM)	A programme used to assess the collision risk (estimated mortality) of seabirds to operational turbines of offshore windfarms. A stochastic CRM is used to account for uncertainty around input variables.
Study area	This is an area which is defined for each Environmental Impact Assessment (EIA) topic which includes the windfarm site as well as potential spatial and temporal considerations of the impacts on relevant receptors. The study area for each EIA topic is intended to cover the area within which an effect can be reasonably expected. A study area of 10 nautical miles (nm) around the windfarm site has been assessed in line with industry best-practice for shipping and navigation.

Technical stakeholders	Technical consultees are considered to be organisations with detailed knowledge or experience of the area within which the Project is located and/or receptors which are considered in the EIA and Habitats Regulations Assessment (HRA). Examples of technical stakeholders include Marine Management Organisation (MMO), local authorities, Natural England (NE) and Royal Society for the Protection of Birds (RSPB).
Tidal excursion ellipse	The path followed by a water particle in one complete tidal cycle.
Vessel Monitoring System	A system used in commercial fishing to allow environmental and fisheries regulatory organizations to monitor, minimally, the position, time at a position, and course and speed of fishing vessels.
Wind Turbine	A fixed structure located within the windfarm site that converts the kinetic energy of wind into electrical energy.
Windfarm site	The area within which the WTGs, inter-array cables, OSP(s) and platform link cables would be present.





# The future of renewable energy

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## 1. Introduction

1. This document presents the Applicant's comments on Relevant Representations (RRs) received from Interested Parties (IP) identified as local authorities, parish councils, statutory consultees, non-statutory organisations and businesses/members of the public.
2. As the owner of the Morecambe Offshore Windfarm Generation Assets (hereafter referred to as 'the Project'), Morecambe Offshore Windfarm Ltd is the named undertaker that has the benefit of the Development Consent Order (DCO). References in this document to obligations on, or commitments by, 'the Applicant' are given on behalf of Morecambe Offshore Windfarm Ltd as the undertaker of the Project.
3. The responses are provided below, as follows:
  - **Section 2** Comments on statutory consultees RRs
  - **Section 3** Comments on local authorities/parish councils RRs
  - **Section 4** Comments on non-statutory consultees
  - **Section 5** Comments on members of the public RRs
4. The responses to the RRs have been produced by the Applicant with technical input from their team of competent experts and other external consultants including Royal HaskoningDHV, CMS, Nash Maritime Ltd, Anatec Limited, Manchester Advanced Radar Services Ltd, Infrastructure Matters, Xodus Group, NIMA Consultancy Limited, Brown & May Marine Ltd. and Mike Coleman & Associates Limited.

## 2. Comments on statutory consultees RRs

5. The Applicant's comments on RRs received from statutory consultees are provided in **Table 2.1** to **Table 2.11**.

## 2.1 Cadw (RR-015)

Table 2.1 The Applicant's comments on Cadw's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-015-01	<p>These proposed windfarms will not have a direct impact on any historic assets in Wales or in Welsh waters. The nearest any of the masts will be to the Welsh coast is over 50km away. As such it would be only in exceptional circumstances (if then) that the windfarms will be visible from Wales and therefore we do not envisage that the proposed wind farms will have any significant impact on the settings of any designated historic assets in Wales.</p>	<p>The Applicant welcomes this response. As noted in Chapter 18 Seascape, Landscape and Visual Impact Assessment (SLVIA) (APP-055), effects on seascape, landscape and visual receptors in Wales (including the setting of any designated historic assets) have been assessed as not significant in the assessment undertaken in Section 18.5.3.5 of Chapter 18 SLVIA (APP-055). This is due to the distance of the windfarm site and the number and extent of existing offshore windfarm developments off the Welsh coast. An assessment of representative viewpoints in North Wales has been undertaken in Appendix 18.3 SLVIA Viewpoint Assessment (APP-085) and visualisations from viewpoints in North Wales are presented in Figure 18.40 – Figure 18.46 of Chapter 18 - SLVIA Figures (Part 23 of 34) (APP-128) to Chapter 18 - SLVIA Figures (Part 29 of 34) (APP-134).</p> <p>A full Settings Assessment in relation to historic assets is also provided in Appendix 15.3 Settings Assessment (APP-077).</p>

## 2.2 Corporation of Trinity House of Deptford Strond (TH) (RR-018)

*Table 2.2 The Applicant's comments on TH's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-018-01	<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.</p> <p>Trinity House wishes to be registered as an interested party due to the impact the developments 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(s) throughout the application process. Please address all correspondence regarding this matter to myself at [REDACTED]@trinityhouse.co.uk and to Mr Steve Vanstone at [REDACTED]@trinityhouse.co.uk Yours faithfully, [REDACTED] Legal Advisor</p>	<p>The Applicant notes this response.</p> <p>Consultation has been undertaken with TH throughout the pre-application phase between 2022 and 2023 (see Table 6.3 of the Consultation Report (APP-015)) (see Consultation Report for further information (APP-015)).</p> <p>The Applicant will continue to engage with TH through the Examination period.</p>

## 2.3 Defence Infrastructure Organisation (DIO) (RR-021)

*Table 2.3 The Applicant's comments on DIO's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-021-01	I write to provide the current Ministry of Defence (MOD) position with regard to the application for an order granting development consent for the Morecambe Offshore Wind Project (Generation Assets).	The Applicant notes this response.

ID	RR	Applicant's Response
RR-021-02	The Defence Infrastructure Organisation (DIO) Safeguarding Team represents the MOD as a consultee in UK planning and energy consenting systems to ensure that development does not compromise or degrade the operation of defence sites such as aerodromes, explosives storage sites, air weapon ranges, and technical sites or training resources such as the Military Low Flying System.	The Applicant notes this response.
RR-021-03	The development proposed comprises generation assets (including wind turbine generators (WTG), inter-array cables, offshore substation platforms, and other link cables) only. The transmission equipment/assets would form the subject of a further application which would also include that transmission equipment required by the Morgan Offshore wind Farm.	The Applicant notes this response.
RR-021-04	Whilst, at this stage, the specific form of the wind farm (generation assets) has not been finalised, the applicant has identified an area within which the development would take place, along with a maximum blade tip height of 310m above highest astronomical tide. The final number of WTG that would be installed is to depend on the rotor diameter of those turbines with smaller rotor diameters requiring a greater number of WTG and larger rotor diameters, a maximum of 280m is specified, reducing the number of WTG required. The application site would be located in the Eastern Irish Sea, approximately 30km from the nearest point on the coast of Lancashire, 50km from the north coast of Wales and 59km from the coast of the Isle of Man. Offshore infrastructure would include a maximum of two Offshore Substation Platforms (OSPs) and up to 70 km of inter-array cables.	The Applicant notes this response.
RR-021-05	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.	The Applicant notes this response. Consultation was undertaken with the Ministry of Defence (MOD) to confirm that a detailed operational assessment had been carried out regarding potential impact on the Warton Primary Surveillance Radar (PSR). The MOD responded

ID	RR	Applicant's Response
	<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>by email on the 11 August 2023 confirming that an operational assessment had been carried out and that there would be no operational impact on the Warton PSR. As a result, no further assessment of the receptor was considered necessary at the time.</p> <p>In receipt of the RR from the MOD, the Applicant has commenced discussions with BAE Systems (Operations) Ltd. The Applicant held further discussions with the MOD on the 8 October 2024 and will continue to engage with them through the Examination process to identify potential mitigation solutions to Warton's PSR, as appropriate.</p>
RR-021-06	<p><b><u>Air Traffic Control (ATC) Radar</u></b></p> <p>The turbines would be approximately 48.3 km from, detectable by, and would cause unacceptable interference to the ATC radar used by BAE Warton.</p>	<p>The Applicant notes this response. Consultation was undertaken with the MOD to confirm that a detailed operational assessment had been carried out regarding potential impact on the Warton PSR. The MOD responded by email on the 11 August 2023 confirming that an operational assessment had been carried out and that there would be no operational impact on the Warton PSR. As a result, no further assessment of the receptor was considered necessary at the time.</p> <p>In receipt of the RR from the MOD, the Applicant has commenced discussions with BAE Systems (Operations) Ltd. The Applicant held further discussions with the MOD on the 8 October 2024 and will continue to engage with them through the Examination process to identify potential mitigation solutions to Warton's PSR, as appropriate.</p>

ID	RR	Applicant's Response
RR-021-07	<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 Applicant notes this response. Consultation was undertaken with the MOD to confirm that a detailed operational assessment had been carried out regarding potential impact on the Warton PSR. The MOD responded by email on the 11 August 2023 confirming that an operational assessment had been carried out and that there would be no operational impact on the Warton PSR. As a result, no further assessment of the receptor was considered necessary at the time.</p> <p>In receipt of the RR from the MOD, the Applicant has commenced discussions with BAE Systems (Operations) Ltd. The Applicant held further discussions with the MOD on the 8 October 2024 and will continue to engage with them through the Examination process to identify potential mitigation solutions to Warton's PSR, as appropriate.</p>
RR-021-08	<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>The Applicant notes this response. Consultation was undertaken with the MOD to confirm that a detailed operational assessment had been carried out regarding potential impact on the Warton PSR. The MOD responded by email on the 11 August 2023 confirming that an operational assessment had been carried out and that there would be no operational impact on the Warton PSR. As a result, no further assessment of the receptor was considered necessary at the time.</p> <p>In receipt of the RR from the MOD, the Applicant has commenced discussions with BAE Systems (Operations) Ltd. The Applicant held further</p>

ID	RR	Applicant's Response
		discussions with the MOD on the 8 October 2024 and will continue to engage with them through the Examination process to identify potential mitigation solutions to Warton's PSR, as appropriate.
RR-021-09	<p><b><u>Physical Obstruction</u></b></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 sea 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>The Applicant accepts that the proposed development's wind turbines will introduce a physical obstruction to low flying aircraft operating in the area.</p> <p>Impacts and proposed mitigation to military low flying aircraft is noted in Section 16.3.3.4 in Chapter 16 Civil and Military Aviation and Radar (APP-053). As part of our proposed mitigation, the Applicant will ensure marking and lighting of obstacles would be in accordance with Article 223, Maritime and Coastguard Authority (MCA) (Marine Guidance Note (MGN) 654) and MOD requirements as appropriate.</p>
RR-021-10	<p>Should the applicant be able to overcome the MOD objection set out above relating to ATC radar at Warton Aerodrome, the physical obstruction concerns could be addressed by the addition of conditions/requirements being added to any consent that might be issued that require 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. It is noted that the applicant has acknowledged this requirement and makes reference to them in both the submitted Environmental Statement and draft Development Consent Order.</p>	<p>Mitigation regarding aviation safety (which includes compliance with Air Navigation Order 2016 and any safeguarding deemed necessary in consultation with the DIO and the Civil Aviation Authority (CAA)) is secured by a Development Consent Order (DCO) requirement included within the draft DCO (APP-012).</p>
RR-021-11	<p>The MOD must object to the proposal on the grounds that it would have an unacceptable and unmanageable impact on the operation and capability of an air traffic control radar deployed at BAE Warton.</p>	<p>The Applicant notes this response. Consultation was undertaken with the MOD to confirm that a detailed operational assessment had been carried out regarding potential impact on the Warton PSR.</p>



ID	RR	Applicant's Response
		<p>The MOD responded by email on the 11 August 2023 confirming that an operational assessment had been carried out and that there would be no operational impact on the Warton PSR. As a result, no further assessment of the receptor was considered necessary at the time.</p> <p>In receipt of the RR from the MOD, the Applicant has commenced discussions with BAE Systems (Operations) Ltd. The Applicant held further discussions with the MOD on the 8 October 2024 and will continue to engage with them through the Examination process to identify potential mitigation solutions to Warton's PSR, as appropriate.</p>
RR-021-12	The MOD will work with the applicant to produce a statement of common ground which will be submitted in due course.	The Applicant welcomes the comment and will progress a Statement of Common Ground (SoCG) with the MOD during the Examination process.

## 2.4 Historic England (RR-030)

*Table 2.4 The Applicant's comments on Historic England's Relevant Representation (RR)*

ID	Relevant Representation	Applicant's Response
RR-030-01	<p>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. Our relevant representation includes the following matters:</p> <ol style="list-style-type: none"> <li>1. Desk-based sources of information held by the UK Hydrographic Office (UKHO) and Historic England's National Record for the Historic</li> </ol>	The Applicant notes this response.

ID	Relevant Representation	Applicant's Response
	<p>Environment (NRHE) indicates the presence of unidentified obstructions within the proposed array area. The Applicant's interpretation of geophysical data (acquired in 2021) identified 21 anomalies of potential archaeological interest within the proposed array area; although only four are presently thought to be of "medium" potential. It is explained that none of these anomalies correspond directly with any UKHO or NRHE data for unidentified obstructions.</p>	
RR-030-02	<p>2. The assessment presented in Chapter 15 (Marine Archaeology and Cultural Heritage [Applicants Document Ref: 5.1.15; PINs Ref: APP-052] identifies four Archaeological Exclusion Zones (AEZs) and one Temporary AEZ (TAEZ). The Applicant has also explained that (subject to authorisation) post submission/consent and pre-construction geophysical and geotechnical surveys will be undertaken, and that Historic England will be consulted on the scope of these survey; this should ensure that data generated are sufficiently robust to enable professional archaeological interpretation and analysis. From this analysis appropriate mitigation measured will be selected inclusive of in-situ avoidance.</p>	<p>The Applicant notes this response.</p>
RR-030-03	<p>3. The Applicant has detailed that the worst-case scenario for "Direct impact to potential heritage assets" are seabed preparation requirements and deployment of Gravity Based Structure (GBS) foundations. Regarding the identification of "Indirect impact to heritage assets from changes to physical processes" we concur with the identified construction impacts, e.g. sand wave clearance/levelling and seabed level changes to facilitate foundation installation.</p>	<p>The Applicant notes this response.</p>
RR-030-04	<p>4. It is apparent from the Environmental Statement that the impact assessment presented in Chapter 15 relies on embedded mitigation to avoid significant impact e.g. use of AEZs and TAEZs. However, the determination of residual effects, and the reliance on embedded mitigation measures, such as recording archaeology before any loss, would not reduce harm or magnitude of impact. We appreciate that the investigation of archaeology at risk of loss or disturbance is</p>	<p>The primary mitigation measure employed by the Applicant is avoidance through the application of Archaeological Exclusion Zones (AEZ) around all known heritage assets. As such, for known heritage assets there is no pathway for change to the significance of those heritage assets.</p>

ID	Relevant Representation	Applicant's Response
	<p>essential and will reduce the loss of knowledge and understanding, but it cannot reduce the actual harm. We therefore do not agree with the downgrading of residual impact and concluding residual effects as 'not significant' in EIA terms.</p>	<p>Where the archaeological interest of a heritage asset is uncertain, a Temporary Archaeological Exclusion Zones (TAEZ) has been recommended which will either be formalised as AEZs, should further investigation demonstrate the presence of material of archaeological significance, or removed if further investigation confirms that the 'potential' heritage asset is not of archaeological significance.</p> <p>The assessment (Chapter 15 Marine Archaeology and Cultural Heritage (APP-052)) also considers the impacts to heritage assets which have not yet been discovered (potential heritage assets). In order to reduce, as far as possible, the potential for unexpected discoveries and unintended impacts, the Outline Offshore Written Scheme of Investigation (WSI) (APP-154) sets out the approach to further investigation which includes detailed archaeological assessment and interpretation of geophysical and geotechnical data.</p> <p>For any 'new heritage assets' identified during further investigation then the primary approach would also be avoidance through the of further AEZs.</p> <p>In some cases, it will be possible to record and relocate archaeological material with a residual effect of minor significance. For example, recording and relocation of an anchor of medium</p>

ID	Relevant Representation	Applicant's Response
		<p>archaeological importance would result in a change of low adverse magnitude and an effect of minor adverse significance (less than substantial harm).</p> <p>For archaeological material of higher archaeological importance (e.g. a wreck or aircraft crash site) the preference would be avoidance.</p> <p>Only in exceptional circumstances, where the public benefit would outweigh substantial harm to a heritage asset, would a decision be taken to progress works that could result in an impact of moderate or major significance (significant in Environmental Impact Assessment (EIA) terms).</p> <p>The Applicant also acknowledges, as described in the Environmental Statement (Chapter 15 Marine Archaeology and Cultural Heritage (APP-052)), that although measures would be taken to reduce, as far as possible, the risk of encountering unexpected discoveries, 'new heritage assets' may still be encountered during construction. The application of a Protocol for Archaeological Discoveries is, therefore recommended (as per the Outline Offshore WSI (APP-154)), as a 'safety net' to ensure that such discoveries are promptly reported and addressed.</p> <p>The specific approach to additional mitigation (avoid, reduce, or offset) can only be known once the heritage asset has been discovered, but as</p>

ID	Relevant Representation	Applicant's Response
		<p>this additional mitigation would fundamentally be guided by the significance of that asset, and as such discoveries would be expected to be limited to isolated finds, the residual effects can be anticipated to be no worse than minor adverse significance.</p> <p>Mitigation measures are secured in the draft Development Consent Order (DCO) (APP-012) via Schedule 6 Condition 9(1)e and 9(2).</p> <p>This matter was discussed with Historic England on 29<sup>th</sup> August 2024 and appropriate wording confirming this is not a principal area of disagreement between the Applicant and Historic England will be agreed between the Applicant and Historic England through a Statement of Common Ground (SoCG).</p>
RR-030-05	<p>5. It is appropriate that the Applicant acknowledges the risk that this project could encounter presently unknown elements of the historic environment and therefore any subsequent survey campaigns will be designed and planned in reference to an agreed archaeological Written Scheme of Investigation (WSI), to specify the methodological approaches to be followed. We will therefore provide further comment on the Outline Offshore WSI for archaeology submitted by the Applicant [Applicant Document Ref: 6.10; PINs Ref: APP-154]. We hereby confirm that the production of a scheme specific Offshore WSI is required, as conditioned within the deemed Marine Licence (Schedule 6) of the draft Development Consent Order [Applicant Document Ref: 3.1; PINs Ref: APP-012].</p>	<p>The Applicant notes this response.</p>

ID	Relevant Representation	Applicant's Response
RR-030-06	6. Regarding the assessment included in Chapter 15 about whether the proposed project would be visible from the designated heritage assets along the English coastline, and if its presence could detract from their archaeological, historic, and architectural interest, we are minded to concur with the conclusions offered by the Applicant.	The Applicant notes this response.
RR-030-07	7. We will provide further comment through our Written Representation for any other matters that are relevant to the historic environment to ensure that this project is most appropriately aligned with expectations set out in national policy.	The Applicant notes this response.

## 2.5 Marine Management Organisation (MMO) (RR-047)

*Table 2.5 The Applicant's comments on the MMO's Relevant Representation (RR)*

ID	RR	Applicant's Response
<b>Introduction</b>		
RR-047-01	<p>Planning Act 2008, bp Alternative Energy Investments Ltd, Proposed Morgan Offshore Windfarm Generation Assets Order</p> <p>This document comprises the Marine Management Organisation's ("MMO") initial comments in respect of the above Development Consent Order application ("DCO Application") in the form of a relevant representation.</p> <p>This is without prejudice to any future representation the MMO may make about the DCO Application throughout the Examination process. This is also without prejudice to any decision the MMO may make on any associated application for consent, permission, approval or any other type of authorisation submitted to the MMO</p>	<p>The Applicant notes this response. Please also note that the Development Consent Order (DCO) Application seeks authorisation for the construction, operation and maintenance of Morecambe Offshore Windfarm Generation Assets and not the proposed Morgan Offshore Windfarm Generation Assets, as described in the Marine Management Organisation (MMO) response.</p>

ID	RR	Applicant's Response
	either for the works in the marine area or for any other authorisation relevant to the proposed development.	
RR-047-02	The MMO was established by the Marine and Coastal Access Act 2009 (the "2009 Act") to make a contribution to sustainable development in the marine area and to promote clean, healthy, safe, productive and biologically diverse oceans and seas.	The Applicant notes this response.
RR-047-03	The responsibilities of the MMO include the licensing of construction works, deposits and removals in English inshore and offshore waters and for Northern Ireland offshore waters by way of a marine licence. Inshore waters include any area which is submerged at mean high water spring ("MHWS") tide. They also include the waters of every estuary, river or channel where the tide flows at MHWS tide. Waters in areas which are closed permanently or intermittently by a lock or other artificial means against the regular action of the tide are included, where seawater flows into or out from the area.	The Applicant notes this response.
RR-047-04	In the case of NSIPs, the Planning Act 2008 (the "2008 Act") enables DCO's for projects which affect the marine environment to include provisions which deem marine licences. As a prescribed consultee under the 2008 Act, the MMO advises developers during pre-application on those aspects of a project that may have an impact on the marine area or those who use it. In addition to considering the impacts of any construction, deposit or removal within the marine area, this also includes assessing any risks to human health, other legitimate uses of the sea and any potential impacts on the marine environment from terrestrial works.	The Applicant notes this response.
RR-047-05	Where a marine licence is deemed within a DCO, the MMO is the delivery body responsible for post-consent monitoring, variation, enforcement and revocation of provisions relating to the marine environment. As such, the MMO has a keen interest in ensuring that provisions drafted in a deemed marine licence ("DML") enable the MMO to fulfil these obligations.	The Applicant notes this response.

ID	RR	Applicant's Response
	<p>Further information on licensable activities can be found on the MMO's website here. Further information on the interaction between the Planning Inspectorate and the MMO can be found in our joint advice note 11 Annex B here.</p>	
RR-047-06	<p>On the 28 June the MMO received notice under Section 56 of the Planning Act 2008 (the "PA 2008") that the Planning Inspectorate ("PINS") had accepted an application made by bp Alternative Energy Investments Ltd, (the "Applicant") for a DCO Application (MMO ref: DCO/2022/00001 PINS ref: EN010121).</p> <p>The DCO Application includes a draft development consent order (the "DCO") and an Environmental Statement (the "ES"). The draft DCO includes, at Schedule 6 draft Deemed Consent under Part 4 (Marine Licensing) of the Marine and Coastal Access Act 2009 (the "Deemed Marine Licence") (DML).</p> <p>The DCO Application seeks authorisation for the construction, operation and maintenance of Morecambe Offshore Windfarm Generation Assets located approximately 30 kilometres (km) from the Lancashire coast; comprising of up to 35 wind turbine generators, all associated array area infrastructure and all associated development ("the "Project").</p> <p>Please find the MMO comments below.</p>	<p>Noted, please also note that the Applicant here is Morecambe Offshore Windfarm Ltd and not bp Alternative Energy Investments Ltd (bp) as described, and the DCO Application seeks authorisation for the construction, operation and maintenance of Morecambe Offshore Windfarm Generation Assets.</p>
RR-047-07	<p>Morecambe Offshore Windfarm Generation Assets is a proposed offshore windfarm located approximately 30 kilometres (km) from the Lancashire coast, England.</p>	<p>The Applicant notes this response.</p>
RR-047-08	<p>The windfarm Agreement for Lease area awarded by The Crown Estate spans 125 km<sup>2</sup>. The proposed windfarm site development area has been reduced to approximately 87km<sup>2</sup>. All project infrastructure will be located within the 87km<sup>2</sup> windfarm site. The project consists of up to 35 Wind Turbine Generators (WTGs), up to</p>	<p>The Applicant notes this response.</p>



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	two Offshore substations (OST), their associated foundations and platform link cables. Inter-array cables. Scour protection around foundations and subsea cable protection where required.	
RR-047-09	One DML is included in the draft DCO. The DML relates to offshore (WTG) and Associated Infrastructure and Associated Development.	The Applicant notes this response.
<b>Draft DCO</b>		
RR-047-10	MMO has reviewed the draft DCO and provided comments below. MMO are currently undertaking a detailed review and will produce further comments on the DCO at Deadline 1 and during the course of the examination.	The Applicant notes this response and looks forward to receiving further comments on the draft DCO and Deemed Marine Licence (DML) at Deadline 1.
RR-047-11	The MMO requests that the details of licensed marine activities of the DML should include exact coordinates.	Noted. The revised draft DML submitted as part of the Draft DCO at Procedural Deadline A has added exact coordinates.
RR-047-12	<p>Section 2(d) states:</p> <p>‘the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation’</p> <p>The MMO notes that geophysical surveys may require a separate licence. If so the wording in 2(d) must be clear that such activities are excluded from this licence</p>	The Applicant notes that the removal of sediment samples was included in section 2 in error and, as such, this has been deleted in the revised draft DML submitted at Procedural Deadline A.
RR-047-13	<p>Section 8 states:</p> <p>“With respect to any condition which requires the licensed activities be carried out in accordance with the details, plans or schemes approved under this licence, the approved details, plans or schemes are taken to include any amendments that may subsequently be approved in writing by the MMO”</p>	The Applicant considers that this additional text is not required as it is secured by paragraph 9(1) of Part 1 (Licensed marine activities of Schedule 6 (Deemed Marine Licence under the 2009 Act: Morecambe Offshore Windfarm Generation Assets) to the draft DCO (APP-012).

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	<p>The MMO recommends that the following be included in addition:</p> <p>“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 do not give rise to any materially new or materially different environmental effects to those assessed in the environmental information.”</p>	
RR-047-14	<p>Details of the marine license activities 9(1) states:</p> <p>“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 statement. Such agreement may only be given where it has been demonstrated to the satisfaction of the MMO that it is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.”</p> <p>Due to a lack of regulatory certainty and risk of applying lower standards than those approved in the environmental statements the above wording should be amended to the following:</p> <p>“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 to will not give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.”</p>	<p>The Applicant does not consider that the wording proposed in paragraph 9(1) of Part 1 (Licensed marine activities of Schedule 6 (DML under the 2009 Act: Morecambe Offshore Windfarm Generation Assets) to the draft DCO (APP-012) lacks regulatory certainty or risks applying a lower standard than those approved in the Environmental Statement (ES). The proposed condition reflects the wording used in the environmental impact assessment process (of ‘likely’ significant effects).</p> <p>Additionally, the wording of paragraph 9(1) proposed by the Applicant reflects the wording used in other offshore wind precedents, including the Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024, the East Anglia ONE North Offshore Wind Farm Order 2022, the East Anglia TWO Offshore Wind Farm Order 2022, the Norfolk Vanguard Offshore Wind Farm Order 2022 and the Norfolk Boreas Offshore Wind Farm Order 2021.</p>
RR-047-15	<p>The MMO requests that the conditions include a sediment sampling plan.</p>	<p>As noted in the Sediment Disposal Site Characterisation Report (APP-024), the Applicant plans to designate the entirety of the windfarm site as</p>

ID	RR	Applicant's Response
		<p>a disposal area. The Sediment Disposal Site Characterisation Report (APP-024) includes details on sampling that was carried out during the pre-application process. No further sampling is considered to be required.</p> <p>As such, the Applicant does not consider that a DML condition is required.</p>
RR-047-16	<p>The MMO requests that a reporting condition in relation to 'Reporting of Impact Pile Driving/Detonation of Explosives' for reporting to the Marine Noise Registry is included.</p>	<p>Noted. The Applicant has added a new condition 19 (Marine Noise Registry) in the DML submitted with the updated draft DCO at Procedural Deadline A. As unexploded ordnance clearance and detonation of explosives are not licensable activities for the purposes of the application, the proposed reporting condition is in only in relation to pile driving.</p>
RR-047-17	<p>Condition 2(3) states:</p> <p>"No maintenance works authorised by this licence may be carried out until an offshore operation and maintenance plan substantially in accordance with the outline offshore operation and maintenance plan has been submitted to and approved by the MMO in writing"</p> <p>The MMO notes that whilst it is helpful that the maintenance plan must be approved by the MMO, it does not indicate that the maintenance works should be undertaken in accordance with this. The MMO request that the additional wording is included for confirmation:</p> <p>"All maintenance works must be carried out in accordance with the approved operations and maintenance plan unless otherwise agreed in writing by the MMO."</p>	<p>Noted. This has been added (with a minor change to refer to the 'offshore operation and maintenance plan' to reflect the document title) as a new sub-paragraph (4) to Condition 2 of the DML submitted with the updated draft DCO at Procedural Deadline A.</p>

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RR-047-18	<p>Condition 7(6) states:            “The undertaker must ensure that any rock material used in the construction of the authorised project is from a recognised source, free from contaminants and containing minimal fines.”</p> <p>The MMO requests the following is included in addition:</p> <p>“Details of the source of the rock materials to be used must be submitted to the MMO at least six weeks prior to the commencement of the licenced activity. The licenced activity [or specific activity] must not commence until written approval is provided by the MMO”</p>	<p>The Applicant does not consider that condition 7(6) requires to be updated.</p> <p>The wording of condition 7(6) reflects the wording used in other offshore wind precedents, including the Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024, the East Anglia ONE North Offshore Wind Farm Order 2022, the East Anglia TWO Offshore Wind Farm Order 2022, the Norfolk Vanguard Offshore Wind Farm Order 2022 and the Norfolk Boreas Offshore Wind Farm Order 2021.</p>
RR-047-19	<p>Condition 7(10) states:</p> <p>“All dropped objects which may reasonably be expected to cause a hazard in the marine environment must be reported to the MMO using the Dropped Object Procedure Form as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident. On receipt of the Dropped Object Procedure Form the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the seabed at the undertaker’s expense if reasonable to do so.”</p> <p>The MMO requests condition 7(10) is amended to the following:            “(1) The undertaker must report all dropped objects to the MMO using the dropped object procedure form as soon as reasonably practicable and in any event within 24 hours of becoming aware of an incident.</p>	<p>The Applicant does not consider that condition 7(10) requires to be updated.</p> <p>While noting that the MMO’s preferred wording has been included in several offshore wind DMLs, the Applicant considers that the wording proposed by the MMO is too wide. It places an unnecessary burden on the Applicant to report even minor, immaterial instances of dropped objects. The Applicant considers a pragmatic and proportionate approach must be taken and only considers dropped objects which may reasonably be expected to cause a hazard in the marine environment to be those to which the MMO’s dropped objects procedure should apply.</p>

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	<p>(2) On receipt of the dropped Object Procedure Form, the MMO may require, acting reasonably, the undertaker to carry out relevant surveys. The undertaker must carry out surveys in accordance with the MMO's reasonable requirements and must report the results of such surveys to the MMO.</p> <p>(3) On receipt of such survey results, the MMO may, acting reasonably, require the undertaker to remove specific obstructions from the seabed. The undertaker must carry out removals of specific obstructions from the seabed in accordance with the MMO's reasonable requirements and at its own expense."</p>	
RR-047-20	<p>The MMO does not consider that condition 8 Force majeure is necessary as it duplicates section 86 of the 2009 Act. The defence under Section 86 of MCAA has two limbs, and in the event that the undertaker fails to notify the appropriate licensing authority, in this case the MMO, within a reasonable time of their actions (Section 86(2) "matters") the defence cannot be relied upon in the event of any enforcement action. Therefore, the MMO recommends that this condition should be removed.</p> <p>In the event that you maintain that the proposed provision does not duplicate Section 86 MCAA and instead introduces a reporting requirement which did not previously exist, the MMO require that it should be made clear that this provision is in addition to Section 86 and its requirements. If this is included the follow paragraph must also be included:</p> <p>"The unauthorised deposits must be removed at the expense of the undertaker unless written approval is obtained from the MMO."</p>	<p>Condition 8 (force majeure) serves a slightly different purpose to section 86 of the Marine and Coastal Access Act 2009. Condition 8 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> <p>The Applicant has added a new sub-paragraph (2) to include the wording proposed by the MMO in the version of the DML submitted with the updated draft DCO at Procedural Deadline A.</p>

ID	RR	Applicant's Response
RR-047-21	<p>The MMO requests that the inclusion of archaeological reports in within condition 9. The correct statutory historical body should be included as well as details of what the report should include.</p>	<p>Condition 9(1)(f) (pre-construction plans and documentation) requires the submission and approval of an offshore archaeological Written Scheme of Investigation (WSI) (in accordance with the outline offshore WSI (APP-154)). This includes archaeological reports (sub-paragraph (vii)) and also makes provision for Historic England to be notified (sub-paragraph (vi)).</p> <p>The Applicant does not consider that any further text is needed.</p>
RR-047-22	<p>Condition 13 states:</p> <p>“The undertaker must provide the following information in writing to the MMO—</p> <p>(a) the name, function, company number (if applicable), registered or head office address (as appropriate) of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and (b) each week during the construction of the authorised project a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.”</p> <p>The MMO suggests the condition 13(1) is amended to the following for clarity:</p> <p>“The undertaker must provide the name, address and function of any agent, contractor or subcontractor that will carry out any licenced activity listed in this license on behalf of the undertaker to the MMO in writing no less than 24 hours before the agent, contractor or subcontractor carries out any licensed activity.</p>	<p>The Applicant has amended condition 13 to reflect the wording that the MMO has proposed, subject to other amendments made for consistency with the existing text of condition 13. This has been incorporated in the version of the DML submitted with the updated draft DCO at Procedural Deadline A.</p>

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	<p>Any changes to the name and function of the specified agent, contractor or subcontractor that will carry out the specified licenced activities must be notified to the MMO in writing prior to the agent, contractor or subcontractor carrying out the licensed activity.</p> <p>The undertaker must ensure that a copy of this licence and any subsequent revisions or amendments has been provided to any agents, contractors or subcontractors that will carry out the licensed activity on behalf of the undertaker prior to them carrying out any licensed activity.”</p>	
RR-047-23	<p>The provisions under article 7 Benefit of the Order are of concern to the MMO. The MMO requests that any reference to the MMO and DML should be removed from this article for transfer of the benefit of the DCO.</p>	<p>Article 7 of the draft DCO (APP-012) contains provisions for the transfer or lease of the provisions under the DCO. As set out in the Explanatory Memorandum (APP-013), these provisions are based on the Model Provisions, and the drafting has developed through the inclusion of a similar article 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 (SoS) and for this transfer or grant to take place without the need for consent in the circumstances specified in paragraph 7(5). Both of the circumstances set out in Article 7(2) allow for the transfer or grant of powers under the DML. Article 7(3) 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 the DML. This ensures that the MMO has the</p>

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		<p>opportunity to participate in any decision to transfer or lease made under Article 7.</p> <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 DML. 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 SoS many times, including most recently in the Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024. Where a transfer of the DML 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 a procedural perspective it is important that the DCO and the DML 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 DML be aligned, as there is considerable overlap between the authorisations and the requirements/ conditions. In practice, the most common transfer scenario is when the offshore transmission infrastructure is transferred to the separate Offshore Electricity Transmission (OFTO) licence-holder following a public tender exercise via Ofgem, and it is important that an OFTO licence-holder have certainty that all consents,</p>



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		licences and permits will transfer concurrently via the same approval process.
RR-047-24	<p>The MMO does not accept that arbitration clauses should apply to the organisation this would circumnavigate the existing statutory provisions within the 2009 Act. The MMO requires the following be included in addition:</p> <p>“For the avoidance of doubt any matter for which the consent or approval of the Secretary of state or the Marine Management Organisation is required under any provision of this Order is not subject to arbitration.”</p>	<p>This text is already included in Article 15(2) (arbitration) of the draft DCO (APP-012). Schedule 5 (arbitration rules) only applies to matters that are subject to arbitration pursuant to Article 15, which does not include matters which fall within the remit of the MMO. The Applicant does not consider any further changes are required.</p>
RR-047-25	<p>This section applies to all ‘discharging authorities’ which are defined as “the body responsible giving any consent, agreement or approval required by a requirement included in Part 2 (requirements) of Schedule 2”. It is not clear whether the MMO would be responsible for giving any of these approvals.</p> <p>If the MMO would constitute a discharging authority, the MMO has concerns regarding the Part 3 Schedule 4 Approval of matters specified in requirements applications, which requires the discharging authority to give notice of its decision on an application within a fixed period, and schedule 5 appeals procedure, which the MMO are concerned may conflict with of seek to circumnavigate existing procedures for appeals within the 2009 Act.</p>	<p>As provided in Article 14 (requirements, appeals, etc.), Schedule 4 (approval of matters specified in requirements) only has effect in relation to agreements or approvals in connection with the requirements set out in Schedule 2 (requirements). Article 14, and by extension Schedule 4, do not apply to the DML or any conditions therein.</p> <p>The MMO does not constitute a discharging authority for any of the DCO requirements in Part 2 (requirements) of Schedule 2 and, accordingly, Article 14 and Schedule 4 do not apply to the MMO.</p> <p>The Applicant notes the reference to “schedule 5 appeals” and presumes this should be a reference to “schedule 5 arbitration rules”. Reference is made to response RR-047-24 above which confirms that Schedule 5 does not apply to the MMO.</p>

ID	RR	Applicant's Response
<b>Draft MMMP (APP-149) and Appendix 11.3 Marine Mammal Unexploded Ordnance Assessment (APP-067)</b>		
RR-047-26	<p>In paragraph 79 of the draft (MMMP) it states, “Bubble curtains could be deployed for UXO detonation; however, it should be noted that there are likely to be limits to the environmental conditions within which they are able to provide effective mitigation”. The MMO and Cefas note that bubble curtains will be a mandatory requirement for any high-order clearance operations.</p>	<p>The Applicant acknowledges the requirement for bubble curtains for high order Unexploded Ordnance (UXO) clearance.</p> <p>Mitigation for UXO clearance would be agreed via a separate marine licence for UXO clearance in accordance with mandatory requirements, noting that there are limits to the environmental conditions in which bubble curtains can be deployed to ensure the effectiveness.</p>
RR-047-27	<p>Further, Section 3.1.4 paragraph 143 regarding breaks in piling states</p> <p>“for any breaks in piling of less than 10 minutes, piling may continue as required (i.e. as if there was no break). For any breaks in piling of more than 10 minutes, but less than two hours, then the piling can recommence with a reduced soft- start procedure (e.g. five to six blows of the hammer at the starting hammer energy) before continuing as required, provided there are no marine mammals within the Management Area”.</p> <p>The JNCC (2010) guidance recommends that if there is a pause in piling operations for a period of greater than 10 minutes, then the pre-piling search and soft-start procedure should be repeated before piling recommences. If a watch has been kept during the piling operation, the Marine Mammal Observer or Passive Acoustic Monitoring Operative should be able to confirm the presence or absence of marine mammals, and it may be possible to commence the soft-start immediately. However, if there has been no watch, the complete pre-piling search and soft-start procedure should be undertaken. The guidance recommends that the soft-start duration</p>	<p>The Applicant acknowledges the request, however notes that the wording proposed by the Applicant has previously been agreed for other offshore windfarm projects, including Dogger Bank A and Dogger Bank B.</p> <p>The Applicant notes finalisation of wording in the Marine Mammal Mitigation Protocol (MMMP) would be undertaken post-consent alongside developed Project design information, in the event that piled foundations are selected as part of detailed design for the Project.</p>

ID	RR	Applicant's Response
	<p>should be a period of not less than 20 minutes. Any requested variation from a 20-minute soft-start should be agreed with the relevant agency and regulator. The MMO and Cefas request that the guidance is adhered to, and the full soft start is implemented (not 5 to 6 blows at the starting hammer energy as is proposed in the MMMP).</p>	
RR-047-28	<p>Table 3.1 in the MMMP presents cumulative sound exposure Level (SELcum) modelled impact ranges for piling of both monopile and pin-pile at the worst- case (south west) location. The MMMP refers the reader to Appendix 11.1 of the ES (Document Reference 5.2.11.1) for more details, which describes the underwater modelling undertaken. Please note that the impact ranges presented in Table 3.1 are vastly different to those presented in Appendix 11.1 (see Table 4-22 in Appendix 11.1 for example which presents the impact ranges for monopiles and Annex 7.1 and 7.2 of this document). These discrepancies must be checked and clarified.</p>	<p>Table 3.1 in the draft MMMP (APP-149) lists the worst-case impact ranges for the Project based on the maximum strike rate scenario listed in Appendix B of Appendix 11.1 Underwater Noise Assessment (APP-065) and would be the worst-case impact range to be mitigated. There is no discrepancy, but it is noted that Appendix 11.1 Underwater Noise Assessment (APP-065) also presents the lower strike rate scenario.</p>
RR-047-29	<p>With regard to Appendix 11.3 Marine Mammal Unexploded Ordnance Assessment, the MMO and Cefas note a minor discrepancy. In Table 4.8 and 4.9, the PTS (permanent threshold shift) and TTS (temporary threshold shift) criteria for UXO (unexploded ordnance) are based on the SPLpeak (peak sound pressure level) metric, and the SELss (single strike sound exposure level) metric, not the SELcum.</p>	<p>Noted, the error in the heading has been updated in The Applicant's Errata Sheet (Document Reference 8.4), submitted alongside this document at Procedural Deadline A.</p>
RR-047-30	<p>Further, Table 5-1 confirms that 616 individual harbour porpoise are at risk of PTS during high-order detonation (353.6 kg Net Explosive Quantity (NEQ) plus donor charge) but this has been assessed as having a 'Medium' magnitude. For Low-Order clearance, 7 individual harbour porpoise are at risk of PTS, and this has also been assessed as having 'Medium' magnitude. The MMO and Cefas question whether 'Medium' magnitude is appropriate for the high-order assessment. The MMO and Cefas understand that this scoring is based on the fact that 1% of the reference population is</p>	<p>Noted, 0.986% will be rounded up to 1% and the magnitude will be amended from medium to high. This will be updated accordingly in a separate technical note to be submitted at Deadline 1. It is noted that the precautionary change in magnitude from medium to high would not change the overall significance and conclusions of the assessment.</p>

ID	RR	Applicant's Response
	<p>anticipated to be exposed (which is 0.986 % of the Celtic and Irish Sea (CIS) Management Unit (MU) according to Table 5-1).</p>	
RR-047-31	<p>Following on from the previous point, the MMO and Cefas also question the Magnitude scoring in Table 5.2. Table 5-2 confirms that 2,037 individual harbour porpoise are at risk of TTS during high-order detonation, but this has been assessed as only having a 'Low' magnitude (with 3.3 % of the CIS MU anticipated to be at risk of TTS).</p>	<p>As outlined in Appendix 11.3 Marine Mammal UXO Assessment (APP-067) Table 4.3 the definition of impact magnitude for a marine mammal receptor, a 3.3% population level impact falls within the 'Low' magnitude category for an intermittent and temporary effect.</p>
RR-047-32	<p>With regard to Section 5.2, 'Disturbance from underwater noise associated with UXO clearance', Cefas and the MMO do not support the use of TTS as a proxy for disturbance. Therefore, the MMO and Cefas disagree with paragraph 84 that "the use of the TTS threshold was appropriate for UXO disturbance because the noise from the UXO explosion would be only fleetingly in the environment". TTS constitutes a temporary reduction in the sensitivity of the auditory system. The characteristics of TTS are distinct from behavioural disturbance, in which an animal changes its behaviour in response to a stimulus. There is no cognitive impairment implicit in behavioural responses. TTS typically occurs at much higher sound exposures than the onset of behavioural disturbance, and so if behavioural disturbance is assumed to occur only at sound exposures where TTS would occur, this is likely to significantly underestimate the risk of disturbance.</p>	<p>There are no agreed thresholds for the onset of a behavioural response from underwater noise generated by explosions during UXO clearance activities. Empirically-derived relationships between noise levels and the probability of a response to pile driving noise (i.e. the 26km Effective Deterrence Radius (EDR)) are not appropriate to apply here due to the very different nature of the sound. Other assessments of UXO clearance activities have used the Temporary Threshold Shift (TTS)-onset threshold to indicate the level at which a 'fleeing' response may be expected to occur in marine mammals. This is a result of discussion in Southall <i>et al.</i> (2007) which states that in the absence of empirical data on responses, the use of the TTS-onset threshold may be appropriate for single pulses (like UXO detonation): <i>"Even strong behavioural responses to single pulses, other than those that may secondarily result in injury or death (e.g., stampeding), are expected to dissipate rapidly enough as to have limited long-term consequence. Consequently, upon exposure to a single pulse, the onset of significant behavioural disturbance is proposed to occur at the lowest level of noise exposure that has a measurable transient effect on hearing (i.e., TTS-onset). We</i></p>

ID	RR	Applicant's Response
		<p><i>recognize that this is not a behavioural effect per se, but we use this auditory effect as a de facto behavioural threshold until better measures are identified. Lesser exposures to a single pulse are not expected to cause significant disturbance, whereas any compromise, even temporarily, to hearing functions has the potential to affect vital rates through altered behaviour” (Southall et al., 2007). Therefore, an estimation of the extent of behavioural disturbance is based on the sound levels at which the onset of TTS is predicted to occur from impulsive sounds. TTS thresholds are taken as those proposed for different functional hearing groups by Southall et al. (2019).</i></p> <p>It is noted that UXO clearance is not part of the DCO Application and assessment was provided for information, noting a marine licence application for UXO clearance, if required, would be made separate from the DCO Application.</p>
RR-047-33	<p>To quantify the risk of behavioural responses where there are no better alternatives, the effective deterrence ranges (EDRs) in place for noise management in harbour porpoise Special Areas of Conservation (SACs) could be used instead. Since harbour porpoise are relatively skittish and sensitive to underwater noise, the EDRs are likely to be conservative for other marine mammal species and are therefore a suitably precautionary option in the absence of other data (unlike using TTS as a proxy for disturbance). Thus, the MMO and Cefas welcome that the 26km EDR, as per the Statutory Nature Conservation Bodies (SNCB) guidance (JNCC et al., 2020) has also been considered in the assessment for harbour porpoise and disturbance. A 5km potential disturbance range for low-order</p>	<p>The Applicant acknowledges this response, noting, as stated in the draft MMMP (APP-149), the final MMMP for UXO clearance would be submitted for approval under a future marine licence application, separate from the DCO Application.</p> <p>As outlined in Southall et al. (2021) thresholds that attempt to relate single noise exposure parameters (e.g., received noise level) and behavioural response across broad taxonomic grouping and sound types could lead to severe errors in predicting effects. Differences between species, individuals, exposure, situational context, the temporal and spatial scales</p>

ID	RR	Applicant's Response
	<p>clearance, for all marine mammal species, has also been considered (JNCC, 2023) and includes vessels associated with the activity.</p>	<p>over which they occur, and the potential interacting effects of multiple stressors could lead to inherent variability in the probability and severity of behavioural responses. The 26km EDR is based on harbour porpoise disturbance for piling activities and is also used for high order clearance “<i>despite there being no empirical evidence of harbour porpoise avoidance</i>” (JNCC <i>et al.</i>, 2020). Consequently, this EDR may not accurately represent UXO clearances. Applying this EDR to other species is deemed overly conservative and could lead to an overestimate of potential effect for other species. TTS has been used as a proxy for disturbance for assessing disturbance from high order UXO clearance for species where there is no recommended EDRs such as for dolphins, for other offshore windfarm projects such as Seagreen Offshore Wind Farm, Sheringham and Dudgeon Extension Projects, and Dogger Bank South Offshore Wind Farm Projects.</p>
RR-047-34	<p>Additionally, Section 5.2, paragraph 90 states “In addition, the MMMP for UXO clearance will include ADD (acoustic deterrent device) activation prior to all UXO clearances, to ensure marine mammals are beyond the maximum potential impact range for PTS”. There is no certainty or guarantee that animals will be deterred beyond the maximum impact ranges. In fact, the assessment later highlights in para 98 that “as per ADD review in the JNCC report No. 615 (McGarry <i>et al.</i>, 2022), the ranges of deterrence distances can vary significantly from only a few meters to several kilometres (approximately 6km for VHF cetacean); these differed between devices and dependent on the acoustic properties of the environment (Rosemeyer <i>et al.</i>, 2021)”. Although an indicative assessment has been provided, the MMO and Cefas request that</p>	<p>The Applicant acknowledges this response, noting, as stated in the draft MMMP (APP-149), the final MMMP for UXO clearance would be submitted for approval under a future marine licence application, separate from the DCO Application. The Applicant will apply this advice when reviewing mitigation measures during the submission of the UXO clearance marine licence once further details of the proposed UXO works are known.</p>

ID	RR	Applicant's Response
	the ADD activation times (and mitigation in general) are revisited once further details of the proposed UXO works are known.	
<b>Outline PEMP (APP-146) and IPMP (APP-148)</b>		
RR-047-35	The MMO and Cefas do not have any major comments on the Outline Project Environmental Management Plan (PEMP).	The Applicant notes this response.
RR-047-36	The MMO and Cefas welcome further assessment be conducted prior to construction, based on the foundation type and installation method, to determine if there is the risk of significant disturbance to marine mammals. This would then be used to determine if further mitigation measures which reduce sound propagation and disturbance are required. If they are required, then a review would be conducted to determine what is the most appropriate and effective method based on the latest and available methods prior to construction. This would include a review of all suitable noise abatement measures at that time.	<p>Noted, confirmation of requirements for mitigation would be agreed post-consent during the finalisation of the MMMP which is secured in Condition 9(1)(i) of Schedule 6 of the Draft DCO (APP-012).</p> <p>The Applicant is planning appropriately for the potential requirement for noise abatement systems (NAS), and this will be one of the options considered when developing the MMMP.</p>
RR-047-37	The MMO and Cefas does not have any major comments in regard to the IPMP.	The Applicant notes this response.
RR-047-38	The MMO and Cefas welcome that the final design and scope of monitoring will be agreed with the relevant stakeholders and included within the final Monitoring Plan submitted for approval.	Noted, confirmation of requirements for monitoring would be agreed post-consent during the finalisation of the Monitoring Plan.
RR-047-39	Regarding potential disturbance resulting from underwater noise during piling activities, Table 2.3 states that in order to test key areas within the ES and Report to Inform Appropriate Assessment (RIAA), the purpose of this potential monitoring would be to research the behavioural response of marine mammals to different construction activities, including from mitigations (e.g. ADDS). This could be undertaken through either acoustic methods or through visual methods during Project required mitigation (e.g. Marine Mammal Observers (MMO) and Passive Acoustic Monitoring (PAM)).	Noted, confirmation of requirements for monitoring would be agreed post-consent during the finalisation of the Monitoring Plan.

ID	RR	Applicant's Response
<b>General comments</b>		
RR-047-40	<p>MMO has focused its review on the following chapters of the Morecambe Offshore Windfarm: Generation Assets, Environmental Statement, volume 5.</p> <p>5.1.1 Volume 5 – Chapter 1 – Introduction</p> <p>5.1.5 Volume 5 - Chapter 5 – Project Description</p> <p>5.1.7 Volume 5 – Chapter 7 – Marine Geology, Oceanography and Physical Processes</p> <p>5.1.9 Volume 5 – Chapter 9 – Benthic Ecology</p> <p>5.1.10 Volume 5 – Chapter 10 – Fish and Shellfish Ecology</p> <p>5.1.11 Volume 5 - Chapter 11 - Marine Mammals</p> <p>5.1.12 Volume 5 - Chapter 12 - Offshore Ornithology</p> <p>5.1.13 Volume 5 - Chapter 13 - Commercial Fisheries</p>	Noted, detailed responses are outlined below per chapter.
<b>Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-044)</b>		
RR-047-41	The MMO has noted that the approximate number of Wind Turbine Generators (WTGs) that will comprise the Morecambe offshore windfarm is a crucial piece of information that is missing from the introduction of the environmental statement (document 5). The MMO understands from the project introduction document the project could comprise 30 'larger' or up to 35 'smaller' WTGs. We recommend these key findings should be provided early in the introduction.	The Applicant's view is that the scenarios are clearly defined within Chapter 5 Project Description (APP-042). Notably, Paragraph 5.20 states " <i>There could be up to 30 'larger' or 35 'smaller' WTGs installed within the windfarm site to generate the nominal export capacity of 480MW.</i> " Further, the worst-case scenarios are outlined in regard to physical processes in Table 7.4 of Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-044).
RR-047-42	The MMO is content that all significant receptors have been included in regard to coastal processes.	The Applicant notes this response.
RR-047-43	The MMO considers that there are no outstanding concerns in relation to this application in regard to coastal processes.	The Applicant notes this response.
<b>Chapter 8 Marine Sediment and Water Quality (APP-045)</b>		



ID	RR	Applicant's Response
RR-047-44	<p>The MMO notes the concentration of contaminants do not indicate any levels of concern and the suspended sediment plumes are expected to return to baseline conditions within 1 to 3 days and the magnitude of those impacts was assessed as negligible adverse effect on water quality. The MMO and Cefas agree with these comments. However, we defer to the Environment Agency to comment on water quality.</p>	<p>The Applicant notes this response.</p>
RR-047-45	<p>In section 8.52 the ES states that in OSPAR region III (Celtic Seas) eutrophication is still a problem and reduction in phosphorus discharges exceed the OSPAR target of 50% compared to 1985 but nitrogen discharges were the main problem especially those from agriculture. Additionally, the concentrations of hazardous substances had generally fallen but were still above acceptable concentrations, and historic pollution in aquatic sediments acts as a continued source for releases of persistent chemicals. However, there is no indication of why pesticides (OCs) and other resistant chemicals like brominated flame retardants (PBDEs) were not included in the list of contaminants analysed for. You should provide justification as to why these contaminants were omitted from assessment for the characterisation and estimation of risk from release of dredged/disturbed sediment given the comments made in the ES regarding continuing OSPAR concern regarding persistent contaminants.</p>	<p>The parameters mentioned tend to be found in estuarine and coastal sediments as they are associated with land-based activities. Flame retardants, for example, are discharged via point sources such as via sewage discharges (as reported by the Environment Agency polybrominated-diphenyl-ethers-pressure-rbmp-2021.pdf (environment-agency.gov.uk)) and landfills leaching. Therefore, they are much more likely to be found in coastal/estuarine sediments rather than in offshore environments. The site-specific data as reported in Sections 8.69 to 8.72 of Chapter 8 Marine Sediment and Water Quality (APP-045) confirms overall pollutant levels to be very low in the sediments therefore it is very unlikely that there would be elevated levels of other pollutants which are associated with land-based sources.</p> <p>Furthermore, consultation via the Evidence Planning Process (see Appendix A of the Consultation Report (APP-016) with representatives from both the MMO and Centre for Environment, Fisheries and Aquaculture Science (Cefas) did not raise any concerns with the parameters analysed and reported</p>

ID	RR	Applicant's Response
		when presented with the list of determinants and results.
RR-047-46	<p>The MMO and Cefas request that section 8.61 be clarified to include the types of chemical analyses performed on samples (e.g. metals, PAHs, PCBs etc.) and which if any together with the location of those samples that exceeded AL (action level) 2, as stating there were no significant exceedance of AL2 does not provide adequate explanation of the contamination present. The MMO and Cefas are not suggesting these analyses are undertaken but require reasons as to why they were not selected.</p>	<p>Section 8.61 of Chapter 8 Marine Sediment and Water Quality (APP-045) relates to sediment data collected for other projects: Walney Extension IV Offshore Wind Farm (Dong Energy, 2013) (approximately 18.8km from the Project) and West of Duddon Sands offshore windfarms (Dong Walney (UK) Limited, 2006) (approximately 12.9km from the Project). Given the age of the Environmental Impact Assessment (EIA)s, distance to the Morecambe array area and age of the data, the MMO are guided to the site-specific data presented in sections 8.69 to 8.72 which was collected within the Morecambe array area and much more recently, in 2022. This data did not show any exceedances of Cefas Action Level (AL) 1 for any of the parameters for which analysis was undertaken and is considered the best and most relevant evidence regarding levels of contamination present that could potentially be disturbed. This aligns with MMO comment ID RR-047-45.</p>
RR-047-47	<p>The MMO and Cefas note that comparison of levels of arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc to Canadian quality standards should not be undertaken as the methods used to produce the results are not directly comparable in that the Canadian sediment quality guidelines use normalised metals analysis and likely a different digestion to that of the methods used for production of results of dredge material for determination of suitability for disposal for comparison to the UK Action Levels (e.g. aqua regia/nitric digest, no sieving, no normalisation).</p>	<p>Noted. The appropriate comparison against United Kingdom (UK) actions levels has been undertaken (MMO, 2015) (see Paragraph 8.25 of Chapter 8 Marine Sediment and Water Quality (APP-045)).</p>

ID	RR	Applicant's Response
<b>Chapter 5 Project Description (APP-042)</b>		
RR-047-48	<p>You have suggested that for scour protection 'bagged solutions filled with grout or other materials. Protective aprons, mattresses with or without frond devices, and rock, concrete and gravel placement' (Chapter 5 section 5.53). Bags or mattresses may contain plastics. Concrete mattresses maybe linked polypropylene rope lattice, and artificial fronds mattresses made of continuous lines of overlapping buoyant fronds consisting of polypropylene or similar have been used in the marine environment over the years. Placing plastic infrastructure into the marine environment could pose a risk should they degrade.</p> <p>The MMO and Cefas request that the final design of these frond mattresses should be detailed in the offshore construction method statement that will be submitted to and approved by the MMO prior to commencement of development. This can then be secured within the Draft DCO submitted with the application for consent.</p>	<p>The Applicant acknowledges the MMO 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 9(1)(d) of Schedule 6 of the Draft DCO (APP-012).</p>
RR-047-49	<p>In line with OSPAR guidance on the construction operation maintenance and decommissioning of offshore windfarms notification should be given to the regulator where there is potential for chemicals used and or discharged where there is a pathway to the marine environment, including those used within closed systems that require frequent top up should provide full details of the risk and justification for use of chemicals. This guidance includes the use of paints and coatings.</p> <p>In addition, some piles may require pre-drilling (with a maximum drill penetration of 56m) therefore the use of drilling fluids cements or cement additives etc., should be notified to the MMO for approval prior to use (section 5.103).</p>	<p>The Applicant acknowledges the MMO comments.</p> <p>An Offshore Project Environmental Management Plan (PEMP) will be finalised post-consent, to include details of a chemical risk assessment, that shall include information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance.</p> <p>The PEMP is secured in Condition 9(1)(e) of Schedule 6 of the Draft Development Consent Order (APP-012).</p>

ID	RR	Applicant's Response
RR-047-50	For gravity base options where necessary ballast used maybe water or heavy material such as rock or both. It does not say whether there will be any antifouling or biocide used within the gravity base either on installation or potentially required in the future. The MMO request that this be clarified within the ES (section 5.100).	<p>Should water be used as ballast, this would be locally sourced rather than imported, therefore the use of biocide is not considered necessary.</p> <p>The use of antifouling on solid ballast is again considered unnecessary. Implementation of biosecurity measures in line with international and national regulations and guidance will be listed within the PEMP, an Outline of which was submitted as part of the DCO Application (APP-146).</p>
RR-047-51	The use of suction buckets requires pumping grout into the bucket, care should be taken to minimise the use of concrete in the marine environment and prevent the release of grout/cement. Therefore, the construction method statements must include comment on what measures are to be taken to prevent the release of excess grout/cement to the wider environment.	<p>The Applicant acknowledges the MMO comments.</p> <p>An Offshore PEMP will be finalised post-consent, to include details of what measures are to be taken to prevent the release of excess grout/cement to the wider environment as required.</p> <p>The PEMP is secured in Condition 9(1)(e) of Schedule 6 of the Draft Development Consent Order (APP-012).</p> <p>The Offshore Construction Method Statement will be developed through consultation with the MMO and is secured in Condition 9(1)(d) of Schedule 6 of the Draft DCO (APP-012).</p>
RR-047-52	The MMO and Cefas find it encouraging that outline procedures for the management of mud produced during drilling activities or any material from the seabed preparation are to be disposed of in accordance with the limits of the Deemed Marine Licence for	<p>The Applicant acknowledges the MMO comments.</p> <p>The PEMP will include reporting requirements and is secured in Condition 9(1)(e) of Schedule 6 of the Draft DCO (APP-012).</p>

ID	RR	Applicant's Response
	<p>licensed marine activities including disposal location quantities measures for waste concrete etc.</p> <p>Reporting procedures for these were included as part of the Project Environmental Management Plan. The MMO and Cefas note that drilling fluids together with all chemicals with a pathway to the marine environment should be included in plans for reporting.</p>	
RR-047-53	<p>The MMO and Cefas note that if the sandwave clearance material is anticipated to be placed back within the array area you most likely would have to apply to the MMO to designate the area as a disposal site for the MMO to be able to fulfil its statutory obligations under OPSAR to be able to make accurate returns for dredge and disposal.</p>	<p>While surveys to date do not identify prevalence of sandwaves within the windfarm site, Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-044), Chapter 8 Marine Sediment and Water Quality (APP-045) and Chapter 9 Benthic Ecology (APP-046) of the Environmental Statement (ES) assess the worst-case requirement for sandwave clearance/clearance of seabed sand features and disposal within the order limits. A Sediment Disposal Site Characterisation Report (APP-024) has been provided as part of the application in order for the area within the order limits to be designated as a disposal site through the DCO.</p> <p>The Applicant notes that the removal of and disposal of inert material is included as associated development for the purposes of the definition of the authorised project (Schedule 1, Part 1, Paragraph 1(c)) and for the purposes of the definition of the licensed marine activities (Schedule 6, Part 1, Paragraph 3(c)). These definitions state that such activities are authorised 'within the Order limits'. Accordingly, no separate application for designation is considered required.</p>

ID	RR	Applicant's Response
<b>Chapter 9 Benthic Ecology (APP-046)</b>		
RR-047-54	The MMO has no concerns in regard to the receptors which have been scoped out. These are, namely, sediment bound contaminants and transboundary effects.	The Applicant notes this response.
RR-047-55	The MMO considers that there are no outstanding concerns in relation to this application in regard to benthic ecology.	The Applicant notes this response.
<b>Chapter 10 Fish and Shellfish Ecology (APP-047)</b>		
RR-047-56	The MMO is content that all relevant impacts to fish and fisheries have been identified and assessed.	The Applicant notes this response.
RR-047-57	Figure 10.6 of Volume 5 Chapter 10 Fish and Shellfish Ecology Figures presents a 'heatmap' of herring larvae abundance data over the most recent 10 years of the NHLS (Northern Irish Herring Larvae Survey) (2012-2021) which has been overlaid with the mapped noise contours for the three modelled pile locations (east, north-west and south-west) based on the maximum hammer energy of 6,600 kJ, based on the 135 dB SELss threshold. Cefas fisheries advisors have had previous discussions with the Applicant's consultants regarding your approach to presenting data on the abundance and distribution of herring larvae at the Manx spawning ground. The MMO and Cefas understand that their approach has taken the NIHLS point data at each station and weighted these points according to the relative abundance of larvae across the grid, then smoothed the points to generated areas of higher and lower density/heat. Whilst it was agreed that this approach was suitable, it should be recognised that the 'high' / 'low' colour scheme shown in the legend in Figure 10.6 does not provide any value to contextualise what 'high' abundance or 'low' abundance means in terms of the number of herring larvae (e.g. no. per m <sup>2</sup> ), so the heatmaps have limited value to the reader (unless they have been made aware of how the data have been	The MMO are correct in their summary of the methods used to create heatmaps of herring larvae abundance from Northern Irish Herring Larvae Survey (NIHLS) data. The qualitative heatmap is intended to display how larval density distribution corresponds with existing spawning ground maps. An update to the figure legend has been made to display larval abundance quantitatively, giving further context to the heatmap colour scheme, and is being submitted at Procedural Deadline A (5.3.10 Chapter 10 Fish and Shellfish Ecology Figures_Rev 02) alongside this document.

ID	RR	Applicant's Response
	<p>treated). The MMO alongside Cefas recommend that the legend is updated for transparency/clarity to all readers of the ES.</p>	
<p>RR-047-58</p>	<p>Cefas and the MMO do not support the conclusions made in the CIA (Cumulative Impact Assessment). The UWN modelling presented in Figures 10.8a and 10.8b present the piling noise impact range noise contours which overlap the spawning grounds of Atlantic cod. The modelling uses the hearing thresholds in Group 3 fish for piling of 207, 203 and 186 dB SELcum for mortality and potential mortal injury, recoverable injury and temporary threshold shift (TTS), respectively. Results of the underwater noise modelling presented in Table 10.25 (Chapter 10 Fish and Shellfish Ecology) quantify the area of impact to eggs and larvae during mono- and pin-piling, which is limited to an area of 0.32km<sup>2</sup> for monopiling and 0.19km<sup>2</sup> for pin-piling, though the impact range for this impact is not shown in Figures 10.8a and 10.8b. Figures 10.8a and 10.8b show that piling noise overlaps the spawning grounds of cod for all impairments, i.e. mortality and potential mortal injury, recoverable injury and especially for TTS.</p> <p>Whilst suitable UWN modelling has been undertaken in respect of cod, it is disappointing to see that the assessment of impacts from UWN has assessed cod under the generic Group 3 fish in Section 10.245. The assessment seems to be missing the link between the cod as a Group 3 fish and the spawning activity they engage in at their spawning grounds. Meanwhile, the assessment of impacts from noise on spawning grounds in Sections 10.211 – 10.220, only considers impacts to the eggs and larvae, rather than the spawning fish. In our advice for PEIR we highlighted that piling works could have potential to significantly impact cod at a population level if piling was to occur during their spawning season (January – April inclusive). This is of particular importance, given ICES' latest advice on cod for the Irish Sea which states that 'when the maximum sustainable yield (MSY) approach and precautionary considerations</p>	<p>The Applicant acknowledges the overlap of Group 3 noise effect thresholds from the Project and Atlantic cod spawning grounds displayed in Figures 10.8a and 10.8b. The Cumulative Effects Assessment (CEA) conclusions made in Section 10.7.3 of Chapter 10 Fish and Shellfish Ecology (APP-047) are drawn from the wide extent of cod spawning grounds across the Irish Sea and the temporary nature of piling effects in comparison to a four month spawning period.</p> <p>Effects on eggs and larvae are considered in Paragraphs 10.211 to 10.220 of Chapter 10 Fish and Shellfish Ecology (APP-047).</p> <p>In relation to the data sources mentioned by the MMO, the Applicant has considered these sources and is of the position that they are not sufficient to materially alter the understanding of cod spawning in relation to the Project, and subsequently would not materially affect the assessment of significance (or the MMO's position that they do not support the conclusions of the CEA in relation to cod spawning).</p> <p>The Applicant intends to follow the developments in the approach to piling of other nearby projects (in terms of timings, techniques, and mitigations), and will further develop the piling strategy, including any</p>

ID	RR	Applicant's Response
	<p>are applied, there should be zero catch in 2023' and that 'Fishing pressure on the stock is below FMSY, and spawning-stock size is below MSY Btrigger, Bpa, and Blim' (ICES 2022). We also pointed to Fox <i>et al.</i> (2000) which reports high site fidelity in cod spawning grounds in the Irish Sea. For these reasons, the MMO and Cefas would have expected you to consider this information, and potentially other sources of data to inform their assessment such as data from the Northern Irish ground fish trawl survey which has been ongoing since 2009 and has several survey stations within the eastern Irish sea (data are available from ICES: <a href="http://datras.ices.dk/">http://datras.ices.dk/</a>). In the absence of any data to suggest that this part of the cod spawning ground is of lower importance than other areas, and in consideration of ICES advice on the cod population in the Irish sea, the MMO and Cefas recommend that piling is not permitted during the cod spawning season and recommend that the following restriction is conditioned on the deemed marine licence:</p> <p>No piling of any kind shall take place during the cod spawning period from 1st January to 30th April (inclusive) of any year.</p> <p>Reason: To prevent disturbance to adult spawning cod during their spawning season.</p>	<p>mitigations, in agreement with the MMO post-consent.</p> <p>The Applicant will seek to discuss further with the MMO (and Natural England (NE) given their comment regarding this in their RR) the structure of an Underwater Sound Management Strategy as a mechanism of agreeing mitigation post-consent, which will also consider measures the Project may need to take in light of potential cumulative effects and in line with other projects on similar timescales.</p> <p>The Applicant will provide an Outline Underwater Sound Management Strategy at Deadline 2 in order to take into account potential further comments from the MMO expected at Deadline 1. The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the DML submitted with the updated draft DCO at Procedural Deadline A to secure this. Additionally, the Outline Underwater Sound Management Strategy has been added as document to be certified in the draft DCO.</p>
RR-047-59	<p>As per our advice on the PEIR, you may wish to consider the use of noise abatement measures such as big as big bubble curtains (BBC) or double BBC during piling, to reduce the noise levels emitted during piling (see Würsig <i>et al.</i> (1999)). UWN modelling incorporating the use of noise abatement measures has been shown to reduce the range of effect for disturbance with sensitive habitats such as spawning grounds.</p>	<p>The Applicant is planning appropriately for the potential requirement for NAS but maintains the position that the effects may be suitably mitigated through further design refinement and other embedded mitigation.</p> <p>The Applicant will seek to discuss further with the MMO (and NE given their comment regarding this in their RR) the structure of an Underwater Sound Management Strategy as a mechanism of agreeing</p>



ID	RR	Applicant's Response
		<p>mitigation post-consent, which will also consider measures the Project may need to take in light of potential cumulative effects and in line with other projects on similar timescales.</p> <p>The Applicant will provide an Outline Underwater Sound Management Strategy at Deadline 2 in order to take into account potential further comments from the MMO expected at Deadline 1. The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the DML submitted with the updated draft DCO at Procedural Deadline A to secure this. Additionally, the Outline Underwater Sound Management Strategy has been added as document to be certified as one referred to in the DCO.</p>
RR-047-60	<p>Cefas and the MMO do not support the conclusions made in the CIA that that the cumulative effects of piling noise are deemed to be no greater than project-alone effects 'minor adverse'. We would also add that recent advice for Morgan OWF (DCO/2022/00003) which is located entirely in the Irish sea cod spawning ground we highlighted the likelihood that a seasonal piling restriction to protect spawning adult cod and their eggs and larvae will be necessary during the spawning season (January – April inclusive). Whilst we have raised a number of points requiring further clarification on their UWN modelling, the modelling that was presented suggests that an extensive overlap of noise disturbance will occur at the spawning ground.</p>	<p>The Applicant acknowledges the overlap of Group 3 noise effect thresholds from the Project and Atlantic cod spawning grounds displayed in Figures 10.8a and 10.8b in Chapter 10 Fish and Shellfish Ecology Figures (APP-094). The CEA conclusions made in Section 10.7.3 in Chapter 10 Fish and Shellfish Ecology (APP-047) are drawn from the wide extent of cod spawning grounds across the Irish Sea and the temporary nature of piling effects in comparison to a four-month spawning period.</p> <p>The Applicant intends to follow the developments in the approach to piling of other nearby projects (in terms of timings, techniques, and mitigations), and will further develop the piling strategy, including any</p>

ID	RR	Applicant's Response
		<p>mitigations, in agreement with the MMO post-consent.</p> <p>The Applicant will seek to discuss further with the MMO (and NE given their comment regarding this in their RR) the structure of an Underwater Sound Management Strategy as a mechanism of agreeing mitigation post-consent, which will also consider measures the Project may need to take in light of potential cumulative effects and in line with other projects on similar timescales.</p> <p>The Applicant will provide an Outline Underwater Sound Management Strategy at Deadline 2 in order to take into account potential further comments from the MMO expected at Deadline 1. The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the DML submitted with the updated draft DCO (3.1 Draft Development Consent Order_Rev 02) at Procedural Deadline A to secure this. Additionally, the outline Underwater Sound Management Strategy has been added as document to be certified as one referred to in the DCO.</p>
RR-047-61	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.	The Applicant notes this response.
RR-047-62	The MMO considers that there are no outstanding concerns in relation to this application in regard to shellfish.	The Applicant notes this response.

ID	RR	Applicant's Response
<b>Chapter 13 Commercial Fisheries (APP-050)</b>		
RR-047-63	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 DML.	The Applicant notes this response.
<b>Chapter 11 Marine Mammals (APP-048)</b>		
RR-047-64	All relevant/applicable marine mammal functional hearing groups have been considered in the underwater noise modelling assessment. The marine mammal species scoped into the ES assessment, which sit within these four hearing groups are, Harbour porpoise, Bottlenose dolphin, Common dolphin, Risso's dolphin, White-beaked dolphin, Minke whale, Grey seal and Harbour seal. The MMO and Cefas consider all relevant impacts in regard to underwater noise have been scoped in for assessment.	The Applicant notes this response.
RR-047-65	With regard to Section 4.2.3 – SW location – installation of single monopile, the MMO and Cefas note that the received SELss versus range (transect curve in Figure 3-5), which are now explicitly included and thus are proving (together with the levels 750 m in Section 4-1) an additional point of reference for the sense checking process, are showing relatively high noise levels, which are well within the values we would expect for sandy seabed environments (i.e., with good propagation conditions). In this scenario, however, the MMO and Cefas would expect overall larger injury effect ranges for marine mammals (e.g., the maximum PTS (permanent threshold shift) ranges for the LF (low frequency) and VHF (very-high frequency) receptors could be 2-3 times larger). We note that these larger impact ranges seem to align well with the predictions presented in the draft MMMP document (Table 3.1 from the draft MMMP), where, for example, the maximum PTS ranges are 13 km for minke whale and 8.1 km for harbour porpoise, while	<p>Following the impact piling modelling presented in the main report Appendix 11.1 Underwater Noise Assessment (APP-065), further investigation into scenarios using higher strike rates were identified for the monopile and pin pile scenarios. A piling hammer is capable of more rapid strikes at lower blow energies.</p> <p>To show the differences between the maximum strike rate scenario and the results presented in Section 4 of Appendix 11.1 Underwater Noise Assessment (APP-065), additional modelling was completed for the SW location.</p>

ID	RR	Applicant's Response
	<p>corresponding ranges from the current Appendix 11.1 are 5.0 km and 3.3 km, respectively. The predicted impact ranges presented in the draft MMMP differ to those ranges presented in Appendix 11.1.</p>	<p>Table 3.1 in the draft MMMP (APP-049) lists the worst-case impact ranges for the project based on the Maximum strike rate scenario listed in Appendix B of Appendix 11.1 Underwater Noise Assessment (APP-065) and would be the worst-case impact range to be mitigated and therefore currently used in the assessments.</p>
RR-047-66	<p>The MMO and Cefas note a minor discrepancy in the project description. Table 5.5 in Chapter 5 Project description states that the maximum pile diameter (m) for multi-legged pin piled jacket WTF/OSP foundations is 3 m, whereas the underwater noise modelling in Appendix 11.1 considers a worst-case scenario of installing 5m diameter pin piles.</p>	<p>The Applicant considers the worst-case scenario presented in the underwater noise modelling assessment is appropriate. It is noted that the worst-case for underwater noise modelling considers the largest hammer energy, and the highest strike rate, and includes either three sequential monopiles or four sequential pin piles in a 24hr period.</p> <p>The underwater noise assessment report (Appendix 11.1 Underwater Noise Assessment (APP-065)) presented modelling for larger pile sizes (14m for monopile and 5m for pin piles) as the modelling was undertaken prior to a Project refinement whereby pile diameters were reduced to 12m for monopile and 3m for pin-piles. The modelling is therefore precautionary and encompasses the worst-case scenario.</p> <p>The Applicant commits to updated underwater noise modelling post-consent to inform the final MMMP once the selection of foundations have been made. This will inform the appropriate mitigation post-consent alongside final design details.</p>

ID	RR	Applicant's Response
<b>Chapter 14 Shipping and Navigation (APP-051)</b>		
RR-047-67	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 the securing any mitigation, monitoring or other conditions required within the DML.	The Applicant notes this response.
<b>Chapter 15 Marine Archaeology and Cultural Heritage (APP-052)</b>		
RR-047-68	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.	The Applicant notes this response.
<b>Chapter 18 Seascape, Landscape and Visual Impact Assessment (APP-055)</b>		
RR-047-69	The MMO defers to NE as the SNCB (Statutory Nature Conservation Body), along with HE and the Local Planning Authorities on matters of Seascape, Landscape and Visual Impacts 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 DML.	The Applicant notes this response.
<b>Chapter 12 Offshore Ornithology (APP-049)</b>		
RR-047-70	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 DML.	The Applicant notes this response.

## 2.6 Maritime and Coastguard Agency (MCA) (RR-048)

Table 2.6 The Applicant's comments on the MCA's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-048-01	<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 &amp; 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), but also individually as maritime regulator and through the hazard workshops and simulations that have been undertaken as part of the Navigation Risk Assessment (NRA) (APP-073) and the Cumulative Regional Navigation Risk Assessment (CRNRA) (APP-074).</p> <p>The MNEF was created early in the pre-application phase as a forum to discuss shipping and navigation matters with stakeholders between 2022 and 2024 (see Table 6.3 of the Consultation Report (APP-015)). The Applicant has taken into consideration comments from the MCA in the Draft Development Consent Order (DCO) (APP-012), and, since Scoping and Preliminary Environmental Information report (PEIR), refinements have been made to the Project boundary to improve navigation.</p> <p>The Applicant has assessed potential navigation risks as part of shipping and navigation assessments, which concluded that risk levels were acceptable. Assessment details are provided in Chapter 14 Shipping and Navigation (APP-051), and Appendix 14.1 NRA (APP-073).</p>

ID	RR	Applicant's Response
		The Applicant will continue to engage with MCA throughout the Examination period.

## 2.7 National Air Traffic Services (NATS) (RR-060)

*Table 2.7 Applicant's comments on NATS' Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-060-01	<p>NATS en-route plc is responsible for the safe and expeditious movement in the en-route phase of flight for aircraft operating in controlled airspace in the UK. To undertake this responsibility, it has a comprehensive infrastructure of RADAR's, communication systems and navigational aids throughout the UK, all of which could be compromised by the establishment of a wind farm.</p> <p>In this respect NATS is responsible for safeguarding this infrastructure to ensure its integrity to provide the required services to Air Traffic Control (ATC). In order to discharge this responsibility NATS is a statutory consultee for all wind farm applications, and as such assesses the potential impact of every proposed development in the UK.</p> <p>The technical assessment sections of this document define the assessments carried out against the development proposed in section 3.</p>	The Applicant notes this response.
RR-060-02	<p>This report provides NATS En-Route plc's view on the proposed application in respect of the impact upon its own operations and in respect of the application details contained within this report.</p> <p>Where an impact is also anticipated on users of a shared asset (e.g. a NATS RADAR used by airports or other customers), additional relevant</p>	The Applicant notes this response.

ID	RR	Applicant's Response																																																
	<p>information may be included for information only. While an endeavour is made to give an insight in respect of any impact on other aviation stakeholders, it should be noted that this is outside of NATS' statutory obligations and that any engagement in respect of planning objections or mitigation should be had with the relevant stakeholder, although NATS as the asset owner may assist where possible.</p>																																																	
RR-060-03	<p><b>Application Details</b></p> <p>Flotation Energy submitted a request for a NATS technical and operational assessment (TOPA) for the development at Morecambe Wind Farm. It will comprise a development area as defined in Table 1 and shown in the diagrams contained in Appendix B.</p> <table border="1"> <thead> <tr> <th>Boundary</th> <th>Lat</th> <th>Long</th> <th>East</th> <th>North</th> <th>Tip Height (m)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>53.8562</td> <td>-3.7015</td> <td>288186</td> <td>441341</td> <td>350</td> </tr> <tr> <td>B</td> <td>53.8284</td> <td>-3.5723</td> <td>296610</td> <td>438055</td> <td>350</td> </tr> <tr> <td>C</td> <td>53.8294</td> <td>-3.4980</td> <td>301505</td> <td>438055</td> <td>350</td> </tr> <tr> <td>D</td> <td>53.7549</td> <td>-3.4953</td> <td>301505</td> <td>429761</td> <td>350</td> </tr> <tr> <td>E</td> <td>53.7504</td> <td>-3.6026</td> <td>294420</td> <td>429419</td> <td>350</td> </tr> <tr> <td>F</td> <td>53.8002</td> <td>-3.7398</td> <td>285513</td> <td>435176</td> <td>350</td> </tr> <tr> <td>G</td> <td>53.8024</td> <td>-3.7383</td> <td>285614</td> <td>435408</td> <td>350</td> </tr> </tbody> </table> <p style="text-align: center;"><b>Table 1 – Turbine Details</b></p>	Boundary	Lat	Long	East	North	Tip Height (m)	A	53.8562	-3.7015	288186	441341	350	B	53.8284	-3.5723	296610	438055	350	C	53.8294	-3.4980	301505	438055	350	D	53.7549	-3.4953	301505	429761	350	E	53.7504	-3.6026	294420	429419	350	F	53.8002	-3.7398	285513	435176	350	G	53.8024	-3.7383	285614	435408	350	<p>The Applicant notes this response.</p>
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ID	RR	Applicant's Response																																																																													
RR-060-04	<p><b>Assessments Required</b></p> <p>The proposed development falls within the assessment area of the following systems:</p> <table border="1"> <thead> <tr> <th>En-route Surv</th> <th>Lat</th> <th>Long</th> <th>nm</th> <th>km</th> <th>Az (deg)</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>Claxby Radar</td> <td>53.4501</td> <td>-0.3083</td> <td>115.4</td> <td>213.7</td> <td>281.5</td> <td>CMB</td> </tr> <tr> <td>Clee Hill Radar</td> <td>52.3983</td> <td>-2.5975</td> <td>87.7</td> <td>162.5</td> <td>336.8</td> <td>CMB</td> </tr> <tr> <td>Great Dun Fell Radar</td> <td>54.6841</td> <td>-2.4509</td> <td>63.2</td> <td>117.1</td> <td>218.3</td> <td>CMB</td> </tr> <tr> <td>Lowther Hill Radar</td> <td>55.3778</td> <td>-3.7530</td> <td>91.5</td> <td>169.4</td> <td>177.2</td> <td>CMB</td> </tr> <tr> <td>St Annes Radar</td> <td>53.7684</td> <td>-2.9908</td> <td>18.0</td> <td>33.3</td> <td>275.4</td> <td>CMB</td> </tr> <tr> <td>Manchester Radar</td> <td>53.3407</td> <td>-2.2827</td> <td>50.0</td> <td>92.7</td> <td>300.7</td> <td>CMB</td> </tr> <tr> <th>En-route Nav</th> <th>Lat</th> <th>Long</th> <th>nm</th> <th>km</th> <th>Az (deg)</th> <th>Type</th> </tr> <tr> <td>None</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <th>En-route AGA</th> <th>Lat</th> <th>Long</th> <th>nm</th> <th>km</th> <th>Az (deg)</th> <th>Type</th> </tr> <tr> <td>None</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p style="text-align: center;"><b>Table 2 – Impacted Infrastructure</b></p>	En-route Surv	Lat	Long	nm	km	Az (deg)	Type	Claxby Radar	53.4501	-0.3083	115.4	213.7	281.5	CMB	Clee Hill Radar	52.3983	-2.5975	87.7	162.5	336.8	CMB	Great Dun Fell Radar	54.6841	-2.4509	63.2	117.1	218.3	CMB	Lowther Hill Radar	55.3778	-3.7530	91.5	169.4	177.2	CMB	St Annes Radar	53.7684	-2.9908	18.0	33.3	275.4	CMB	Manchester Radar	53.3407	-2.2827	50.0	92.7	300.7	CMB	En-route Nav	Lat	Long	nm	km	Az (deg)	Type	None							En-route AGA	Lat	Long	nm	km	Az (deg)	Type	None							<p>The Applicant notes this response.</p>
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RR-060-05	<p><b>Predicted Impact on Lowther RADAR</b></p> <p>Using the theory as described in Appendix A and development specific propagation profile it has been determined that the terrain screening available will not adequately attenuate the signal, and therefore this development is likely to cause false primary plots to be generated. A reduction in the RADAR's probability of detection, for real aircraft, is also anticipated.</p>	<p>The impacts to Lowther Hill radar and proposed mitigation are presented in Chapter 16 Civil and Military Aviation and Radar (APP-053) and set out in detail in Appendix 16.2 Blackpool Instrument Flight Procedure (IFP) Safeguarding Report (APP-079).</p> <p>The Applicant commenced mitigation discussions with NATS on 31 August 2023 regarding potential mitigation options. NATS confirmed on 25 January 2024 that mitigation had been identified for the NATS affected radars in the form of Multi-Radar Tracker blanking. The Applicant in the process of entering contract negotiations with NATS which remains ongoing.</p> <p>It is envisaged that a mitigation contract between NATS and the Applicant will be in place in time for any planning consent decision. This is secured by a</p>																																																																													

ID	RR	Applicant's Response
		Development Consent Order (DCO) requirement included within the draft DCO (APP-012).
RR-060-06	<p><b>Predicted Impact on Great Dun Fell RADAR</b></p> <p>Using the theory as described in Appendix A and development specific propagation profile it has been determined that the terrain screening available will not adequately attenuate the signal, and therefore this development is likely to cause false primary plots to be generated. A reduction in the RADAR's probability of detection, for real aircraft, is also anticipated.</p>	<p>The impacts to Great Dun Fell radar and proposed mitigation are presented in Chapter 16 Civil and Military Aviation and Radar (APP-053) and set out in detail in Appendix 16.2 Blackpool IFP Safeguarding Report (APP-079).</p> <p>The Applicant commenced mitigation discussions with NATS on 31 August 2023 regarding potential mitigation options. NATS confirmed on 25 January 2024 that mitigation had been identified for the NATS affected radars in the form of Multi-Radar Tracker blanking. The Applicant in the process of entering contract negotiations with NATS which remains ongoing.</p> <p>It is envisaged that a mitigation contract between NATS and the Applicant will be in place in time for any planning consent decision. This is secured by a DCO requirement included within the draft DCO (APP-012).</p>
RR-060-07	<p><b>Predicted Impact on St Anne's RADAR</b></p> <p>Using the theory as described in Appendix A and development specific propagation profile it has been determined that the terrain screening available will not adequately attenuate the signal, and therefore this development is likely to cause false primary plots to be generated. A reduction in the RADAR's probability of detection, for real aircraft, is also anticipated.</p>	<p>The impacts to St Annes radar and proposed mitigation are presented in Chapter 16 Civil and Military Aviation and Radar (APP-053) and set out in detail in Appendix 16.2 Blackpool IFP Safeguarding Report (APP-079).</p> <p>The Applicant commenced mitigation discussions with NATS on 31 August 2023 regarding potential mitigation options. NATS confirmed on 25 January</p>

ID	RR	Applicant's Response								
		<p>2024 that mitigation had been identified for the NATS affected radars in the form of Multi-Radar Tracker blanking. The Applicant in the process of entering contract negotiations with NATS which remains ongoing.</p> <p>It is envisaged that a mitigation contract between NATS and the Applicant will be in place in time for any planning consent decision. This is secured by a DCO requirement included within the draft DCO (APP-012).</p>								
RR-060-08	<p><b>En-route operational assessment of RADAR impact</b> Where an assessment reveals a technical impact on a specific NATS' RADAR, the users of that RADAR are consulted to ascertain whether the anticipated impact is acceptable to their operations or not.</p> <table border="1"> <thead> <tr> <th>Unit or role</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>Prestwick Centre ATC</td> <td>Unacceptable</td> </tr> <tr> <td>Swanwick Centre ATC</td> <td>Unacceptable</td> </tr> <tr> <td>Military ATC</td> <td>Unacceptable</td> </tr> </tbody> </table>	Unit or role	Comment	Prestwick Centre ATC	Unacceptable	Swanwick Centre ATC	Unacceptable	Military ATC	Unacceptable	<p>The impacts to Lowther Hill, St Annes and Great Dun Fell radars and proposed mitigation is presented in Chapter 16 Civil and Military Aviation and Radar (APP-053) and set out in detail in Appendix 16.2 Blackpool Airport IFP Safeguarding Report (APP-079).</p> <p>The Applicant commenced mitigation discussions with NATS on 31 August 2023 regarding potential mitigation options. NATS confirmed on 25 January 2024 that mitigation had been identified for the NATS affected radars in the form of Multi-Radar Tracker blanking. The Applicant in the process of entering contract negotiations with NATS which remains ongoing.</p> <p>It is envisaged that a mitigation contract between NATS and the Applicant will be in place in time for any planning consent decision. This is secured by a</p>
Unit or role	Comment									
Prestwick Centre ATC	Unacceptable									
Swanwick Centre ATC	Unacceptable									
Military ATC	Unacceptable									

ID	RR	Applicant's Response
		DCO requirement included within the draft DCO (APP-012).
RR-060-09	<b>Predicted Impact on Navigation Aids</b> No impact is anticipated on NATS' navigation aids.	The Applicant notes this response.
RR-060-10	<b>Predicted Impact on the Radio Communications Infrastructure</b> No impact is anticipated on NATS' radio communications infrastructure.	The Applicant notes this response.
RR-060-11	<b>Conclusion</b> <b>On-route Consultation</b> The proposed development has been examined by our technical safeguarding teams and conflicts with our safeguarding criteria. A technical impact is anticipated, this has been deemed to be <u>unacceptable</u> .	The impacts to Lowther Hill, St Annes and Great Dun Fell radars and proposed mitigation is presented in Chapter 16 Civil and Military Aviation and Radar (APP-053) and set out in detail in Appendix 16.2 Blackpool Airport IFP Safeguarding Report (APP-079).
RR-060-12	The proposed development has been examined by our technical safeguarding teams and conflicts with our safeguarding criteria. Accordingly, NATS (En Route) plc objects to the proposal. The reasons for NATS's objection relate to the impact on the air traffic radars at Lowther Hill, St Annes and Great Dun Fell.	<p>The Applicant commenced mitigation discussions with NATS on 31 August 2023 regarding potential mitigation options. NATS confirmed on 25 January 2024 that mitigation had been identified for the NATS affected radars in the form of Multi-Radar Tracker blanking. The Applicant in the process of entering contract negotiations with NATS which remains ongoing.</p> <p>It is envisaged that a mitigation contract between NATS and the Applicant will be in place in time for any planning consent decision. This is secured by a DCO requirement included within the draft DCO (APP-012).</p>
RR-060-13	Appendix A	The Applicant notes the inclusion of this Appendix, please see detailed responses above.
RR-060-14	Appendix B	

## 2.8 Natural England (RR-061)

Table 2.8 The Applicant's comments on Natural England (NE)'s Relevant Representation (RR)

ID	RR	Applicant's Response
<b>Upfront text and Principal Areas of Disagreement (PAD)</b>		
RR-061-01	<p><b>Part 1 – Overview of Representations</b></p> <p><b>1. Scope of Natural England's Advice</b></p> <p>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>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>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 with advice on the significance of any potential impacts on interest features of those sites.</p>	<p>The Applicant welcomes Natural England's (NE) Relevant Representation (RR) and NE's role and remit is noted.</p>

ID	RR	Applicant's Response
RR-061-02	<p><b>Part 1 – Overview of Representations</b></p> <p><b>2. Approach to Relevant Representations</b></p> <p>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>	Noted, the Applicant will continue to engage with NE throughout Examination.
RR-061-03	<p><b>2. Approach to Relevant Representations</b></p> <p>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>	The Applicant thanks NE for providing a RR and Written Representation and shall continue to engage with NE on relevant matters.
RR-061-04	<p><b>2. Approach to Relevant Representations</b></p> <p>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.</p>	The Applicant notes that NE may wish to advise or add additional points to the RR provided.
RR-061-05	<p><b>2. Approach to Relevant Representations</b></p> <p>Natural England wishes to bring to the Examining Authority's attention our concerns regarding the anticipated overlapping timetable for Morecambe: Generation Assets Project and the application submission and then Examination for the Morgan: Generation Assets Project and Morgan and Morecambe: Transmission Assets Project. We highlight that due to cross cutting</p>	The Applicant notes the request from NE to the Examining Authority (ExA).

ID	RR	Applicant's Response
	<p>and consistency issues there is overlap in Natural England case team staff across these 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.</p>	
RR-061-06	<p><b>2. Approach to Relevant Representations</b></p> <p>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.</p>	<p>The Applicant notes that NE will submit a Risk and Issues Log at Deadline 1 to track issue resolution throughout the Examination. The Applicant is committed to working with NE towards issue resolution, wherever possible.</p>
RR-061-07	<p><b>2. Approach to Relevant Representations</b></p> <p>Natural England intends to provide further detailed advice on the In-Principle Monitoring Plan [APP-148] 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 on 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.</p>	<p>The Applicant notes that Natural England intends to submit further advice on the In-Principle Monitoring Plan (IPMP) (APP-148).</p>
RR-061-08	<p><b>2. Approach to Relevant Representations</b></p> <p>Natural England is keen to continuously improve our input into Examinations and would therefore welcome any feedback on our approach.</p>	<p>This is noted by the Applicant.</p>
RR-061-09	<p><b>Part 1 – Overview of Representations</b></p>	<p>The Applicant thanks NE for their advice throughout the pre-application stage of the Project</p>

ID	RR	Applicant's Response
	<p><b>3. Engagement with the Applicant</b></p> <p>Natural England has been working with the Applicant to provide pre-application advice and guidance on Morecambe Generation Offshore Wind Farm (OWF) project since 2021. The Evidence Plan Process (EPP) has included monthly project progress meetings, expert Topic Group (ETG) 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>	<p>and will continue to engage with NE throughout the Examination phase.</p>
RR-061-10	<p><b>3. Engagement with the Applicant</b></p> <p>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 NE for their advice, alongside others throughout the pre-application stage of the Project.</p>
RR-061-11	<p><b>3. Engagement with the Applicant</b></p> <p>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 &amp; Issues Log.</p>	<p>The Applicant welcomes the Risk and Issues Log prepared by NE and looks forward to further discussions with NE to resolve any concerns and to reach agreement on any outstanding matters.</p>
RR-061-12	<p><b>Part 1 – Overview of Representations</b></p> <p><b>4. Structure of Natural England's Relevant Representations</b></p> <p>The representations in Part II provide Natural England's statutory advice. They are set out as follows:</p> <p><b>Section 5</b> identifies the designated sites and natural features potentially affected by this application.</p>	<p>The Applicant thanks NE for outlining the structure of their RR.</p>



ID	RR	Applicant's Response
	<p><b>Section 6</b> 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).</p> <p><b>Section 7</b> - 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>	
RR-061-13	<p><b>4. Structure of Natural England's Relevant Representations</b>            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.</p>	The Applicant notes NE's advice to the ExA.
RR-061-14	<p><b>4. Structure of Natural England's Relevant Representations</b>            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.</p>	The colour coding used by NE is noted and welcomed by the Applicant.
RR-061-15	<p><b>4. Structure of Natural England's Relevant Representations</b>            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</p>	The risk rating and colour coding used by NE is noted and welcomed by the Applicant.

ID	RR	Applicant's Response
	have used the colour coding to give an indication of the level of risk associated with each of the points we raise. [Table 4.1]	
RR-061-16	<p><b>Part 2 Natural England's Advice</b></p> <p><b>5. The Natural Features Potentially Affected by this Application</b></p> <p>Natural England highlights that due to the location of Morecambe 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, the Isle of Man or Northern Ireland. Therefore, the relevant SNCB should be consulted for advice on designated sites pertaining to their organisational remits.</p>	<p>In relation to designated sites outside English waters, the Applicant has consulted with Natural Resources Wales (NRW) via a statutory Section 42 consultation response and regular meetings. The Isle of Man Government also provided a detailed Section 42 consultation response, as well as participating in Expert Topic Groups (ETG) as part of the Evidence Plan Process (EPP) pre-application.</p> <p>Attempts have been made in respect of consultation with other Statutory Nature Conservation Bodies (SNCBs) (in Scotland, Northern Ireland and Ireland). NatureScot and National Parks and Wildlife Service (NPWS) were notified of the statutory consultation period (April-June 2023) of the Preliminary Environmental Information Report (PEIR) and draft Report to Inform Appropriate Assessment (RIAA). In February 2024, the Applicant made further attempts to engage with NatureScot, NPWS and the Department of Agriculture, Environment and Rural Affairs (DAERA). In June 2024, following the Development Consent Order (DCO) Application acceptance, further notification was sent to the SNCBs informing them of the RR period, with no responses received by the Applicant to date. It is noted that ExA have granted 'Other Person' status</p>

ID	RR	Applicant's Response										
		to NatureScot and DAERA to allow them to participate in the Examination process.										
RR-061-17	<p><b>5. The Natural Features Potentially Affected by this Application</b></p> <p>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. Gov.uk links have been provided to Natural England's Designated Site View system where the citation, conservation objectives and supplementary advice for designated nature conservation sites can be located. 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 inaccurate documents being referred to during the Examination we recommend that the links are utilised.</p>	<p>Detailed responses from the Applicant in relation to English designated sites are provided in the following responses:</p> <table border="1"> <thead> <tr> <th>Site name</th> <th>Feature</th> <th>Response</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Liverpool Bay/ Bae Lerpwl Special Protection Area (SPA)</td> <td>Little gull (Non-breeding)</td> <td>ID RR-061-74 ID RR-061-79 ID RR-061-97</td> </tr> <tr> <td>Red-throated diver (RTD) (Non-breeding)</td> <td>ID RR-061-64 ID RR-061-94 ID RR-061-95 ID RR-061-96</td> </tr> <tr> <td>Common scoter (Non-breeding)</td> <td>NE has presented no additional comments on this species within their RR. The Applicant assumes that its inclusion is an error, and that the assessment</td> </tr> </tbody> </table>	Site name	Feature	Response	Liverpool Bay/ Bae Lerpwl Special Protection Area (SPA)	Little gull (Non-breeding)	ID RR-061-74 ID RR-061-79 ID RR-061-97	Red-throated diver (RTD) (Non-breeding)	ID RR-061-64 ID RR-061-94 ID RR-061-95 ID RR-061-96	Common scoter (Non-breeding)	NE has presented no additional comments on this species within their RR. The Applicant assumes that its inclusion is an error, and that the assessment
Site name	Feature	Response										
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	Red-throated diver (RTD) (Non-breeding)	ID RR-061-64 ID RR-061-94 ID RR-061-95 ID RR-061-96										
	Common scoter (Non-breeding)	NE has presented no additional comments on this species within their RR. The Applicant assumes that its inclusion is an error, and that the assessment										
RR-061-18	<p><b>5. The Natural Features Potentially Affected by this Application</b></p> <p>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.</p> <p><i>Table 5.1 Designated Nature Conservation Sites in Natural England's remit for which an adverse effect on integrity cannot be ruled out</i></p> <table border="1"> <thead> <tr> <th>Site name</th> <th>Conservation advice</th> <th>Features for which Outstanding Concerns Remain</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Site name	Conservation advice	Features for which Outstanding Concerns Remain								
Site name	Conservation advice	Features for which Outstanding Concerns Remain										

ID		RR		Applicant's Response			
		Liverpool Bay/ Bae Lerpwl SPA	<u>Liverpool Bay / Bae Lerpwl SPA - UK9020294A</u>	Little gull ( <i>Hydrocoloeus minutus</i> ), (Non-breeding) Red-Throated Diver ( <i>Gavia stellata</i> ), (Non-breeding) Common scoter ( <i>Melanitta nigra</i> ), (Non-breeding) Waterbird Assemblage (Non-breeding) - above species			conclusions of no Adverse Effect on Integrity (AEOI) (Section 8.4.2.2 of the RIAA (APP-027)) are agreed. The Applicant requests additional information from NE if this is not the case.
		Morecambe Bay and Duddon Estuary SPA & Ramsar site	Morecambe Bay and Duddon Estuary SPA - UK9020326	Lesser black-backed gull ( <i>Larus fuscus</i> ), (Breeding and non-breeding) Seabird assemblage, (Breeding) - above species			Waterbird Assemblage (Non-breeding) - above species
		Ribble and Alt Estuaries SPA & Ramsar site	Ribble and Alt Estuaries SPA - UK9005103	Lesser black-backed gull ( <i>Larus fuscus</i> ), (Breeding) Seabird assemblage, (Breeding) - above species	Morecambe Bay and Duddon Estuary SPA & Ramsar site	Lesser black-backed gull (Breeding and non-breeding)	ID RR-061-28 ID RR-061-65 ID RR-061-88 to ID RR-061-91 ID RR-061-98
			Seabird assemblage, (Breeding) - above species	Addressed in the species-specific responses above.			
				Ribble and Alt Estuarie		Lesser black-backed gull (Breeding)	ID RR-061-28 ID RR-061-65

ID	RR	Applicant's Response		
		s SPA & Ramsar site		ID RR-061-88 to ID RR-061-91 ID RR-061-100  Seabird assemblage, (Breeding) - above species This is addressed in the species-specific responses above.
RR-061-19	<b>5. The Natural Features Potentially Affected by this Application</b> Protected Species – We advise that since the Morecambe Generation OWF is located entirely offshore, consideration should be given to the need for European Protected Species (EPS) licences in relation to 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 GOV.UK website.	As identified in Table 1.1 in Other Consents and Licences (AS-007), European Protected Species (EPS) Licence applications would be submitted to the Marine Management Organisation (MMO) for approval post-consent.		
RR-061-20	<b>5. The Natural Features Potentially Affected by this Application</b> 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-061-21	<b>5. The Natural Features Potentially Affected by this Application - Other matters relating to Natural England's remit - Seascape, Landscape and Visual Impact Assessment (SLVIA)</b> 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 and therefore will be providing no further comment into examination for this project.	Noted, the Applicant welcomes the comment.		

ID	RR	Applicant's Response
RR-061-22	<p><b>5. The Natural Features Potentially Affected by this Application - Other matters relating to Natural England's remit - Cumulative Effects Assessment (CEA)</b></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).</p> <p>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> <p>We note that across the relevant topic areas, the Applicant has undertaken a CEA which considers two scenarios:</p> <ul style="list-style-type: none"> <li>- Scenario 1: Morecambe Generation Assets combined with Morgan and Morecambe Offshore Wind Farms: Transmission Assets.</li> <li>- Scenario 2: Morecambe Generation Assets plus Morgan and Morecambe Offshore Wind Farms: Transmission Assets alongside all other projects, plans and activities.</li> </ul> <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</p>	<p>The Applicant notes that in addition to the two cumulative scenarios assessed in the Cumulative Effects Assessment (CEA), a summary of the Generation and Transmission Assets assessments has been provided in Chapter 23 Summary: Generation and Transmission Assets Assessment (APP-060) to allow an overview of the whole Project.</p> <p>The Applicant has set out its position in more detail in regards to the remaining concerns identified by NE in its response to RR-061-32.</p> <p>The Applicant welcomes the confirmation that Natural England are broadly content with the Applicant's approach.</p>

ID	RR	Applicant's Response
	with related to the wider issue of the 'coordinated approach' and stranded assets as outlined in Annex 1.	
RR-061-23	<p><b>6. Principal Areas of Disagreement Summary Statement (PADSS)</b></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 Applicant thanks NE for providing the Principal Areas of Disagreement (PADSS) table. The Applicant has provided responses to all points raised by NE within the appendices of the NE RR and Written Representations.</p>
RR-061-24	<p><b>6. Principal Areas of Disagreement Summary Statement (PADSS) Development Consent Order (DCO) and deemed Marine Licence (dML) (Ref. P1)</b></p> <p>During construction monitoring condition does not require a stop to work should noise significantly exceed the assessed level.</p> <p>This is a key mitigation to protect noise sensitive mammal and fish species. Without it there is a risk that noise generated during construction will exceed assessed levels.</p> <p>Update to the construction noise monitoring condition to follow standard requirements.</p> <p>Likelihood of the concern being addressed during Examination: Potential resolution.</p>	<p>Noted. The Applicant has amended condition 15 (construction monitoring) to require all piling work to stop where, in the reasonable opinion of the MMO in consultation with the relevant SNCB, the assessment shows significantly different impacts to those assessed or failures in mitigation. This has been incorporated in the version of the Deemed Marine Licence (DML) submitted with the updated draft DCO (3.1 Draft Development Consent Order_Rev 02) at Procedural Deadline A.</p>
RR-061-25	<p><b>6. Principal Areas of Disagreement Summary Statement (PADSS) - Development Consent Order (DCO) and deemed Marine Licence (dML) - (Ref. P2)</b></p> <p>Standard monitoring condition. There is no pre- or post-construction benthic, marine mammal or ornithological monitoring secured by conditions.</p>	<p>The Applicant notes the comments on monitoring made by NE.</p> <p>In regard to benthic ecology, there are no identified Annex I biogenic or geogenic reef features within or near to the windfarm site, and those habitats/biotopes that are present within the</p>

ID	RR	Applicant's Response
	<p>Monitoring conditions should be included.</p> <p>Likelihood of the concern being addressed during Examination: Potential resolution.</p>	<p>windfarm site would not be significantly affected by the Project (as noted in Paragraph 9.113 of Chapter 9 Benthic Ecology (APP-046)). Consequently, pre- and post-construction benthic surveys are not proposed, however pre- and post-construction bathymetric surveys are included in the IPMP (APP-148) and secured in the draft DCO (APP-012). The Applicant also has accommodated the request made by NE during pre-application consultation in relation to Invasive Non-Native Species (INNS) monitoring. The Applicant has committed to monitoring of INNS colonisation in line with post-construction hard-substrate inspections, as described in the IPMP (APP-148).</p> <p>In regard to marine mammals, monitoring for noise levels for the first four piles is secured in the draft DCO (APP-012).</p> <p>The Applicant has not secured further monitoring for marine mammals, on the basis that with the implementation of mitigation, the risk of injury can be fully mitigated and that the effect of disturbance, for all impacts was concluded to be not significant in Environmental Impact Assessment (EIA) terms. It is noted that mitigation would need to be agreed post-consent alongside the final Project design parameters.</p> <p>In regard to ornithology, the Applicant can confirm that it would be willing to discuss monitoring for RTD with NE.</p>



ID	RR	Applicant's Response
		<p>In respect to any further monitoring, no Project-alone significant effects are identified in respect of ecological receptors and/or contribution to cumulative effects are low with mitigations in place. The Applicant does not consider post-construction monitoring to be necessary, further to that identified above.</p>
RR-061-26	<p><b>6. Principal Areas of Disagreement Summary Statement (PADSS) - Offshore Ornithology (Ref. P3)</b></p> <p>The Cumulative Effects Assessment methodology is not sufficiently robust and therefore limited confidence can be placed on its conclusions.</p> <p>Some historic projects have not been considered quantitatively for the cumulative and in-combination assessments. This introduces the risk that impacts assessed are incomplete. We also question the apportioning of the impacts assessed to specific SPAs and therefore the results of appropriate assessments for these sites.</p> <p>A full quantitative assessment should be presented, following the method Natural England has previously supplied to the applicant. We also urge collaboration with other OWF projects in the Irish Sea so that the same data are being used to perform cumulative and in-combination.</p> <p>Potential resolution. If the Applicant agrees to take forward SNCB advice on CEA and adopts an approach consistent with other Irish Sea projects.</p>	<p>The Applicant will provide an update to cumulative/in-combination assessments at Deadline 1 (agreed with the ExA within its Rule 6 Letter (PD-007)), to incorporate additional information for historic projects, for species where NE has identified this requirement. The Applicant also confirms that discussions with the other Round 4 Irish Sea offshore windfarms (OWFs) (Mona Offshore Wind Project and Morgan Offshore Wind Project Generation Assets) are ongoing to ensure collaboration across the projects.</p>
RR-061-27	<p><b>6. Principal Areas of Disagreement Summary Statement (PADSS) - Adverse effect on red-throated diver (RTD) at Liverpool Bay / Bae Lerpwl SPA - (Ref. P4)</b></p>	<p>The Applicant maintains the position set out within the DCO Application, as set out in responses to ID</p>

ID	RR	Applicant's Response
	<p>Due to displacement impacts on RTD we do not agree that an adverse effect on the integrity of Liverpool Bay SPA can be ruled out. The additional 18km<sup>2</sup> of habitat used by RTD over which displacement will occur is a concern in light of the objective to restore the distribution of the species in the site.</p> <p>The most effective way to avoid this adverse effect would be a change to the red line boundary or commitment to an exclusion zone for structures such that no turbines are located within 10km of this area.</p> <p>Potential resolution: If the Applicant can commit to appropriate placement of turbines.</p>	<p>RR-061-64, RR-061-87 and RR-061-94 to RR-061-96.</p>
RR-061-28	<p><b>6. Principal Areas of Disagreement Summary Statement (PADSS) - Adverse effect on lesser black-backed gull at Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuary SPA - (Ref. P5)</b></p> <p>Due to in-combination collision impacts, an adverse effect on the integrity of these sites cannot be ruled out. Both sites' populations of this species are below their target so avoiding any further deterioration is imperative.</p> <p>Assessments should be updated to consider current population trajectories and refined apportioning of impacts. The scale of the proposed compensatory measures should be adjusted in line with the revised assessments, and landowner agreement evidenced.</p> <p>Potential resolution: If the Applicant updates their assessment and compensation measures as per our advice.</p>	<p>The Applicant notes the response and provides detailed comments in responses to ID RR-061-65, RR-061-88 to RR-061-91, ID RR-061-98 and ID RR-061-100.</p> <p>In the event that the Secretary of State (SoS) does not agree with the Applicant that AEoI for Lesser Black-Backed Gull (LBBG) at Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuary SPA cannot be ruled out, compensation has been provided in the Outline Compensation Implementation and Monitoring Plan (APP-030) and progression on the options is ongoing and will continue throughout Examination.</p>
RR-061-29	<p><b>6. Principal Areas of Disagreement Summary Statement (PADSS) Marine Mammals - (Ref. P6)</b></p>	<p>It is noted the Project is outside of any Marine Protected Areas (MPAs), with the nearest Special Area of Conservation (SAC) for marine mammals</p>

ID	RR	Applicant's Response
	<p>The applicant has not made a commitment to use Noise Abatement Systems (NAS) during construction.</p> <p>From January 2025 it will be an expectation that all offshore piling activity in English waters demonstrates best endeavours to deliver noise reductions. We anticipate that the majority of piling will not be able to proceed without noise abatement in place.</p> <p>The Applicant should fully commit to using noise abatement as mitigation to reduce both injury and disturbance to marine mammal receptors during construction activities. This should be reflected in a DCO/dML condition that requires consideration of NAS in the Marine Mammal Mitigation Protocol.</p> <p>Potential resolution. If the Applicant agrees to fully commit to using NAS as a mitigation measure this may be resolved during Examination.</p>	<p>being 45km away (North Anglesey Marine (Gogledd Môn Forol) SAC) and in the UK thus far, offshore wind developers are not known to have been required to employ Noise Abatement Systems (NAS). The MMO and Natural England have indicated that NAS will likely be required for EPS licensing of OWF projects using monopiles from early 2025 onwards (and relevant should this be the foundation option taken forward by the Project). The finalisation of the Marine Mammal Mitigation Protocol (MMMP) for piling and EPS licencing applications will consider the latest policy on NAS at the time. The Applicant notes that potential mitigation options, including NAS, are listed within the Draft MMMP (APP-149) which would be finalised post-consent in line with the final design of the Project. It is recognised that upon assessment of more developed design information, any need for the implementation of NAS will be decided in consultation with the licencing authority. The Applicant is planning appropriately for the potential requirement for NAS but maintains the position that the effects may be suitably mitigated through further design refinement and other embedded mitigation.</p> <p>The Applicant will also provide an Outline Underwater Sound Management Strategy (as requested by NE in RR-061-215) at Deadline 2 (in order to take into account potential further comments from the MMO, NRW and NE at Deadline 1). The Applicant has added a new condition 30 (Underwater Sound Management</p>

ID	RR	Applicant's Response
		Strategy) in the DML submitted with the updated draft DCO at Procedural Deadline A to secure this. Additionally, the Outline Underwater Sound Management Strategy has been added as a document to be certified as one referred to in the DCO.
RR-061-30	<p><b>6. Principal Areas of Disagreement Summary Statement (PADSS) - Benthic Ecology and Physical Processes - (Ref. P7)</b></p> <p>Assessment of impacts to benthic habitats and physical processes is incomplete. Potential impacts from seabed preparation works not fully considered within the assessment.</p> <p>The Applicant should provide an updated assessment of impacts on physical processes and benthic ecology that incorporates a realistic worst-case scenario for these activities.</p>	A detailed response is provided ID RR-061-248, providing clarification and further information as requested.
RR-061-31	<p><b>7. Detailed Advice Appendices</b></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"> <li>Appendix A – Development Consent Order, Deemed Marine Licence</li> <li>Appendix B – Offshore Ornithology</li> <li>Appendix C – Fish and Shellfish Ecology</li> <li>Appendix D – Marine Mammals</li> <li>Appendix E – Marine Geology and Physical Processes, and Marine Sediments and Water Quality</li> <li>Appendix F – Benthic Subtidal Ecology</li> </ul>	This is noted by the Applicant.
<b>Whole Project Assessment (Annex 1)</b>		
RR-061-32	<b>Annex 1</b>	As described in Section 1.1 of Chapter 1 Introduction (APP-038), both the Morecambe

ID	RR	Applicant's Response
	<p>Natural England's without prejudice advice in relation to taking into account all aspects of the of an offshore windfarm project which may be subject to determination across separate NSIPs with joint/shared infrastructure which may have cumulative impacts to nature conservation features.</p> <p>Natural England notes that having separate NSIP/consents for assets relating to the same project introduces considerable potential for complexity and duplication in all phases of the projects. We observe such a scenario could arise in the case of Morecambe given the potential for up to three Development Consent Orders (DCOs) with overlapping requirements i.e. Morgan Generation Assets DCO/dML, Morecambe Generation Assets DCO/dML and Morgan and Morecambe Transmission Assets DCO/dML</p> <p>Therefore, we advise that prompt consideration is required by the relevant parties to consider how conditions including mitigation measures (and potential compensation measures) can be implemented and consented to ensure that impacts can be considered holistically; the risk of stranded assets can be avoided; and ultimately that energy projects can be delivered in a timely manner, given the potential for confusion to perpetuate into the post-consent phase.</p> <p>This without prejudice advice draws from our experiences of the consenting process for both the Triton Knoll offshore windfarm 'array' NSIP and the Triton Knoll Electrical System NSIP. It is provided to help address the challenges that may be faced by projects where multiple NSIPs/consents are required, but timeframes may not align, the merits of the applications are unlikely to be considered by the same examining authority and there are subsequent implications for DCO requirement and marine licence discharge.</p>	<p>Offshore Windfarm and the Morgan Offshore Wind Project have been scoped into the Pathways to 2030 workstream, under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator (ESO) is responsible for conducting a Holistic Network Design Review (HNDR) to assess options to improve the coordination of offshore wind generation connections and transmission networks. In July 2022, the United Kingdom (UK) Government published the Pathway to 2030 Holistic Network Design documents, which set out the approach to connecting 50 Gigawatts (GW) of offshore wind to the UK electricity network (National Grid ESO, 2022). The output of this process concluded that the Morecambe Offshore Windfarm and the Morgan Offshore Wind Project should work collaboratively in connecting the windfarms to the National Grid at Penwortham in Lancashire. The Applicant was involved in this process and supports this decision.</p> <p>A separate consent for the Morgan and Morecambe Offshore Wind Farms: Transmission Assets associated with the Morecambe Offshore Windfarm and the Morgan Offshore Wind Project is required. This is in accordance with the section 35 direction issued by the SoS under the Planning Act 2008. The Transmission Assets application is planned to be submitted shortly.</p> <p>EN-1 reflects the need for coordination between developments in the same region. EN-1 (Paragraph</p>

ID	RR	Applicant's Response
		<p>3.3.71) states that <i>“it is expected that for regions with multiple windfarms a more coordinated approach will be delivered”</i>. As described in Section 1.1 of Chapter 1 Introduction (APP-038), the coordination of the transmission infrastructure elements for the Morecambe Offshore Windfarm with the Morgan Offshore Wind Project, in line with the National Policy Statement (NPS), has resulted in the separation of the DCO applications for the Generation Assets and the Transmission Assets. This is acknowledged in EN-1 (Paragraph 4.11.10) which states for <i>“some new offshore transmission projects ... applications for consent may be brought forward separate to (though planned with) the applications for associated wind farms”</i>. This is also noted in EN-5 (Paragraph 2.12.8), which acknowledges the need for separate consents for transmission assets from the offshore windfarm generators for coordinated transmission projects serving multiple wind farms.</p> <p>As part of the EIA for the Project, cumulative effects have been considered in relation to the Morgan Generation Assets and Morgan Transmission Assets. The Applicant notes that, in addition to the two cumulative scenarios assessed in the CEA, a summary of the Generation and Transmission Assets assessments has been provided in Chapter 23 Summary: Generation and Transmission Assets Assessment (APP-060) to allow an overview of the whole Project. The cumulative effects assessment undertaken and reported on within the DCO Application is robust</p>

ID	RR	Applicant's Response
		<p>and provides the ExA and SoS with full information to properly understand the potential effects of the Morecambe Offshore Windfarm as a whole. A cumulative effects assessment will also be submitted as part of the Transmission Assets application.</p> <p>The Applicant considers that this approach satisfies NE's request for a 'whole project assessment'.</p> <p>NE have advised the ExA that a condition be included in the consent for the Generation Assets that prevents works commencing until the consent for Transmission Assets is granted. The Applicant considers that such a condition is unnecessary. The Applicant will not construct the offshore windfarm array without certainty that it will be able to export electricity to the UK grid. NE's suggestion that the Project could be constructed and become a stranded asset is unrealistic. NE raised a similar point in respect of the Triton Knoll application and suggested a suspensive condition; however, the SoS, when determining that application did not consider this necessary. In their recommendation on the Triton Knoll Offshore Wind Farm Order 2013, the ExA recommended that a requirement be included that no works on the offshore generating station shall commence until the SoS has confirmed in writing that all the necessary consents for the connection and transmission works have been obtained. However, the SoS's decision stated <i>"the Secretary of State has decided therefore that it is not necessary to include the Grampian-style requirement recommended by the Panel."</i></p>

ID	RR	Applicant's Response
		<p>The Applicant maintains that this was the correct approach, which is further supported by the policy in EN-3 and EN-5. The Applicant therefore considers it unnecessary to include any condition/requirement in the draft DCO that would restrict the commencement of development under that DCO before the consent for the grid connection is granted. The approach taken by the Applicant in the EIA (and associated Habitats Regulations Assessment (HRA)) is a precautionary one, that ensures that all potential significant cumulative effects and in-combination effects on the environment have been identified in the Environmental Statement (ES) and RIAA.</p>
RR-061-33	<p><b>Annex 1</b>  <b>Generic advice on the consideration of indirect, secondary and cumulative impacts</b>            For any one of the examining/competent authorities to assess the direct, indirect, secondary and cumulative impacts from multiple linked NSIPs/consents, there will need to be sufficient information submitted on the indirect, secondary and cumulative impacts of the grid connection works within the initial applications. And throughout the examination the merits of the Applicant's approach to addressing this issue will need to be evaluated. We draw the ExA's attention to National Policy Statements for Energy (EN-1 (Section 4.10, 4.11), EN-3 (Section 2.8) and EN-5 (Section 2.7)) which require projects to ensure they provide sufficient information on the indirect, secondary and cumulative effects. The competent authorities must be satisfied that there are no obvious reasons why the necessary approvals for the other element are likely to be refused.</p>	<p>The Applicant has set out its position in more detail in its response to RR-061-32.</p>



ID	RR	Applicant's Response
	<p>Natural England advises that it cannot be reasonably contended that a cumulative assessment does not need to be carried out of a project that is not only intrinsically linked to the proposed development, but is necessarily required to come forward for the proposed development to have any meaningful existence beyond resulting in a stranded asset - be that the generation or transmission element.</p>	
RR-061-34	<p><b>Experience of consenting process for associated NSIPs</b></p> <p>Natural England highlights our experience during the Triton Knoll generation array examination where we found it difficult to advise the ExA on whether there were, or were not, any obvious reasons why the necessary approvals would be likely to be refused for the transmission assets. We believe depending on the submission and examination timeframes for the Morgan and Morecambe transmission DCO and the nature conservation risk posed by the transmission assets a similar situation has the potential to arise for both Morecambe and Morgan Generation Array NSIP HRAs.</p> <p>Whilst we recognised that the transmission NSIP for Triton Knoll would have to consider the project in-combination, Natural England remained concerned in relation to the potential building out of a stranded asset. Therefore, we also advised that a condition preventing the offshore works associated with the generation asset commencing until the necessary grid connection consents had been obtained was included within the generation DCO/dML.</p> <p>Such an approach would ensure that any secondary, indirect and cumulative impacts that were identified as arising during the course of any assessments into the grid connections works would prevent the authorised development coming forward, as they would result in the necessary grid connection consents being refused. We believe a similar approach could be appropriate for Morecambe Generation DCO/dML.</p>	<p>The Applicant has set out its position in more detail in its response to RR-061-32.</p>

ID	RR	Applicant's Response
<b>Appendix A to the Relevant Representations of Natural England: Development Consent Order (DCO)</b>		
RR-061-35	<p><b>Appendix A to the Relevant Representations of Natural England Development Consent Order (DCO)</b></p> <p><b>Appendix A – Development Consent Order (DCO)</b></p> <p>In formulating these comments, the following documents have been considered:</p> <p>[APP-012] 3.1 Draft Development Consent Order</p> <p>[APP-150] 6.6 Outline Offshore Operation and Maintenance Plan</p> <p><b>1. Natural England's Advice and Recommendations</b></p> <p>A summary of Natural England's key concerns in relation to the Development Consent Order (DCO) is set out in Table 1. Our detailed advice and recommendations are presented in further detail in Table 2.</p>	<p>The Applicant notes NE's comment and the documents used for the representation.</p>
RR-061-36	<p><b>Appendix A to the Relevant Representations of Natural England Development Consent Order (DCO)</b></p> <p><b>Summary of Key Concerns - (Ref A1)</b></p> <p>The Development Consent Order (DCO) does not contain any restriction of the maximum hammer energy used during piling. This is a key metric for the noise impact to marine mammals and sensitive fish species. The maximum limit assessed should be appropriately secured in the deemed Marine Licence (dML).</p> <p>Natural England advises the dML is updated to include the maximum hammer energy to be used during piling of monopiles and pins.</p>	<p>The Applicant has updated the design parameters within the draft DCO to include the maximum hammer energies assessed in the ES. This has been incorporated in the updated draft DCO at Procedural Deadline A.</p>
RR-061-37	<p><b>Appendix A to the Relevant Representations of Natural England Development Consent Order (DCO)</b></p> <p><b>Summary of Key Concerns - (Ref A2)</b></p> <p>Natural England notes that the dML requires a significant volume of pre-construction documentation to be submitted. The timing</p>	<p>The Applicant will discuss the timescales for approval of pre-construction documentation included within the DML conditions with NE and the MMO. The Applicant would note that 4 months was accepted by the SoS in the decision on The</p>

ID	RR	Applicant's Response
	<p>requirements require that this all be submitted 4 months prior to works.</p> <p>Natural England requests this time period be extended to six months.</p>	<p>Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024.</p>
RR-061-38	<p><b>Appendix A to the Relevant Representations of Natural England Development Consent Order (DCO)</b>  <b>Summary of Key Concerns - (Ref A3)</b></p> <p>The during construction monitoring condition is missing a key element that provides for a stop to works should the noise monitoring highlight the noise is significantly in excess of the noise assessed within the environmental statement. This is a key mitigation to protect marine mammal and sensitive fish species.</p> <p>Natural England advises that the during construction noise monitoring condition is updated to match the standard requirements.</p>	<p>Noted. The Applicant has amended condition 15 (construction monitoring) to require all piling work to stop where, in the reasonable opinion of the MMO in consultation with the relevant SNCB, the assessment shows significantly different impacts to those assessed or failures in mitigation. This has been incorporated in the version of the DML submitted with the updated draft DCO at Procedural Deadline A.</p>
RR-061-39	<p><b>Appendix A to the Relevant Representations of Natural England Development Consent Order (DCO)</b>  <b>Summary of Key Concerns - (Ref A4)</b></p> <p>Natural England notes this condition requires a Marine Mammal Mitigation Protocol (MMMP). Natural England considers that this condition should refer to the requirement to consider Noise Abatement Systems (NAS) within the MMMP as these are considered important mitigation for Marine Mammals.</p> <p>Natural England advises that the condition to require the consideration of the use of NAS within the MMMP is amended within the dML.</p>	<p>The Applicant notes that consideration of NAS is included within the Draft MMMP (APP-149). As such, it is already secured by virtue of the corresponding DML condition requiring an updated MMMP (Condition 9(1)(i) of Schedule 6 to the draft DCO (APP-012)) and there is no requirement to specify this directly within the DML.</p>
RR-061-40	<p><b>Appendix A to the Relevant Representations of Natural England Development Consent Order (DCO)</b></p>	<p>The Applicant notes the comments on monitoring made by NE.</p>

ID	RR	Applicant's Response
	<p><b>Summary of Key Concerns - (Ref A5)</b></p> <p>These conditions cover the monitoring for the project. Natural England notes that there is no pre-construction benthic, marine mammal or ornithological monitoring secured within condition 14 or post construction monitoring at condition 16. This monitoring is considered standard.</p> <p>Further we note that the during construction noise monitoring at condition 15 (4) is an old version of this condition. The new standard condition for noise monitoring includes a requirement for the piling works to stop should the noise monitoring highlight that construction noise is significantly above the noise assessed within the Environmental Statement. Please see East Anglia Two OWF DCO for an example of this wording.</p> <p>We advise that monitoring conditions should be updated and informed by a pre consent In Principle Monitoring Plan.</p>	<p>The Applicant has amended condition 15 (construction monitoring) to require all piling work to stop where, in the reasonable opinion of the MMO in consultation with the relevant SNCB, the assessment shows significantly different impacts to those assessed or failures in mitigation. This has been incorporated in the version of the DML submitted with the updated draft DCO at Procedural Deadline A.</p> <p>In regard to benthic ecology, there are no identified Annex I biogenic or geogenic reef features within or near to the windfarm site, and those habitats/biotopes that are present within the windfarm site would not be significantly affected by the Project (as noted in Paragraph 9.113 of Chapter 9 Benthic Ecology (APP-046)). Consequently, pre- and post-construction benthic surveys are not proposed, however pre- and post-construction bathymetric surveys are included in the IPMP (APP-148) and secured in the draft DCO (APP-012). The Applicant also has accommodated the request made by NE during pre-application consultation in relation to INNS monitoring. The Applicant has committed to monitoring of INNS colonisation in line with post-construction hard-substrate inspections, as described in the IPMP (APP-148).</p>

ID	RR	Applicant's Response
		<p>In regard to marine mammals, monitoring for noise levels for the first four piles is secured in the draft DCO (APP-012).</p> <p>The Applicant has not secured further monitoring for marine mammals, on the basis that with the implementation of mitigation, 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. It is noted that mitigation would need to be agreed post-consent alongside the final Project design parameters.</p> <p>In regard to ornithology, the Applicant can confirm that it would be willing to discuss monitoring for RTD with NE.</p> <p>In respect to any further monitoring no Project-alone significant effects are identified in respect of ecological receptors and/or contribution to cumulative effects are low with mitigations in place. The Applicant does not consider post-construction monitoring to be necessary, further to that identified above.</p>
RR-061-41	<p><b>Appendix A to the Relevant Representations of Natural England Development Consent Order (DCO)</b></p> <p><b>Summary of Key Concerns - (Ref A6)</b></p> <p>The definition of Statutory Nature Conservation Body (SNCB) is fairly open to interpretation. See below an example of wording used in other DCOs which provide more certainty with regard to the SNCB.</p>	<p>While the Applicant notes that more recent DCO precedent (such as The Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024) has used the same definition, the Applicant will defer to NE on this wording.</p> <p>This has been incorporated in the updated draft DCO submitted at Procedural Deadline A.</p>

ID	RR	Applicant's Response
	<p>“statutory nature conservation body” means a statutory nature conservation body, being the appropriate nature conservation body as defined in Regulation 5 of the Conservation of Habitats and Species Regulations 2017(b) or its equivalent in the Conservation of Offshore Marine Habitats and Species Regulations 2017(c)</p> <p>Natural England requests that the definition of SNCB is updated.</p> <p>This comment also applies to Schedule 6 Part 1 condition 1, which has similar wording. For brevity this comment will not be repeated.</p>	
RR-061-42	<p><b>Appendix A to the Relevant Representations of Natural England Development Consent Order (DCO)</b></p> <p><b>Natural England's Advice - (Ref A7)</b></p> <p>Natural England notes that at no point within the dML is the maximum hammer energy for piling secured. This is a key metric for the impact to marine mammals and sensitive fish species. This has been secured by condition on many similar projects, see East Anglia Two as a recent example. We would expect the maximum hammer energy for monopile and pin piles to be secured within the project design conditions.</p> <p>Natural England advises that the maximum hammer energy for monopile and pin piling within table 3 or via separate condition is secured.</p>	<p>The Applicant has updated the design parameters to include the maximum hammer energies assessed in the ES. This has been incorporated in the updated DML included in the draft DCO at Procedural Deadline A.</p>
RR-061-43	<p><b>Appendix A to the Relevant Representations of Natural England Development Consent Order (DCO)</b></p> <p><b>Natural England's Advice - (Ref A8)</b></p> <p>Within this condition there is usually a requirement to microsite the cables around features of conservation importance, as well as archaeological features. The condition as drafted only provides for exclusion of archaeological features. Natural England would note that even outside of benthic designated sites important conservation</p>	<p>As noted in Paragraph 9.113 of Chapter 9 Benthic Ecology (APP-046), no species listed in the OSPAR list of threatened and/or declining species and no species of principal importance/Biodiversity Action Plan (BAP) species were recorded during the 2022 benthic characterisation survey of the windfarm site, nor were any reported from other studies within 15km of the windfarm site. Therefore,</p>

ID	RR	Applicant's Response
	<p>habitats such as Sabellaria spinulosa reef are protected under the NERC act and appropriate mitigation should be included. We would note this micro-siting has been included in most OWF DCO's as standard and would refer you to the East Anglia Two DCO for a recent example.</p> <p>Natural England advises amending the condition to include requirement to micro-site around features of conservation importance.</p>	<p>the Applicant does not believe this condition requires amendment.</p>
RR-061-44	<p><b>Appendix A to the Relevant Representations of Natural England Development Consent Order (DCO)</b>  <b>Natural England's Advice - (Ref A9)</b></p> <p>Natural England notes this allows for Operations and Maintenance Plan (OMP) to be provided based on the outline operations and maintenance plan (OOMP). The OOMP implies that cable protection may be deployed throughout the operational life of the windfarm. With regard to replenishment of existing cable protection Natural England has no concerns. However, deployment of new areas of cable protection should be limited to within a maximum period of ten years from the start of operations. This is Natural England's standard position for cable protection deployment after construction outside of designated sites. This would apply to the deployment of scour protection in new areas as well. Please note within benthic designated sites further cable protection during the operational phase would require a new marine licence.</p> <p>Natural England advises that the condition is amended to make it clear new areas of cable protection can only be deployed up to ten years following submission of the updated OMP outside of designated sites.</p>	<p>Noted, the Applicant agrees that it is reasonable that new areas of cable protection can only be deployed up to ten years following submission of the updated Outline Offshore Operation and Maintenance Plan (OOMP) (APP-150) outside of designated sites. The Applicant will revise the Outline OOMP to clarify the Applicant's position on cable protection at Deadline 2.</p>

ID	RR	Applicant's Response
RR-061-45	<p><b>Appendix A to the Relevant Representations of Natural England Development Consent Order (DCO)</b>  <b>Natural England's Advice - (Ref A10)</b></p> <p>Natural England notes that this condition provides that most of the plans and documentation submitted in condition 15 be submitted 4 months prior to the works. Natural England notes that due to the size and complexity of this project this time period is not appropriate. Given the large volume of documentation and the often complex nature of such we request this be amended to six months prior to commencement. Alternatively we are willing to discuss the required timing for each plan with the applicant and the MMO. We would refer to East Anglia Two as a recent example of an OWF development with a standard 6 months requirement.</p> <p>Natural England advises that the condition is amended to require documents be submitted 6 months prior to commencement.</p>	<p>The Applicant will discuss the timescales for approval of construction documentation included within the DML conditions with NE and the MMO. The Applicant would note that 4 months was accepted by the SoS in the decision on The Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024.</p>
RR-061-46	<p><b>Appendix A to the Relevant Representations of Natural England Development Consent Order (DCO)</b>  <b>Natural England's Advice - (Ref A11)</b></p> <p>Natural England notes this condition allows for the use of the Marine Recovery fund as an alternative compensation. Natural England notes that there is ongoing work on strategic compensation and would support the inclusion of appropriate provisions to allow use of agreed strategic compensation. However, the wording here is insufficient, if that is its purpose. We have included details in Annex A1 below of some draft wording we proposed for a strategic benthic provision which could also be extrapolated into an appropriate provision for LBBG.</p>	<p>The Applicant welcomes the suggested compensation wording and will continue to engage with NE to extrapolate the proposed benthic compensation wording into appropriate wording for its without prejudice lesser black-backed gull compensation schedule. The Applicant proposes to incorporate amendments with the draft DCO submitted at Deadline 2.</p>



ID	RR	Applicant's Response
	Natural England recommends amending this provision and consideration of how to appropriately implement a provision allowing strategic compensation options.	
<b>Annex A1 – Suggested Benthic Compensation Wording Provided to Regulators</b>		
RR-061-47	<p><b>Annex A1 – Suggested Benthic Compensation Wording Provided to Regulators</b></p> <p><b>Schedule XX</b></p> <p><b>[Site Name] Special Area of Conservation or Marine Conservation Zone: Delivery of measures to compensate for [impacts]</b></p> <p>1. In this Schedule—</p> <p>“BIMP” means the benthic implementation and monitoring plan for the delivery of measures to compensate for the cable installation and protection in the [Site Name] SAC as a result of the authorised development;</p> <p>“BSG” means the benthic steering group who will shape and inform the scope and delivery of the BIMP;</p> <p>“[Site ref] SAC” means the [Site name] Special Area of Conservation;</p> <p>“[Site ref] SAC compensation plan” means the document certified as [In Principle Compensation Plan Document Ref] by the Secretary of State for the purposes of this Order under article XX (Certification of plans etc); and</p> <p>“Strategic Compensation Fund” means the [name of strategic fund] fund established by Defra [or another Government body] for the purpose of implementing strategic compensation measures.</p> <p>“Strategic Compensation Owner” means the government body which established the Strategic Compensation Fund with the responsibility to manage the fund.</p>	The Applicant welcomes the suggested compensation wording and will continue to engage with NE to extrapolate the proposed benthic compensation wording into appropriate wording for its without prejudice lesser black-backed gull compensation schedule. The Applicant proposes to incorporate amendments with the draft DCO submitted at Deadline 2.
RR-061-48	<p><b>Annex A1 – Suggested Benthic Compensation Wording Provided to Regulators Schedule</b></p>	

ID	RR	Applicant's Response
	<p>2. No later than 2 years from the date of this order the Undertaker must advise the Secretary of State of the intention to provide compensation either;</p> <p>a. Through a monetary contribution to the Strategic Compensation Fund; or</p> <p>b. Through a project alone compensation scheme for the undertaker to provide compensation as outlined in the [site ref] SAC Compensation Plan.</p> <p>Paragraphs 7-15 of this Schedule shall not apply to the extent that a contribution to the Strategic Compensation Fund has been elected in Paragraph 2 of this Schedule and paragraphs 4, 5 and 6 of this schedule shall not apply to the extent that a project alone compensation plan has been elected in paragraph 2 of this Schedule.</p>	
RR-061-49	<p><b>Annex A1 - Suggested Benthic Compensation Wording Provided to Regulators Schedule</b></p> <p>3. The authorised development may not be commenced until a plan for the work of the BSG has been submitted to and approved by the Secretary of State. Such plan must include:</p> <p>(a) terms of reference of the BSG;</p> <p>(b) the membership of the BSG;</p> <p>(c) details of the schedule of meetings, timetable for preparation of the BIMP and reporting and review periods, or details of the schedule of meetings to agree contribution to the Strategic Compensation Fund; and</p> <p>(d) the dispute resolution mechanism.</p>	
RR-061-50	<p><b>Annex A1 - Suggested Benthic Compensation Wording Provided to Regulators Schedule</b></p> <p>4. The undertaker must agree a ratio/value of contribution with the strategic compensation owner, in consultation with the Statutory Nature Conservation Body [and the BSG]. Unless agree otherwise with the Strategic compensation Owner the ratio/value must include</p>	

ID	RR	Applicant's Response
	consideration of the provision of; <ol style="list-style-type: none"> <li>a. The required contribution to compensate for the worst-case scenario of impact on the [site ref] SAC;</li> <li>b. The required contribution to monitoring of the compensation undertaken under the Strategic Compensation Fund;</li> <li>c. The required contribution to provide for any adaptive management measures for the compensation undertaken under the Strategic Compensation Fund;</li> <li>d. The timing of any required contribution to ensure compensation is either provided ahead of construction or to a sufficiently high ratio to allow for construction prior to implementation of the compensation;</li> <li>e. The required contribution for the ongoing maintenance of the compensation undertaken under the Strategic Compensation Fund;</li> </ol> and <ol style="list-style-type: none"> <li>f. The required contribution for any decommissioning of the compensation undertaken under the Strategic Compensation Fund.</li> </ol>	
RR-061-51	<b>Annex A1 - Suggested Benthic Compensation Wording Provided to Regulators Schedule</b> 5. Prior to the commencement of any works the undertaker must provide details on the contribution to the Strategic Compensation Fund agreed under paragraph 4 to the Secretary of State for approval.	
RR-061-52	<b>Annex A1 - Suggested Benthic Compensation Wording Provided to Regulators Schedule</b> 6. The undertaker must provide the contribution to the Strategic Compensation Fund as per the agreement approved by the Secretary of State under paragraph 5.	
RR-061-53	<b>Annex A1 - Suggested Benthic Compensation Wording Provided to Regulators Schedule</b>	

ID	RR	Applicant's Response
	<p>7. The BSG must be consulted on the proposed BIMP prior to the submission to the Secretary of State and must be consulted further as required during the approval process.</p>	
RR-061-54	<p><b>Annex A1 - Suggested Benthic Compensation Wording Provided to Regulators Schedule</b></p> <p>8. The undertaker will meet with and report to the BSG at least annually throughout the establishment and implementation phases of the BIMP and document the conclusions of the meetings.</p>	
RR-061-55	<p><b>Annex A1 - Suggested Benthic Compensation Wording Provided to Regulators Schedule</b></p> <p>9. Unless otherwise agreed in writing with the Secretary of State, prior to the commencement of any cable installation works in the [site ref] SAC, the undertaker must—</p> <ul style="list-style-type: none"> <li>(a) provide a reasonable estimate of the cost of delivery of the compensation measures; and</li> <li>(b) put in place either— <ul style="list-style-type: none"> <li>(i) a guarantee in respect of the reasonable estimate of costs associated with the delivery of the compensation measures; or</li> <li>(ii) an alternative form of security for that purpose, that has been approved by the Secretary of State.</li> </ul> </li> </ul>	
RR-061-56	<p><b>Annex A1 - Suggested Benthic Compensation Wording Provided to Regulators Schedule</b></p> <p>10. The BIMP must accord with the relevant principles contained in the [site ref] SAC compensation plan and must include in particular provide:</p> <ul style="list-style-type: none"> <li>(a) details of any further survey work required to inform the compensation requirements as per the requirements of the secretary of state agreed through consultation with the BSG;</li> <li>(b) details of the location, nature and works to be undertaken to compensate for the predicted effects of the project;</li> <li>(c) a method statement for the compensatory works, to include the vessel type, tools used and mitigation for how impacts on the [site</li> </ul>	

ID	RR	Applicant's Response
	<p>ref] SAC and any other relevant habitats or features            (d) a programme of works for the compensatory works;            (e) proposals for monitoring in accordance with the principles set out in the [site ref] SAC compensation plan as well as proposals for reporting of monitoring; and            (f) success criteria, adaptive management measures, and details of how all impacts to protected habitats and features within designated sites will be avoided.</p>	
RR-061-57	<p><b>Annex A1 - Suggested Benthic Compensation Wording Provided to Regulators Schedule</b>            11. The BIMP must be carried out as approved, unless otherwise agreed in writing by the Secretary of State in consultation with the MMO and the relevant statutory nature conservation body. In particular, no installation works in the [site ref] SAC may be commenced until the Secretary of State has confirmed that compensation requirements have been discharged, excluding monitoring and/or adaptive management measures.</p>	
RR-061-58	<p><b>Annex A1 - Suggested Benthic Compensation Wording Provided to Regulators Schedule</b>            12. Unless otherwise agreed in writing with the Secretary of State, prior to the commencement of any cable installation works in the [site ref] SAC, the undertaker must—            (a) provide a reasonable estimate of the cost of delivery of the compensation measures; and            (b) put in place either—            (i) a guarantee in respect of the reasonable estimate of costs associated with the delivery of the compensation measures; or            (ii) an alternative form of security for that purpose, that has been approved by the Secretary of State.</p>	
RR-061-59	<p><b>Annex A1 - Suggested Benthic Compensation Wording Provided to Regulators Schedule</b></p>	

ID	RR	Applicant's Response
	<p>13. Results from the monitoring scheme must be submitted at least annually to the Secretary of State, the MMO and the relevant statutory nature conservation body. This must include details of any finding that the measures have been ineffective in securing an improvement in the condition of the [site ref] SAC and, in such case, proposals to address this. Any proposals to address effectiveness must thereafter be implemented by the undertaker as approved in writing by the Secretary of State in consultation with the MMO and the relevant statutory nature conservation body.</p>	
RR-061-60	<p><b>Annex A1 - Suggested Benthic Compensation Wording Provided to Regulators Schedule</b></p> <p>14. A report which demonstrates completion of the activities required by the BIMP must be submitted to the Secretary of State within 12 months of completion of such activities and following approval of the report by the Secretary of State, in consultation with the MMO and the statutory nature conservation body, the undertaker will be discharged from any further obligations under this Part.</p>	
RR-061-61	<p><b>Annex A1 - Suggested Benthic Compensation Wording Provided to Regulators Schedule</b></p> <p>15. The approved BIMP includes any amendments that may subsequently be agreed in writing by the Secretary of State, in consultation with the MMO and the relevant statutory nature conservation body. Any amendments to or variations of the BIMP must be in accordance with the principles set out in the [site ref] SAC compensation plan and may only be approved where it has been demonstrated to the satisfaction of the Secretary of State that it is unlikely to give rise to any new or materially different environmental effects from those considered in the [site ref] SAC compensation plan.</p>	
<p><b>Appendix B to the RR of NE: Offshore Ornithology</b></p>		

ID	RR	Applicant's Response
RR-061-62	<p><b>Appendix B to the Relevant Representations of Natural England Offshore Ornithology</b></p> <p>In formulating these comments, the following documents have been considered:</p> <p>[APP-027] 4.9 Report to Inform Appropriate Assessment            [APP-042] 5.1.5 Chapter 5 Project Description            [APP-049] 5.1.12 Chapter 12 Offshore Ornithology            [APP-070] 5.2.12.1 Appendix 12.1 Offshore Ornithology            [APP-071] 5.2.12.2 Appendix 12.2 Aerial Survey Two Year Report March 2021 to February 2023</p> <p><b>Natural England's Advice and Recommendations</b></p> <p>A summary of Natural England's key concerns in relation to offshore ornithology is set out in Table 1. Our detailed advice and recommendations are presented in further detail in Table 2.</p>	<p>The Applicant notes NE's comment and the documents used for the representation.</p>
RR-061-63	<p><b>Appendix B to the Relevant Representations of Natural England Offshore Ornithology</b></p> <p><b>Summary of Key Issues – Offshore Ornithology - Cumulative Effects Assessment (CEA) methodology (Ref B1)</b></p> <p>Natural England do not consider the CEA to be sufficiently robust. This is due to the lack of quantitative consideration of some historic projects. Natural England also highlight inconsistencies in figures used for some projects compared to those in other assessments (e.g. Morgan &amp; Mona Offshore Wind Farms (OWF)).</p> <p>The Applicant has made useful progress on addressing data gaps and assessing the risks of remaining gaps. However, we question the apportioning approach used by the Applicant in cases where EIA impacts are assigned to SPAs, and in some cases do not agree with the Applicants assessment of the remaining risk from projects</p>	<p>The Applicant notes this response. The Applicant is in consultation with the Mona Offshore Wind Project and Morgan Offshore Wind Project Generation Assets on this matter and will provide an update to cumulative/in-combination assessments at Deadline 1 (agreed with the ExA within its Rule 6 Letter (PD-007)), to incorporate additional information for historic projects.</p> <p>See also following responses below:</p> <ul style="list-style-type: none"> <li>▪ ID RR-061-70</li> <li>▪ ID RR-061-77</li> <li>▪ ID RR-061-80</li> <li>▪ ID RR-061-81</li> </ul>

ID	RR	Applicant's Response
	<p>without quantified impacts. Moreover, Natural England are not persuaded that appropriate assessments can be undertaken without further quantification of impacts arising at historic projects, particularly where PVAs have been conducted using incomplete total impacts.</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 B2) remains our preferred approach. However, we do recognise that for most assessments the legitimate risk of impact on integrity judgements is relatively low.</p> <p>Natural England advise that Irish Sea OWFs should be collaborating to use the same data to conduct their cumulative and in-combination assessments. This is important both with respect to historic projects and the current projects themselves, given these projects will be in examination simultaneously and the impact estimates are subject to change.</p>	<ul style="list-style-type: none"> <li>▪ ID RR-061-83</li> <li>▪ ID RR-061-86</li> <li>▪ ID RR-061-89</li> <li>▪ ID RR-061-136 to 139</li> </ul>
RR-061-64	<p><b>Appendix B to the Relevant Representations of Natural England Offshore Ornithology</b></p> <p><b>Summary of Key Issues – Offshore Ornithology - Red-throated diver at Liverpool Bay SPA (Ref B2)</b></p> <p>Natural England advise that an adverse effect on integrity (AEOI) cannot be ruled out for the red-throated diver feature at the Liverpool Bay SPA.</p> <p>Natural England agree with the Applicant that impacts on the original SPA boundary (delineated according to areas of high red-throated diver density) are of most relevance. We note that 41.5% of the 'original' SPA area is already impacted. Morecambe OWF will further impact &gt;1% of the SPA most suitable for red-throated diver. New</p>	<p>Noted. The Applicant does not agree with NE's position on RTD at Liverpool Bay SPA, and maintains that no AEol can be concluded for this feature. The Applicant will provide a further update on its position at Deadline 1.</p> <p>See also responses to detailed comments RR-061-87 and RR-061-94 to RR-061-96.</p> <p>The Applicant can confirm that it would be willing to discuss monitoring for RTD with NE.</p>



ID	RR	Applicant's Response
	<p>displacement impacts over 18km<sup>2</sup> of habitat will arise, which is of considerable concern given the restore objective for feature distribution. We highlight that the Applicant has not submitted a without-prejudice compensation case for RTD.</p> <p>Natural England advise that every effort is made to avoid the impact on red-throated diver distribution within the 'original' SPA area. This would most effectively be delivered by committing to a red-line boundary change or structures exclusion zone to ensure no turbines are located within 10km of this area.</p> <p>Natural England consider the design and delivery of derogations for red-throated diver to be extremely challenging, especially when considering the nature of the impacts (i.e. distribution, not mortality). As compensation for impacts may not be realistic, efforts to mitigate will be essential.</p>	
RR-061-65	<p><b>Appendix B to the Relevant Representations of Natural England Offshore Ornithology</b></p> <p><b>Summary of Key Issues - Lesser black-backed gull at Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuaries SPA (Ref B3)</b></p> <p>Natural England advise that AEOI cannot be ruled out for Morecambe Bay and Duddon Estuary SPA or Ribble and Alt Estuaries SPA due to in-combination collision impacts. While we agree with the Applicant that their contribution to the annual mortality totals is relatively small, we highlight that the current populations at both SPAs have declined below their target levels, and therefore avoiding any further deterioration is imperative.</p> <p>Regarding the assessment of impacts, we are concerned that the apportioning of impacts to colonies currently incorporates colonies</p>	<p>Noted. The Applicant will provide an updated assessment for LBBG for Morecambe Bay and Duddon Estuary SPA or Ribble and Alt Estuaries SPA at Deadline 1 (agreed with the ExA within its Rule 6 Letter (PD-007)), to include updated apportioning in accordance with NE's comments. It is anticipated that this will only make a small difference to the predicted mortality, and is unlikely to affect the position of the Applicant in respect of its conclusions of no AEOI for both sites.</p> <p>The Applicant welcomes NE's positive response to the without-prejudice derogation case and compensation proposals presented with the submission. The Applicant will continue to develop this case, and will present updates to calculations,</p>

ID	RR	Applicant's Response
	<p>with no realistic connectivity to the project area. We also note that the SPA populations considered by the assessment are recent but have now been superseded by counts from the 2023 breeding season, and therefore aspects of the assessment will need updating.</p> <p>Natural England welcome the submission of a developed without-prejudice derogations case for lesser black-backed gull and consider that the ongoing progression of the measures detailed represent an appropriate way forward.</p> <p>Apportioning of impacts for lesser-black backed gull should be refined to exclude colonies that are unlikely to display connectivity to the project study area. All relevant calculations should be updated and the project alone impact in context of the in-combination total re-evaluated.</p> <p>Assessments should consider the population trajectories of the SPA colonies and reflect the best available and most recent evidence.</p>	<p>as requested, at Deadline 1 (agreed with the ExA within its Rule 6 Letter (PD-007)). The Applicant does not consider that these updates would impact the deliverability of the without prejudice compensation proposals.</p> <p>See also responses to detailed comments RR-061-88 to RR-061-91, ID RR-061-98 and ID RR-061-100.</p>
RR-061-66	<p><b>Natural England's Detailed Advice and Recommendations - Project Parameters - Document(s) Used: [APP-042] 5.1.5 Chapter 5 Project Description (Ref B4)</b></p> <p>Natural England are satisfied that the project description is adequate for assessing impacts, including the worst-case design scenario parameters (i.e. the largest number of smaller turbines) provided for collision risk modelling</p>	Noted. The Applicant welcomes NE's position.
RR-061-67	<p><b>Natural England's Detailed Advice and Recommendations - Baseline Characterisation - Document(s) Used: [APP-071] 5.2.12.2 Appendix 12.2 Aerial Survey Two Year Report March 2021 to February 2023 (Ref B5)</b></p>	Noted. The Applicant welcomes NE's position.

ID	RR	Applicant's Response
	<p>Natural England are satisfied that appropriate baseline data has been gathered for the purposes of ornithological impact assessment.</p>	
<p>RR-061-68</p>	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (Ref B6)</b></p> <p>Natural England consider that the Applicant has identified the key pressures, impacts and receptors.</p>	<p>Noted. The Applicant welcomes NE's position.</p>
<p>RR-061-69</p>	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (Ref B7)</b></p> <p>The rotation speed is given in this table as 7.74 whereas in the technical appendix Table 2.1 it is given as 7.64.</p> <p>Ensure consistency between figures.</p>	<p>The Applicant confirms that the value in Table 12.2 in Chapter 12 Offshore Ornithology (APP-049) is a typographical error and should be 7.64. The correct value has been used in CRMs used throughout the assessment.</p> <p>Updates have been presented The Applicant's Errata Sheet (Document Reference 8.4), submitted alongside this document at Procedural Deadline A.</p>
<p>RR-061-70</p>	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (Ref B8)</b></p> <p>Natural England note that the Applicant declined to fully follow our advised approach to 'gap-fill' the CEA, as they do not believe the consideration of proxy sites with quantified impacts is appropriate. While we agree that using proxy data from nearby OWFs is not ideal, we advise that it is still preferable to simply assigning no impact to historic OWFs that have not previously estimated displacement or collision impacts, and/or undertaking a qualitative assessment.</p> <p>We highlight that in the region of concern, many of the wind farms that could supply proxy data are adjacent to one another.</p>	<p>Noted. The Applicant will provide an update to cumulative/in-combination assessments at Deadline 1 (agreed with the ExA within its Rule 6 Letter (PD-007)), to incorporate additional information for historic projects, for species where NE has identified this requirement. The Applicant also confirms that discussions with the other R4 Irish Sea OWF (Mona Offshore Wind Project and Morgan Offshore Wind Project Generation Assets) are ongoing to ensure collaboration across the projects.</p>

ID	RR	Applicant's Response
	<p>We also note that they will have been selected for a set of broadly similar environmental attributes such as water depth. We conclude that the use of proxy sites is defensible with appropriate caveats.</p> <p>For clarity, the proposed method is not intended to generate robust impact estimates, but rather, identify any potential risks of significant impacts that should be investigated further. Further, we note that this is 'step 2', i.e., a last resort that (quickly) quantifies impacts from especially data poor projects.</p> <p>Natural England continue to advise that the cumulative effects assessment should attempt to quantify impacts from all relevant historic projects, and that consideration of proxy sites may prove to be the most pragmatic method of doing this (Annex B2).</p> <p>We advise that the R4 Irish Sea OWF projects should all be considering the same data within their CEA to ensure consistency across the assessments.</p>	
RR-061-71	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (B9)</b></p> <p>Some of the average mortality values the Applicant has calculated do not align with those recommended by Natural England. Through the EWG process with round 4 wind farms, Natural England noted that there was some inconsistency between projects in the average mortality rates that were being used, despite them generally being based on the same source (Horswill and Robinson 2015). To rectify this, Natural England and NRW reviewed the evidence and calculation methods and produced standard mortality rates and reference populations for the key seabird species. An interim advice</p>	<p>Noted. The updated demographic rates were unfortunately received too late to be incorporated into submission documents. The Applicant confirms that these will be reviewed and updates provided, where required, at Deadline 1. As noted by NE, these changes are unlikely to affect assessment conclusions.</p>

ID	RR	Applicant's Response
	<p>note containing this information was sent to the Applicant in April 2024 (see Annex B3).</p> <p>The differences between the Applicant's values and Natural England's are mostly minor and unlikely to make a material difference to the assessment. The most significant difference is for razorbill, where the Applicant has calculated an average mortality rate of 0.178, while Natural England recommend a value of 0.1302.</p> <p>We advise that the average mortality rates recommended in the Natural England and NRW interim advice note are used for the assessment (see Annex B3).</p>	
RR-061-72	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (B10)</b></p> <p>There is some inconsistency in the months assigned to each season for gannet. Where a month overlaps with both a migration season and the breeding season, Natural England advise that it should be considered as the breeding season.</p> <p>The Applicant has shaded the seasons correctly in Table 12.16, but comparison of the seasonal mean peak abundances in Table 12.21 with the array +2km buffer abundances in Table 5.76 in the Technical Report show an inconsistency, as the mean peak abundances reported are higher than any abundance values detected in the relevant months for those seasons.</p> <p>Assigning abundances to the correct Natural England-advised seasons would mean that no gannets were detected in the wind farm array + 2km buffer in the Spring migration period of Dec-Feb, and far fewer gannets were detected in the Autumn migration period of Oct-</p>	<p>Noted. The assignment of seasons for gannet has been reviewed and updated and provided in The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2), submitted alongside this document at Procedural Deadline A. The Applicant notes that any changes do not affect assessment conclusions.</p>

ID	RR	Applicant's Response
	<p>Nov. We note that the correct Natural England- advised months have been used for assigning collision impacts to seasons.</p> <p>The assessment should be reviewed and updated as necessary.</p>	
RR-061-73	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Table 12.46 Chapter 12 Offshore Ornithology (Ref N/A)</b></p> <p>Several of the total annual LCI and UCI values in the CRM results table appear to be incorrect.</p> <p>Please QA and correct as necessary.</p>	<p>As per The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2) (submitted alongside this document at Procedural Deadline A), the Applicant has reviewed the values in Table 12.46 in Chapter 12 Offshore Ornithology (APP-049) and confirms that they are correct. The apparent error occurs because the stochastic collision risk model (sCRM) tool calculates the monthly 95% Lower Confidence Intervals (LCI) and Upper Confidence Intervals (UCI) values separately to the annual values. The annual values presented in Table 12.46 are the outputs from the sCRM model, but are not the same as if each of the monthly values had been summed (which it is assumed to be the reason that NE considers there to be an error). For example, for herring gull, the sum of the monthly 95% UCI values would be 17.41, but the sCRM output for the annual 95% UCI is 9.21, which is the value presented in the table.</p> <p>The Applicant has provided NE with relevant input and output files from the sCRM, so that these values can be checked if required.</p>

ID	RR	Applicant's Response
RR-061-74	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (Ref B11)</b></p> <p>Natural England have not been able to replicate the Applicant's collision risk modelling results for little gull using the method and parameters set out by the Applicant.</p> <p>We are aware of an issue with the default bootstrapped flight height data file for little gull, based on data from Johnston and others (2014), which is integrated into the stochCRM tool. We are currently investigating the origins and full implications of this issue. When running the stochCRM tool using the Applicant's parameters and this flight height data, we produced results that appear unrealistic and much more variable than those reported by the Applicant (e.g. upper confidence interval collision estimates of 60+ birds).</p> <p>We request that the Applicant provides log files for the little gull sCRM run, including full inputs and outputs. Furthermore, any methodological updates should be detailed, e.g. if a bespoke flight height distribution was used.</p>	<p>As noted by NE, the flight height data for little gull embedded in the Collision Risk Model (CRM) modelling tool appears to be erroneous, and provides unexpected values when the model is run. The Applicant therefore manually inputted the 'maximum probability' values from Johnston <i>et al.</i> (2014) into the model, and the collision estimates presented are those derived using these values. The Applicant also verified these outputs using the Band CRM (2012) spreadsheet, and confirmed that values were broadly similar.</p> <p>The Applicant provided NE with relevant input and output files from the sCRM on 15<sup>th</sup> August 2024, so that these values can be checked if required. This is as per The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2), submitted alongside this document at Procedural Deadline A.</p>
RR-061-75	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (Ref B12)</b></p> <p>The number of non-breeding collisions listed for great black-backed gull in this table is incorrect.</p> <p>This should be corrected in an updated assessment.</p>	<p>The non-breeding season mortality total in Table 12.47 in Chapter 12 Offshore Ornithology (APP-049) had erroneously omitted the predicted December mortality (0.65), and so the total mortality for this period should be 1.10, rather than 0.45 birds. It is noted that the total annual value presented in Table 12.47 is correct (1.75 birds). This is the value used in the assessment, and therefore this error does not affect assessment conclusions.</p>

ID	RR	Applicant's Response
		<p>Updates have been presented The Applicant's Errata Sheet (Document Reference 8.4), submitted alongside this document at Procedural Deadline A.</p> <p>This is as per The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2), submitted alongside this document at Procedural Deadline A.</p>
RR-061-76	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (Ref B13)</b></p> <p>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. Natural England are satisfied that the project alone will not result in any significant level of impact to migratory birds that are qualifying features of SPAs/Ramsar sites within 100km of the Project.</p>	<p>Noted. The Applicant welcomes NE's agreement with the assessment conclusions in respect of migratory birds.</p>
RR-061-77	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (Ref B14)</b></p> <p>Natural England consider that the cumulative abundance values listed indicate that guillemot could be at risk of significant impacts due to cumulative displacement impacts.</p> <p>We note that in the displacement matrix, several values falling within the considered range of impacts exceed 1% of baseline mortality. Furthermore, several projects have not been considered quantitatively, including Gwynt y Môr OWF which might reasonably be expected to generate a similar population estimate as Awel y Môr</p>	<p>The Applicant reiterates the conclusions of the guillemot assessment presented in Chapter 12 Offshore Ornithology (APP-049), Paragraph 12.375, which estimates that an additional 215,000 birds would need to be present at the three sites for which data are unavailable, in order to meet a threshold of 1% increase in background mortality, at a realistic, evidence-based displacement rate of 50% displacement/1% mortality. Using the updated background mortality rates advised by NE, we estimate that additional mortality of 1,047 birds would be required to reach a threshold of 1% increase in background mortality; equivalent to</p>



ID	RR	Applicant's Response
	<p>OWF (4,488 birds). The qualitative assessment assigns Gwynt y Môr OWF "low significance" and states, "Main concentrations recorded away from the windfarm". However, we would highlight that guillemot populations in the array and a 2km buffer are considered in displacement assessments.</p> <p>Natural England's recommended approach to gap filling for cumulative assessments should be followed to produce a more comprehensive assessment - see Annex B2.</p>	<p>209,400 birds present at the three sites. This exceeds the total value for all 13 projects for which data are available, and is therefore considered to be extremely unlikely.</p> <p>Notwithstanding the above, the Applicant will provide an update to cumulative/in-combination assessments at Deadline 1 (agreed with the ExA within its Rule 6 Letter (PD-007)), to incorporate additional information for historic projects.</p>
RR-061-78	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (Ref B15)</b></p> <p>Natural England has some reservations regarding the use of the minimum EU wintering population for little gull to measure EIA-scale impacts against. However, this is a particularly data-poor species and no BDMPS population estimate or equivalent exists. We appreciate that the Applicant has made an effort to consider the issue and provided a value to indicate the scale of impact.</p> <p>To note.</p>	<p>Noted. The Applicant welcomes NE's understanding of this approach.</p>
RR-061-79	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (Ref B16)</b></p> <p>Natural England note that no little gull collision impact estimates from other projects are considered in the CEA. We do not consider this to be appropriate.</p>	<p>The Applicant will undertake a further review of available information and, where meaningful data are identified, will provide an update for the little gull CEA at Deadline 1 (agreed with the ExA within its Rule 6 Letter (PD-007)).</p>

ID	RR	Applicant's Response
	<p>We would highlight that while the Applicant asserts that few or no little gulls might be expected to occur at these projects, the baseline data from Morgan OWF suggests that relatively high peak populations may be recorded.</p> <p>Natural England advise that little gull abundance data from projects in the CEA is investigated and the assessment updated.</p>	
RR-061-80	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (Ref B18)</b></p> <p>Natural England are not persuaded that the Applicant's cumulative assessment comprehensively rules out the possibility of significant effects on herring gull. It is plausible that large numbers of collisions could be predicted for some of the wind farms which have not been quantitatively assessed. We are especially concerned that Walney 1 &amp; 2, West of Duddon Sands, and Burbo Bank are adjacent to wind farms that predict relatively high numbers of collisions.</p> <p>Natural England's recommended approach to gap filling for cumulative assessments should be followed to produce a more comprehensive assessment - see Annex B2.</p> <p>We note that it may then be necessary to undertake more robust assessments depending on the remaining level of risk and uncertainty.</p>	<p>Noted. The Applicant will provide an update to cumulative/in-combination assessments at Deadline 1 (agreed with the ExA within its Rule 6 Letter (PD-007)), to incorporate additional information for historic projects.</p>
RR-061-81	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (Ref B19)</b></p> <p>Natural England are not persuaded that the Applicant's cumulative assessment comprehensively rules out the possibility of significant effects on lesser black-backed gull. We acknowledge that Robin</p>	<p>Noted. The Applicant will provide an update to cumulative/in-combination assessments at Deadline 1 (agreed with the ExA within its Rule 6 Letter (PD-007)), to incorporate additional information for historic projects.</p>

ID	RR	Applicant's Response
	<p>Rigg would need to contribute 22 collisions to the CEA total for the increase in baseline mortality to exceed 1%. However, this is clearly a possibility. E.g. Ormonde OWF (with half the number of turbines) is estimated to contribute 26.52 annual collisions.</p> <p>Natural England's recommended approach to gap filling for cumulative assessments should be followed to produce a more comprehensive assessment - see Annex B2.</p> <p>We note that it may then be necessary to undertake more robust assessments depending on the remaining level of risk and uncertainty.</p>	
RR-061-82	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (Ref B20)</b></p> <p>The Applicant has followed Natural England's recommended method for calculating breeding season reference populations, based on the sum of adult and immature population estimates for all colonies within the BDMPS (Furness, 2015), and has generally produced reference populations that we agree with.</p> <p>However, we do not agree with the annual reference population the Applicant has calculated for great black-backed gull (44,753 individuals). This is due to a quirk in the appendix of Furness (2015), where tables are provided listing colony sizes for UK SPAs, plus an aggregated number for non-SPA colonies. In most cases these non-SPA colonies are presented for each relevant BDMPS region, but for GBBG a total figure for all western UK colonies is presented, covering both the "West of Scotland" and "Southwest UK and Channel" BDMPS regions. Since the majority of the western non-SPA colonies are found in the west of Scotland, using this figure to</p>	<p>NE had previously advised the Applicant (September 2023) to use a value of 44,753 individuals for the reference population for great black-backed gull (GBBG). Unfortunately, the updated advice was not received in time to incorporate into the submitted assessment documents.</p> <p>The Applicant will update the assessment with NE's preferred reference population at Deadline 1.</p>

ID	RR	Applicant's Response
	<p>create a "Southwest UK and Channel" breeding season reference population leads to a significant overestimation.</p> <p>Natural England advise that the Applicant uses the non-breeding season BDMPS population for GBBG for SW UK &amp; Channel of 17,742 individuals as the annual reference population. This is in accordance with the interim advice note that was sent to the Applicant in April (Annex B2).</p> <p>Using this figure, rather than the far larger one proposed by the Applicant, would more accurately reflect the potential cumulative effects on the relevant population.</p>	
RR-061-83	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (Ref B21)</b></p> <p>Natural England consider the cumulative assessment of great black-backed gull fully demonstrates the inadequacies of qualitative assessments of historic projects. Impacts from seven projects are not quantified. Despite Walney 3 &amp; 4 having the highest estimated mortality of all quantified projects, Walney 1 &amp; 2 and West of Duddon Sands which are directly adjacent have been assigned 'negligible' significance. While a very low impact is estimated (by the Applicant) at the nearby Ormonde OWF, this appears to be an outlier. It does not appear to be a safe assumption that low levels of impact will be felt at these historic projects.</p> <p>Natural England remain concerned that the cumulative assessment is not fit for purpose due to high levels of uncertainty in qualitative assessments and a potentially significant underestimate of total mortality. The fact that PVAs are being undertaken using incomplete mortality estimates exacerbates the issue, as those historic projects</p>	<p>It is noted that the CEA presented in Chapter 12 Offshore Ornithology (APP-049), Paragraph 12.416 concludes a significant moderate adverse effect on GBBG. Even when NE's concerns are taken into account, the Applicant considers that it would be extremely unlikely that the conclusions to the assessment would change (i.e. increase beyond a moderate adverse effect).</p> <p>In respect of increased air gap, the Applicant also reiterates the very small relative contribution of the Project to the cumulative values (which will proportionately further decrease if additional historic projects are added to the cumulative total). Because the contribution of the Project is so small, further increase in air gap would make no meaningful difference to the cumulative mortality.</p>

ID	RR	Applicant's Response
	<p>are in that case truly being treated as contributing zero mortality, which is clearly inaccurate.</p> <p>Natural England consider that there are significant cumulative effects on great black-backed gull at the EIA scale, especially when the correct BDMPS reference population of 17,742 birds is considered (See Natural England Ref B20). The Applicant has used an incorrect population size to calculate the 1% baseline mortality threshold and the starting population for PVA, possibly leading to a significant underestimate of the modelled impact.</p> <p>Natural England's recommended approach to gap filling for cumulative assessments should be followed to produce a more comprehensive assessment, see Annex B2.</p> <p>We advise that the Applicant re-runs PVA for great black-backed gull with the correct reference population (see Natural England Ref B20) as an input to indicate the significance of the adverse effect.</p> <p>We recommend that the Applicant considers further avoidance or mitigation measures (e.g. increased air gap) to reduce the Project's contribution to this significant cumulative effect.</p>	<p>Notwithstanding the above, the Applicant will provide an updated cumulative assessment at Deadline 1 (agreed with the ExA within its Rule 6 Letter (PD-007)), to incorporate additional information from historic projects as appropriate. The Population Viability Analysis (PVA) will also be updated to incorporate the updated reference population. The Applicant will also present information to quantify change to the cumulative mortality that would occur if air gap was further increased beyond 25m above Highest Astronomical Tide (HAT).</p>
RR-061-84	<p><b>Natural England's Detailed Advice and Recommendations - Environmental Impact Assessment (Ref B22)</b></p> <p>Natural England cannot agree with several of the Applicants conclusions due to inadequate cumulative effect assessments. See Natural England Ref B8, B14, B16, B18, B19, B21</p>	<p>Noted – detailed responses are provided above.</p>
RR-061-85	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-027] 4.9 Report to Inform Appropriate Assessment (Ref B23)</b></p>	<p>Noted. The Applicant welcomes NE's general support for the HRA approach.</p>

ID	RR	Applicant's Response
	<p>Natural England welcome the Applicant's approach to HRA, in which a comprehensive list of SPAs has been considered for impacts. We note that due to the location of Morecambe OWF, protected sites from the other 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, Northern Ireland, the Isle of Man, or the Republic of Ireland.</p> <p>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 NatureScot are the relevant SNCB.</p>	<p>In relation to designated sites outside English waters the Applicant has consulted with NRW via a statutory Section 42 consultation response and regular meetings. The Isle of Man Government also provided a detailed Section 42 consultation response, as well as participating in ETGs as part of the EPP pre-application.</p> <p>Attempts have been made in respect of consultation with other SNCBs (in Scotland, Northern Ireland and Ireland). NatureScot and NPWS were notified of the statutory consultation period (April-June 2023) of the PEIR and draft RIAA. In February 2024, the Applicant made further attempts to engage with NatureScot, NPWS and the DAERA. In June 2024, following the DCO Application acceptance, further notification was sent to the SNCBs informing them of the relevant representation period, with no responses received by the Applicant to date. It is noted that ExA have granted 'Other Person' status to NatureScot and DAERA to allow them to participate in the Examination process.</p> <p>Commentary on this consultation is detailed further in Section 15.8 (for fish and shellfish ecology), Section 15.9 (for marine mammals), Section 15.10 (for offshore ornithology) and Section 15.11 (for commercial fisheries) of the Consultation Report (APP-015).</p>

ID	RR	Applicant's Response
		<p>How the Applicant has had regard to comments received from NRW and the Isle of Man stakeholders is outlined below per topic.</p> <p><b>Fish and Shellfish Ecology</b> Table 10.1 of Chapter 10 Fish and Shellfish Ecology (APP-047)</p> <p><b>Marine Mammals</b> Consultation with the Isle of Man Government is outlined in Table 2.5, Section 2.5 of Appendix 11.5 Marine Mammals Consultation Responses (APP-069) Consultation with NRW is outlined in Table 2.6 of Appendix 11.5 Marine Mammals Consultation Responses (APP-069)</p> <p><b>Offshore Ornithology</b> Table 12.1 of Chapter 12 Offshore Ornithology (APP-049)</p> <p><b>Commercial Fisheries</b> Table 13.1 of Chapter 13 Commercial Fisheries (APP-050)</p>
RR-061-86	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-027] 4.9 Report to Inform Appropriate Assessment (Ref B24)</b></p> <p>The Applicant details their approach to generating impact estimates for historic projects that were not previously quantified. We note that EIA values were apportioned using available rates from nearby</p>	<p>Noted. The Applicant will provide an update to the in-combination assessments at Deadline 1 (agreed by the ExA within its Rule 6 Letter (PD-007), to incorporate additional information for historic projects, for species where NE has identified this requirement. The Applicant also confirms that</p>

ID	RR	Applicant's Response
	<p>projects (i.e., by a proxy sites method). Further, we note that a weighted average apportioning rate was derived, using a suitable nearby proxy project, where seasonal data were unavailable. Finally, the Applicant states that for some projects no data could be found in published information and in those cases only qualitative assessments are provided.</p> <p>Natural England remain concerned that some projects are effectively treated as having 0 impact based on highly uncertain qualitative assessments and that approaches taken to filling data gaps by other projects to date (e.g., White Cross, Morgan, Mona) may not be aligned, leading to inconsistent assessments and confusion.</p> <p>Natural England advise that the Applicant endeavours to work with other OWF projects in the Irish and Celtic Seas as well as relevant SNCBs to generate and agree impacts from historic projects for consideration in cumulative and in-combination assessments.</p>	<p>discussions with the other Round 4 Irish Sea OWFs (Mona Offshore Wind Project and Morgan Offshore Wind Project Generation Assets) are ongoing to ensure collaboration across the projects.</p>
RR-061-87	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-027] 4.9 Report to Inform Appropriate Assessment (Ref B25)</b></p> <p>Natural England note that the Applicant continues to advocate for a method that effectively reduces the total area over which displacement impacts to red-throated divers are felt at the SPA by considering the diminishing displacement effect with distance from the array.</p> <p>Natural England highlight that the relevant conservation objective of most concern is to "Restore the distribution of the feature; preventing further deterioration, and where possible, reduce any existing anthropogenic influences impacting feature distribution." (<a href="https://publications.naturalengland.org.uk/publication/3236717">https://publications.naturalengland.org.uk/publication/3236717</a>)</p>	<p>The Applicant notes NE's position on this matter, but maintains that it is reasonable and appropriate to consider the diminishing effect on red-throated diver habitat as distance from the windfarm is increased. While NE states that <i>'There is no logical way to proportionally reduce the area of habitat loss by the expected level of displacement'</i>, the Applicant would argue that it is illogical to consider all areas to be effectively 'lost', when it is known that RTD will continue to utilise these areas. The Applicant will provide a further update on this issue at Deadline 1.</p> <p>It is noted that NE has not commented on the RTD mortality estimates (both alone and in-combination)</p>



ID	RR	Applicant's Response
	<p>Whilst we recognise the desire to factor in the diminishing displacement effect to the assessment somehow, we remain of the opinion that the calculation of an 'effective displacement area' for red-throated diver is fundamentally flawed.</p> <p>There is no logical way to proportionally reduce the area of habitat loss by the expected level of displacement. Some level of displacement is occurring over the full extent of the area. Ultimately, calculating a (reduced) area of effect in this way underestimates the simple % of the SPA that is subject to displacement effects.</p> <p>Natural England welcome the presentation of the total area impacted, alongside the area reduced according to the proportion of red-throated divers assumed to be displaced.</p> <p>We confirm that we will base our advice on the total area impacted (project alone impacts calculated by the Applicant at 9.07% of the SPA and 1.24% of the pre-2017 boundary).</p> <p>Natural England consider this the only appropriate metric with respect to proper assessment against the conservation objectives relating to the distribution of qualifying features.</p>	<p>presented in the RIAA (APP-027). The Applicant therefore assumes that these values, and the conclusions in terms of effect on the relevant population Conservation Objective, are agreed.</p>
RR-061-88	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-027] 4.9 Report to Inform Appropriate Assessment (Ref B26)</b></p> <p>The most recent population at Morecambe Bay and Duddon Estuary SPA is given as the count from 2022 of 530 AON, equivalent to 1,060 breeding adults, with a 2021 population given for Ribble and Alt Estuaries SPA of 4,489 AON (equivalent to breeding pairs), or 8,978 breeding adults.</p> <p>However, the most recent Seabird Monitoring Programme estimates</p>	<p>Noted. For consistency, the Applicant used 2022 Seabird Monitoring Programme (SMP) counts (or the most recently available prior to that date) throughout the assessment, to align with Project survey data and as 2023 counts were not available for all sites at the time that data analysis was undertaken. However, an update for Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuaries SPA LBBG using 2023 data will be</p>

ID	RR	Applicant's Response
	<p>are from 2023, with 862 AONs equivalent to 1,724 breeding adults for Morecambe Bay and Duddon Estuary SPA and 2,319 AONs equivalent to 4,638 breeding adults for Ribble and Alt Estuaries SPA.</p> <p>Natural England advise that the most recent SPA population counts are considered by the assessment where appropriate (e.g. when interpreting the outcomes of PVA models).</p>	<p>provided at Deadline 1 (agreed with the ExA within its Rule 6 Letter (PD-007)).</p>
RR-061-89	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-027] 4.9 Report to Inform Appropriate Assessment (Ref B27)</b></p> <p>For in-combination assessments, the numbers of mortalities attributed to each project in the region, which the Applicant produced for their cumulative impacts assessment for EIA, have been apportioned to SPAs. In the breeding season, birds are constrained to forage from a single colony, and the distance of a project from a colony becomes highly influential in determining how many birds should be apportioned to that colony. Calculation of breeding season apportioning values using the NatureScot method involves working out the distance from a project to every colony within the foraging range of a given species. Rather than do this for every historic project for which apportioning values are not available, the Applicant has chosen instead to use newer projects as proxies for the older ones. This is reasonable in cases where a proxy is in a similar location to another project. However, in some cases the Applicant has used a project that is a significant distance away from other projects, and a significantly different distance away from key SPA colonies, as a proxy. This may lead to severe underestimation of in-combination impacts.</p> <p>A key example is the in-combination assessment of impacts on the lesser black-backed gull feature of Morecambe Bay and Duddon Estuary SPA. There is a cluster of OWFs located relatively close to</p>	<p>NE's comments on this issue are noted. However, for breeding season apportioning, the Applicant has only been able to use proxy values for projects where such values were presented in the relevant application documents for those projects. While it is agreed by the Applicant that it would be preferable to use projects as close as possible to provide a proxy apportioning estimate, for the example provided by NE no such existing values have been identified. For Walney 1&amp;2, for example, the 2006 assessment was documented in an ES, with no separate HRA report.</p> <p>The Applicant has used the proxy approach to estimating breeding season apportioning as this is considered the best available information to 'gap fill' projects for which data are unavailable.</p> <p>It is noted that in NE's comment (Ref. B8) states: <i>'For clarity, the proposed method is not intended to generate robust impact estimates, but rather, identify any potential risks of significant impacts that should be investigated further. Further, we note that this is 'step 2', i.e., a last resort that (quickly) quantifies impacts from especially data poor projects.'</i> The generation of new, bespoke</p>

ID	RR	Applicant's Response
	<p>this SPA (Ormonde, Walney 1&amp;2, Walney Extension, West of Duddon Sands), which together have a relatively large predicted number of lesser black-backed gull collisions. Given their proximity to the colony, it is likely that a high proportion of these collisions should be apportioned to Morecambe Bay and Duddon Estuary SPA. However, the Applicant has used the apportioning value calculated for the their Project as a proxy for this entire cluster. As the proposed Morecambe OWF is further away from the colony, a smaller proportion of its impacts are apportioned to that colony. In doing so, the Applicant is likely to be significantly underestimating the total in-combination impact apportioned to the SPA.</p> <p>Natural England advise that an appropriate value for apportioning birds from Walney 1 &amp; 2 (as the central OWF in the cluster) to Morecambe Bay and Duddon Estuary SPA is calculated, and that this value is used as the proxy value for other wind farms in the cluster.</p>	<p>apportioning rates for Walney 1&amp;2 (e.g. using the NatureScot Apportioning Tool (2018), as has been used to estimate Project Apportioning in the RIAA (APP-027)) is a significant amount of work and is considered disproportionate. It is unlikely that, if apportioning was recalculated as NE has proposed, the derived collision mortality estimates would differ so greatly from those presented in the RIAA (APP-027) as to make any difference to the assessment conclusions. Furthermore, this appears contrary to NE's expectations, as set out in Ref. B8.</p> <p>The Applicant does not consider that an update to the proxy apportioning approach set out the RIAA (APP-027) is required; however, the Applicant will consider the position further and will provide a further update on its position at Deadline 1.</p>
RR-061-90	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-027] 4.9 Report to Inform Appropriate Assessment (Ref B28)</b></p> <p>As noted in our PEIR response, the study by Clewley <i>et al</i> (2020) covered the period from 2016-2019 so there is no overlap with the aerial surveys carried out for the project. During that time connectivity with existing wind farms was found for &gt;50% of the birds from the South Walney colony surveyed. The authors of the study noted that lesser black-backed gulls are more likely to forage offshore when rearing chicks. The study coincided with a period of very poor productivity at the South Walney colony. Productivity has since improved; hence it is possible that more offshore foraging was occurring at the time when the Project baseline characterisation surveys were carried out, and this could be expected to continue in</p>	<p>Noted. The Applicant reiterates that the apportioning approach for the Project has assumed that birds from the South Walney colony will occur at the windfarm site, but that the study presented by Clewley <i>et al.</i> (2020) provides evidence that the derived collision estimates (upon which the assessment conclusions are based) may be an overestimate. Accordingly, the Applicant has not relied on this information to inform the assessment conclusions.</p> <p>The Applicant does not consider any additional monitoring for LBBG beyond that done for Burbo Bank Extension and Walney Extension Clewley <i>et</i></p>

ID	RR	Applicant's Response
	<p>the operational lifetime of the Project if the Walney colony continues to recover.</p> <p>Natural England are not persuaded by the Applicants suggestion that "birds from the SPA are likely to make little use of the windfarm site and spend little time there."</p> <p>Natural England advise that investigation of lesser-black backed gull movements from impacted SPA colonies could be usefully explored during post-consent monitoring.</p>	<p><i>al</i> (2020) would be proportionate or provide further certainty. As very few birds from the SPA are predicted to occur at the windfarm site (even before the evidence from Clewley <i>et al.</i> (2020) is taken into account), it is considered unlikely that proportionate studies would have sufficient statistical power to provide useful additional information. It is important that any monitoring proposals address key Project uncertainties, and the Applicant does not consider that additional monitoring of this feature would provide sufficient benefit to be justified.</p>
RR-061-91	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-070] 5.2.12.1 Appendix 12.1 Offshore Ornithology Technical Report (Ref B29)</b></p> <p>We welcome the consideration of apportioning lesser black-backed gulls to only coastal colonies and consider this to be a realistic and evidence-based approach. However, Natural England advise that a further sense check of the colonies considered in the apportioning of lesser black-backed gull is necessary. For example, Natural England consider it extremely unlikely that breeding birds from Irish colonies are travelling across the Irish Sea from Dalkey Island, Belfast or Gun's Island. We consider it similarly unlikely that breeding birds from distant colonies in the Hebrides such as Muck Island are present. While the proportional weight assigned to such colonies tends to be low, any apportioning of impacts to such colonies could lead to an underestimation of effect at the SPA colonies of concern.</p> <p>Natural England advise that in the absence of evidence, expert judgement is applied to critically appraise the likelihood of colonies contributing to the population observed within the project study area. Colonies considered unlikely to display connectivity, despite</p>	<p>As NE states, the apportioning weight of the more distant colonies is accounted for in the way that the NatureScot tool is designed. Therefore, the sites that NE refers to will have only a very small effect on the apportioning values applied to Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuaries SPA LBBG.</p> <p>Notwithstanding this, the Applicant will review the sites used for the apportioning calculation and provide an update at Deadline 1 (agreed with the ExA within its Rule 6 Letter (PD-007)).</p>

ID	RR	Applicant's Response
	<p>technically being within potential foraging range, should be disregarded during apportioning.</p>	
RR-061-92	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (Ref B30)</b></p> <p>The Applicant has committed to an air gap of 25m above HAT. However, their impacts on collision-sensitive species including from SPA colonies could be decreased further by increasing the air gap further.</p> <p>The Applicant should consider further increases to the air gap as a means of further mitigation.</p>	<p>The Applicant made an increase to the air gap between PEIR and ES from 22m HAT to 25m HAT. The Applicant will present a review of the effects of further increasing air gap at Deadline 1. This will confirm that, as the contribution of the Project-alone to in-combination mortality is so small, a further increase will make no measurable reduction to the change in background LBBG mortality. On that basis (and taking into account other constraints that limit the ability to increase air gap further), the Applicant considers that there is no justification to further increasing air gap.</p>
RR-061-93	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-049] 5.1.12 Chapter 12 Offshore Ornithology (Ref B31)</b></p> <p>The Applicant has presented a vessel management plan for minimising impacts on displacement-sensitive species, based on best practice guidance. It is not clear that the proposal is sufficient from the information presented.</p> <p>Potential ports for construction, operation and maintenance activity should be considered to determine if the best practice measures proposed can be implemented and adhered to. Natural England advise that further mitigation may be required such as seasonal restrictions to avoid impacts at particularly sensitive areas within the Liverpool Bay SPA.</p>	<p>In relation to vessel traffic accessing the windfarm site, the Applicant notes that port selection would not be complete within the timescales of Examination and that the worst-case scenario considers that vessels would transit Liverpool Bay SPA.</p> <p>No direct construction/installation activities are proposed within the SPA and vessel access to the windfarm site would be required throughout the year.</p> <p>The detail of measures with regard to vessel disturbance would be expected to be agreed post-consent through the finalisation of the Project Environmental Management Plan (PEMP) and the</p>

ID	RR	Applicant's Response
		<p>Vessel Traffic Management Plan (VTMP), with a number of best practice measures that can be used to reduce effects.</p> <p>Further detail, and in line with comments on marine mammals (RR-061-210) will be added to the VTMP at Deadline 2 to allow for any comments received at Deadline 1 from NRW.</p>
RR-061-94	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-027] 4.9 Report to Inform Appropriate Assessment (Ref B32)</b></p> <p>The Applicant concludes no AEOI from the project alone on red-throated diver at the Liverpool Bay SPA. Natural England does not agree with this conclusion.</p> <p>Natural England conclude that the project alone will impact red-throated diver distribution over 9.07% of the total SPA, and in particular 1.24% of the original SPA area, where red-throated diver densities were sufficiently high for these areas to qualify for inclusion within the SPA. As a result, we cannot rule out AEOI from the project alone.</p> <p>We note that the projects impact is slightly reduced when considered in-combination as some areas of impact are closer to other OWFs. We advise that it is appropriate that displacement impact is assigned to the OWF in closest proximity.</p>	<p>The Applicant acknowledges NE's position on this matter, but maintains that, for the reasons set out in the RIAA (APP-027), no AEOI can be concluded for the Project-alone. The Applicant will provide a further update on its position in respect of RTD at Liverpool Bay SPA at Deadline 1.</p> <p>The Applicant welcomes confirmation from NE that effects should be assigned to the OWF in closest proximity.</p>
RR-061-95	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-027] 4.9 Report to Inform Appropriate Assessment (Ref B33)</b></p> <p>Natural England note that 53.29% of the SPA boundary is impacted by (in-combination) OWF displacement effects on red-throated</p>	<p>The Applicant welcomes confirmation from NE that the assessment is most relevant to the original SPA boundary area.</p>

ID	RR	Applicant's Response
	<p>divers, with 42.55% of the original SPA being impacted. The Applicant calculates that the project contributes 8.75% and 1.06% to those in-combination totals respectively. This is slightly smaller than the project-alone impact as parts of the impacted buffer area are closer to other OWFs.</p> <p>We agree with the Applicants position that the most concerning effect is that upon the original SPA boundary area.</p> <p>Natural England advise that the Applicant considers any opportunity to mitigate the impact on red-throated diver displacement within the original SPA boundary area, by increasing the distance between this part of the original SPA and potential turbine locations.</p>	<p>The Applicant will provide a further update on its position in respect of RTD at Liverpool Bay SPA at Deadline 1.</p>
RR-061-96	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-027] 4.9 Report to Inform Appropriate Assessment (Ref B34)</b></p> <p>The Applicant highlights that in the HRA of the Awel y Môr OWF project (DESNZ, 2023a), the Secretary of State (SoS) concluded that an adverse effect on the integrity on the red-throated diver feature of the SPA from the Awel y Môr project in-combination with other projects could be excluded, and concludes that it is unlikely that the SoS would reach a materially different conclusion in this regard.</p> <p>Natural England have advised that AEOI cannot be ruled out in-combination for red-throated diver at Liverpool Bay SPA since the Burbo Bank Extension OWF examination. Further, we understand from NRW and JNCC that the advice given to the Awel y Môr OWF related to specific factors in that area, namely the low numbers of divers encountered in the area and the findings of the post-construction monitoring of the Gwynt y Môr windfarm. As a result, the SNCBs concluded that Awel y Môr would not significantly affect the</p>	<p>Noted. The Applicant does not agree with Natural England's position on this matter, and will provide a further update on its position in respect of RTD at Liverpool Bay SPA at Deadline 1.</p>

ID	RR	Applicant's Response
	<p>distribution of RTD in this particular area. It should be borne in mind that Morecambe OWF is impacting the northern part of the SPA, which to date, has been less impacted than the south.</p> <p>Given the 'restore' conservation objective for feature distribution, Natural England advise that efforts are made to mitigate the impacts of the project with respect to displacement of red-throated divers. We consider this especially critical with respect to the original SPA boundary area.</p>	
RR-061-97	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-027] 4.9 Report to Inform Appropriate Assessment (Ref B35)</b></p> <p>Natural England cannot comment conclusively on the impact of the Project on little gull until Natural England Ref B11 regarding the sCRM methodology used for this species has been addressed.</p> <p>Natural England agrees with the Applicant that the population and migration patterns of this species are poorly understood, the SPA population is likely to be an underestimate, and that the area is likely to be used by a much larger number of gulls on a transitory basis.</p> <p>See Natural England Ref B11.</p>	<p>Refer to Applicant's response to NE Ref. B11 (RR-061-74). The Applicant will undertake a further review of available information and, where meaningful data are identified, will provide an update for the little gull CEA (and in-combination assessment) at Deadline 1.</p>
RR-061-98	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-027] 4.9 Report to Inform Appropriate Assessment (Ref B36)</b></p> <p>Considering the results of the PVA carried out by the Applicant, which showed a significant reduction in population size and growth rate compared to the counterfactual, Natural England consider that AEOI cannot be ruled out for lesser black-backed gull at Morecambe</p>	<p>Noted. The Applicant will provide an update to the assessment for LBBG gull at Morecambe Bay and Duddon Estuary SPA at Deadline 1 (agreed with the ExA within its Rule 6 Letter (PD-007)) in accordance with NE'S Ref. B29 comment (RR-061-91).</p>



ID	RR	Applicant's Response
	<p>Bay and Duddon Estuary SPA, due to in-combination collision impacts.</p> <p>We agree with the Applicant that the Project's contribution to the in-combination impact is very small under all the scenarios considered. However, we retain some concerns regarding the apportioning of impacts, which currently apportion impacts to some colonies that are unlikely to display connectivity (see Natural England Ref B30).</p> <p>In addition, we do not consider it sustainable to continually add minor impacts to a problematic cumulative total.</p> <p>Natural England advise that the apportioning is critically evaluated (see Natural England Ref B29). Any changes will be reflected in the mortality increase calculation. We can then advise on the project alone impacts in the context of the likely AEOI in-combination.</p>	<p>Note that it appears that NE has erroneously referred to its response (B30), the Applicant has assumed that this is a typographic error and that B29 is the correct reference (as correctly stated in the second part of NE's response).</p>
RR-061-99	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-027] 4.9 Report to Inform Appropriate Assessment (Ref B37)</b></p> <p>There is a small impact predicted for herring gull at Morecambe Bay and Duddon Estuary SPA for the project alone, which at 0.09% is determined as being undetectable and therefore no in-combination assessment is undertaken.</p> <p>We are content with the approach as it is unlikely that in-combination effect on this SPA would equate to an adverse effect, even accounting for our recommendations around improved gap filling. We do not anticipate commenting further on this issue, but we reserve the right to revise our opinion should further evidence be presented.</p>	<p>Noted. The Applicant welcomes confirmation from NE that it agrees with the conclusion of no AEOI for herring gull at Morecambe Bay and Duddon Estuary SPA.</p>

ID	RR	Applicant's Response
RR-061-100	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-027] 4.9 Report to Inform Appropriate Assessment (Ref B38)</b></p> <p>Natural England consider that AEOI cannot be ruled out for lesser black-backed gull at Ribble and Alt Estuaries SPA, due to in-combination collision impacts.</p> <p>We agree with the Applicant that the Project's contribution to the in-combination impact is very small under all the scenarios considered. However, we retain some concerns regarding the apportioning of impacts, which currently apportions impacts to some colonies that are unlikely to display connectivity (see Natural England Ref B30). Natural England are particularly concerned regarding impacts to this SPA given the recent population declines and noting that the projects impacts are predominantly apportioned to this SPA.</p> <p>Natural England advise that the apportioning is critically evaluated (see Natural England Ref B29). Any changes will be reflected in the mortality increase calculation. We can then advise on the project alone impacts in the context of the likely AEOI in-combination.</p>	<p>Noted. The Applicant will provide an update to the assessment for LBBG at Ribble and Alt Estuaries SPA at Deadline 1 (agreed with the ExA within its Rule 6 Letter (PD-007)) in accordance with NE's comments at Ref. B29 (RR-061-91).</p> <p>Note that it appears that NE has erroneously referred to its response (B30), the Applicant has assumed that this is a typographic error and that B29 is the correct reference (as correctly stated in the second part of NE's response).</p>
RR-061-101	<p><b>Natural England's Detailed Advice and Recommendations - HRA - Document Used: [APP-027] 4.9 Report to Inform Appropriate Assessment, [APP-070] 5.2.12.1 Appendix 12.1 Offshore Ornithology Technical Report (Ref B39)</b></p> <p>Natural England's advice on potential compensatory measures is provided separately in Annex B1</p>	<p>Noted. See relevant responses below (RR 061-102 - RR-061-135).</p>
<b>Annex 1B – Compensation Case</b>		
RR-061-102	<p><b>Annex B1 – Compensation Case</b></p> <p>In formulating these comments, the following documents have been considered:</p>	<p>The Applicant notes NE's comment and the documents used for the representation.</p>

ID	RR	Applicant's Response
	<p>[APP-029] 4.11 Habitats Regulations Assessment Without Prejudice Derogation Case</p> <p>[APP-030] 4.11.1 Outline Compensation Implementation and Monitoring Plan</p>	
RR-061-103	<p><b>Annex B1 – Compensation Case</b></p> <p><b>1. Introduction</b></p> <p>As the derogations material differs in content/structure to a standard Environmental Statement chapter, our comments are provided in a different format to the other Appendices. Within this Appendix we provide our current position on our confidence in each proposed compensation measure, followed by key consenting concerns and detailed comments on the compensation plans and supporting documents [Case Team to edit as appropriate]. For clarity, we have also provided a summary RAG table for each measure alongside our position to highlight areas of agreement and outstanding concern. We have used the following criteria to assess each category in the summaries:</p> <p>[RAG rating table]</p>	<p>Noted, the Applicant notes NE's position and Red-Amber-Green (RAG) rating used to assess each category.</p>
RR-061-104	<p><b>Annex B1 – Compensation Case</b></p> <p><b>1. Introduction</b></p> <p><b>Natural England compensatory measures 'check list'</b></p> <p>To assist developers and regulators, Natural England has developed a checklist of aspects that need to be described in detail in compensation submissions, to give confidence that the measures can be secured (see Annex A). This checklist forms the basis of the summary table criteria.</p>	<p>This Applicant notes this response.</p>
RR-061-105	<p><b>Annex B1 – Compensation Case</b></p> <p><b>2. Natural England's Advice and Recommendations</b></p>	<p>The Applicant notes NE's position in relation to this compensation measure and responds to this in detail below (RR-061-107 to RR-061-114).</p>

ID	RR	Applicant's Response
	<p><u>Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuary SPA lesser black-backed gull: exclusion of mammalian predators at colonies with fencing</u></p> <p>This measure is intended to exclude mammalian predators using fencing, wither at the impacted colonies, or nearby colonies with connectivity. We consider this to be a viable measure for compensation provided modifications are made to account for our advice on the level of impact to be compensated for, the compensation level, the scale and extent of the measure, and securing landowner permission.</p>	
RR-061-106	<p><b>Annex B1 – Compensation Case</b></p> <p><b>2. Natural England's Advice and Recommendations</b></p> <p><u>Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuary SPA lesser black-backed gull: scrub clearance and habitat management on Steep Holm</u></p> <p>This measure is intended to improve nesting habitat at Steep Holm Island in the Bristol Channel, thereby improving productivity of recruits into nearby sites in the SPA network. We consider this to be a viable compensation measure provided modifications are made to account for our advice on the level of impact to be compensated for, the compensation level, and the scale and extent of the measure.</p>	The Applicant notes NE's position and responds to this in detail below (RR-061-119 to RR-061-129).
RR-061-107	<p><b>Annex B1 – Compensation Case</b></p> <p><b>Table 1. Summary position of compensation measure</b></p> <p>Compensation measure: Feature Exclusion of mammalian predators at colonies using fencing - Overall confidence in the measure: Natural England is moderately confident in this measure. We are content that the measure is likely to be effective, but we do not agree that the compensation level proposed and therefore the scale and extent of the measure is appropriate. Furthermore, no landowner agreement has been secured for the evaluated sites and this would</p>	The Applicant notes NE's position and responds to these in detail below (RR-061-108 to RR-061-118).

ID	RR	Applicant's Response
	be required to provide sufficient certainty that the measure is deliverable.	
RR-061-108	<p><b>Annex B1 – Compensation Case</b></p> <p><b>Table 1. Summary position of compensation measure</b></p> <p><b>Compensation measure: Feature Exclusion of mammalian predators at colonies using fencing - Theoretical merit to deliver compensation:</b></p> <p>This measure is likely to be effective and could directly benefit either the impacted population of the lesser black-backed gull (LBBG) feature of the Morecambe Bay and Duddon Estuary SPA (M&amp;DE) or the Ribble and Alt Estuaries SPA (R&amp;AE) if the fence was inside one of them, or the wider meta-population from which the SPAs draw their recruits if located in the vicinity. Vegetation within the fenced area would need to be monitored and some works outside the breeding season may be necessary to create optimum nesting habitat. This has been considered by the Applicant.</p>	Noted. The Applicant welcomes confirmation from NE that this measure is likely to be effective in delivering compensation.
RR-061-109	<p><b>Annex B1 – Compensation Case</b></p> <p><b>Table 1. Summary position of compensation measure</b></p> <p><b>Compensation measure: Feature Exclusion of mammalian predators at colonies using fencing - Technical feasibility:</b></p> <p>We welcome the Applicant's undertaking that proposed predator-proof fence design would be informed through discussion with the proposed lesser black-backed gull compensation steering group (LBBGCSG) and with reference to RSPB guidance (White and Hirons, 2019) should this compensation measure be adopted. We suggest that fence design receives careful consideration, and we highlight how capable badgers in particular can be in their ability to climb high fences, including similar to those shown in Figure 3.1 (Appendix 2: Annex 2A; 3.1).</p>	Noted. The Applicant welcomes confirmation from NE that this measure is likely to be technically feasible. The Applicant confirms that current best practice will be reviewed during the detailed design of fencing to ensure maximum probability of success.

ID	RR	Applicant's Response
	<p>We recognise that recent predator-exclusion fencing at South Walney (M&amp;DE SPA) appears to have contributed to an increase in nesting LBBG demonstrates that this measure can be successful in increasing the number of nesting pairs, at least in the short-term.</p>	
RR-061-110	<p><b>Annex B1 – Compensation Case</b></p> <p><b>Table 1. Summary position of compensation measure</b></p> <p><b>Compensation measure: Feature Exclusion of mammalian predators at colonies using fencing - Agreed compensation level:</b> We consider that the project-alone impacts to LBBG apportioned to M&amp;DE and R&amp;AE SPAs require some minor updates (see Appendix B comment B30). We also highlight that the cumulative assessments remain incomplete as impacts from some historic projects are not quantified. This leads to an underestimation of in-combination impacts to be considered by PVA.</p> <p>It should also be noted that these impacts were calculated from estimated abundances derived from surveys conducted between March 2021 and February 2023. The population of lesser black-backed gull at South Walney (within the M&amp;DE SPA) was over 20,000 AONs in 1990s but had dropped to 186 by 2021 and was not zero only because a predator-proof fence had been constructed (Dalrymple, 2023). It subsequently increased to 553 in 2022 (Seabird Monitoring Programme database), largely attributable to the fence reducing predation (Dalrymple, 2023). In 2023, the LBBG population was 862 AONs (SMP database). Based on this trajectory, the South Walney population is likely to continue to increase, notwithstanding recent changes to food availability (e.g., reduction of fishery discards/landfill) since the peak population (for relevance, see below).</p> <p>At R&amp;AE SPA, a predator excluding 'mega-fence' is already proposed by the RSPB at Banks Marsh. One of the targets of the</p>	<p>Noted. The Applicant has agreed to update the apportioned values for LBBG for Morecambe Bay and Duddon Estuary and Ribble and Alt Estuary SPAs at Deadline 1 (a detailed response is provided to comment B29/RR-061-91). Once updated values have been agreed with NE following submission, the Applicant will review the proposed level of compensation calculations.</p> <p>Note that it appears that NE has erroneously referred to its response B30, the Applicant has assumed that this is a typographic error and that B29 is the correct reference.</p> <p>It is noted that the approach used to estimate required compensation in the HRA Without Prejudice Derogation Case (APP-029) is aligned with the approach used for the Norfolk Boreas and Norfolk Vanguard projects. While it was acknowledged by those projects that the approach was relatively simplistic, the fact that it is anticipated that any proposals are likely to over-compensate for any predicted loss indicates that a more sophisticated approach would not be warranted.</p> <p>It is noted that the Dogger Bank South project reviewed the approach used to calculate the level</p>

ID	RR	Applicant's Response
	<p>SACOs for the R&amp;AE SPA for lesser black-backed gull is to 'Reduce predation and disturbance caused by native and non-native predators'. The population in 2021 was 4,489 AONs (Burnell <i>et al</i>, 2023), a decrease from over 8,000 in 2014-2016. Should this fence be constructed and prove successful, an increase in LBBG AONs is considered likely (for relevance, see below).</p> <p>Once an appropriate impact value is identified, Natural England advise that for the purposes of scaling compensatory measures, the precautionary upper confidence limit impact is the appropriate level of mortality to consider.</p> <p>We also have concerns about how the level of compensation has been calculated. A very basic calculation has been undertaken to determine the size of the breeding population that will be required to generate the required number of adults into the population each year. Only productivity and survival are considered. We advise that the method used by Hornsea 3 OWF to calculate requirements for their kittiwake compensation is also relevant to LBBG, and we recommend that this be used instead by the Applicant.</p> <p>Under these circumstances, it is difficult to agree with the proposed requirement to create an additional 18 lesser black-backed gull nests annually to compensate for the loss of 4 adult gulls.</p>	<p>of compensation for kittiwake by the Hornsea 3 project (RWE, 2024). This demonstrated that the Hornsea 3 approach included unnecessary levels of complication (that did not impact the final outputs) and, furthermore, effectively double-counted adult mortality, and hence overestimated the compensation requirement. Dogger Bank South concluded that the approach used by Hornsea 4 was more appropriate, as it did not include this double-counting, although it is noted that in its relevant representations to the Dogger Bank South Project, NE maintained that the Hornsea 3 approach was appropriate to estimate the required scale of compensation (NE, 2024). Notwithstanding this, the Applicant will review the compensation calculations (including use of the Hornsea 3 and Hornsea 4 kittiwake approaches) once apportioned project-alone mortality estimates have been agreed.</p>
RR-061-111	<p><b>Annex B1 – Compensation Case</b></p> <p><b>Table 1. Summary position of compensation measure</b></p> <p><b>Compensation measure: Feature Exclusion of mammalian predators at colonies using fencing - Scale/extent of measure:</b> A site has not yet been secured, so we cannot advise on the scale of nesting habitat provision. We acknowledge that the size of the fenced areas required (assuming one of the sites in question can be</p>	<p>Noted. The Applicant will continue to progress compensation proposals during the Examination period. As above, it is anticipated that over-compensation for loss is likely to be achieved for any of the proposed measures, and therefore further increase in extent is unlikely to be required. The Applicant also notes that the 'mega-fence' mentioned in NE's comment is one of the options</p>

ID	RR	Applicant's Response
	<p>secured), has been considered and would likely be adequate to deliver the proposed compensation level, even at lower LBBG nesting densities.</p> <p>However, with the rapid increase in numbers of LBBG within the recently fenced area at South Walney within the M&amp;DE SPA, and the proposed 'mega-fence' at Banks Marsh within the R&amp;AE SPA, the impacts on lesser black-backed gull from the project apportioned to each SPA, both alone and in-combination, are likely to increase (noting the Supplementary Advice on Conservation Objectives (SACO) targets for Breeding Population: Abundance are to 'Restore the size of the breeding population to a level which is above 10,000' at M&amp;DE SPA and 'Maintain the size of the breeding population at a level which is above 8,097 pairs' for R&amp;AE SPA).</p> <p>Furthermore, foraging distances too might be expected to increase with increasing colony size/density dependence (Ashmole, 1963; Furness &amp; Birkhead, 1984; Corman <i>et al</i>, 2016; Patterson <i>et al</i>, 2022), with more birds potentially encountering multiple wind farms. This could increase collision risk during the breeding season.</p> <p>In addition, the proposed compensation ratio does not account for the possibility of adults relocating from nearby sites with less suitable habitat.</p> <p>It would therefore seem sensible to future-proof compensation levels by considering an increase in extent of the measure (and see also comments on the proposed scrub clearance measure on Steep Holm below).</p>	<p>under consideration by the Project (HRA Without Prejudice Derogation Case (APP-029) and Outline Compensation Implementation and Monitoring Plan (APP-030)).</p>



ID	RR	Applicant's Response
RR-061-112	<p><b>Annex B1 – Compensation Case</b></p> <p><b>Table 1. Summary position of compensation measure</b></p> <p><b>Compensation measure: Feature Exclusion of mammalian predators at colonies using fencing - Timing: Deliverable before impact:</b> LBBG reach breeding age maturity at 4 years old and it is unlikely that offspring fledging from the compensation site will have recruited into the adult breeding population (and thereby started providing compensation) by the time the development is operational. This is of particular relevance in light of concerns that a compensation site has yet to be secured for this measure (see below). However, we welcome the consideration of potential mortality debt under these circumstances detailed in Appendix 2: Annex 2B; 7, and acknowledge that two separate compensation measures have been proposed. We consider that both are feasible options that, if successful, could potentially deliver in excess of the currently proposed compensation level, thereby addressing any accrued mortality debt early in the operational lifespan of the project.</p> <p>If the compensation ratio were to be found inadequate and thus recommended for a modest increase, there could be a greater initial mortality debt. We consider this debt could still be compensated for if the measure was implemented at appropriate scale.</p>	<p>Noted. The Applicant welcomes confirmation from NE that this measure could be delivered prior to any impact.</p>
RR-061-113	<p><b>Annex B1 – Compensation Case</b></p> <p><b>Table 1. Summary position of compensation measure</b></p> <p><b>Compensation measure: Feature Exclusion of mammalian predators at colonies using fencing - Location of measure:</b> We note with concern that no landowner agreement has yet been secured for any of the sites evaluated for the predator-proof fencing measure, and furthermore we consider that several are unlikely to be available to the project (the 'Spit' and Gull Meadow at South Walney; Cavendish Dock), potentially subject to additionality constraints (the</p>	<p>Noted. The Applicant will continue to progress compensation proposals during the Examination period. It is noted that for the primary fencing option at Banks Marsh no landowner agreements beyond NE and the Royal Society for the Protection of Birds (RSPB) (and potentially the Environment Agency (EA), depending on final fence alignment) would be required and it is not considered, given the other options available, that it is necessary at</p>

ID	RR	Applicant's Response
	<p>Lagoon complex at South Walney in the M&amp;DE SPA and Banks Marsh in the R&amp;AE SPA) or restricted by tidal conditions (areas of Banks Marsh in the R&amp;AE SPA).</p> <p>We would encourage the Applicant to secure agreement for this measure at an appropriate site with a landowner as soon as possible.</p>	<p>this stage to progress further landowner agreements.</p>
RR-061-114	<p><b>Annex B1 – Compensation Case</b></p> <p><b>Table 1. Summary position of compensation measure</b></p> <p><b>Compensation measure: Feature Exclusion of mammalian predators at colonies using fencing - Long term implementation:</b> We welcome the commitment to the regular monitoring of the integrity of the fence both for predator incursion and for the state of vegetation within the compensation site, noting that even a single night of predator ingress could significantly undermine colony re-establishment. We also welcome the commitment to long-term monitoring based on Gilbert <i>et al</i> (1998).</p> <p>In addition to that outlined in Appendix 2: Annex 2B; 6.1, we recommend that the BTO ringing and colour-ringing scheme and re-sightings surveys should continue beyond the first 3 years of implementation of the compensation plan, and until such time as quantum is achieved (including the discharging of any mortality debt), to ensure that those juveniles colour-ringed at the site can be followed through to at least 4 years of age when breeding could commence. This would help document that the compensation measure had contributed additional adults into the impacted population. We are aware that colour ringing has been ongoing for many years at South Walney (RSPB/North West Gull Project) and is already underway on Steep Holm (Sevenside Ringing Group).</p>	<p>Noted. The Applicant welcomes confirmation from NE that the proposed outline monitoring proposals are suitable. The Applicant will continue to work with relevant parties to ensure that final monitoring plans are agreed and secured (as required).</p>

ID	RR	Applicant's Response
	<p>Initially, hatching and fledging success should be monitored by three visits throughout the breeding season to count eggs, hatched eggs and fledging young. Drones could be used for this purpose and novel methods, such as thermal drone surveys, could be explored if it is considered they provide more accurate results. Initial ground-truthing of drone surveys would be required to calibrate the detection rate of nests/young (Corregidor-Castro <i>et al</i>, 2022).</p> <p>We recognise that individual colony performance should be considered holistically in relation to other LBBG colonies, but welcome the undertaking to explore reasons for failure and consequent adaptive management measures if considered necessary.</p>	
RR-061-115	<p><b>Annex B1 – Compensation Case</b>  <b>Table 1. Summary position of compensation measure</b>  <b>Compensation measure: Feature Exclusion of mammalian predators at colonies using fencing - Success criteria/Ability to prove additionality:</b>            See above.</p>	Noted. A detailed response is provided above in responses to RR- RR-061-107 to RR-061-114.
RR-061-116	<p><b>Annex B1 – Compensation Case</b>  <b>Table 1. Summary position of compensation measure</b>  <b>Compensation measure: Feature Exclusion of mammalian predators at colonies using fencing - Suitable as sole measure for target species:</b> Subject to a suitable site being secured, Natural England consider that this measure alone could theoretically deliver an appropriate level of compensation.</p>	Noted. The Applicant welcomes confirmation from NE that this measure could be deliver an appropriate level of compensation.
RR-061-117	<p><b>Annex B1 – Compensation Case</b>  <b>Table 1. Summary position of compensation measure</b>  <b>Compensation measure: Feature Exclusion of mammalian predators at colonies using fencing - Key uncertainties (Site not</b></p>	A detailed response is provided above (RR-061-113).

ID	RR	Applicant's Response
	<p><b>secured</b>): No landowner agreement has yet been secured for any of the sites evaluated for the predator-proof fencing measure, although we understand discussions are on-going.</p>	
RR-061-118	<p><b>Annex B1 – Compensation Case</b>  <b>Table 1. Summary position of compensation measure</b>  <b>Compensation measure: Feature Exclusion of mammalian predators at colonies using fencing - Key uncertainties (Inadequate compensation level):</b> With uncertainties surrounding in-combination impacts, a potential increase in the Irish Sea lesser black-backed gull colonies and consequent increasing foraging range (both resulting in a potential increase in lesser black-backed gull collision mortality apportioned to M&amp;DE and R&amp;AE SPAs), and the possibility of adult lesser black-backed gulls relocating into the compensation area from less suitable sites nearby, a commitment to a greater scale of compensation may be necessary.</p>	<p>A detailed response is provided above (RR-061-110).</p>
RR-061-119	<p><b>Annex B1 – Compensation Case</b>  <b>Table 1. Summary position of compensation measure</b>  <b>Compensation measure: Feature Scrub clearance and habitat management on Steep Holm - Overall confidence in the measure:</b>            We are confident that this measure will be effective, but we do not agree that the proposed compensation level or extent is appropriate.</p>	<p>The Applicant welcomes confirmation from NE that this measure will be effective. A detailed response is provided below (RR-061-123).</p>
RR-061-120	<p><b>Annex B1 – Compensation Case</b>  <b>Table 1. Summary position of compensation measure</b>  <b>Compensation measure: Feature Scrub clearance and habitat management on Steep Holm - Theoretical merit to deliver compensation:</b> Steep Holm SSSI sits within the Severn Estuary SPA. Neither designation have LBBG as a designated breeding feature. Nor does the Severn Estuary Ramsar site, however it was identified for a possible future consideration as a breeding feature. In 1993, 2,040 pairs of lesser black-backed gull bred on the islands of</p>	<p>Noted. The Applicant welcomes confirmation from NE that this measure is likely to be effective in delivering the required compensation.</p>

ID	RR	Applicant's Response
	<p>Flat Holm and Steep Holm, representing 2.5% of the British total. Since then, numbers fluctuated on Steep Holm, increased on Flat Holm, but both have suffered notable declines in recent years (SMP database). Therefore the proposed intervention has the potential to result in increases in the LBBG population.</p> <p>Although LBBG appear to show high philopatry, primarily recruiting into the breeding population at the natal site, it is entirely possible that individuals fledging from Steep Holm could recruit into other nearby lesser black-backed gull colonies such as the Skomer, Skokholm and the Seas off Pembrokeshire SPA or Isles of Scilly SPA, thereby contributing to the coherence of the site network. Further, given Steep Holm sits within the Severn Estuary SPA, should the population be increased to a level where it was considered to qualify as a new feature of the SPA, these LBBGs could themselves form part of the network in due course.</p>	
RR-061-121	<p><b>Annex B1 – Compensation Case</b></p> <p><b>Table 1. Summary position of compensation measure</b></p> <p><b>Compensation measure: Feature Scrub clearance and habitat management on Steep Holm - Technical feasibility:</b> We welcome the Applicant's undertaking that scrub clearance would be informed through discussion with the LBBGCSG should this compensation measure be adopted. We also recognise that habitat variables are important and welcome discussion on how a proportion of the plateau area on Steep Holm could be cleared of scrub and subsequently be subject to further enhancements, such as on-going management of woody ruderals for example.</p> <p>We agree that encroachment of scrub appears to be a key factor in the decline in lesser black-backed gull nests on Steep Holm and suggest that scrub clearance and habitat management is likely to be an effective measure, thereby potentially addressing impacts on</p>	<p>Noted. The Applicant welcomes confirmation from NE that this measure is considered technically feasible. It is correct that discussions are underway with a suitable contractor who should have the flexibility to work on the island when suitable conditions occur.</p>

ID	RR	Applicant's Response
	<p>lesser black-backed gull by improving productivity. We understand that the proposed works should be able to achieve SSSI consent, as potential impacts to the vascular plant assemblage SSSI feature can be avoided. Sufficient monitoring of both the plateau and cliffs during the initial years of scrub clearance should provide sufficient evidence that the measure is successful.</p> <p>It is worth noting that under current arrangements, Steep Holm is served by a RIB from both Weston-super-Mare and Cardiff. Trips are highly dependent on prevailing weather conditions (wind/swell) and the state of the tide, with beach availability always restricting landings on the island, and a primary consideration when travelling from Weston-super-Mare. We appreciate that coordinating scrub clearance works under these conditions may be challenging but suggest that, should this measure be adopted, opportunities for scrub clearance are maximised at an appropriate time of year (September to February), subject to landowner agreement, whenever they become available within this timeframe to mitigate the risk that no works are possible due to inaccessibility. We understand that a potential contractor for works has been identified who is able to be flexible regarding the timings of works. If appointed, it may be necessary for them to be flexible with respect to embarkation point as well.</p>	
RR-061-122	<p><b>Annex B1 – Compensation Case</b>  <b>Table 1. Summary position of compensation measure</b>  <b>Compensation measure: Feature Scrub clearance and habitat management on Steep Holm</b> - Agreed compensation level: See comments on compensation level for the measure “exclusion of mammalian predators at colonies using fencing” above.</p>	Refer to corresponding comments above (ID RR-061-110).
RR-061-123	<p><b>Annex B1 – Compensation Case</b>  <b>Table 1. Summary position of compensation measure</b></p>	Noted. The Applicant will continue to progress compensation proposals during the Examination period. The required area of compensation will be

ID	RR	Applicant's Response
	<p><b>Compensation measure: Feature Scrub clearance and habitat management on Steep Holm - Scale/extent of measure:</b> We acknowledge that even a modest area of cleared scrub on the plateau on Steep Holm should be adequate for the purposes of achieving the currently proposed compensation level, even at lower lesser black-backed gull nesting densities.</p> <p>However, with the rapid increase in numbers of lesser black-backed gulls within the recently fenced area at South Walney within the M&amp;DE SPA, and the proposed mega-fence at Banks Marsh within the R&amp;AE SPA, the impacts on lesser black-backed gull from the project apportioned to each SPA, both alone and in-combination, are likely to increase (noting the targets in the Supplementary Advice on Conservation Objectives (SACO) targets for Breeding Population: Abundance to; 'Restore the size of the breeding population to a level which is above 10,000' at M&amp;DE SPA and 'Maintain the size of the breeding population at a level which is above 8,097 pairs' for R&amp;AE SPA).</p> <p>Furthermore, foraging distances too might be expected to increase with increasing colony size (Ashmole, 1963; Furness &amp; Birkhead, 1984; Corman <i>et al</i>, 2016; Patterson <i>et al</i>, 2022), with more birds potentially encountering wind farms. This could increase collisions during the breeding season.</p> <p>In addition, the proposed extent does not currently account for the possibility that the small proportion of LBBG that nest on the cliffs at Steep Holm (estimated at c.15% of the total in 2018) could relocate onto the plateau area as more preferential habitat is created there, rather than creating additional adults that originally fledged on the plateau as a direct result of habitat management. If possible, we recommend that drone surveys of the cliffs are undertaken to monitor</p>	<p>reviewed as part of this process to ensure that the required scale of compensation will be achieved. As above (RR-061-110), it is anticipated that over-compensation for loss is likely to be achieved, and therefore further increase in extent is unlikely to be required.</p>

ID	RR	Applicant's Response
	<p>the numbers of lesser black-backed gulls nesting there since surveys on foot or by boat are likely to be impractical.</p> <p>Finally, it is estimated that there are up 40 muntjac deer resident on Steep Holm, having been originally introduced in the 1970s. Birds' eggs can reportedly constitute a part of a muntjac's diet, although the recent LBBG survey in 2023 found no evidence of muntjac predation of eggs. We would recommend that hatching success is monitored at nest sites with no muntjac access (e.g. on the roofs of suitable buildings) and compared with hatching success from ground nests on the plateau, to assess the possibility that muntjac are predating or destroying some eggs. We accept however that such sites may not exist and that fenced enclosures on Steep Holm would be impractical (if not impossible) due to the thin soil and limestone bedrock.</p> <p>Due to a) increasing risk of potential impacts as a result of growing Irish Sea colony populations; b) the possibility of adult LBBG relocating from the cliffs at Steep Holm, and c) potential loss of eggs through predation by muntjac deer it would seem sensible to consider a greater extent for this measure than that currently proposed.</p>	
RR-061-124	<p><b>Annex B1 – Compensation Case</b></p> <p><b>Table 1. Summary position of compensation measure</b></p> <p><b>Compensation measure: Feature Scrub clearance and habitat management on Steep Holm - Timing: Deliverable before impact:</b> LBBG reach breeding age maturity at 4 years old, and offspring fledging from the compensation site will not have recruited into the adult breeding population (and thereby started providing compensation for the project's in-combination impacts) by the time the development is operational. However, we welcome the consideration of potential mortality debt under these circumstances detailed in Appendix 2: Annex 2B; 7 and acknowledge that two</p>	<p>Noted. The Applicant welcomes confirmation from NE that this measure could be delivered prior to any impact.</p>



ID	RR	Applicant's Response
	<p>separate compensation measures have been proposed. We consider that both are feasible options that, if successful, could deliver in excess of the currently proposed compensation level, should that be agreed, thereby addressing any accrued mortality debt early in the operational lifespan of the project. However, if the currently proposed compensation ratio were to be found inadequate, there would be a greater mortality debt. We consider this debt could still be compensated for if the measure was implemented at appropriate scale.</p>	
RR-061-125	<p><b>Annex B1 – Compensation Case</b>  <b>Table 1. Summary position of compensation measure</b>  <b>Compensation measure: Feature Scrub clearance and habitat management on Steep Holm - Location of measure: We welcome that landowner agreement has already been secured with the Keneth Allsop Memorial Trust for this measure and are aware that further positive discussions are taking place.</b></p>	<p>Noted. The Applicant confirms that positive discussions with <b>Kenneth Allsop Memorial Trust are ongoing.</b></p>
RR-061-126	<p><b>Annex B1 – Compensation Case</b>  <b>Table 1. Summary position of compensation measure</b>  <b>Compensation measure: Feature Scrub clearance and habitat management on Steep Holm - Long term implementation:</b> We welcome the commitment to long-term monitoring based on Gilbert <i>et al</i> (1998). In addition to that outlined in Appendix 2: Annex 2B; 6.1, we recommend that the BTO ringing and colour-ringing scheme and re-sightings surveys should continue beyond the first 3 years of implementation of the compensation plan, and until such time as quantum is achieved (including the discharging of any mortality debt), to ensure that those juveniles colour-ringed at the site can be followed through to at least 4 years of age when breeding could commence. This would help document that the specific measure had contributed additional adults to the colony directly as a result of the compensation. We are aware that colour ringing has been ongoing for many years at South Walney (RSPB/North West Gull Project) and</p>	<p>Noted. The Applicant welcomes confirmation from NE that the proposed outline monitoring proposals are suitable. The Applicant will continue to work with relevant parties to ensure that final monitoring plans are agreed and secured. It is noted that discussions with the Severnside Ringing Group regarding potential involvement in some or all required monitoring at Steep Holm are ongoing.</p>

ID	RR	Applicant's Response
	<p>already underway on Steep Holm (Severnside Ringing Group).</p> <p>Initially, hatching and fledging success should be monitored by three visits throughout the breeding season to count eggs, hatched eggs and fledging young. Drones could be used for this purpose and novel methods, such as thermal drone surveys, could be explored if it is considered they provide more accurate results. Initial ground-truthing of drone surveys would be required for the plateau, at least initially, to identify a correction factor to accurately calibrate the detection rate of nests/young (Corregidor-Castro <i>et al</i>, 2022). These could then be applied to drone surveys of the cliffs, as ground-truthing would be impossible there.</p> <p>We recognise that individual colony performance should be considered holistically in relation to other lesser black-backed gull colonies but welcome the undertaking to explore reasons for failure and consequent adaptive management measures if considered necessary, although we note that supplementary feeding would not be practical on Steep Holm.</p>	
RR-061-127	<p><b>Annex B1 – Compensation Case</b></p> <p><b>Table 1. Summary position of compensation measure</b></p> <p><b>Compensation measure: Feature Scrub clearance and habitat management on Steep Holm - Success criteria/Ability to prove additionality: See above.</b></p>	<p>The Applicant welcomes confirmation from NE that the proposed measures at Steep Holm are expected to meet additionality requirements.</p>
RR-061-128	<p><b>Annex B1 – Compensation Case</b></p> <p><b>Table 1. Summary position of compensation measure</b></p> <p><b>Compensation measure: Feature Scrub clearance and habitat management on Steep Holm - Suitable as sole measure for target species:</b></p> <p>Successful clearance of scrub and subsequent habitat management of an appropriately sized area could theoretically deliver the currently</p>	<p>Noted. The Applicant welcomes confirmation from NE that this measure could be deliver an appropriate level of compensation.</p>

ID	RR	Applicant's Response
	proposed scale of compensation for impacts on lesser black-backed gull alone.	
RR-061-129	<p><b>Annex B1 – Compensation Case</b></p> <p><b>Table 1. Summary position of compensation measure</b></p> <p><b>Compensation measure: Feature Scrub clearance and habitat management on Steep Holm - Key uncertainties: Inadequate compensation level:</b> With uncertainties surrounding in-combination impacts, a potential increase in the Irish Sea lesser black-backed gull colonies and consequent increasing foraging range (both resulting in a potential increase in collision mortality apportioned to M&amp;DE and R&amp;AE SPAs), the possibility of adult lesser black-backed gulls relocating from the cliffs to the Steep Holm plateau, and current challenges associated with ruling out egg losses through predation by muntjac deer, consideration of increased scale of delivery or a greater compensation ratio would be prudent.</p>	A detailed response is provided to RR-061-119 to RR-061-128 above.
RR-061-130	<p><b>Annex B1 - Compensation Case - Table 2 Natural England's Detailed Advice and Recommendations (Ref G1)</b></p> <p>None of the predator fencing sites evaluated have yet been secured with landowners. It remains unclear how likely this is, and what timeframe agreements might be secured within. The Steep Holm scrub clearance is more developed and has the potential to provide sufficient compensation, albeit this conclusion is based on the as-yet agreed impacts and the currently proposed compensation ratio.</p> <p>Secure landowner agreement ASAP.</p> <p>Continue to develop the Steep Holm plan as the preferred option.</p>	A detailed response is provided to RR-061-113 above.
RR-061-131	<p><b>Annex B1 - Compensation Case - Table 2 Natural England's Detailed Advice and Recommendations (Ref G2)</b></p> <p>The scale of compensation required, and the application of a ratio may require further consideration following minor updates to the project alone and in-combination impact assessments.</p>	A detailed response is provided to RR-061-110 above.

ID	RR	Applicant's Response
	<p>We highlight that at the impacted SPAs, current LBBG populations are small in comparison with numbers historically, declines attributable in part to fox and badger predation. Both SPA populations have recently (M&amp;DE SPA at South Walney) or will soon (R&amp;AE SPA at Banks Marsh) start benefitting from predator exclusion fencing so it might be expected that populations will start building again (acknowledging that those historic populations exploited landfill and fishery discards, neither of which are now available to them). Nevertheless, South Walney is a good example of what could be expected going forward, increasing from 186 to 862 pairs in 3 breeding seasons. Given that foraging ranges tend to scale with colony size, it is reasonable to expect more birds within the OWF footprint, and therefore collision risk to increase.</p> <p>We recommend the Applicant consider requirements for updates to scale and/or the ratio to account for updates to impact assessments and uncertainties regarding future levels of collision.</p>	
RR-061-132	<p><b>Annex B1 - Compensation Case - Table 2 Natural England's Detailed Advice and Recommendations (Ref G3)</b></p> <p>It should be noted that lesser black-backed gulls also breed on the cliffs at Steep Holm, albeit in significantly smaller numbers than the main colony on the plateau area (approximately 85% plateau, 15% cliffs) based on an Natural England survey in 2018. Should this measure be progressed, the plan does not detail how the possibility of relocation of these cliff-nesting individuals into more preferential habitat on newly cleared areas of the plateau would be monitored (noting that it would be impossible to monitor the cliffs on foot due to H&amp;S concerns and probably impossible by boat due to the extent of cliff vegetation). References to drone surveys do not address this issue specifically. Without baseline productivity data it is impossible to quantify whether there are any relevant advantages to nesting on</p>	<p>The Applicant is discussing pre-compensation surveys with the Steep Holm site managers and relevant partners (including Severnside Ringing Group). Thermal drone surveys of the island were proposed for 2024 but were not undertaken due to access problems. It is hoped that surveys will be possible in 2025. It should be noted that the Applicant's assumptions regarding the potential capacity of the island are, in part, based on historic counts, which were substantially larger than current estimates. For example, the SMP database estimated 880 apparently occupied nests (AON) in 1997, compared to 340 AON in 2023. The 2023 count estimated that an additional 15% were likely</p>

ID	RR	Applicant's Response
	<p>the plateau in comparison with the cliffs, other than it seems to be generally preferable to the species. In any case, it must be considered that birds moving off the cliffs to breed on the plateau cannot be considered to contribute to the success of the compensatory measure unless additional productivity can be demonstrated. I.e., 'new' breeding birds are required to colonise the cleared areas and hence ultimately deliver additional recruits into the breeding population.</p> <p>We recommend drone surveys be carried out to monitor whether the proportion of LBBG nesting on the cliffs is reducing, and to factor this into the assessment of whether the compensation measures are reaching their target levels.</p>	<p>to occur on cliff slopes. However, the Applicant acknowledges that it is important that it is confirmed that any increase in numbers on the plateau must need to account for numbers elsewhere on the island.</p>
RR-061-133	<p><b>Annex B1 - Compensation Case - Table 2 Natural England's Detailed Advice and Recommendations (Ref G4)</b></p> <p>It is stated that Steep Holm; "accommodated over 1,500 nesting pairs of lesser black-backed gulls in 1995 when the island was relatively free of scrub" and references the Severn Estuary SPA citation as a source.</p> <p>Neither the referenced citation nor the Seabird Monitoring Programme database support this count for that year. We do accept that the count of lesser black-backed gull on Steep Holm has historically been higher. e.g. 596 AONs/pairs in 2018 (880 AONs/pairs in 1997 was part of a gap-filling exercise), and that scrub encroachment is likely to be a contributory factor in the decline.</p> <p>The Applicant should review and update this section as necessary.</p>	<p>The Applicant confirms that this information (1,500 pairs) is an error. Peak counts for this species from the SMP are 880 AON in 1997 and 596 AON in 2018. This will be corrected in future updates of this document.</p>
RR-061-134	<p><b><u>Annex B1 - Compensation Case - Table 2 Natural England's Detailed Advice and Recommendations (Ref G5)</u></b></p>	<p>The Applicant notes NE's comments. Monitoring proposals will continue to be developed during Examination, taking NE's comments into account. It</p>

ID	RR	Applicant's Response
	<p><i>“In the first three years following implementation of the compensation measure, and subject to any restrictions on work within bird colonies due to avian influenza, the following additional monitoring will be undertaken:</i></p> <p><i>“Ringling of chicks (BTO metal and colour rings), linked with resighting efforts (for birds colour-ringed as chicks);”</i></p> <p>This would not allow sufficient time to see whether juveniles fledging from the compensation site(s) were being recruited into the breeding population after 4 years (as you might expect from a species exhibiting high philopatry). Colour ringling of gulls has been on-going at South Walney for some years (RSPB/North West Gull Project) and for 2 years on Steep Holm already (Sevenside Ringling Group). Productivity monitoring does not appear to have been specified in relation to number of visits.</p> <p>We advise that monitoring and colour ringling should be undertaken until the required level of compensation has been achieved (including any accrued mortality debt).</p> <p>To gather productivity data up to 3 surveys should be conducted annually; 1) end of May to count egg nests; 2) end of June/beginning of July to count hatched young; 3) End of July to check for successful fledging.</p> <p>We consider that the potential for drone surveys, particularly novel approaches including thermal imaging should be investigated. Ground-truthing may be required to establish accurate correction factors. No ground-truthing is likely to be possible on the cliffs, correction factors may need to be calculated in advance from the plateau ground-truthing.</p>	<p>is important that any monitoring proposals are realistic/achievable, noting the difficulty of accessing the island. It is also noted (see response is provided to RR-061-132) that thermal drone surveys were proposed for 2024, but that these were not undertaken due to poor weather; and that NE’s count of the island from 2023 (from the SMP database) assumed a 15% correction to account for birds hidden on the cliffs.</p>

ID	RR	Applicant's Response
RR-061-135	<p><b><u>Habitats Regulations Assessment Without Prejudice Derogation Case - Annex A - Compensation - (Ref n/a)</u></b></p> <p>Natural England has developed a checklist of those aspects of compensatory measures that need to be described in detail when developers are submitting or updating applications where impacts on MPAs are anticipated. Whilst not exhaustive, it lists key areas where sufficient detail is needed to provide the Secretary of State with appropriate confidence that compensatory measures can be secured.</p> <p>a) What, where, when: clear and detailed statements regarding the location and design of the proposal.</p> <p>b) Why and how: ecological evidence to demonstrate compensation for the impacted site feature is deliverable in the proposed locations</p> <p>c) For measures on land, demonstrate that on ground construction deliverability is secured and not just the requirement to deliver in the DCO e.g. landowner agreement is in place. For measures at sea, demonstrate that measures have been secured e.g. agreements with other sea or seabed users.</p> <p>d) Policy/legislative mechanism for delivering the compensation (where needed)</p> <p>e) Agreed DCO/DML conditions</p> <p>f) Clear aims and objectives of the compensation</p> <p>g) Mechanism for further commitments if the original compensation objectives are not met – i.e. adaptive management</p> <p>h) Clear governance proposals for the post-consent phase – we do not consider simply proposing a steering group is sufficient</p> <p>i) Ensure development of compensatory measures is open and transparent as a matter of public interest, including how information on the compensation would be publicly available</p> <p>j) Timescales for implementation especially where compensation is</p>	<p>The Applicant welcomes NE's checklist; this will be reviewed as compensation measures are progressed during Examination, to ensure sufficient information is provided as far as possible.</p>

ID	RR	Applicant's Response
	<p>part of a strategic project, including how timescales relate to the ecological impacts from the development</p> <p>k) Commitments to ongoing monitoring of measure performance against specified success criteria</p> <p>l) Proposals for ongoing 'sign off' procedure for implementing compensation measures throughout the lifetime of the project, including implementing feedback loops from monitoring.</p> <p>m) Continued annual management of the compensation area including to ensure other factors are not hindering the success of the compensation e.g. changes in habitat, increased disturbance as a result of subsequent plans/projects</p>	
<b>Proposed methodology for 'gap-filling' the Irish Sea R4 cumulative &amp; in-combination assessments</b>		
RR-061-136	<p><b>Proposed methodology for 'gap-filling' the Irish Sea R4 cumulative &amp; in-combination assessments</b></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>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</p>	<p>The Applicant is in consultation with the other Round 4 Irish Sea OWF projects (Mona Offshore Wind Project and Morgan Offshore Wind Project Generation Assets) on this matter and will provide an update to cumulative/in-combination assessments at Deadline 1 (agreed with the ExA within its Rule 6 Letter (PD-007)). The Applicant is aware that the final approach to 'gap-filling' historic projects has been discussed and agreed between NE and the Mona Offshore Wind Project and Morgan Offshore Wind Project Generation Assets, therefore the updated information will be in accordance with NE's requirements and the approach will be aligned across the projects as far as possible.</p>



ID	RR	Applicant's Response
	<p>made on the likelihood of risk with respect to AEOI, and thus the necessity of assessing this risk in more detail.</p> <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>Where it is necessary to 'gap-fill' for a particular development, the following methods are proposed.</p>	
RR-061-137	<p><b>Proposed methodology for 'gap-filling' the Irish Sea R4 cumulative &amp; in-combination assessments - <u>Displacement</u></b></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><b>If no abundance data available...</b></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>	
RR-061-138	<p><b>Proposed methodology for 'gap-filling' the Irish Sea R4 cumulative &amp; in-combination assessments - <u>Collision</u></b></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>	

ID	RR	Applicant's Response
	<p><b>If no abundance data available...</b></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>	
RR-061-139	<p><b>Proposed methodology for 'gap-filling' the Irish Sea R4 cumulative &amp; in-combination assessments</b></p> <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>If &gt;1 nearby sites to a given development requiring "gap-filling" have data, the most appropriate proxy site according to location, data quality &amp; comparability should be selected. Alternatively, consideration of multiple sites could be discussed further.</p> <p><b>If, having generated estimates as detailed above, the total impacts lead to cumulative and/or in-combination increases in baseline mortality of &gt;1% it will be necessary to undertake a more rigorous assessment of estimated impacts at projects where gap-filling has been necessary (Ref B2)</b></p> <p>We suggest further engagement with relevant SNCBs on this point if required.</p>	

ID	RR	Applicant's Response
	<p>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).</p>	
<p><b>Natural England and NRW interim advice regarding demographic rates, EIA scale mortality rates and reference populations for use in offshore wind impact assessments</b></p>		
<p>RR-061-140</p>	<p><b>Natural England and NRW interim advice regarding demographic rates, EIA scale mortality rates and reference populations for use in offshore wind impact assessments</b></p> <p><u>Overview</u></p> <p>Recent discussions between Natural England (Natural England), Natural Resources Wales (NRW), and several developers regarding EIA scale seasonal 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 Natural England/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> <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</p>	<p>NE's update advice is noted; the Applicant proposes to provide relevant updates to address RR-061-140 to RR-061-149 at Deadline 1. See also detailed responses provided for the following comments:</p> <ul style="list-style-type: none"> <li>▪ RR-061-71 (average mortality rates)</li> <li>▪ RR-061-82 (Biologically Defined Minimum Population Scale (BDMPS) reference population for great black-backed gull)</li> </ul>

ID	RR	Applicant's Response
	with Natural England/NRW case teams to establish the best way forward.	
RR-061-141	<p><b>Natural England and NRW interim advice regarding demographic rates, EIA scale mortality rates and reference populations for use in offshore wind impact assessments</b></p> <p><u>Issues Identified</u></p> <p>We are now aware of several incorrect default immature survival rates within the Natural England/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 Horswill &amp; 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>Natural England 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>	
RR-061-142	<p><b>Natural England and NRW interim advice regarding demographic rates, EIA scale mortality rates and reference populations for use in offshore wind impact assessments</b></p> <p><u>Demographic rates for use in calculating weighted mean survival/mortality rates for EIA and for PVAs</u></p> <p>Several of the default global immature survival rates provided in the JNCC/Natural England PVA tool are incorrect as they represent compound values, across immature age classes, taken from Horswill</p>	

ID	RR	Applicant's Response
	<p>&amp; 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 should ideally be used wherever the respective default values would have been for PVA or calculation of weighted mean mortality rates.</p> <p>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)).</p> <p>[Table 1]</p> <p>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.</p> <p>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.</p>	
RR-061-143	<p><b>Natural England and NRW interim advice regarding demographic rates, EIA scale mortality rates and reference populations for use in offshore wind impact assessments</b></p>	

ID	RR	Applicant's Response
	<p><u>Mortality rates for use in EIA scale assessments</u>            Natural England/NRW have used the corrected survival rates provided above, in combination with other demographic rate data from Horswill &amp; 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 &amp; Robinson (2015), and the listed survival rates in Table 2, to inform a deterministic PVA model run using the JNCC/Natural England PVA tool to derive the proportions of each age class in a stable population.            [Table 2]</p>	
RR-061-144	<p><b>Natural England and NRW interim advice regarding demographic rates, EIA scale mortality rates and reference populations for use in offshore wind impact assessments</b>  <u>Mortality rates for use in EIA scale assessments</u>            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]</p>	
RR-061-145	<p><b>Natural England and NRW interim advice regarding demographic rates, EIA scale mortality rates and reference populations for use in offshore wind impact assessments</b>  <u>EIA scale reference populations</u>            Natural England and NRW acknowledge that it remains difficult to define populations for EIA scale assessments where there are likely</p>	

ID	RR	Applicant's Response
	<p>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.</p>	
RR-061-146	<p><b>Natural England and NRW interim advice regarding demographic rates, EIA scale mortality rates and reference populations for use in offshore wind impact assessments</b>  <u>EIA scale reference populations</u></p> <p>Based on this logic Natural England 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.</p>	
RR-061-147	<p><b>Natural England and NRW interim advice regarding demographic rates, EIA scale mortality rates and reference populations for use in offshore wind impact assessments</b>  <u>EIA scale reference populations</u></p> <p>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</p>	

ID	RR	Applicant's Response
	<p>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 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] [Table 5]</p>	
RR-061-148	<p><b>Natural England and NRW interim advice regarding demographic rates, EIA scale mortality rates and reference populations for use in offshore wind impact assessments</b></p> <p><u>EIA scale reference populations</u></p> <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]</p>	
RR-061-149	<p><b>Natural England and NRW interim advice regarding demographic rates, EIA scale mortality rates and reference populations for use in offshore wind impact assessments</b></p> <p><u>EIA scale reference populations</u></p> <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</p>	



ID	RR	Applicant's Response
	<p>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>	
<b>Appendix C to the RR of NE: Fish and Shellfish Ecology</b>		
RR-061-150	<p><b>Appendix C to the Relevant Representations of Natural England Fish and Shellfish Ecology</b></p> <p>In formulating these comments, the following documents have been considered:</p> <p>[APP-047] 5.1.10 Volume 5, Chapter 10: Fish and Shellfish Ecology</p> <p>[APP-028] 4.10 Volume 4: Habitats Regulations Screening Report</p> <p>[APP-065] 5.2.11.1 Volume 5, Appendix 11.1: Underwater Noise Assessments</p> <p>[APP-031] 4.12 Volume 4: Marine Conservation Zone Assessment Screening Report</p> <p>[APP-0.27] 4.9 Volume 4: Report to Inform Appropriate Assessment</p> <p>[APP-035] 4.16 Volume 4: Transmission Assets PEIR Non-Technical Summary</p> <p>[APP-042] 5.1.5 Volume 5, Chapter 5: Project Description</p> <p><b>1. Natural England's Advice and Recommendations</b></p> <p>A summary of Natural England's key concerns in relation to Fish and Shellfish Ecology is set out in Table 1. Our detailed advice and recommendations are presented in further detail in Table 2.</p>	<p>The Applicant notes NE's comment and the documents used for the representation.</p>
RR-061-151	<p><b>Summary of Key Issues – Fish and Shellfish Ecology (Ref C1)</b></p>	<p>Whilst underwater noise modelling results for both fleeing and stationary receptors have been</p>

ID	RR	Applicant's Response
	<p>Natural England does not agree with the Applicant's approach regarding the use of Marine Mammal Mitigation Protocol (MMMP) methods as a means of mitigation for fish species, and the assumption of fish fleeing receptors in assessing under water noise (UWN) impacts for fish.</p> <p>We would ideally like this to be addressed but are satisfied that for this particular project it is unlikely to make a material difference to our advice, or the outcome of the decision-making process. However, we reserve the right to revise our opinion should further evidence be presented.</p> <p>It should be noted by interested parties that it should not be inferred that Natural England would be of the same view in other cases or circumstances.</p> <p>Natural England advises that unless there are significant changes to project design parameters, we will provide no further comment on Fish and Shellfish Ecology during Examination.</p>	<p>presented in the ES (Chapter 10 Fish and Shellfish Ecology (APP-047)), the fleeing receptor results are presented for information only and the assessment is based on stationary receptors. Whilst the piling protocols set out in the MMMP have the potential to mitigate effects for some sound sensitive fish species, it is acknowledged that this does not apply to all fish species in a more general sense.</p> <p>The Applicant notes NE's position that these matters are unlikely to make a difference to the outcome of the decision-making process.</p>
RR-061-152	<p><b>Natural England's Detailed Advice and Recommendations – Fish and Shellfish Ecology</b></p> <p><b>Project Parameters - Documents Used: APP-042] 5.1.5 Volume 5, Chapter 5: Project Description - (Ref C2)</b></p> <p>Natural England are content that the detail provided is sufficient to inform the Maximum Design Scenario (MDS) and Environmental Impact Assessment (EIA) as it relates to Fish and Shellfish Ecology.</p> <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>Noted, the Applicant welcomes the comment from NE.</p>

ID	RR	Applicant's Response
RR-061-153	<p><b>Natural England's Detailed Advice and Recommendations – Fish and Shellfish Ecology</b></p> <p><b>Project Parameters - Documents Used: [APP-042] 5.1.5 Volume 5, Chapter 5: Project Description - (Ref C3)</b></p> <p>Natural England are content that the WCS/MDS presented is suitable as it relates to Fish and Shellfish Ecology.</p> <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>Noted, the Applicant welcomes the comment from NE.</p>
RR-061-154	<p><b>Natural England's Detailed Advice and Recommendations – Fish and Shellfish Ecology</b></p> <p><b>Baseline Characterisation - Document(s) Used: [APP-047] 5.1.10 Volume 5, Chapter 10: Fish and Shellfish Ecology - (Ref C4)</b></p> <p>It is stated "Adult Atlantic salmon are observed to commence entry into the Leven, Kent, Lune, and Wyre rivers during early spring, whilst sea trout commence entry in June (through until the autumn), although the upstream migration of sea trout is not considered as extensive". However, no referenced evidence is provided to support this statement.</p> <p>Natural England advise that the evidence used to support this statement should be fully referenced.</p>	<p>The Applicant notes this statement is derived from the Environment Agency Salmonid and freshwater fisheries statistics: 2022.</p> <p>Environment Agency (2023). Salmonid and freshwater fisheries statistics: 2022. Available at: Salmonid and freshwater fisheries statistics: 2022 - GOV.UK (<a href="http://www.gov.uk">www.gov.uk</a>)</p> <p>The full reference is included in The Applicant's Errata Sheet (Document Reference 8.4), submitted alongside this document at Procedural Deadline A.</p>
RR-061-155	<p><b>Natural England's Detailed Advice and Recommendations – Fish and Shellfish Ecology</b></p> <p><b>Baseline Characterisation - Document(s) Used: [APP-047] 5.1.10 Volume 5, Chapter 10: Fish and Shellfish Ecology - (Ref C5)</b></p> <p>It is stated " These species are unlikely to be encountered in the windfarm site, as (except in the case of sea lamprey) they remain in close association with estuarine environments during the marine</p>	<p>The Applicant notes the references to support this statement are as follows:</p> <p>Barnes, M. K. S. (2008) <i>Alosa fallax</i> Twait shad. In Tyler-Walters H. and Hiscock K. Marine Life Information Network: Biology and Sensitivity Key Information Reviews, [on-line]. Plymouth: Marine Biological Association of the United Kingdom. [cited</p>

ID	RR	Applicant's Response
	<p>phase of their life cycle." However, no referenced evidence is provided to support this statement.</p> <p>Natural England advise that the evidence used to support this statement should be fully referenced.</p>	<p>22-08-2024]. Available from:  <a href="https://www.marlin.ac.uk/species/detail/48">https://www.marlin.ac.uk/species/detail/48</a>            Barnes, M. K. S. (2008) <i>Lampetra fluviatilis</i> European river lamprey. In Tyler-Walters H. and Hiscock K. Marine Life Information Network: Biology and Sensitivity Key Information Reviews, [on-line]. Plymouth: Marine Biological Association of the United Kingdom. [cited 22-08-2024]. Available from:  <a href="https://www.marlin.ac.uk/species/detail/49">https://www.marlin.ac.uk/species/detail/49</a>            Barnes, M.K.S. 2008. <i>Petromyzon marinus</i> Sea lamprey. In Tyler-Walters H. and Hiscock K. Marine Life Information Network: Biology and Sensitivity Key Information Reviews, [on-line]. Plymouth: Marine Biological Association of the United Kingdom. [cited 22-08-2024]. Available from:  <a href="https://www.marlin.ac.uk/species/detail/50">https://www.marlin.ac.uk/species/detail/50</a>            Maitland, P.S. and Hatton-Ellis, T. W. (2003) Ecology of the Allis and Twaite Shad. Conserving Natura 2000 Rivers Ecology Series No. 3. English Nature, Peterborough.            Reeve, A. (2005). <i>Alosa alosa</i> Allis shad. In Tyler-Walters H. and Hiscock K. Marine Life Information Network: Biology and Sensitivity Key Information Reviews, [on-line]. Plymouth: Marine Biological Association of the United Kingdom. [cited 22-08-2024]. Available from:  <a href="https://www.marlin.ac.uk/species/detail/2120">https://www.marlin.ac.uk/species/detail/2120</a></p> <p>The full references are included in The Applicant's Errata Sheet (Document Reference 8.4), submitted alongside this document at Procedural Deadline A.</p>

ID	RR	Applicant's Response
RR-061-156	<p><b>Natural England's Detailed Advice and Recommendations – Fish and Shellfish Ecology</b></p> <p><b>Baseline Characterisation - Document(s) Used: [APP-047] 5.1.10 Volume 5, Chapter 10: Fish and Shellfish Ecology - (Ref C6)</b></p> <p>In [APP-047] it is stated " The current understanding is that European eels spawn in the Sargasso Sea, but there are potentially other, more distant, spawning grounds, and the routes to and from these spawning grounds for European eels remain unclear.".</p> <p>However, no referenced evidence is provided to support this statement. Natural England are not aware of any potential alternative spawning grounds for European eel.</p> <p>Natural England advise that the evidence used to support this statement should be fully referenced.</p>	<p>Whilst European eel are thought to spawn in the Sargasso sea (Wright <i>et al.</i>, 2022), others have highlighted the potential for spawning to occur beyond the boundaries of the Sargasso Sea (Chang <i>et al.</i>, 2020). This point does not affect the assessment however.</p>
RR-061-157	<p><b>Natural England's Detailed Advice and Recommendations – Fish and Shellfish Ecology</b></p> <p><b>Baseline Characterisation - Survey Data Acquisition - (Ref C7)</b></p> <p>Natural England defer to CEFAS on data sources, assessment methodology and conclusions in relation to herring and sandeel.</p> <p>Natural England advise that comments provided by CEFAS are referred to on this matter.</p>	<p>The Applicant notes this response.</p>
RR-061-158	<p><b>Natural England's Detailed Advice and Recommendations – Fish and Shellfish Ecology</b></p> <p><b>Baseline Characterisation - Survey Data Acquisition - (Ref C8)</b></p> <p>The dynamics between protected avian predator species (i.e. piscivorous species of Liverpool Bay SPA) and prey (i.e. sandeel, herring) has been discussed in collaboration with Natural England ornithological specialists and impacts to birds due to prey fish losses have been deemed unlikely despite proximity to Liverpool Bay SPA.</p>	<p>Noted, the Applicant welcomes the confirmation from NE.</p>

ID	RR	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>	
RR-061-159	<p><b>Natural England's Detailed Advice and Recommendations – Fish and Shellfish Ecology</b></p> <p><b>Environmental Impact Assessment - Identified impacts - Document Used: [APP-065] 5.2.11.1 Volume 5, Appendix 11.1: Underwater Noise Assessments (Ref C9)</b></p> <p>While underwater noise (UWN) modelling has been conducted to determine noise thresholds for impacts to fish as both moving fleeing and static stationary 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 Offshore Wind Marine Environmental Assessments: Best Practice Advice for Evidence and Data Standards states:</p> <p>"There is currently insufficient evidence to support the inclusion of fleeing behaviour of fish into models. Whilst some degree of movement would be expected, fish may also choose to remain in the affected area (e.g., due to prey availability or mating opportunities) despite the harmful noise exposure (Faulkner <i>et al.</i> 2018). Therefore, for the purposes of environmental assessments, it is currently advised that fish are considered to be stationary receptors within underwater noise models. However, applications may also assess the effects of underwater noise with fleeing behaviours included within the model, if presented in addition to assessments of stationary receptors."</p>	<p>Whilst underwater noise modelling results for both fleeing and stationary receptors have been presented in the ES (Chapter 10 Fish and Shellfish Ecology (APP-047)), the fleeing results are presented for information only and the assessment is based on stationary receptors.</p> <p>The Applicant notes NE's position that these matters are unlikely to make a difference to the outcome of the decision-making process.</p>

ID	RR	Applicant's Response
	<p>Natural England advise that stationary receptor values should be used for fish and therefore any use of fleeing receptors should be disregarded.</p> <p>We would ideally like this to be addressed but are satisfied that for this particular project it is unlikely to make a material difference to our advice, or the outcome of the decision-making process. However, we reserve the right to revise our opinion should further evidence be presented.</p>	
RR-061-160	<p><b>Natural England's Detailed Advice and Recommendations – Fish and Shellfish Ecology</b></p> <p><b>Environmental Impact Assessment - Identified impacts - Document Used: [APP-047] 5.1.10 Volume 5, Chapter 10: Fish and Shellfish Ecology, Figure 3.8 – (Ref C10)</b></p> <p>Further to the above comment, while it is useful to display Temporary Threshold Shift (TTS) UWN range and impact ranges for fleeing and stationary animals in tabular format, it would be preferable to have underwater noise contour maps for the site displaying these ranges. This would allow Natural England to visually assess proximity to protected sites more easily. We advise these figures also clearly state the piling scenario modelled and includes the UWN modelling locations and protected site boundaries. While Figure 3.8 displays an example plot, this is assuming the animal is a fleeing receptor, not stationary (see comment above for reasoning).</p> <p>Natural England advise that it is difficult to gauge TTS and Sound Exposure Level (SEL) threshold UWN impact ranges for stationary receptors in relation to protected sites without a contour map.</p> <p>Natural England advise that UWN impact range contour maps are provided for fish (assuming they are a stationary receptor) which</p>	<p>The Applicant notes NE's position that these matters are unlikely to make a difference to the outcome of the decision-making process.</p> <p>To provide further context, a figure has been produced (Figure 10.10) and is submitted alongside this document at Procedural Deadline A (5.3.10 Chapter 10 Fish and Shellfish Ecology Figures_Rev 02). This figure displays contours for key Popper <i>et al.</i>, (2014) SEL<sub>cum</sub> piling noise impact thresholds on fish.</p>

ID	RR	Applicant's Response
	<p>clearly states the piling scenario modelled and includes the UWN modelling locations and protected site boundaries.</p> <p>We would ideally like this to be addressed but are satisfied that for this particular project it is unlikely to make a material difference to our advice, or the outcome of the decision-making process. However, we reserve the right to revise our opinion should further evidence be presented.</p>	
RR-061-161	<p><b>Natural England's Detailed Advice and Recommendations – Fish and Shellfish Ecology</b></p> <p><b>Environmental Impact Assessment - Document Used: [APP-047] 5.1.10 Volume 5, Chapter 10: Fish and Shellfish Ecology, 10.229, 10.231, 10.243 &amp; 10.245 - (Ref C11)</b></p> <p>Natural England do not agree with the use of Marine Mammal Mitigation Protocol (MMMP) methods such as soft start and ramp up as a means of mitigation for fish species.</p> <p>This mitigation is designed primarily for cetaceans 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 (i.e., shoaling in place, or in haphazard directions, flinching, fleeing into shelter).</p> <p>Natural England advise that these are not appropriate mitigation measures for impacts to fish and therefore should be removed from the assessment and, that a more appropriate WCS and mitigation proposal be presented.</p>	<p>Whilst the piling protocols set out in the draft MMMP (APP-149) have the potential to mitigate effects for some sound sensitive fish species, it is acknowledged that this does not apply to all fish species in a more general sense.</p> <p>The worst-case scenario for piling assumes that fish are stationary receptors, and therefore considers impacts without any assumptions of fleeing receptors and in the absence of any mitigation. The MMMP is not involved in the worst-case scenario assessment of impacts on fish and shellfish. The impacts set out in the ES (Chapter 10 Fish and Shellfish Ecology (APP-047) and RIAA (APP-027) are therefore valid regardless of the presence or absence of a MMMP.</p> <p>Given that no significant impacts have been found for fish and shellfish receptors, no additional mitigation considered to be required. However, the Applicant will provide an Outline Underwater Sound Management Strategy at Deadline 2 (in order to take into account potential further comments from NE, NRW and the MMO at Deadline 1). The</p>



ID	RR	Applicant's Response
	<p>We would ideally like this to be addressed but are satisfied that for this particular project it is unlikely to make a material difference to our advice, or the outcome of the decision-making process. However, we reserve the right to revise our opinion should further evidence be presented.</p>	<p>Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the DML submitted with the updated draft DCO at Procedural Deadline A to secure this. Additionally, the Outline Underwater Sound Management Strategy has been added as document to be certified as one referred to in the DCO. Whilst not considered to be required for fish and shellfish receptors, has the potential to mitigate effects for some sound sensitive fish species.</p> <p>The Applicant notes NE's position that these matters are unlikely to make a difference to the outcome of the decision-making process.</p>
RR-061-162	<p><b>Natural England's Detailed Advice and Recommendations – Fish and Shellfish Ecology</b>  <b>HRA - Document Used: [APP-028] 4.10 Volume 4: Habitats Regulations Screening Report (Ref C12)</b></p> <p>Natural England acknowledges and agrees with findings of no or negligible impacts to Annex II diadromous fish species.</p> <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>Noted, the Applicant welcomes the confirmation from NE.</p>
RR-061-163	<p><b>Natural England's Detailed Advice and Recommendations – Fish and Shellfish Ecology</b>  <b>MCZ Assessment - Document Used: [APP-031] 4.12 Volume 4: Marine Conservation Zone Assessment Screening Report - (Ref C13)</b></p>	<p>Noted, the Applicant welcomes the confirmation from NE.</p>

ID	RR	Applicant's Response
	<p>Natural England acknowledges and agrees with findings of no or negligible impacts to MCZ fish features.</p> <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>	
<b>Appendix D to the Relevant Representations of Natural England: Marine Mammals</b>		
RR-061-164	<p><b>Morecambe OWF Relevant Representations Marine Mammal Specialist comments July 2024</b></p> <p><b>Appendix D– Marine Mammals</b></p> <p>In formulating these comments, the following documents have been considered:</p> <p>[APP-027] 4.9 Volume 4: Report to Inform Appropriate Assessment</p> <p>[APP-028] 4.10 Volume 4: Habitats Regulation Assessment Screening Report</p> <p>[APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals</p> <p>[APP-065] 5.2.11.1 Appendix 11.1: Underwater Noise Assessment</p> <p>[APP-066] 5.2.11.2 Appendix 11.2: Marine Mammal Information and Survey Data</p> <p>[APP-067] 5.2.11.3 Appendix 11.3: Marine Mammal Unexploded Ordnance Assessment</p> <p>[APP-068] 5.2.11.4 Appendix 11.4: Marine Mammal CEA Project Screening</p> <p>[APP-071] 5.2.12.2 Appendix 12.2: Aerial Survey Two Year Report March 2021 to February 2023</p> <p>[APP-146] 6.2 Volume 6, Chapter 2: Outline Project Environmental Management Plan n</p> <p>[APP-148] 6.4 Volume 6, Chapter 4: In Principle Monitoring Plan</p>	<p>The Applicant notes NE's comment and the documents used for the representation.</p>

ID	RR	Applicant's Response
	<p>[APP-149] 6.5 Volume 6, Chapter 5: Draft Marine Mammal Mitigation Protocol</p> <p><b>1. Natural England's Advice and Recommendations</b></p> <p>A summary of Natural England's key concerns in relation to marine mammals is set out in Table 1. Our detailed advice and recommendations are presented in further detail in Table 2.</p>	
RR-061-165	<p><b>Summary of Key Issues – Marine Mammals - Noise Abatement - (Ref D1)</b></p> <p>Natural England strongly advises the Applicant to commit to using noise abatement (NAS) as mitigation during construction. Noise abatement systems are proven to reduce the level of noise generated by piling and its propagation through the marine environment. As the noise levels are reduced at or close to the source, the range and area over which noise-related impacts occur will be reduced significantly. 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>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). We expect noise abatement to be committed to in the Outline/Draft Marine Mammal Mitigation Plan and Site Integrity Plan submitted at the DCO Application stage.</p>	<p>It is noted the Project is outside of any MPAs, with the nearest SAC for marine mammals being 45km away (North Anglesey Marine (Gogledd Môn Forol) SAC) and in the UK thus far, offshore wind developers are not known to have been required to employ NAS. The MMO and NE have indicated that NAS will likely be required for EPS licencing of OWF projects using monopiles from early 2025 onwards (and relevant should this be the foundation option taken forward by the Project).</p> <p>The finalisation of the MMMP for piling and EPS licencing applications will consider the latest policy on NAS at the time. The Applicant notes that potential mitigation options, including NAS, are listed within the Draft MMMP (APP-149) which would be finalised post-consent in line with the final design of the Project. It is recognised that upon assessment of more developed design information, any need for the implementation of NAS will be decided in consultation with the licencing authority.</p> <p>The Applicant is planning appropriately for the potential requirement for NAS but maintains the position that the effects may be suitably mitigated</p>

ID	RR	Applicant's Response
	<p>The effect of noise abatement systems in reducing noise impacts should be included in the assessment.</p>	<p>through further design refinement and other embedded mitigation.</p> <p>The Applicant will also provide an Outline Underwater Sound Management Strategy (as requested by Natural England in RR-061-215) at Deadline 2 (in order to take into account potential further comments from the MMO, NRW and NE at Deadline 1). The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the DML submitted with the updated draft DCO at Procedural Deadline A to secure this. Additionally, the Outline Underwater Sound Management Strategy has been added as a document to be certified as one referred to in the DCO.</p>
RR-061-166	<p><b>Summary of Key Issues – Marine Mammals - Seal baseline - (Ref D2)</b></p> <p>Natural England has concerns about the seal baseline characterisation. (See Natural England Refs 6 and 11).</p> <p>Revise the seal baseline characterisation in line with comments.</p>	<p>Detailed comments are responded to in the following responses:</p> <p>ID RR-061-177 ID RR-061-179 ID RR-061-183</p> <p>These responses are also provided in The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2), submitted alongside this document at Procedural Deadline A.</p>

ID	RR	Applicant's Response
RR-061-167	<p><b>Summary of Key Issues – Marine Mammals - Sensitivity values (Ref D3)</b></p> <p>Natural England disagrees with some of the sensitivity values assigned to marine mammal species for certain impact pathways (disturbance, collision risk). (See Natural England Refs 12 and 16). Revise the sensitivity values in line with comments.</p>	<p>Detailed comments are responded to in the following responses:</p> <p>ID RR-061-185 ID RR-061-189 ID RR-061-191</p>
RR-061-168	<p><b>Summary of Key Issues – Marine Mammals - iPCoD modelling - (Ref D4)</b></p> <p>Natural England does not agree with the project-alone assessment of disturbance impacts from piling. We have concerns with how the results of the iPCoD modelling are presented. We also require that the impact significance should be presented based on each approach taken to assessing disturbance, not just based on the iPCoD modelling. We cannot agree with the assessment conclusions of the project-alone disturbance effects at this stage. (See Natural England Refs 19 and 23).</p> <p>Update how the iPCoD modelling results are presented in line with comments. Present impact significance for all approaches used to assess disturbance impact.</p> <p>Commit to further mitigation of project-alone impacts, should they be significant.</p>	<p>Detailed comments are responded to in responses RR-061-192 and RR-061-196.</p> <p>A response is also provided in The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2), submitted alongside this document at Procedural Deadline A.</p>
RR-061-169	<p><b>Summary of Key Issues – Marine Mammals - PTS assessment - (Ref D5)</b></p> <p>Natural England do not agree that residual PTS risk is sufficiently reduced, and so cannot agree with the assessment conclusion regarding residual PTS significance.</p> <p>Commit to further mitigation of PTS.</p>	<p>The following measures have been confirmed in the Schedule of Mitigation (APP-144):</p> <ul style="list-style-type: none"> <li>▪ No Project concurrent piling is to be undertaken</li> <li>▪ Each piling event would commence with a soft-start at a slow hammer energy followed by a</li> </ul>

ID	RR	Applicant's Response
		<p>gradual ramp up to the maximum hammer energy required.</p> <p>Further mitigation (as are considered standard requirements) the Applicant will commit to are:</p> <ul style="list-style-type: none"> <li>▪ The establishment of a Monitoring Area around the pile location before each pile driving activity, based on the maximum predicted distance for instantaneous Permanent Threshold Shift (PTS) (Sound Pressure Level (SPL<sub>peak</sub>)).</li> <li>▪ The activation of Acoustic Deterrent Device (ADD) prior to piling</li> <li>▪ JNCC trained Marine Mammal Observers (MMOb)</li> <li>▪ Passive Acoustic Monitoring (PAM) and operators</li> </ul> <p>Updates to the MMMP to confirm this commitment will be provided at Deadline 2 to enable the Applicant to accommodate potential comments from NRW at Deadline 1.</p>

ID	RR	Applicant's Response
		<p>The Applicant notes that potential mitigation options, including NAS, are listed within the draft MMMP (APP-149) which would be finalised post-consent in line with the final design of the Project. It is recognised that upon assessment of more developed design information any need for further mitigation will be decided in consultation with the licencing authority.</p> <p>The Applicant acknowledges that there needs to be effective and appropriate mitigation measures in place for auditory injury (PTS). The Applicant is committed to this requirement to be secured in the final MMMP but maintains the position that the effects may be suitably mitigated through further design refinement and embedded mitigation before commitment to additional mitigation.</p>
RR-061-170	<p><b>Summary of Key Issues – Marine Mammals - Cumulative effects (Ref D6)</b></p> <p>Natural England do not agree with the assessment conclusions regarding cumulative disturbance across projects.</p> <p>Commit to further mitigation of cumulative disturbance.</p>	<p>The Applicant will provide an Outline Underwater Sound Management Strategy (as requested by NE in RR-061-215) at Deadline 2 (in order to take into account potential further comments from the MMO, NE and NRW at Deadline 1). The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the DML submitted with the updated draft DCO at Procedural Deadline A to secure this. Additionally, the Outline Underwater Sound Management Strategy has been added as a document to be certified as one referred to in the DCO.</p>

ID	RR	Applicant's Response
RR-061-171	<p><b>Summary of Key Issues – Marine Mammals - HRA (Ref D7)</b></p> <p>As we have significant outstanding concerns on the ES assessment, and the HRA method is based on the ES (e.g. the in-combination assessment is based on the CEA), we cannot agree with the HRA conclusions at this stage.</p> <p>Address concerns on ES and cascade the changes / commitments to the HRA.</p>	<p>The Applicant notes this response. A technical note will be provided at Deadline 1 in line with comments on the ES.</p>
RR-061-172	<p><b>Summary of Key Issues – Marine Mammals - IPMP - (Ref D8)</b></p> <p>The IPMP is not sufficiently detailed and doesn't propose any additional marine mammal monitoring, which we disagree with.</p> <p>Propose further marine mammal monitoring in line with comment.</p>	<p>In regard to marine mammals, monitoring for noise levels for the first four piles is secured in the draft DCO (APP-012).</p> <p>The Applicant has not secured further monitoring for marine mammals, on the basis that with the implementation of mitigation, 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. It is noted that mitigation would need to be agreed post-consent alongside the final Project design parameters.</p>
RR-061-173	<p><b>Summary of Key Issues – Marine Mammals - MMMP (Ref D9)</b></p> <p>We do not agree with aspects of the MMMP.</p> <p>Update the MMMP in line with comments.</p>	<p>The Applicant notes this response. Detailed comments are provided in responses to RR-061-226 and RR-061-236.</p> <p>Updates to the MMMP will be provided at Deadline 2 to enable the Applicant to accommodate potential comments from NRW.</p>



ID	RR	Applicant's Response
RR-061-174	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Project Parameters - Project Description - Document Used: [APP-065] 5.2.11.1 Appendix 11.1: Underwater Noise Assessment, Table 11.1, Paragraph 11.207 - (Ref D10)</b></p> <p>The maximum pile diameter for monopiles and jacket piles differs between the ES Chapter and the underwater noise modelling.</p> <p>Correct the incorrect pile diameter values in the ES Chapter and ensure the correct value has been used for the underwater noise modelling.</p>	<p>The underwater noise assessment report (Appendix 11.1 Underwater Noise Assessment (APP-065)) presented modelling for larger pile sizes (14m for monopile and 5m for pin piles) as the modelling was undertaken prior to a Project refinement whereby pile diameters were reduced to 12m for monopile and 3m for pin-piles. The modelling is therefore precautionary and encompasses the worst-case scenario.</p> <p>Updated modelling will be undertaken post-consent, noting an EPS risk assessment will be completed alongside the finalisation of the MMMP and will ensure the appropriate pile diameters are used based upon a more developed design to inform required mitigations.</p>
RR-061-175	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Project Parameters - Document(s) Used: [APP-027] 4.9 Volume 4: Report to Inform Appropriate Assessment, Table 9.4, [APP-065] 5.2.11.1 Appendix 11.1: Underwater Noise Assessment, Tables 3-2 and 3-3 - (Ref D11)</b></p> <p>The maximum piling duration presented in the RIAA and ES is based on piling at a higher strike rate, whereas piling at a lower strike rate would increase the overall piling duration. Indeed, the maximum piling duration in the underwater noise assessment is greater than that presented in the RIAA and ES. Therefore the tables in the RIAA and ES do not present the maximum piling duration.</p>	<p>The Applicant has considered two strike rate scenarios. The maximum strike rate scenario was used for the assessments in the RIAA (APP-027) and the ES Chapter 11 Marine Mammal (APP-048) as this resulted in the worst-case SEL<sub>cum</sub> PTS and TTS impact ranges for each piling event. Whilst the lower strike rate scenario lasts longer overall, more animals are impacted, per pile, and therefore overall, in the higher strike rate scenario. This is due to the greater number of strikes at higher hammer energy leading to a greater SEL<sub>cum</sub>. This worst-case, in terms of number of animals affected, has informed the assessment.</p> <p>To clarify, the higher strike rate scenario, with the worst-case impact ranges that has informed the</p>

ID	RR	Applicant's Response
	<p>We do not agree that the difference is so minor that it does not need to be considered; to illustrate, per pin pile installed, the maximum duration is 38% longer when using the lower strike rate.</p> <p>Present the maximum piling duration, based on the lower strike rate, and use this in the assessment of the duration of the impact.</p>	<p>assessments in the ES (Chapter 11 Marine Mammal (APP-048)) and RIAA (APP-027), can be found in Appendix B of Appendix 11.1 Underwater Noise Assessment (APP-065). The lower strike rate found in Tables 3.2 and 3.3 of Appendix 11.1 Underwater Noise Assessment (APP-065) does not result in worst-case numbers for SEL<sub>cum</sub> impacts and has not been used for SEL<sub>cum</sub> assessments in the ES Chapter 11 Marine Mammals (APP-048) or the RIAA (APP-027) for this reason.</p> <p>It is the duration of piling (in terms of number of hammer strikes), combined with the sound levels produced by each strike that drives the assessments of PTS and TTS in terms of SEL<sub>cum</sub>. This is why the higher strike rate scenario affects more animals, despite completing a pile in a shorter time period.</p> <p>For population modelling, the duration (in hours) of a piling event is not a parameter that affects the outputs. Rather, it is the total number of piling days and the number of animals disturbed on each piling day that affects the assessment. The population modelling was conducted based on the maximum number of piling days (assuming 1 pile per day) combined with the greatest number of animals receiving disturbance/PTS from a single pile per day. In this way, the interim Population Consequences of Disturbance (iPCoD) modelling considers the greatest piling duration, in terms of</p>

ID	RR	Applicant's Response
		<p>days of piling, combined with the worst-case effects of each piling event.</p> <p>The Applicant has therefore taken into consideration the worst-case piling scenario with regard to duration and strike rate in the overall assessment.</p> <p>This response is also provided as part of The Applicant's Response to the Planning Inspectorate's Rule 9 Letter for the Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2), submitted alongside this document at Procedural Deadline A.</p>
RR-061-176	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Project Parameters - Worst Case Scenario - Document Used: [APP-065] 5.2.11.1 Appendix 11.1: Underwater Noise Assessment, Table 5.3.1 - (Ref D12)</b></p> <p>The Applicant has used a maximum charge weight of 353.5kg for UXO, which is contrary to Natural England's Best Practice Advice to use a nominal 750 kg weight. The donor charge for high order clearance is also typically greater than 0.5 kg and should be added to the total NE.</p> <p>When applying for the UXO licence post- consent, ensure that an appropriate maximum UXO charge weight plus donor charge is modelled.</p>	<p>The Applicant used desk-based information on the potential unexploded ordnance (UXO) likely to be in the area, however, agrees to review the maximum UXO charge weight plus donor charge when applying for a UXO clearance licence post-consent if required. The marine licence application post-consent would take into account the latest information on potential sizes of UXO to be cleared (if any) once information on the composition of any confirmed UXO is available.</p> <p>As requested by PINS in the Rule 9 Letter (PD-006) issued to Morecambe Offshore Windfarm Ltd on the 4 September 2024, a justification for the charge weight used has been provided in Section 6.1 in The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2),</p>

ID	RR	Applicant's Response
		submitted alongside this document at Procedural Deadline A.
RR-061-177	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Baseline Characterisation - Survey data acquisition - Document(s) Used: [APP-066] 5.2.11.2 Appendix 11.2: Marine Mammal Information and Survey Data, Paragraph 10 - (Ref D13)</b></p> <p>No reference is made to the presence of harbour seals on the Isle of Man. Given its geographical location, any harbour seals here should be included in the reference population.</p> <p>Clarify the presence of harbour seal on the Isle of Man and include in the assessment if necessary.</p>	<p>The Applicant has provided information regarding the harbour seal population in Section 5.8 in Appendix 11.2 Marine Mammal Information and Survey Data (APP-066), stating that harbour seal visits to the Isle of Man are rare, but that small numbers haul out along the coast, however this is not considered to be a resident population.</p> <p>E-mail communication from the Manx Wildlife Trust (16 August 2023) highlighted that knowledge on harbour seal on the Isle of Man is limited in comparison to what is known about grey seal. None of the recent surveys (MWT, 2018; 2021) conducted by the Manx Wildlife Trust included harbour seals during the annual surveys, likely because the few that are present are considered transients. As a result, their numbers are unknown. The Applicant has reviewed other DCO applications in the wider area. These have also stated that harbour seals at the IoM have an unknown population count.</p> <p>This response is also provided in The Applicants Response to the Rule 9 Letter for the Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2), submitted alongside this document at Procedural Deadline A.</p>

ID	RR	Applicant's Response
RR-061-178	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Baseline Characterisation - Survey data acquisition - Document(s) Used: [APP-066] 5.2.11.2 Appendix 11.2: Marine Mammal Information and Survey Data, Paragraph 45 - (Ref D14)</b></p> <p>The Applicant should clearly present the numbers added to each species' total through their apportioning approach.</p> <p>Present the apportioned numbers clearly.</p>	<p>The methodology that HiDef (aerial survey data provider) uses for deriving species densities with the apportioning approach is presented in Appendix 12.2 Aerial Survey Two Year Report March 2021 to February 2023 (APP-071).</p> <p>The number of animals in the survey are presented in Table 3.2; Appendix 11.2 Marine Mammal Information and Survey Data (APP-066). This includes the count of seals and seal/small cetacean species which have been apportioned.</p>
RR-061-179	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Baseline Characterisation - Survey data acquisition - Document(s) Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Paragraph 11.41 - (Ref D15)</b></p> <p>Natural England advises that the reference population for grey seal should be the NW England MU alone.</p> <p>Revise assessment so that it is undertaken against the NW MU grey seal population alone, as the reference population.</p>	<p>The Applicant has used a conservative approach to the assessment.</p> <p>The Applicant provided an overview of the reference population in ETG 5 meeting (11<sup>th</sup> October 2023), where the Isle of Man population was presented to be part of the wider reference population. In ETG 6 meeting (31<sup>st</sup> January 2024), the Applicant presented the combined grey seal reference population to include the Isle of Man and the North West (NW) England Management Unit (MU). No questions or objections arose from this ETG.</p> <p>Based on satellite tracking maps (Carter <i>et al.</i> 2020; 2022), connectivity with grey seals from the Isle of Man and the NW MU was observed. The annual Special Committee on Seals (SCOS) reports have not included the Isle of Man population in the total population for the Britain &amp;</p>

ID	RR	Applicant's Response
		<p>Ireland or apportioned the Isle of Man counts to any of the relevant MUs. Consequently, for all the assessments in the ES, the two reference populations were added to form the 'combined population' (1,593 grey seal), which has been considered to be a more conservative approach to assessments also provided against the 'wider reference population' (13,283 grey seal), which included all other MUs.</p> <p>A discussion was held on this point to justify this position with NE on the 12 September 2024. The Applicant does not consider further information is required. This position is also reflected in The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2).</p>
RR-061-180	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Baseline Characterisation - Data gaps - Document(s) Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Table 11.4 - (Ref D16)</b></p> <p>The baseline noise levels have not been presented, despite the NPS requirement.</p> <p>Present the baseline noise levels.</p>	<p>The Applicant notes the NPS requirements states '<i>where necessary</i>'.</p> <p>The Applicant considers that baseline noise levels do not contribute to the underwater noise assessment, which relies entirely on absolute noise thresholds as criteria. There are two available baseline noise level datasets in the region, from Burbo Bank Extension in 2016 and Gwynt y Môr in 2022. Supplementary baseline information will be included in a Technical Note to be provided at Deadline 1, noting there are no changes to the assessment or the Applicant's position.</p>

ID	RR	Applicant's Response
RR-061-181	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Baseline Characterisation - Analysis, Modelling and Reporting - Document(s) Used: [APP-066] 5.2.11.2 Appendix 11.2: Marine Mammal Information and Survey Data - (Ref D17)</b></p> <p>Natural England agree with the project- specific harbour porpoise density used in the project assessment, which is based on the average summer density. We note that the average summer density (1.62 animals/km<sup>2</sup>) is marginally higher than the average winter density (1.53 animals/km<sup>2</sup>), meaning that it is the worst-case but also appropriate for assessment of impacts during winter (which is relevant to the Bristol Channel Approaches SAC in particular).</p>	<p>Noted, the Applicant welcomes the confirmation from NE.</p>
RR-061-182	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Baseline Characterisation - Analysis, Modelling and Reporting - Document(s) Used: [APP-066] 5.2.11.2 Appendix 11.2: Marine Mammal Information and Survey Data - (Ref D18)</b></p> <p>The Applicant refers to habitat preference modelling for the Celtic and Irish Seas by Lepple (2023 unpublished). Natural England is not aware of this report, but it appears relevant to the baseline characterisation and so should be included.</p> <p>Present information from Lepple (2023 unpublished) in the harbour porpoise baseline characterisation.</p>	<p>The Applicant cited the Master's dissertation (Lepple, 2021) as a recent reference concerning habitat suitability for harbour porpoise, utilising a large spatio-temporal dataset from the Irish Sea. It was cross-referenced by Evans &amp; Waggitt (2023), highlighting high areas of harbour porpoise occurrence within the Irish Sea.</p> <p>The dissertation (Lepple, 2021) was cited in Evans &amp; Waggitt (2023), leading to the incorrect year (2023 and not 2021) being used when referring to Lepple. The full reference is as follows (and has been provided in the Applicant's Errata Sheet (Document Reference 8.4) (submitted alongside this document at Procedural Deadline A):</p> <ul style="list-style-type: none"> <li>▪ Lepple, L. (2021). Environmental Drivers of Harbour Porpoise (<i>Phocoena phocoena</i>) Distribution in the Irish Sea. Master's thesis. Bangor University. Available at: <a href="https://www.seawatchfoundation.org.uk/wp-">https://www.seawatchfoundation.org.uk/wp-</a></li> </ul>

ID	RR	Applicant's Response
		content/uploads/2022/02/Leonie-Lepple-MSc-thesis_2021.pdf. (Accessed 30 <sup>th</sup> August 2024).
RR-061-183	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Baseline Characterisation - Analysis, Modelling and Reporting - Document(s) Used: [APP-066] 5.2.11.2 Appendix 11.2: Marine Mammal Information and Survey Data - (Ref D19)</b></p> <p>It is not clear what the Applicant means when they say that the (best) data from Evans and Waggitt (2023) and/or Waggitt <i>et al.</i> (2019) were applied to the area of SCANS-IV block CS-E. We request further information on this approach.</p> <p>Provide further detail on the approach highlighted.</p>	<p>The Applicant presented in ES Chapter 11 Marine Mammals (APP-048) (Section 11.4.6) the limitations of using the Waggitt <i>et al.</i> (2019) data for absolute densities for fine-scale distributions such as the windfarm site. Following discussions in ETGs and in order to provide a wider, yet regional view on species densities, the method included the use of QGIS, in which the Evans and Waggitt (2023) and/or Waggitt <i>et al.</i> (2019) data blocks were overlaid with the area of SCANS block CS-E in which the Project is located. This allowed for comparison of densities from a number of data sources at the same scale across all available data sources and the highest, worst-case density was applied to the assessment.</p>
RR-061-184	<p><b>Baseline Characterisation - Analysis, Modelling and Reporting - Document(s) Used: [APP-066] 5.2.11.2 Appendix 11.2: Marine Mammal Information and Survey Data - (Ref D20)</b></p> <p>The density of harbour seal used in the assessment has significantly reduced (by a factor of 200) between the PEIR and the Application. The densities in both documents have been calculated from the same source (Carter <i>et al.</i>, 2022), so it is unclear why they differ so significantly.</p> <p>Revise the assessment so that it uses the harbour seal density presented in the PEIR. Unless sufficient justification can be presented as to why it differs so significantly.</p>	<p>The Applicant calculated the densities using a method that incorporates the seal count data from Carter <i>et al.</i> (2022) along with the latest counts taken from the annual report from the SCOS.</p> <p>In ES Chapter 11 Marine Mammals (APP-048) the density was recalculated for the refined windfarm site, following a boundary change between PEIR and the ES, with a 4km buffer. During these calculations a misalignment with the original Geographic Information System (GIS) mapping and Carter <i>et al.</i> (2022) data was discovered indicating an error in the cell allocation for the project area at PEIR. This was corrected for the ES densities and the accurate density for the refined windfarm site</p>



ID	RR	Applicant's Response
		has been used in the calculations presented and accounts for the variation between the two assessments.
RR-061-185	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Document Used: [APP-066] 5.2.11.2 Appendix 11.2: Marine Mammal Information and Survey Data, Paragraph 246, [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Table 11.16 - (Ref D21)</b></p> <p>Natural England does not agree that sensitivity of dolphin and seal species to disturbance effects is low. Whilst there may not be as much evidence for these species group, it would be precautionary to consider them as having medium sensitivity.</p> <p>Appendix 5.2.11.2 states that dolphin species are assumed to have the same sensitivity as harbour porpoise (medium); Chapter 11 should align with this.</p> <p>We consider that seals can be disturbed by piling over similar ranges to harbour porpoise (~25km), therefore it is appropriate to assign a similar level of sensitivity i.e. medium. Change the sensitivity of seals and dolphin species to disturbance to Medium, and revise the assessment.</p>	<p>The Applicant will accommodate the views expressed by NE and raise the sensitivity from Low to Medium for dolphins and seals as a more precautionary assessment. Updates to disturbance assessments in the ES Chapter 11 Marine Mammals (APP-048) for Project-alone and for cumulative effects will be presented in a technical note, to be submitted at Deadline 1.</p> <p>Given the requests for further assessments within the Rule 9 Letter (PD-006), this request has also been accommodated in The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2) to allow updates assessments to be provided in full where comments interrelate.</p>
RR-061-186	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Sections 11.6.3.1 and 11.6.3.2 - (Ref D22)</b></p> <p>The Applicant has not presented an assessment of the impacts from vibro- piling. Whilst vibro-piling is not the worst- case, it would be</p>	<p>The Applicant can confirm that the underwater noise for vibro-piling was modelled in Appendix 11.1 Underwater Noise Assessment (APP-065). The PTS impact ranges were estimated to be the same, while the TTS impact ranges were lower than those of suction dredging and rock placement (see Table 5.4; Appendix 11.1 Underwater Noise Assessment (APP-065), which both (alone or</p>

ID	RR	Applicant's Response
	<p>beneficial to assess the impacts from it in case this pile installation method is used.</p> <p>Present an assessment of impacts from vibro-piling.</p>	<p>together) resulted in a negligible magnitude in the assessments. The Applicant therefore considers that an assessment of impacts from vibro-piling is not necessary at this time given the worst-case has been assessed.</p>
RR-061-187	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Identified impacts - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Sections 11.6.3.1 and 11.6.3.2 - (Ref D23)</b></p> <p>It would have been beneficial to assess barrier effects to seals using the known response distances and/or dose-response relationships with the noise contours. This approach would be preferable to using the TTS distances, as disturbance can occur at greater distances than TTS.</p> <p>Present the barrier effects assessment for seals using alternate disturbance assessment approaches.</p>	<p>The Applicant considers there is good evidence that behavioural responses diminish with decreasing received noise levels. As a result, dose-response curves more accurately reflect actual animal responses compared to fixed noise thresholds or known deterrence ranges.</p> <p>For example, the dose-response curve for harbour seals assumes conservatively that all harbour seals would respond to noise levels greater than SEL<sub>ss</sub> 180 dB re 1 μPa<sup>2</sup>s (Whyte <i>et al.</i>, 2020). However, it is important to note, that the original dataset in Whyte <i>et al.</i> (2020) indicated a significant decrease in predicted seal density within 25km of the wind farm site or “above each 5dB zone above SEL<sub>ss</sub> 145dB re 1μPa<sup>2</sup>s”.</p> <p>As shown in Appendix 11.2: Marine Mammal Information and Survey Data (APP-066), legend 6.2 it is clear there is no overlap with the SEL<sub>ss</sub> 145dB re 1μPa<sup>2</sup>s contour and the coast from piling at the worst-case location (south-west (SW)), therefore verifying the assessment conclusions.</p>
RR-061-188	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p>	<p>The Applicant notes that the maximum TTS effect range of 34km for minke whales may act as a barrier effect due to underwater noise, as this distance exceeds the 30km gap between the</p>

ID	RR	Applicant's Response
	<p><b>Environmental Impact Assessment - Identified impacts - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Section 11.6.3.5 - (Ref D24)</b></p> <p>We note that, based on a TTS distance of 34 km for minke whale, there is potential for barrier effects to extend to the coast during piling.</p> <p>Acknowledge this in paragraph 11.454.</p>	<p>windfarm site and the shore. However, the minimum TTS range was modelled to be 15km and the maximum of 34km range does not extend uniformly in all directions from the SW modelling station.</p> <p>At the maximum distance of 34km, a fleeing, low-frequency cetacean experiences 168dB SEL<sub>cum</sub>. <b>Figure 1</b> below this RR illustrates that this maximum TTS distance extends westward from the Project's SW corner, creating a buffer zone between the coast and the Project on all sides sufficiently large for minke whales to travel. The buffer is approximately 21km between the 168dB contour and the English coast to the east and the south of the Project location.</p> <p>Acknowledgement of the potential effects has been made in The Applicant's Errata Sheet (Document Reference 8.4), submitted alongside this document at Procedural Deadline A.</p>
RR-061-189	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Identified impacts - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Section 11.6.3.5 - (Ref D25)</b></p> <p>The Applicant has not presented information to justify why minke whale has a medium sensitivity to collision risk, compared to low sensitivity for other marine mammals.</p> <p>We advise that sensitivity to collision risk should be medium for all</p>	<p>The Applicant acknowledges and agrees that there was no justification made for the sensitivity of minke whales in Section 11.6.3.6 of Chapter 11 Marine Mammals (APP-048). The sensitivity of marine mammals to collision risk will be further clarified in a technical note at Deadline 1.</p>

ID	RR	Applicant's Response
	<p>species. We consider this appropriate based on the statement in paragraph 11.475.</p> <p>Change sensitivity of all species to collision risk to medium. Update assessment.</p>	
RR-061-190	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Identified impacts - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Table 11.55, Table 11.74 - (Ref D26)</b></p> <p>The values in the collision risk rate (%) do not appear correct. For example, for harbour porpoise: the number of deaths due to physical trauma of unknown cause (n=69) plus the deaths due to physical trauma following probable impact from vessel (n=14), totalling 83, is equivalent to 6.90% of the total necropsies where cause of death was established (n=1203); not the 5.6% presented.</p> <p>Review the numbers in this table and update, and/or clarify how the collision risk rate has been calculated.</p>	<p>The Applicant agrees with the discrepancies identified by NE and presents an updated vessel collision risk assessment in Section 5.2 of The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm (Document Reference 8.2), submitted alongside this document at Procedural Deadline A. It is noted that there is no change to the assessment conclusion on significance.</p>
RR-061-191	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Identified impacts - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Table 11.60 - (Ref D27)</b></p> <p>For clarity, we advise that a single sensitivity is presented for each receptor to the impact pathway. Listing two sensitivities (e.g. Low to Medium for harbour porpoise) is not conducive for a clear assessment. The assessment should be precautionary and so use the worst- case sensitivity.</p>	<p>The Applicant notes that the range assessed is justified in Paragraphs 11.496 and 11.497 of ES Chapter 11 Marine Mammals (APP-048). The assessment provides a precautionary assessment, and the significance is provided for both sensitivities in Table 11.60 and 11.76 of ES Chapter 11 Marine Mammals (APP-048). The low or medium sensitivities both result in a non-significant effect, and the Applicant considers the worst case is presented.</p>

ID	RR	Applicant's Response
	<p>Present a single sensitivity for each receptor and impact pathway combination.</p>	
<p>RR-061-192</p>	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b>  <b>Environmental Impact Assessment – Methodology - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Paragraph s 11.289, 11.767 - (Ref D28)</b></p> <p>The significance of the disturbance impact must be presented for each of the approaches used to determine disturbance distance. Each approach and subsequent assessment of impact significance provides necessary information for Natural England to inform its advice. For example, the magnitude of impact to harbour porpoise using the EDR approach is Medium, which when combined with a Medium sensitivity, leads to a Moderate impact significance which is Significant in EIA terms. Information such as this is currently missing. It is not appropriate to only present the significance of the disturbance impact after population modelling has been undertaken. This also applies to the CEA. We advise that an assessment of cumulative impacts to cetacean species is presented using the approach that generates the worst-case numbers disturbed. The Applicant should not only present the iPCoD modelling results.</p> <p>Present the impact significance for each approach used to determine the disturbance range, using the combination of sensitivity and magnitude (percentage of reference population within the disturbance range). Present the cumulative impact significant for each species using the worst-case numbers disturbed i.e. not only the iPCoD modelling results.</p>	<p>The Applicant has taken different approaches to assess disturbance, including the use of known disturbance ranges for marine mammals and a dose-response curve assessment. These methods have been used to determine the worst-case disturbance effect from piling. Currently, there is no standardised or agreed method for quantifying disturbance. Therefore, the highest or worst-case numbers from these different approaches were incorporated into the population iPCoD modelling, forming the basis of the assessment.</p> <p>The iPCoD model is an appropriate tool to assess the potential impacts of disturbance as it considers the consequences of disturbance or injury that might result from the construction or operation of OWFs.</p> <p>The Applicant presents for information the significances for each assessment method, as well as updated supporting text for the assessment conclusions within Section 5.1 of The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2), submitted alongside this document at Procedural Deadline A.</p>

ID	RR	Applicant's Response
RR-061-193	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Methodology - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, 11.306 - (Ref D29)</b></p> <p>We acknowledge the Applicant's statement that the findings of Graham <i>et al.</i> (2017), i.e. the dose-response relationship for harbour porpoise, should not be extrapolated to other cetacean species. We then query why it has been applied to dolphin species, but not other cetacean species such as minke whale. We suggest that an alternative approach, such as determining a likely effects range from the literature as presented in Appendix 5.2.11.2 Section 6.1.2, would be more appropriate.</p> <p>Consider revising the approach to determining disturbance distance during piling to bottlenose dolphin (and other dolphin species).</p>	<p>The literature on dolphin disturbance lacks specific data on the ranges at which behavioural changes have been observed. Although dolphins and porpoises do not have the same frequency hearing ranges, there is considerable overlap between dolphins as a high-frequency cetacean and harbour porpoise as a very high-frequency cetacean. This led to the precautionary approach of using a dose-response curve for dolphins until an agreed disturbance range is established.</p> <p>For minke whale, however, the Applicant chose to rely on known disturbance ranges from seismic sources, as outlined in Section 6.1.3 in Appendix 11.2 Marine Mammal Information and Survey Data (APP-066), rather than applying dose-response curves. This decision was made because minke whales belong to a different hearing group (low-frequency cetaceans), with only partial overlap in frequency ranges with harbour porpoise, making the seismic source data more appropriate and proportionate measure of disturbance effects.</p>
RR-061-194	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Methodology - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, 11.313 - (Ref D30)</b></p> <p>We welcome that the Applicant has undertaken an assessment of the disturbance impact from ADD activation.</p>	<p>Noted, the Applicant welcomes the comment from NE.</p>

ID	RR	Applicant's Response
RR-061-195	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Methodology - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, 11.313 - (Ref D31)</b></p> <p>We do not agree that the effect ranges of ADDs will be limited to the (minimum) distance the receptor can swim in the time that the ADD is active. To illustrate, Thompson <i>et al</i> (2020) showed that harbour porpoise had a 50% probability of response within 21.7km after 15 minutes of ADD playback. This highlights that the effects range of ADDs does not only correspond to the duration of the activation.</p> <p>Present information from the literature on the effects range of ADDs on the receptor species. Update the assessment using these effects ranges.</p>	<p>The Applicant acknowledges the findings of Thompson <i>et al.</i> (2020) which indicated that a 15-minute ADD activation resulted in a significantly larger deterrence range of harbour porpoise compared to the Applicant's calculations using a slow swimming speed of 1.5m/s (Otani <i>et al.</i>, 2000).</p> <p>Dähne <i>et al.</i> (2017) observed that pingers and seal-scarers were activated between 37 and 235 minutes before each piling session, with the most substantial decrease in echolocation activity occurring between 1.5 and 3km from the foundations, where activity dropped to 50% of baseline levels.</p> <p>Graham <i>et al.</i> (2023) indicated that the ADD was effective in deterring harbour porpoises up to 7 to 9km, with 9km being the maximum distance, and the ADD was deployed for a total of 1.4 hours.</p> <p>While acknowledging that deterrence through ADD may extend further, as described by Thompson <i>et al.</i> (2020) these ranges largely depend on equipment and activation time. The Applicant suggests that using the 'precautionary-swimming-speed-method' allows for variation in deterrence / equipment effectiveness. However, a review of new literature of marine mammal deterrent ranges as well as any new devices will be further investigated when finalising the MMMP post consent.</p>

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RR-061-196	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Methodology - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Table 11.39 - (Ref D32)</b></p> <p>The values in the median impacted as percentage of unimpacted column of this table do not correspond to the difference between the un-impacted population mean and the impacted population mean. For example, 288 as a percentage of 293 is 98.29%, not 100.00%. Indeed, Plate 11.3 shows a visible difference in the population size between the two, which is not reflected in Table 11.39.</p> <p>We advise that the difference between the two presented means is included in the table, alongside the median values. The Applicant can provide information to support the value they consider to be most appropriate. Note this comment applies to all tables which present the iPCoD modelling results, including in the CEA. This is of particular importance in the CEA assessment of bottlenose dolphin, where in 2031 the impacted population mean is &gt;5% lower than the un-impacted population mean, and so potentially significant.</p> <p>Present the difference between the two means in each table that presents iPCoD modelling results, including in the CEA. The Applicant can provide information to support the value they consider to be most appropriate.</p>	<p>The iPCoD modelling results presented in the ES (Chapter 11 Marine Mammals (APP-048)) and RIAA (APP-027) considered the median of the ratio of impacted:unimpacted population sizes for the relevant marine mammal populations as the key metric to determine effect significance using the iPCoD method. This is due to the fact that the median of the ratio of impacted:unimpacted population sizes is considered more robust to the effects of extreme outliers than the mean value, particularly with lower sample sizes. In addition, this metric is considered least sensitive to mis-specification of demographic parameters, therefore enabling more robust assessment of offshore renewable effects (Jital <i>et al.</i>, 2017; Sinclair <i>et al.</i>, 2019). This rationale, developed by the authors of the iPCoD code, has resulted in this metric being used and accepted for other recent OWF EIAs as the primary metric for assessing significance using iPCoD.</p> <p>In line with other recent OWF projects, the median of the ratio of impacted:unimpacted population sizes has been presented as these match with the graphical outputs produced by the iPCoD code.</p> <p>Further metrics (including the mean of the ratio of impacted:unimpacted population sizes), explanation and clarification are provided within Section 5.3 of The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2),</p>



ID	RR	Applicant's Response
		submitted alongside this document at Procedural Deadline A.
RR-061-197	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Methodology - Document Used: [APP-068] 5.2.11.4 Appendix 11.4: Marine Mammal CEA Project Screening, Table 2.1 - (Ref D33)</b></p> <p>There are small discrepancies between the Tiers. Natural England's suggested Tiers has 6 levels, not 7. We infer that our suggested Tier 5 has been split into two Tiers (Tiers 5 and 6 presented by the Applicant).</p> <p>Amend Table 2.1 so that the presented Natural England tiers align with our suggested approach.</p>	<p>The 7 Tier system listed in Table 2.1 of Appendix 11.4 Marine Mammal CEA Project Screening (APP-068) was extracted from the NE and Defra (2022): Best Practice Advice for Evidence and Data Standards (Phase III) listed in Table 11.1.</p>
RR-061-198	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Methodology - Document Used: [APP-068] 5.2.11.4 Appendix 11.4: Marine Mammal CEA Project Screening, Paragraph 21 - (Ref D34)</b></p> <p>The Applicant has not used the species- specific Celtic and Greater North Seas (CGNS) MU to screen in projects to the CEA for those relevant species (namely common dolphin, Risso's dolphin, white-beaked dolphin, and minke whale), instead using the smaller Celtic and Irish Seas (CIS) MU. By taking this approach, the cumulative effects of projects in the screening area are likely to affect a subset of the CGNS MU populations, rather than the populations as a whole. Therefore, presenting the numbers impacted as a percentage of the whole CGNS MU may downplay the potential significance of this impact. This point should be acknowledged in the assessment.</p>	<p>Noted, acknowledgment of this point has been made to Paragraph 21 of Appendix 11.4 Marine Mammal CEA Project Screening (APP-068) in The Applicant's Errata Sheet (Document Reference 8.4), submitted alongside this document at Procedural Deadline A.</p>

ID	RR	Applicant's Response
	Acknowledge the point in the assessment.	
RR-061-199	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Document Used: [APP-068] 5.2.11.4 Appendix 11.4: Marine Mammal CEA Project Screening, Section 3 - (Ref D35)</b></p> <p>The CEA Screening approach has screened projects in or out on the basis of them contributing to disturbance from underwater noise. This approach is not suitable for screening out projects that may act cumulatively through other impact pathways e.g. collision risk.</p> <p>Undertake project screening for each impact pathway assessed in the CEA.</p>	<p>Collision risk with wave and tidal devices has been discussed in Section 4.2 of Appendix 11.4 Marine Mammal CEA Project Screening (APP-068) but were screened out on the basis that the effects were of low risk to marine mammals.</p> <p>The cumulative effect of collision risk with vessels from ongoing activities at other offshore windfarms was considered under Cumulative Effect 3 in Section 11.7.3.2 in ES Chapter 11 Marine Mammals (APP-048).</p> <p>In relation to already operational projects, the effects of underwater noise and collision risk from shipping were not considered as outlined in Section 3.3 of Appendix 11.4 Marine Mammal CEA Project Screening (APP-068), which states that all projects that have concluded construction, “<i>effects arising from them should be considered to be part of the baseline</i>”. This would also apply to all screened projects and plans that were operational prior to the start of the Project baseline aerial surveys (which began in March 2021).</p> <p>The Applicant notes that Paragraph 60 of Appendix 11.4 Marine Mammal CEA Project Screening (APP-068) should be amended and read ‘<i>Both UK and European marine renewable energy (D) projects (e.g. wave and tidal) have been considered in the CEA screening in regard to both underwater noise</i></p>

ID	RR	Applicant's Response
		<p><i>and collision risk.</i> This change has been reflected in The Applicant's Errata Sheet (Document Reference 8.4), submitted alongside this document at Procedural Deadline A.</p> <p>The Applicant also notes that the heading of Section 3.3 of Appendix 11.4 Marine Mammal CEA Project Screening (APP-068) should be amended and read "3.3 <i>Underwater noise and increase of collision risk due to shipping and vessel traffic from operational wind farms</i>".</p> <p>Updates to the heading of Section 3.3 have been presented The Applicant's Errata Sheet (Document Reference 8.4), submitted alongside this document at Procedural Deadline A.</p>
RR-061-200	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Document Used: [APP-068] 5.2.11.4 Appendix 11.4: Marine Mammal CEA Project Screening, Paragraph 53 - (Ref D36)</b></p> <p>We do not agree with the Applicant's assumption that all projects with unknown construction timelines will not overlap with the Morecambe construction period. We consider that it would be conservative to assume that construction for consented projects</p>	<p>The approach to the CEA was to consider projects which are likely to be in construction at the same time as the Project. This conservatively (as included unconsented projects) resulted in six projects being considered for piling (five OWFs plus the Morgan and Morecambe Offshore Windfarm Transmission Assets<sup>2</sup>). These were selected on the basis of either being consented or being suitably mature (i.e. PEIR was available at the time of the</p>

<sup>2</sup> At the time of writing the ES, a decision had been taken that the offshore substation platforms (OSPs) would not be included within the DCO Application for the Transmission Assets. This decision post-dated the Transmission Asset PEIR (within which the OSFs are also assessed). The final ES for the Transmission Assets will therefore not include the OSFs or associated interconnector cables. Additionally, a decision had been taken since the PEIR that the Morgan Offshore Booster Station (OBS) would no longer be required. Whilst the OSFs, OBS and interconnector cables will not form part of the DCO Application for the Transmission Assets, they are included here as they were contained within the Transmission Asset PEIR which has been used to inform the ES.

ID	RR	Applicant's Response
	<p>could overlap with the project, if an operational date is known (as presented in Table 4.1 for the projects listed in Paragraph 53) and is similar to the Morecambe project's operational date.</p> <p>Include the projects listed in Paragraph 53 in the CEA.</p>	<p>assessment), alongside published expected timescales.</p> <p>The only other consented project not included is TwinHub which is expected to be installed before the Project and consists of two wind turbine generators (WTGs), therefore installation should be rapid.</p> <p>Other projects were also considered where construction activities other than piling could potentially overlap.</p> <p>Listed in Paragraph 53 of Appendix 11.4 Marine Mammal CEA Project Screening (APP-068) are Arklow Bank Phase 2, Shelmalere and Inis Ealga OWFs, which are not consented. These projects have been scoped only. They received Maritime Area Consent (MAC) in 2022, but this is not akin to a DCO. It is similar to the The Crown Estate (TCE) leasing round process and projects with a MAC are required to apply for all requisite consents and planning permission and will be subject to the full assessment procedures by An Bord Pleanála (i.e EIA and HRA). In addition, these projects were unsuccessful in the Offshore Renewable Electricity Support Scheme (ORESS) and the potential future of these projects was unknown at the time of the Application. It is noted that Arklow Bank Phase 2 has now submitted a planning application (June 2024) which was not available at the time of writing the Application assessment and there is still limited</p>

ID	RR	Applicant's Response
		<p>certainty around overlap in potential construction timescales or how this project will be funded being outside of the ORESS-1 round.</p> <p>The successful winners in the ORESS-1 auction (Dublin Array, Sceirde Rocks, North Irish Sea Array and Codling Wind Park), were included in the assessment.</p>
RR-061-201	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Document Used: [APP-068] 5.2.11.4 Appendix 11.4: Marine Mammal CEA Project Screening, Table 4.1 - (Ref D37)</b></p> <p>Table 4.1 does not list some of the seal MUs used in the screening area (namely MU 1 Southwest Scotland, and the Isle of Man MU). The Applicant should confirm that there are no projects that could act cumulatively in these MUs.</p> <p>Confirm there are no projects that could act cumulatively in the Southwest Scotland and Isle of Man seal MUs.</p>	<p>The Applicant agrees that Table 4.1 of Appendix 11.4 Marine Mammal CEA Project Screening (APP-068) omitted the listing of the Isle of Man and the Southwest Scotland MU. The Applicant can confirm that for the Southwest Scotland MU and the Isle of Man the same methodology was applied to find other plans and projects as outlined in Section 2.5 of Appendix 11.4 Marine Mammal CEA Project Screening (APP-068). For the Isle of Man for example, several plans and projects were screened: Moir Vannin OWF, disposal sites, a new interconnector cable between the Isle of Man and England, as well as an additional, already operational Manx interconnector cable. Additionally, an enquiry regarding Isle of Man coastal works (marine licences) was conducted through email communication with the Isle of Man Government on 4 August 2023.</p> <p>Similarly, Southwest Scotland projects have been screened, such as disposal sites, coastal developments, or wind farms such as Robin Rigg OWF, North Channel Wind 1 &amp; 2.</p>

ID	RR	Applicant's Response
RR-061-202	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Document Used: [APP-068] 5.2.11.4 Appendix 11.4: Marine Mammal CEA Project Screening, [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Table 11.79 (Ref D38)</b></p> <p>Natural England do not agree that PTS should be screened out of the CEA. The Project has identified a residual PTS impact that it has not committed to fully mitigate at this stage. It is not sufficient to say that mitigation for the Project would be put in place post-consent, as this is not guaranteed or secured. If the Project can take the approach of not mitigating the full PTS zone, then it follows that other projects can take the same approach, hence other projects' PTS risk should be assessed in the CEA too.</p> <p>Assess cumulative PTS impact in the CEA.</p> <p>Commit to sufficient mitigation to reduce the risk of a residual PTS impact further</p>	<p>The Applicant acknowledges that there needs to be effective and appropriate mitigation measures in place for auditory injury (PTS). The Applicant is committed to this requirement to be secured in the final MMMP but maintains the position that the effects may be suitably mitigated through further design refinement and embedded mitigation before commitment to additional mitigation.</p> <p>This is a commitment made by all neighbouring projects, which have also proposed to secure mitigation measures through Outline MMMPs submitted with their DCO applications to ensure the reduction of risk of PTS. As such there should be no potential cumulative effects.</p> <p>As a precautionary approach, PTS numbers were included in the population modelling for the cumulative assessment, in Cumulative Effect 1a, Section 11.7.3.2 of Chapter 11 Marine Mammals (APP-048)), so while not looked at individually, the potential impact has been given consideration in the significance of effect at a cumulative level.</p>

ID	RR	Applicant's Response
RR-061-203	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Methodology - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Paragraph 11.750 - (Ref D39)</b></p> <p>There is a discrepancy between the activity types listed here as being screened into the CEA, and that listed in Table 5.1 of the CEA Screening document. Specifically, the ES Chapter has omitted disturbance from operational windfarms (operational after baseline surveys commenced), but included licenced disposal sites (which is listed as being screened out in the CEA Screening).</p> <p>Review the ES and CEA Screening documents to ensure the activities screened in and out of the CEA are consistent.</p>	<p>The Applicant acknowledges the oversight in consistency between the ES Section 11.7.3.2 of Chapter 11 Marine Mammals (APP-048) and Table 5.1 / Table 5.2 in Appendix 11.4 Marine Mammal CEA Project Screening (APP-068).</p> <p>Updates have been presented in The Applicant's Errata Sheet (Document Reference 8.4), submitted alongside this document at Procedural Deadline A.</p>
RR-061-204	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Methodology - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Table 11.85 - (Ref D40)</b></p> <p>The dose-response curve approach has not been used to determine the number of common dolphin impacted at White Cross. This is contrary to what is stated in Paragraph 11.760. The approach used (TTS) is not sufficiently precautionary for a disturbance impact and is not consistent with how the other projects have been assessed.</p> <p>Use the dose-response curve to assess number of common dolphin impacted by White Cross.</p>	<p>Paragraph 11.761 of Chapter 11 Marine Mammals (APP-048) states that "<i>for all other projects, the worst-case disturbance numbers were taken from the relevant PEIRs and ESSs</i>", as these were publicly available at the time writing.</p> <p>The Applicant has utilised the best available data from each project to assess the disturbance to animals caused by piling activities. As stated, White Cross has not applied the dose-response curve to any marine mammal receptor. Instead, the TTS range has been used as a proxy, which is sufficiently precautionary given the very high density of common dolphins (5.23 animals/km<sup>2</sup>) from the site-specific surveys at White Cross (White Cross Offshore Wind Limited, 2024b). This approach ensures a conservative estimate of</p>

ID	RR	Applicant's Response
		cumulative disturbance for common dolphin, considering that the Project-alone accounts for only 0.2% of the disturbed reference population, while all other projects combined account for 2.3%
RR-061-205	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Methodology - Document Used: [APP-066] 5.2.11.2 Appendix 11.2: Marine Mammal Information and Survey Data, Table 7.6 - (D41)</b></p> <p>This table presents that, during each piling event at Awel Y Mor OWF, 2,112 harbour porpoise will be affected by PTS but only 83 will be disturbed. We consider this improbable, given disturbance occurs over a much larger range than PTS. The Applicant should justify these values. More generally, it would be beneficial for the Applicant to summarise briefly the method used by each project to determine the number of animals affected by PTS and disturbance, for sense-checking.</p> <p>Correct or justify the figures in the table. Update the assessment if the figures are incorrect.</p> <p>Add a summary on how the figures were calculated in the other projects' respective assessments.</p>	<p>The Applicant acknowledges that the numbers for PTS and disturbance in Table 7.6 of Appendix 11.2 Marine Mammal Information and Survey Data (APP-066) are in the incorrect order. The correction should read that 83 harbour porpoise experienced PTS and 2,112 harbour porpoise experienced behavioural disturbance from piling a 5,000kJ monopile (based on a density of 1.0 animals/km<sup>2</sup>). The numbers were used correctly in the assessment, therefore there is no change to the assessment conclusions.</p> <p>Updates to Table 7.6 have been presented in the Applicant's Errata Sheet (Document Reference 8.4), submitted alongside this document at Procedural Deadline A.</p>
RR-061-206	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p>	The Applicant notes the response.



ID	RR	Applicant's Response
	<p><b>Environmental Impact Assessment - Methodology - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, 11.850 - (Ref D42)</b></p> <p>SNCBs have not provided formal guidance on an EDR for low order UXO clearance. Such EDRs that have been used for this purpose so far have been agreed on a case-by-case basis only.</p> <p>To note.</p>	
RR-061-207	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Methodology - Document Used: [APP-067] 5.2.11.3 Appendix 11.3: Marine Mammal Unexploded Ordnance Assessment - (D43)</b></p> <p>Natural England welcomes the UXO Assessment undertaken. We acknowledge that the assessment is illustrative at this stage as the UXO clearance Marine Licence will be applied for post-consent. We do not expect that additional information will be available to refine the UXO assessment envelope prior to the application for a Marine Licence. Hence we are content that the UXO assessment does not require further update at this stage.</p> <p>To note.</p>	<p>The Applicant welcomes that NE are content that the UXO assessment for marine mammals does not require further update at this stage.</p>
RR-061-208	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Methodology - Document Used: [APP-067] 5.2.11.3 Appendix 11.3: Marine Mammal Unexploded Ordnance Assessment - (Ref D44)</b></p> <p>The illustrative UXO assessment concludes that UXO clearance activities should not have a significant impact on marine mammal populations so long as appropriate marine mammal mitigation is</p>	<p>The Applicant is committed to developing an assessment and final MMMP for UXO clearance if required during the marine licence application process for UXO clearance (post-consent).</p> <p>The Applicant will clearly state in the final MMMP for UXO clearance all the mitigation measures that would be adhered to during UXO clearance when</p>

ID	RR	Applicant's Response
	<p>secured. The Applicant has provided a draft MMMP which contains mitigation options for UXO clearance. Our comments on the MMMP regarding UXO clearance should be addressed.</p> <p>See comments on the MMMP.</p>	<p>the number and size of any targets to be cleared has been confirmed in the marine licence application, which would be submitted post-consent.</p>
RR-061-209	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Document Used: [APP-067] 5.2.11.3 Appendix 11.3: Marine Mammal Unexploded Ordnance Assessment, Appendix B, [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammal, Paragraph 11.278, 11.317 - (Ref D45)</b></p> <p>The PTS impact ranges from piling at a higher strike rate are more than double the PTS ranges from piling at a lower strike rate, for harbour porpoise and minke whale. In order to ensure that a harbour porpoise was outside the PTS zone, the ADD would have to be on for 92 minutes. We consider that this duration would lead to excessive disturbance to marine mammals in the area. Furthermore, there is limited evidence that the ADD would be effective at deterring animals to these large distances.</p> <p>The Applicant has provided a maximum indicative ADD duration of 80 minutes. This is insufficient to ensure that all marine mammals are outside the PTS zone, as these zones are large under the higher strike rate scenario.</p> <p>We therefore consider that there is a residual injury impact because the mitigation proposed is insufficient to reduce the impact. The Applicant must present an assessment of the residual impact post-mitigation, taking into account the aforementioned ADD limitations.</p>	<p>The Applicant acknowledges that there needs to be effective and appropriate mitigation measures in place for auditory injury (PTS). The Applicant is committed to this requirement to be secured in the final MMMP but maintains the position that the effects may be suitably mitigated through further design refinement and embedded mitigation before commitment to additional mitigation.</p> <p>The project design will be refined post-consent including the requirements for piling such as the type and size of piles and the strike rate and duration of the piling profile. Updates to the MMMP (APP-149) will be undertaken with the implications for the mitigation requirements being take into account and ensure the ADD limitations are taken into account.</p> <p>Further assessment will be undertaken post-consent based on the final Project design and if required an assessment of residual PTS impacts, post-mitigation will be undertaken at that time.</p> <p>It is noted the Project is outside of any MPAs, with the nearest SAC for marine mammals being 45km away (North Anglesey Marine (Gogledd Môn Forol)</p>

ID	RR	Applicant's Response
	<p>Therefore, should the higher strike rate be used during piling, the Applicant must use additional mitigation such as noise abatement to reduce the risk of animals being in the injury zone, without causing excessive disturbance.</p> <p>Undertake assessment of residual PTS impacts, post-mitigation. Commit to using additional mitigation such as noise abatement systems if the higher strike rate is used.</p> <p>Alternatively, remove the higher strike rate from the project envelope.</p>	<p>SAC) and in the UK thus far, offshore wind developers are not known to have been required to employ NAS. The MMO and Natural England have indicated that NAS will likely be required for EPS licensing of OWF projects using monopiles from early 2025 onwards (and relevant should this be the foundation option taken forward by the Project). The finalisation of the MMMP for piling and EPS licencing applications will consider the latest policy on NAS at the time. The Applicant notes that potential mitigation options, including NAS, are listed within the Draft MMMP (APP-149) which would be finalised post-consent in line with the final design of the Project. It is recognised that upon assessment of more developed design information, any need for the implementation of NAS will be decided in consultation with the licencing authority. The Applicant is planning appropriately for the potential requirement for NAS but maintains the position that the effects may be suitably mitigated through further design refinement and other embedded mitigation.</p> <p>The Applicant will also provide an Outline Underwater Sound Management Strategy (as requested by Natural England in RR-061-215) at Deadline 2 in order to take into account potential further comments from the MMO, NRW and Natural England at Deadline 1.</p> <p>The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the DML submitted with the updated draft DCO at</p>

ID	RR	Applicant's Response
		<p>Procedural Deadline A to secure this. Additionally, the Outline Underwater Sound Management Strategy has been added as a document to be certified as one referred to in the DCO.</p>
<p>RR-061-210</p>	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b>  <b>Environmental Impact Assessment - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Table 11.3, Paragraph 11.968 - (Ref D46)</b></p> <p>The Vessel Traffic Management Plan does not contain any reference to reducing collision risk or disturbance to marine mammals. It is therefore not appropriate to cross-reference that document here as it does not currently provide any marine mammal mitigation.</p> <p>Remove reference to the Vessel Traffic Management Plan in the table.</p> <p>Alternatively, update the Vessel Traffic Management Plan so that it includes the best practice to reduce collision risk</p>	<p>The Outline VTMP (APP-153) does not reference mitigation for collision risk <i>per se</i>, but refers to the determination of transit routes for construction and operation vessels once ports are made known, and that vessel crew will be briefed regarding the impacts on marine mammals.</p> <p>Further detail will be added to the Outlien VTMP at Deadline 2 to allow for any comments received at Deadline 1 from NRW.</p>
<p>RR-061-211</p>	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b>  <b>Environmental Impact Assessment - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Paragraphs 11.486-492, 11.650-653, 11.741-478 - (Ref D47)</b></p> <p>The Applicant has concluded a potential significant adverse collision risk impact, before mitigation is applied.</p> <p>Firstly, we have concerns that the Applicant's quantified approach does not present the actual risk of collision for marine mammals, in</p>	<p>The Applicant notes that within the draft DCO (APP-012), Schedule 6, Part 2, condition 9(1)(e)(e), measures to reduce disturbance to marine mammals are included as part of the Outline PEMP (APP-146). Further details on the measures would be expected to be agreed post-consent.</p> <p>To assess for collision risk, the method used in the ES Chapter 11 Marine Mammals (APP-048) (Section 11.3.6.3) has been used on other OWF</p>

ID	RR	Applicant's Response
	<p>that it artificially inflates the number at risk; this is supported by the Applicant's statement in 11.489, where they consider the actual risk of collision is likely to be extremely low, if not negligible. The quantified approach used by the Applicant is not standard across industry, and to our knowledge it has not been peer-reviewed. The results of assessments using this approach (e.g. predictions of number of animals at risk) have not been validated through monitoring.</p> <p>Secondly, the Applicant is relying on the "best practice measures to reduce the risk of collision" to conclude no residual adverse effect to marine mammal species from collision risk. We query whether it is sufficient to rely on best practice as these are by nature not enforceable.</p> <p>Similarly, the Applicant is relying on these best practice measures for both the Project and the Morgan and Morecambe Transmission Assets to conclude no significant cumulative effect.</p> <p>Strengthen the commitment to undertaking measures to reduce vessel collision.</p>	<p>projects in English waters (e.g., including Sheringham Shoal and Dudgeon OWF Extension Projects which has been through the Examination process/accepted), taking postmortem data from Cetacean Strandings Investigating Project (CSIP) and Scottish Marine Animal Stranding Scheme (SMASS); the potential risk rate per vessel in the project has been calculated for all relevant species (including the reference population) which is then used to calculate the risk to marine mammal species due to the increased number of vessel movements in the Project. It is noted as very precautionary and the data for vessel collision is minimal, but the Applicant feels this provides a useful basis for the qualitative assessment, as it is not used for the base of the assessment. At present there is no recommendations of how to assess collision risk with vessels, quantitatively.</p>
RR-061-212	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Table 11.553 - (Ref D48)</b></p> <p>Here the Applicant has stated that "Project related vessels transiting to and from the port...[would] endeavour to stay at least 1km from the coast where possible". This distance should be included in the Outline PEMP.</p>	<p>Updates have been presented in The Applicant's Errata Sheet (Document Reference 8.4), submitted alongside this document at Procedural Deadline A. However, it is noted that this distance could not be committed to within existing shipping channels/entrance into ports.</p>

ID	RR	Applicant's Response
	Update the Outline PEMP to reflect the 1km distance stated in the ES chapter.	
RR-061-213	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Paragraph 11.793, Section 11.11 - (Ref D49)</b></p> <p>Natural England highlights that Marine Wildlife Licences are typically applied for less than 1 year prior to piling. Due to financial and design commitments that will have happened prior to this licence application, the options for implementing further mitigation will be comparatively limited. Committing to mitigation now will ensure that it can be taken into account in the design and financial decisions. Hence we strongly advise that the Applicant commit to undertaking mitigation measures such as noise abatement now.</p> <p>We also highlight that the Applicant must demonstrate that certain EPS licencing tests are met in order to be granted an EPS licence, and that one of these test is to demonstrate that there are “no satisfactory alternatives,” which includes mitigation options.</p> <p>To note.</p> <p>See summary comment 1 (D1)</p>	<p>The Applicant notes a table of additional planned consultation is presented in Table 1.3 in the Draft MMMP (APP-149) to help ensure appropriate measures based on the final Project design are being implemented and the needs of the EPS licences are being met.</p> <p>The Applicant is planning appropriately for the potential requirement for NAS but maintains the position that the effects may be suitably mitigated through further design refinement and other embedded mitigation.</p> <p>Further The Applicant will also provide an Outline Underwater Sound Management Strategy (as requested by Natural England in RR-061-215) at Deadline 2 in order to take into account potential further comments from the MMO, NRW and Natural England at Deadline 1. The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the DML submitted with the updated draft DCO at Procedural Deadline A to secure this. Additionally, the Outline Underwater Sound Management Strategy has been added as a document to be certified as one referred to in the DCO.</p>
RR-061-214	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p>	<p>The Applicant notes that the use of the iPCoD model within the CEA (Cumulative effect 1a,</p>

ID	RR	Applicant's Response
	<p><b>Environmental Impact Assessment - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Paragraph 11.871 - (Ref D50)</b></p> <p>The Applicant does not appear to have presented the number of animals impacted from all cumulative disturbance pathways (piling at other OWFs; construction activities (other than piling) at other OWFs; other industries and activities). This combined disturbance impact should be presented.</p> <p>Present the combined cumulative effect of disturbance from underwater noise, across the three pathways that are currently assessed only separately.</p>	<p>Section 11.7.3.2 of ES Chapter 11 Marine Mammals (APP-048) is an effective tool to assess the potential cumulative effects of disturbance for piling at the Project and other potential projects. The model evaluates the potential for long-term consequences of disturbance and hearing damage as a result from the construction of offshore renewable energy devices.</p> <p>The cumulative assessment for piling includes the only known Tier 1 or 2 activity that have the potential overlap with the Project's construction timeline with sufficient information to be included in the quantitative assessment.</p> <p>The potential magnitudes for the cumulative assessment, presented in Table 11.107 of ES Chapter 11 Marine Mammals (APP-048), were very precautionary. They serve only to illustrate potential activities that could be taking place in the wider screening area. The activities assessed are speculative and have not been allocated a Tier, as there are currently no Marine Licences or applications to confirm potential overlaps. Any subsequent projects would have to consider the consent for the Project in their applications.</p> <p>For information, The Applicant's Response to Rule 9 letter (Document Reference 8.2) provides an assessment of disturbance from all cumulative disturbance pathways. However, the Applicant maintains its position, as set out in Chapter 11</p>

ID	RR	Applicant's Response
		<p>Marine Mammals (APP-048), that the overall impact significance remains Minor adverse (Not Significant) as the iPCoD modelling remains suitable, considering the highly speculative nature of other cumulative activities.</p> <p>The assessment of cumulative effects from other plans and projects is based upon the respective information presented in the ESs for Tier 1 projects or PEIR for Tier 2 projects. The assessment does not consider any further mitigation or reduced/refined project design envelopes for other Tier 1 and/or Tier 2 projects that may be implemented. However, it is understood that if other projects are consented, they will each implement appropriate measures such that any significant effect is reduced to a non-significant level. Therefore, a significant cumulative impact is considered unlikely for this reason.</p> <p>The Applicant will also provide an Outline Underwater Sound Management Strategy (as requested by Natural England in RR-061-215) at Deadline 2 in order to take into account potential further comments from the MMO, NRW and Natural England at Deadline 1. The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the DML submitted with the updated draft DCO at Procedural Deadline A to secure this. Additionally, the Outline Underwater Sound Management Strategy has been added as a</p>



ID	RR	Applicant's Response
		<p>document to be certified as one referred to in the DCO.</p> <p>This provides a mechanism of agreeing mitigation post-consent, which will also consider measures the Project may need to take in light of potential cumulative effects (and contribution to cumulative effects) and in line with other projects on similar timescales when there is more certainty of likely activities taking place on the same timescales.</p>
RR-061-215	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Paragraphs 11.863, 11.872, Table 11.108 - (Ref D51)</b></p> <p>The Applicant acknowledges a moderate adverse conclusion (significant in EIA terms) for some species from overall cumulative disturbance effect due to noisy projects and activities.</p> <p>We do not consider it appropriate to rely on the cumulative disturbance from piling at other OWFs (cumulative effect 1a) alone when concluding impact significance, as this only represents a small portion of the disturbance impact marine mammal species may experience whilst the Project is piling. Hence we do not agree with the assessment conclusions presented in Table 11.108.</p> <p>We also highlight that the Applicant has in their assessment referred to “the likelihood of temporal overlap of all these activities is low”, but they have not demonstrated that this would be the case beyond reasonable scientific doubt, nor have they committed to a measure to reduce temporal overlap with other activities.</p>	<p>The response to above RR-061-214 clarifies the Applicant's approach to significance of effect for cumulative under water noise alongside The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2), submitted alongside this document at Procedural Deadline A.</p> <p>The Applicant is planning appropriately for the potential requirement for NAS but maintains the position that the effects may be suitably mitigated through further design refinement and other embedded mitigation.</p> <p>The Applicant will also provide an Outline Underwater Sound Management Strategy (as requested by Natural England in RR-061-215) at Deadline 2 in order to take into account potential further comments from the MMO, NRW and Natural England at Deadline 1. The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the DML submitted with the updated</p>

ID	RR	Applicant's Response
	<p>The Applicant must commit to further mitigation to ensure this potentially significant cumulative disturbance does not materialise. Commit to further mitigation to ensure that significant cumulative disturbance does not materialise.</p> <p>Committing to the use of noise abatement systems would reduce disturbance from the project and so the project's contribution to cumulative disturbance.</p> <p>We also strongly recommend that the Applicant commit to an Underwater Sound Management Strategy, such as is being proposed by the Morgan and Mona projects (also in the Irish Sea), which can be used to manage cumulative impacts of underwater sound produced by multiple projects in the region.</p>	<p>draft DCO at Procedural Deadline A to secure this. Additionally, the Outline Underwater Sound Management Strategy has been added as a document to be certified as one referred to in the DCO.</p>
RR-061-216	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, 11.895 - (Ref D52)</b></p> <p>The Applicant should provide evidence to support their statement that other offshore projects and industries would follow similar best practice measures (other than OWF).</p> <p>Present further evidence to support the statement OR assess the additional collision risk from other offshore projects and industries in the CEA</p>	<p>The Applicant notes other DCO applications in the region have stated the following in their ESs:</p> <p><u>Morgan and Morecambe OWF Transmission Assets:</u></p> <p><i>“Development of and adherence an Offshore EMP including measures to minimise disturbance to marine mammals and rafting birds from transiting vessels (Document Reference J17), requiring them to: - not deliberately approach marine mammals as a minimum:</i></p> <p><i>-avoid abrupt changes in course or speed should marine mammals approach the vessel to bow-ride, where appropriate and possible taking into account all technical considerations.</i></p>

ID	RR	Applicant's Response
		<p><i>The Offshore EMP will include a commitment that the site induction processes will incorporate the principles of the Wildlife Safe (WiSe) Scheme to ensure that key personnel are aware of the need to follow the WiSe Code of Conduct. The WiSe Scheme (<a href="https://www.wisescheme.org/">https://www.wisescheme.org/</a>), which is a UK national training scheme for minimising disturbance to marine life, key measures from the scheme will reduce the disturbance of vessel transits on marine mammals and rafting birds visible at the water surface, or as otherwise agreed with the Statutory Nature Conservation Bodies (SNCBs)" (Mona Offshore Wind Limited, 2024; Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Ltd, 2023).</i></p> <p>The Applicant notes Morlais, a tidal energy device Applications in the region have stated the following in their ES:</p> <p><u>Morlais Project:</u></p> <p><i>"Where possible, all vessel movements will be kept to the minimum number that is required to reduce any potential collision risk. Additionally, vessel operators will use good practice to reduce any risk of collisions with marine mammals." (Menter Môn Morlais Limited, 2019)</i></p> <p>While the Applicant cannot control measures implemented by other projects and activities it is considered the Project adequately mitigates the contribution of effects made by the Project and it is a reasonable expectation that other projects and</p>

ID	RR	Applicant's Response
		<p>industries would be expected to do the same through consenting processes. Regardless, the Applicant considers commitment to best practice measures mitigates the contribution the Project would make to any cumulative effect.</p>
RR-061-217	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b>  <b>Environmental Impact Assessment - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, Paragraph 11.911 - (Ref D53)</b></p> <p>We consider that cumulative effect 6: assessment of disturbance from operational offshore turbines generators could have been included in the cumulative effect 1: disturbance from underwater noise assessment. Indeed it should be included in the combined assessment of cumulative effect 1.</p> <p>Include cumulative effect 6 in the combined assessment of cumulative effect 1.</p>	<p>The Applicant acknowledges the comment that <i>Cumulative effect 6: assessment of disturbance from operational offshore turbines generators</i> (Paragraphs 11.911 – 11.936) would be better placed following <i>Cumulative effect 1: Disturbance from underwater noise</i> (Paragraphs 11.750 – 11.794) in Section 11.7.3.2 of ES (Chapter 11 Marine Mammals (APP-048)), where disturbance from underwater noise is assessed. However, operational noise of the WTGs has been assessed qualitatively and some of the listed projects may be operational years prior to construction at the Project.</p> <p>Considering the longer-term impact of operational noise in comparison to the short to medium term of activities assessed in Cumulative effect 1, it does not seem appropriate to combine the assessments.</p> <p>Therefore, disturbance from operational windfarms, is presented in <i>Cumulative effect 6: assessment of disturbance from operational offshore turbines generators</i> (Paragraphs 11.911 – 11.936) of ES (Chapter 11 Marine Mammals (APP-048)).</p>
RR-061-218	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p>	<p>Noted. The Applicant welcomes the comment and will consider, upon resolving other comments, whether any updates to the Outline PEMP are</p>

ID	RR	Applicant's Response
	<p><b>Environmental Impact Assessment - Document Used: [APP-146] 6.2 Volume 6, Chapter 2: Outline Project Environmental Management Plan, Section 6.2.2.1 - (Ref D54)</b></p> <p>The scope of the OPEMP with regards to marine mammals appears appropriate. However, please see our comments on other aspects of the assessment and mitigation, which may be relevant to the content of the OPEMP regarding marine mammals. Where changes are made to other documents, they should also be made in the OPEMP.</p> <p>To note.</p>	<p>necessary, noting that the finalisation of the PEMP will be undertaken post-consent.</p>
RR-061-219	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Environmental Impact Assessment - General - Document Used: [APP-048] 5.1.11 Volume 5, Chapter 11: Marine Mammals, General - (Ref D55)</b></p> <p>Natural England considers that there is insufficient evidence provided to agree with the EIA assessment conclusions, on the following matters:</p> <ol style="list-style-type: none"> <li>1. Aspects of the seal baseline</li> <li>2. Some of the sensitivities used</li> <li>3. The project-alone assessment of disturbance from piling</li> <li>4. Residual PTS risk</li> <li>5. Aspects of the assessment of collision risk</li> <li>6. The assessment of cumulative disturbance</li> </ol> <p>Some of these concerns stem from insufficient mitigation of the impact pathway.</p> <p>Points 3 to 6 can be addressed by securing further mitigation at this application stage.</p>	<p>The Applicant notes detailed responses have been provided in:</p> <ul style="list-style-type: none"> <li>▪ Detailed comments on the seal baseline are responded to in responses RR-061-177, RR-061-179 and RR-061-183.</li> <li>▪ Detailed comments are responded to on sensitives in responses RR-061-185, RR-061-189 and RR-061-191, noting further information will be provided at Deadline 1.</li> <li>▪ Detailed comments on the Project-alone assessment of disturbance from piling are responded to in responses RR-061-192, RR-061-193, and RR-061-196.</li> <li>▪ Detailed comments on residual PTS assessments are responded to in responses RR-061-209.</li> <li>▪ Detailed comments on vessel collision risk assessment are responded to in response RR-061-211.</li> </ul>

ID	RR	Applicant's Response
	<p>See recommended actions for the specific comments underpinning each of these areas of disagreement.</p>	<ul style="list-style-type: none"> <li>▪ Detailed comments on the assessment of cumulative disturbance are responded to in responses RR-061-170, RR-061-214, RR-061-215 and RR-061-217.</li> </ul> <p>In relation to points 3-6 generally, the Applicant will provide an Outline Underwater Sound Management Strategy at Deadline 2 in order to take into account potential further comments from the MMO, NE and NRW at Deadline 1. The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the DML submitted with the updated draft DCO at Procedural Deadline A to secure this. Additionally, the Outline Underwater Sound Management Strategy has been added as document to be certified as one referred to in the DCO.</p> <p>The Applicant is planning appropriately for the potential requirement for NAS but maintains the position that the effects may be suitably mitigated through further design refinement and other embedded mitigation.</p>
RR-061-220	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>HRA – Screening - Document Used: [APP-028] 4.10 Volume 4: Habitats Regulation Assessment Screening Report, Section 7.5 - (Ref D56)</b></p> <p>Natural England considers that all relevant SACs with marine mammal features in English waters have been screened in. We also agree that the key impact pathways have been identified.</p>	<p>The Applicant welcomes this agreement from NE.</p>

ID	RR	Applicant's Response
RR-061-221	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>HRA – Screening - Document Used: [APP-027] 4.9 Volume 4: Report to Inform Appropriate Assessment, Table 9.1 - (Ref D57)</b></p> <p>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>	<p>In relation to designated sites outside English waters, the Applicant has consulted with NRW via a statutory Section 42 consultation response and regular meetings. The Isle of Man Government also provided a detailed Section 42 consultation response, as well as participating in ETGs as part of the EPP pre-application.</p> <p>Attempts have been made in respect of consultation with other SNCBs (in Scotland, Northern Ireland and Ireland). NatureScot and NPWS were notified of the statutory consultation period (April-June 2023) of the PEIR and draft RIAA. In February 2024, the Applicant made further attempts to engage with NatureScot, NPWS and the DAERA. In June 2024, following the DCO Application acceptance, further notification was sent to the SNCBs informing them of the RR period, with no responses received by the Applicant to date. It is noted that ExA have granted 'Other Person' status to NatureScot and DAERA to allow them to participate in the Examination process.</p>
RR-061-222	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p>	<p>The Applicant welcomes the agreement in relation to Bristol Channel Approaches SAC.</p> <p>Updates made to terminology are presented in The Applicant's Errata Sheet (Document Reference 8.4) submitted alongside this document at Procedural Deadline A.</p>

ID	RR	Applicant's Response
	<p><b>HRA - Screening - Document Used: [APP-027] 4.9 Volume 4: Report to Inform Appropriate Assessment, Section 9.4.2.7 - (Ref D58)</b></p> <p>For clarity, we agree with the Applicant's assessment that there would be no adverse effect on integrity of the Bristol Channel Approaches SAC from the project alone.</p> <p>We do not necessarily agree with the terminology used by the Applicant when they state that "there would be no LSE on the harbour porpoise CIS MU population", as the CIS MU population is not the designated SAC feature, and this conclusion takes into account mitigation.</p>	
RR-061-223	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>HRA - Assessment - Document Used: [APP-027] 4.9 Volume 4: Report to Inform Appropriate Assessment, Paragraph 3335 - (Ref D59)</b></p> <p>The Applicant has used a distance of 4km for their assessment of harbour porpoise disturbance during non-piling construction activities. However, the 4km distance, from Benhemma-Le Gall <i>et al.</i> (2021) is based only on harbour porpoise responses to non-piling construction vessels, rather than other noisy activities (such as cable installation and protection). The Applicant has not presented evidence to demonstrate that 4km is appropriate or precautionary for other noisy activities.</p> <p>Demonstrate that the 4km disturbance distance used is appropriate for other noisy activities.</p>	<p>The Applicant extended the disturbance range from 2km to 4km, aligning with Benhemma-Le Gall <i>et al.</i> (2021) from PEIR to ES, based on recommendations from SNCB during consultation (Appendix 11.5 Marine Mammal Consultation Responses (APP-069)). Although "<i>other activities such as boulder removal, inter-array and export cable installation and protection took place during the windfarm construction phase [...]</i>", they were not specifically investigated in the study. Although these activities were not investigated by Benhemma-Le Gall <i>et al.</i> (2021) the noise from other construction activities are similar to noise generated by vessels. Therefore, it is possible that these construction activities could have taken place whilst echolocations were monitored.</p> <p>Furthermore, Fernandez-Betelu <i>et al.</i> (2024) observed that during decommissioning activities (i.e., cutting, drilling, remotely operated vehicle</p>



ID	RR	Applicant's Response
		<p>(ROV) test dives and other), harbour porpoises were displaced up to 2km, consistent with the findings of Benhemma-Le Gall <i>et al.</i> (2021). Therefore, the Applicant maintains its position that using a 4km radius is appropriate to account for potential behavioural effects beyond complete displacement.</p>
RR-061-224	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b>  <b>HRA - Document Used: [APP-027] 4.9 Volume 4: Report to Inform Appropriate Assessment, Paragraph 3443 - (Ref D60)</b></p> <p>The in-combination assessment in the HRA mirrors that in the CEA. Therefore our comments on the CEA are also relevant to the in-combination assessment. Any changes made to the CEA as a result of our comments should be applied to the in-combination assessment also. We advise that our recommendations for further mitigation to reduce impacts to the marine mammal populations, would also reduce the risk of an impact occurring to English marine mammal SACs in the region.</p> <p>To note.</p> <p>See our comments on the ES, CEA, and the recommendations.</p>	<p>Noting the above comments on the EIA, at Deadline 1 the Applicant will also provide a technical note in relation to clarification points and updates in respect of the RIAA in-combination effects.</p>
RR-061-225	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b>  <b>Other matters - Document Used: [APP-148] 6.4 Volume 6, Chapter 4: In Principle Monitoring Plan, General - (Ref D61)</b></p> <p>The IPMP 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</p>	<p>The IPMP (APP-148) includes noise monitoring of the first four piled foundations to allow comparison against predictions for received sound levels, as presented in Appendix 11.2 Underwater Noise Assessment (APP-065), to validate the predictions in the underwater sound modelling.</p>

ID	RR	Applicant's Response
	<p>project could contribute to filling knowledge gaps that would validate the project's assessment conclusions, such as areas of high uncertainty or low confidence. Whilst this has been presented at a very high level in the IPMP, more detail is recommended.</p> <p>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>Detailed requirements for In-Principal monitoring, 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>Revise the IPMP in line with our comment.</p>	<p>The Applicant has not secured further monitoring for marine mammals, on the basis that with the implementation of mitigation, 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>It is noted that mitigation would need to be agreed post-consent alongside the final Project design parameters.</p>
RR-061-226	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Other matters - Draft MMMP - Document Used: [APP-149] 6.5 Volume 6, Chapter 5: Draft Marine Mammal Mitigation Protocol, Paragraph 2 - (Ref D62)</b></p> <p>The Applicant should clarify how it will be secured that the final UXO MMMP will be developed in accordance with the Draft MMMP.</p> <p>Clarify and/or secure accordingly.</p>	<p>As outlined in Draft MMMP (APP-149) the protocol presented for UXO clearance will be spilt to a stand-alone document to be consulted on and submitted with the separate marine licence application (in line with SNCB and MMO guidance) for UXO clearance if required post-consent.</p> <p>The information in the Draft MMMP (APP-149) for UXO clearance, although not being secured through the DML for the DCO, has been presented to illustrate the proposed approach of the Applicant to facilitate further development if required.</p>

ID	RR	Applicant's Response
RR-061-227	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Other matters - Draft MMMP - Document Used: [APP-149] 6.5 Volume 6, Chapter 5: Draft Marine Mammal Mitigation Protocol, Table 2.1 - (Ref D63)</b></p> <p>It is not clear whether the High Order section of the table takes into account the reduction in source level through the use of a bubble curtain.</p> <p>When finalising the UXO MMMP post-consent, clearly state whether noise reduction has been factored into the modelling and so impact ranges.</p> <p>Note, it would be beneficial to present both (unabated and abated noise levels at ranges/PTS and TTS distances), for comparison to underwater noise monitoring results.</p>	<p>The Applicant clarifies that the underwater noise modelling in Appendix 11.1 Underwater Noise Assessment (APP-065) and Draft MMMP (APP-149) for UXO High Order clearances does not incorporate any mitigation measures.</p> <p>The advice is noted. The Applicant will take this under advisement for the UXO clearance marine licence application if needed.</p>
RR-061-228	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Other matters - Draft MMMP - Document Used: [APP-149] 6.5 Volume 6, Chapter 5: Draft Marine Mammal Mitigation Protocol, Paragraph 74 - (Ref D64)</b></p> <p>The Applicant has not provided the anticipated duration of the ADD activation during UXO clearance. An illustrative example of ADD duration, based on the PTS ranges presented, would be beneficial.</p> <p>Present illustrative ADD ranges in the Draft MMMP.</p>	<p>The Applicant notes that potential ADD durations and disturbance impacts are presented in Section 5.2.1.1 of Appendix 11.3 Marine Mammal UXO Assessment (APP-067).</p> <p>Once the requirements for UXO clearance are known, a separate marine licence would be applied for and once the mitigation measures to be implemented are confirmed, the relevant measures will be presented in the final MMMP, including the ADD duration.</p>
RR-061-229	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p>	<p>The Applicant will clearly state all the mitigation measures that will be adhered to during any necessary UXO clearance within the marine licence</p>

ID	RR	Applicant's Response
	<p><b>Other matters - Draft MMMP - Document Used: [APP-149] 6.5 Volume 6, Chapter 5: Draft Marine Mammal Mitigation Protocol, Section 2.2 - (Ref D65)</b></p> <p>The Applicant has not committed to several mitigation measure options, instead saying that they will be implemented “if required”. This increases the uncertainty about what measures will be undertaken during UXO clearance, and so complicates the worst-case scenario (i.e. what the minimum mitigation is that will be implemented). Examples include:</p> <ul style="list-style-type: none"> <li>▪ Avoidance or relocation of UXO</li> <li>▪ Bubble curtain usage</li> <li>▪ Passive Acoustic Monitoring</li> </ul> <p>The Applicant should clearly state all the mitigation measures that will be adhered to during UXO clearance. These must then be secured.</p> <p>Natural England welcomes the Applicant committing to best practice mitigation measures at this stage.</p>	<p>application when the number and size of any targets has been confirmed.</p> <p>The Applicant is committed to submitting a final MMMP for UXO clearance if needed during the marine licence application process and applying for the EPS licence as required.</p>
RR-061-230	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p>	<p>Noted, this will be considered in the finalisation of the MMMP.</p>

ID	RR	Applicant's Response
	<p><b>Other matters - Draft MMMP - Document Used: [APP-149] 6.5 Volume 6, Chapter 5: Draft Marine Mammal Mitigation Protocol, Table 3.1, Paragraph 95 - (Ref D66)</b></p> <p>The final piling MMMP should present the injury ranges based on SPL also, as those distances correspond to the necessary size of the mitigation zone.</p> <p>When finalising the piling MMMP post-consent, present the injury ranges based on instantaneous PTS.</p>	
RR-061-231	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Other matters - Draft MMMP - Document Used: [APP-048] 6.4 Volume 6, Chapter 4: In Principle Monitoring Plan, Table 11.27, [APP-149] 6.5 Volume 6, Chapter 5: Draft Marine Mammal Mitigation Protocol, Paragraph 98 - (Ref D67)</b></p> <p>The Applicant has not committed to several mitigation measure options, instead providing a list of what they “could include” in Paragraph 90. This increases the uncertainty about what measures will be undertaken during piling, and so complicates the worst-case scenario (i.e. what the minimum mitigation is that will be implemented).</p> <p>There are certain impact pathways in the ES that the Applicant is relying on the MMMP to avoid significant impact (see Table 11.27 of Chapter 11):</p> <ul style="list-style-type: none"> <li>▪ Harbour porpoise – single strike of maximum hammer energy – PTS</li> <li>▪ Harbour porpoise, Minke whale, Grey seal, Harbour seal – cumulative exposure from single or sequential piling at max hammer energy – PTS</li> </ul>	<p>The following measures have been confirmed in the Schedule of Mitigation (APP-144):</p> <ul style="list-style-type: none"> <li>▪ No Project concurrent piling is to be undertaken</li> <li>▪ Each piling event would commence with a soft-start at a slow hammer energy followed by a gradual ramp up to the maximum hammer energy required.</li> </ul> <p>Further mitigation (as are considered standard requirements) the Applicant will commit to are:</p> <ul style="list-style-type: none"> <li>▪ The establishment of a Monitoring Area around the pile location before each pile driving activity, based on the maximum predicted distance for instantaneous PTS (SPLpeak).</li> <li>▪ The activation of ADD prior to piling</li> <li>▪ JNCC trained MMOB</li> <li>▪ PAM and operators</li> </ul>

ID	RR	Applicant's Response
	<p>It is imperative that the exact measures being relied upon here are clearly listed and appropriately secured.</p> <p>The Applicant should clearly state the precise mitigation measures that are being relied upon to conclude no adverse effect from the list impact pathways. These mitigation measures must then be secured. This could be through a list of minimum commitments clearly outlined in the draft MMMP.</p> <p>Natural England welcomes the Applicant committing to further mitigation measures at this stage.</p>	<p>Updates to the MMMP to confirm this commitment will be provided at Deadline 2 to enable the Applicant to accommodate potential comments from NRW at Deadline 1.</p> <p>The Applicant notes that potential mitigation options, including NAS, are listed within the Draft MMMP (APP-149) which would be finalised post-consent in line with the final design of the Project. It is recognised that upon assessment of more developed design information, any need for the implementation of NAS will be decided in consultation with the licencing authority. The Applicant is planning appropriately for the potential requirement for NAS but maintains the position that the effects may be suitably mitigated through further design refinement and other embedded mitigation.</p>
RR-061-232	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Other matters - Draft MMMP - Document Used: [APP-149] 6.5 Volume 6, Chapter 5: Draft Marine Mammal Mitigation Protocol, Plate 3.1, Section 3.1.4 - (Ref D68)</b></p> <p>The break procedure outlined here, for piling breaks between 10 minutes and 2 hours, does not adhere to the JNCC piling mitigation guidelines.</p> <p>Revise the break procedure in the draft MMMP.</p>	<p>The Applicant acknowledges the request, however notes that the finalisation of procedures in the MMMP would be undertaken post-consent alongside developed Project design information and will follow the latest JNCC guidelines at the time as required.</p>
RR-061-233	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p>	<p>Alternative monitoring strategies will be considered in the final MMMP post-consent. MMO and PAM</p>

ID	RR	Applicant's Response
	<p><b>Other matters - Draft MMMP - Document Used: [APP-149] 6.5 Volume 6, Chapter 5: Draft Marine Mammal Mitigation Protocol, Section 3.1.5 - (Ref D69)</b></p> <p>We query the reliability of PAM in detecting all species in the project area, particularly minke whales and seals. We advise that the more precautionary approach would be to delay start up of piling until conditions allow for visual monitoring.</p> <p>Consider committing to best practice of only undertaking piling start up during conditions that allow for visual monitoring.</p>	<p>techniques are developing and changing, and technologies are already available including night vision binoculars and cameras that are already regularly used for research and mitigation purposes, and alternative visual strategies could be considered. Broadband sensors deployed around the piling event and having a telemetry link for an experienced PAM operator to monitor the presence of minke whale prior to piling would vastly improve the effectiveness of PAM for minke whale mitigation.</p> <p>All options are currently being considered and this will be developed in consultation with relevant stakeholders, including NE post-consent.</p>
RR-061-234	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Other matters - Draft MMMP - Document Used: [APP-149] 6.5 Volume 6, Chapter 5: Draft Marine Mammal Mitigation Protocol, Paragraph 128 - (Ref D70)</b></p> <p>The Applicant's outlined approach of activating the ADD for 80 minutes is insufficient to ensure that harbour porpoise will be outside the injury zone (based on PTS from SELcum) during piling. Further mitigation is therefore required to reduce the risk of injury to harbour porpoise. We do not agree that the proposed approach is sufficient for all species.</p> <p>Commit to further mitigation, e.g. the use of noise abatement systems, to ensure that the risk of injury to harbour porpoise is reduced as far as possible.</p>	<p>As outlined in ID RR-061-209, ADD durations and the subsequent mitigation needs will be confirmed post-consent based on the final project design.</p> <p>Other mitigation, including NAS, will be considered alongside design evolution. The Applicant is planning appropriately for the potential requirement for NAS but maintains the position that the effects may be suitably mitigated through further design refinement and other embedded mitigation.</p>

ID	RR	Applicant's Response
RR-061-235	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Other matters - Draft MMMP - Document Used: [APP-148] 6.4 Volume 6, Chapter 4: In Principle Monitoring Plan, [APP-149] 6.5 Volume 6, Chapter 5: Draft Marine Mammal Mitigation Protocol, Section 3.1.7 - (Ref D71)</b></p> <p>It is not appropriate for the MMMP to contain measures aimed at reducing the cumulative noise effects across multiple projects. A more appropriate place for these measures would be an underwater sound management strategy.</p> <p>To note.</p> <p>See other comments on underwater sound management strategy.</p>	<p>The Applicant will provide an Outline Underwater Sound Management Strategy at Deadline 2 in order to take into account potential further comments from the MMO, NE and NRW at Deadline 1. The Applicant has added a new condition 30 (Underwater Sound Management Strategy) in the DML submitted with the updated draft DCO at Procedural Deadline A to secure this. Additionally, the Outline Underwater Sound Management Strategy has been added as a document to be certified as one referred to in the DCO.</p>
RR-061-236	<p><b>Natural England's Detailed Advice and Recommendations – Marine Mammals</b></p> <p><b>Other matters - Draft MMMP - Document Used: [APP-149] 6.5 Volume 6, Chapter 5: Draft Marine Mammal Mitigation Protocol - Annex 1 - (Ref D72)</b></p> <p>The “Vessel good practice to avoid marine mammal collisions” should be a standalone document, rather than an annex to the MMMP, and must be secured for all project phases. This should include pre-construction activities such as surveys.</p> <p>A standalone vessel code of conduct should be secured as a consent condition, for all project phases, and contain appropriate measures for marine mammal mitigation. Natural England requests to be consulted on the code of conduct.</p>	<p>The Applicant notes the need to secure these measures which are a condition of the Outline PEMP (APP-146) in Schedule 6 Condition 9(1)(e), in addition to the information provided in the Draft MMMP (APP-149).</p> <p>The Applicant proposes the PEMP provides a suitable mechanism of securing measures, which covers all Project phases, noting that separate PEMPs may be required for individual work packages.</p> <p>Updates to the MMMP to remove collision mitigation best practice will be provided at Deadline 1.</p>



ID	RR	Applicant's Response
<b>Appendix E to the Relevant Representations of Natural England Marine Geology and Physical Processes and, Marine Sediment and Water Quality</b>		
RR-061-237	<p><b>Appendix E – Marine Geology and Physical Processes and, Marine Sediment and Water Quality</b></p> <p>In formulating these comments, the following documents have been considered:</p> <p>[APP-042] 5.1.5 Volume 5, Chapter 5: Project Description</p> <p>[APP-043] 5.1.6 Volume 5, Chapter 6: EIA Methodology</p> <p>[APP-044] 5.1.7 Volume 5, Chapter 7: Marine Geology and Physical Processes</p> <p>[APP-045] 5.1.8, Volume 5, Chapter 8: Marine Sediment and Water Quality</p> <p>[APP-062] 5.2.7.1 Volume 5, Appendix 7.1: Offshore Geophysical Survey</p> <p>[APP-064] 5.2.9.1 Volume 5, Appendix 9.1: Benthic Characterisation Survey</p> <p>[APP-148] 6.4, Volume 6, Chapter 4: In Principle Monitoring Plan</p> <p><b>1. Natural England's Advice and Recommendations</b></p> <p>A summary of Natural England's key concerns in relation to Marine Geology, Physical Processes and Water Quality is set out in Table 1. Our detailed advice and recommendations are presented in further detail in Table 2.</p>	<p>The Applicant notes NE's comment and the documents used for the representation.</p>
RR-061-238	<p><b>Summary of Key Issues - Marine Geology and Physical Processes, and Marine Sediment and Water Quality, Table 5.13 - (Ref E1)</b></p> <p>In most cases Natural England agrees with the position on WCS, except the following:</p> <ul style="list-style-type: none"> <li>▪ Figures for cable protection requirements at cable crossings.</li> </ul>	<p>See detailed response to RR-061-244 for a response to cable protection requirements at cable crossings.</p>

ID	RR	Applicant's Response
	<ul style="list-style-type: none"> <li>▪ Natural England advises the Applicant to provide the necessary updated project parameters, evidence and assessment in updated Application documents as discussed in detailed comments.</li> </ul>	
RR-061-239	<p><b>Summary of Key Issues - Marine Geology and Physical Processes, and Marine Sediment and Water Quality - (Ref E3)</b></p> <p>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"> <li>▪ Cable protection requirements at cable crossings;</li> <li>▪ Boulder clearance; and</li> <li>▪ UXO clearance</li> </ul> <p>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>See detailed response to RR-061-244 for a response to cable protection requirements at cable crossings.</p> <p>See detailed response to RR-061-248 for boulder clearance and UXO clearance.</p>
RR-061-240	<p><b>Summary of Key Issues - Methodology - Marine Geology and Physical Processes, and Marine Sediment and Water Quality - (Ref E4)</b></p> <p>Natural England advises that as per our Offshore Wind Marine Environmental Assessments: Best Practice Advice for Evidence and Data Standards'1 section on 'Tiers' and inclusion of projects within in-combination assessments; that further plans/projects should be included within the assessment.</p> <p>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>The study area for marine geology, oceanography and physical processes is the Eastern Irish Sea, confined between the north coast of Wales, coastline of England to Whitehaven and the Isle of Man. This has been defined on the basis that it encompasses both potential near-field effects (the direct footprint of the Project infrastructure and immediate vicinity (tens or hundreds of metres) from the point of disturbance) and far-field (the wider area that might also be affected indirectly by the Project) and across the wider regional seabed and coastal environment. This study area is described in Section 7.3.1 of Chapter 7 Marine Geology, Oceanography and Physical Processes</p>

ID	RR	Applicant's Response
		<p>(APP-044) and was agreed through the Scoping, PEIR and ETG processes.</p> <p>The CEA presented in Section 7.7 of Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-044) was undertaken based upon the results of a screening exercise presented in Table 7.26 of Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-044). The Applicant has used a 30km area buffer to consider Projects within the CEA.</p> <p>The use of a 30km buffer is considered a precautionary distance given the spring tidal excursion ellipse of approximately 10km from the Project windfarm site. This was discussed during the Marine Ecology ETG 4 (15<sup>th</sup> June 2023 – see Consultation Report Appendices Part 1 (A to C); (APP-016)). There were also no comments received on projects or plans missing from the CEA in the Section 42 responses from Natural England (see Consultation Report Appendices Part 1 (A to C); (APP-016)).</p> <p>Each project was considered on a case-by-case basis for screening in or out of the chapter assessment based upon data confidence, effect-receptor pathways and the spatial/temporal scales involved.</p> <p>As detailed in Table 7.26 of Chapter 7 Marine Geology, Oceanography and Physical Processes,</p>

ID	RR	Applicant's Response
		<p>several 'operational' or 'active' projects were included in the CEA to account for ongoing impacts to marine processes, such as:</p> <ul style="list-style-type: none"> <li>▪ Vodafone Lanis 1 telecom cables</li> <li>▪ EXA Atlantic (formerly GTT Hibernia Atlantic) telecommunication cable</li> <li>▪ Calder CA1 platform</li> <li>▪ South Morecambe CPP1 (and surrounding South Morecambe platforms)</li> <li>▪ Isle of Man Interconnector</li> <li>▪ Liverpool Bay aggregate production area (Area 457)</li> <li>▪ West of Duddon Sands Offshore Windfarm</li> <li>▪ Site Y Disposal Area</li> <li>▪ Walney Extensions Offshore Windfarms</li> <li>▪ Walney 1 Offshore Windfarm</li> <li>▪ Barrow Offshore Windfarm</li> <li>▪ Walney 2 Offshore Windfarm</li> <li>▪ IS205 Barrow D Disposal Area</li> <li>▪ Site Z Disposal Area</li> <li>▪ Liverpool Bay aggregate exploration and option area (Area 1808)</li> <li>▪ Ormonde Offshore Windfarm</li> <li>▪ Gwynt y Mor Offshore Windfarm</li> <li>▪ Hilbre Swash aggregate production area</li> </ul>

ID	RR	Applicant's Response
		<ul style="list-style-type: none"> <li>▪ Burbo Bank Extension Offshore Windfarm</li> <li>▪ Morecambe Bay: Lune Deep Disposal Area</li> </ul> <p>The CEA also includes future Projects with enough information to inform an assessment (i.e. Morgan and Morecambe Offshore Wind Farms: Transmission Assets, Carbon Capture Storage Area (EIA Area 1), Morecambe Net Zero Cluster Project), Carbon Capture Storage Licence (CS004), Mona Offshore Wind Project, Morgan Offshore Wind Project Generation Assets and Awel y Mor Offshore Wind Farm)</p> <p>The Applicant considers a comprehensive list of projects have been considered in the CEA and would not consider any projects identified by Natural England to result in any changes to the conclusion of the assessment.</p>
RR-061-241	<p><b>Summary of Key Issues - Methodology - Marine Geology and Physical Processes, and Marine Sediment and Water Quality - (Ref E5)</b></p> <p>Natural England advises that further consideration of the mitigation hierarchy is required to ensure that environmental impacts are avoided reduced and mitigated as much as possible, including but not exclusively: Commitment to remove infrastructure at the time of decommissioning. Natural England advises that all embedded mitigation measures proposed are secured in the DCO/dML and/or through a named commitments register. In addition to the mitigation proposed by the Applicant, we advise that further mitigation is considered by the Applicant as discussed in the detailed comments.</p>	<p>As outlined in the Schedule of Mitigation (APP-144), mitigation measures proposed are secured in the DCO/DML (APP-012).</p> <p>Commitments on removal of infrastructure cannot be made at this stage and the details of decommissioning would be agreed as part of a Decommissioning Programme (see response to RR-061-250).</p>

ID	RR	Applicant's Response
RR-061-242	<p><b>Summary of Key Issues - Methodology - Marine Geology and Physical Processes, and Marine Sediment and Water Quality - (Ref E6)</b></p> <p>Future monitoring should be secured, in the DCO, to test assumptions made in the ES, residual concerns and recoverability. Monitoring should be secured for sandwave recovery and scouring around turbines.</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 be included within an In Principle Monitoring Plan (IPMP).</p>	<p>As noted in Section 7.11 of Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-044) <i>'geophysical surveys would be carried out both before and after construction, both for engineering/asset integrity purposes (including scour protection) and would provide monitoring of changes in seabed topography, including scour processes'</i>. Pre- and post- construction surveys are proposed in Section 2.2.2 and Table 2.1 of the IPMP (APP-148). Pre- and post- construction monitoring is secured in the DCO in Condition 14 and 16 of Schedule 6 of the DCO/DML (APP-012).</p> <p>No significant effects on physical process receptors were predicted in Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-044), and the windfarm site has not been shown to have a high prevalence of sandwaves.</p> <p>As noted in Paragraph 9.113 of Chapter 9 Benthic Ecology (APP-046), no species listed in the OSPAR list of threatened and/or declining species and no species of principal importance/BAP species were recorded during the 2022 benthic characterisation survey of the windfarm site, nor were any reported from other studies within 15km of the windfarm site.</p> <p>Therefore, no further monitoring for benthic or physical processes receptors is considered to be required.</p>

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RR-061-243	<p><b>Detailed Advice – Marine Geology and Physical Processes, and Marine Sediment and Water Quality.</b></p> <p><b>Project Parameters - Document Used: [APP-042] 5.1.5 Chapter 5: Project Description, Project Description - (Ref E7)</b></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 rows of this section of Table 2.</p>	<p>The Applicant notes this response. Detailed responses are provided in responses to RR-061-244 and RR-061-248.</p>
RR-061-244	<p><b>Detailed Advice – Marine Geology and Physical Processes, and Marine Sediment and Water Quality.</b></p> <p><b>Project Parameters - Document Used: [APP-042] 5.1.5 Chapter 5: Project Description, Table 5.13 - (Ref E8)</b></p> <p>Cable/pipeline crossings – Natural England notes that information pertaining to cable protection volumes for cable/pipeline crossings is unclear.</p> <p>In [APP-042] paragraph 5.73 notes that “Cable protection would be required at the crossings (and is additional to the cable protection requirements set out in Table 5.12)”. Table 5.13 sets out the cable/pipeline crossings design envelope and includes maximum cable/pipeline crossing volume per crossing (m<sup>3</sup>), and maximum cable/pipeline crossing volume for all crossings (m<sup>3</sup>). However, it is not explicit that these volumes relate to cable protection. Additionally, there is no information on location of crossings. It would be helpful if these could be provided and updated in the final ES.</p> <p>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 Natural England’s Best Practice Guidance Phase III. Namely:</p>	<p>Paragraph 5.73 of Chapter 5 Project Description (APP-042) states that ‘<i>Cable protection would be required at the crossings (and is additional to the cable protection requirements set out in Table 5.12).</i>’</p> <p>A clarification of the parameter for cable protection wording in Table 5.13 is provided in The Applicant’s Errata Sheet (Document Reference 8.4) submitted alongside this document at Procedural Deadline A, however there is no change to the worst-case scenario assessed for cable protection.</p> <p>For information and clarity, the combined cable protection volume (including crossings) would be a maximum of 259,700m<sup>3</sup> (161,000m<sup>3</sup> from Table 5.12 + 98,700m<sup>3</sup> from Table 5.13 of APP-042).</p> <p>To understand any potential disruption to marine processes the following information is noted: Method to be used: Cable crossing protection methods are detailed in Paragraph 5.69 of Chapter 5 Project Description (APP-042). These are also</p>

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	<ul style="list-style-type: none"> <li>▪ Method(s) to be used;</li> <li>▪ Specific locations (informed by acoustic data);</li> <li>▪ Total area of impact;</li> <li>▪ Overlap with MPA(s);</li> <li>▪ Habitats impacted;</li> <li>▪ Presence of sensitive species and habitats;</li> <li>▪ Where applicable total volume of external cable protection;</li> <li>▪ Method(s) (as it generally requires external cable protection the points above also apply); and</li> </ul> <p>Impacts from sediment plumes.</p> <p>Once this is provided, we believe that this matter can be readily resolved.</p>	<p>outlined and assessed in the worst-case scenario for benthic ecology (see Table 9.2 of Chapter 9 Benthic Ecology; APP-046).</p> <p>Specific locations: The Project does not yet have a defined layout and therefore crossing locations can't be confirmed at this stage. The locations will be defined post-consent, noting all crossings would be within the windfarm site which is outside of any MPA.</p> <p>Total area of impact: The total footprint of cable/pipeline crossings is a maximum of 66,750m<sup>2</sup>, as outlined in Table 5.13 of Chapter 5 Project Description (APP-042).</p> <p>Overlap with MPA(s): The windfarm site does not overlap with any MPA(s). The Project does not yet have a defined layout and therefore crossing locations can't be confirmed at this stage. The locations will be defined post-consent, noting all crossings would be within the windfarm site which is outside of any MPA.</p> <p>Habitats impacted: The benthic habitats impacted by cable crossings are detailed in Section 9.5.4 of Chapter 9 Benthic Ecology (APP-046) and any sensitive species and habitats are detailed in Section 9.5.5 of Chapter 9 Benthic Ecology (APP-046).</p>



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		<p>Presence of sensitive species and habitats: As noted in Paragraph 9.113 of Chapter 9 Benthic Ecology (APP-046), there are no Annex I biogenic or geogenic reef features within or near to the windfarm site, and those habitats/biotopes that are present within the windfarm site would not be significantly affected by the Project.</p> <p>Where applicable total volume of external cable protection: The total volume of external cable protection is a maximum of 259,700m<sup>3</sup> (161,000m<sup>3</sup> from Table 5.12 + 98,700m<sup>3</sup> from Table 5.13 of APP-042). The maximum seabed footprint of external cable protection, which is 216,250m<sup>2</sup>, is presented and assessed in the worst-case scenario tables (Table 7.2 and Table 9.2) of Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-044) and Chapter 9 Benthic Ecology (APP-046) for seabed disturbance effects.</p> <p>Impacts from sediment plumes: The impacts from sediment plumes associated with cable protection installation has not been quantitatively assessed, however, is anticipated to be far less than the sediment plumes generated during seabed preparation and/or pile drilling (which are both assessed in Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-044) and Chapter 9 Benthic Ecology (APP-046)).</p>
RR-061-245	<p><b>Detailed Advice – Marine Geology and Physical Processes, and Marine Sediment and Water Quality.</b></p> <p><b>Baseline Characterisation - Survey Data Acquisition - (Ref E9)</b></p>	<p>Noted, the Applicant welcomes the comment from NE.</p>

ID	RR	Applicant's Response
	<p>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.</p> <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>	
RR-061-246	<p><b>Detailed Advice – Marine Geology and Physical Processes, and Marine Sediment and Water Quality.</b>  <b>Baseline Characterisation - Data Gaps - Documents Used: 5.2.9.1 Volume 5, Appendix 9.1: Benthic Characterisation Survey, [APP-148] - (Ref N/A)</b></p> <p>Natural England is content that monitoring of effects on physical processes will be captured during pre and post construction multibeam echo sounder (MBES) and side scan sonar (SSS) surveys to document bedform topography as per [APP-148]. These surveys should be secured in the IPMP.</p> <p>Natural England advises that unless there are significant changes to survey proposals, we will provide no further comment on these surveys during examination</p>	<p>The Applicant notes this response. Both multi-beam echo sounder (MBES) and side-scan sonar (SSS) surveys are proposed in Section 2.2.2 and Table 2.1 of the IPMP (APP-148).</p>
RR-061-247	<p><b>Detailed Advice – Marine Geology and Physical Processes, and Marine Sediment and Water Quality.</b>  <b>Baseline Characterisation - Analysis, Modelling and Reporting - Documents Used: [APP-044] 5.1.7 Volume 5, Chapter 7: Marine Geology and Physical Processes - (Ref E10)</b></p> <p>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 Morecambe</p>	<p>Noted, the Applicant welcomes the comment from NE.</p>

ID	RR	Applicant's Response
	<p>Generation physical processes study area arising from the construction, operation and decommissioning.</p> <p>Natural England advises that unless there are significant changes to project design parameters, we will provide no further comment on data analysis during examination.</p>	
RR-061-248	<p><b>Detailed Advice – Marine Geology and Physical Processes, and Marine Sediment and Water Quality.</b></p> <p><b>Baseline Characterisation - Documents Used: [APP-044] 5.1.7 Volume 5, Chapter 7: Marine Geology and Physical Processes, Table 7.2, [APP-045] 5.1.8, Volume 5, Chapter 8: Marine Sediment and Water Quality, Table 8.2) - (Ref E11)</b></p> <p><u>Seabed Preparation</u></p> <p>Natural England notes that Unexploded Ordnance (UXO) clearance has not been considered for impacts in [APP-044] or [APP-045] on the basis that UXO clearance activities for the Project would be considered as part of a separate licence application. 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.</p> <p>In addition, there appears to be no consideration given to boulder clearance activities. And it is unclear whether boulder clearance will be required. However, to have confidence in assessments of physical processes and water quality impacts it is important to understand these requirements and provide assessments for activity if it is to take place.</p> <p>We advise that the Application should provide sufficient information to assess the potential impacts from seabed preparation activities.</p>	<p><b>UXO clearance</b></p> <p>UXO clearance (if required) will be assessed in a separate marine licence and is not included as an activity to be authorised by the DCO.</p> <p>As noted in Table 7.1 of Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-044), a more detailed assessment would be undertaken as part of a separate licence when the scale of UXO clearance required is better understood through detailed surveys and upon refinement of the layout. It would, however, be expected that in the case of UXO (high-order) detonation, craters in the seabed would be formed. While the size of craters would be specific to the UXO and sediment type, it would be expected that craters would be backfilled via tidal currents which would begin following the UXO detonation.</p> <p>However, an assessment of the effects of UXO clearance on physical process, benthic and marine sediment and water quality receptors has been provided in The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2),</p>

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	<p>Natural England advises that physical process, marine sediment and water quality impacts due to UXO clearance and boulder clearance should be considered and assessed within updated Application documents.</p>	<p>submitted alongside this document at Procedural Deadline A.</p> <p><b>Boulder clearance</b></p> <p>Boulder clearance is referred to in Paragraph 5.90 of Chapter 5 Project Description (APP-042) and states that <i>'The number and size of boulders would be identified during future geophysical surveys, however, survey data to date shows there is a low prevalence of boulders. It is assumed that clearance (25m in width) along cable corridors is required for boulder clearance.'</i></p> <p>Chapter 9 Benthic Ecology (APP-046) states in Table 9.2 in their worst-case rationale <i>'The worst-case scenario for physical disturbance for cables is based on a maximum length of 70km of inter-array cables and 10km of platform link cables, with a 25m wide installation corridor in which cable preparation activities may take place (this encompasses pre-lay activities (e.g. boulder removal), trenching and spoil width).'</i></p> <p>This is assessed as 'Impact 1: Physical disturbance and loss of benthic habitat' in Section 9.6.3.1 of Chapter 9 Benthic Ecology (APP-046).</p> <p>As such, it is considered that boulder clearance is encompassed within the seabed disturbance assessments.</p>

ID	RR	Applicant's Response
RR-061-249	<p><b>Detailed Advice – Marine Geology and Physical Processes, and Marine Sediment and Water Quality.</b></p> <p><b>Baseline Characterisation - Documents Used: [APP-044] 5.1.7 Volume 5, Chapter 7: Marine Geology and Physical Processes, Table 7.3 [APP-045] 5.1.8, Volume 5, Chapter 8: Marine Sediment and Water Quality, Table 8.3 - (Ref E13)</b></p> <p>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.</p> <p>Natural England advises that all embedded mitigation measures proposed should be agreed prior to consent and secured in the DCO/dML and/or a relevant named plan such as a 'schedule or mitigation' or a 'commitments register'.</p>	<p>Embedded mitigation measures for marine geology, oceanography and physical processes, and marine sediment and water quality are outlined in Table 7.3 of Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-044) and Table 8.3 of Chapter 8 Marine Sediment and Water Quality (APP-045), and within Table 2.2 of the Schedule of Mitigation (APP-144).</p> <p>Table 2.2 of the Schedule of Mitigation (APP-144) also outlines the means of implementation within the DCO/DML (APP-012) for each mitigation measure.</p>
RR-061-250	<p><b>Detailed Advice – Marine Geology and Physical Processes, and Marine Sediment and Water Quality.</b></p> <p><b>Baseline Characterisation - Documents Used: [APP-044] 5.1.7 Volume 5, Chapter 7: Marine Geology and Physical Processes, Table 7.2 [APP-045] 5.1.8, Volume 5, Chapter 8: Marine Sediment and Water Quality, Table 8.2 - (Ref E14)</b></p> <p>Natural England notes that the Applicant is proposing to leave scour and cable protection in-situ. 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>The Applicant acknowledges NE's comment. Consideration will be given to scour and cable protection that would be more readily removable at the time of decommissioning. However, commitments on removal of infrastructure cannot be made at this stage and the details of decommissioning would be agreed as part of a Decommissioning Programme.</p> <p>As outlined in Condition 8 of Schedule 2 of the draft DCO (APP-012), "<i>no part of the authorised development may commence until a written decommissioning programme in compliance with any notice served upon the undertaker by the Secretary of State pursuant to section 105(2)</i></p>

ID	RR	Applicant's Response
	<p>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><i>(requirement to prepare decommissioning programmes) of the 2004 Act has been submitted to the Secretary of State for approval" .. A draft of this will be submitted prior to the construction of the Project.</i></p> <p>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>
<b>Appendix F to the Relevant Representations of Natural England Subtidal Benthic Ecology</b>		
RR-061-251	<p><b>Appendix F– Subtidal Benthic Ecology</b></p> <p>In formulating these comments, the following documents have been considered:</p> <p>[APP-031] 4.12 Volume 4, Marine Conservation Zone Assessment Screening Report</p> <p>[APP-042] 5.1.5 Volume 5, Chapter 5: Project Description</p> <p>[APP-043] 5.1.6 Volume 5, Chapter 6: EIA Methodology</p> <p>[APP-046] 5.1.9 Volume 5, Chapter 9: Benthic Ecology</p> <p>[APP-064] 5.2.9.1 Volume 5, Appendix 9.1: Benthic Characterisation Survey</p> <p>[APP-093] 5.3.9 Volume 5, Chapter 9: Benthic Ecology Figures</p> <p>[APP-144] 5.5 Volume 5, Schedule of Mitigation</p> <p>[APP-148] 6.4, Volume 6, Chapter 4: In Principle Monitoring Plan</p>	<p>The Applicant notes NE's comment and the documents used for the representation.</p>

ID	RR	Applicant's Response
	<p><b>1. Natural England's Advice and Recommendations</b></p> <p>A summary of Natural England's key concerns in relation to Benthic Subtidal Ecology is set out in Table 1. Our detailed advice and recommendations are presented in further detail in Table 2.</p>	
RR-061-252	<p><b>Summary of Key Issues – Worst case scenario - Subtidal Benthic Ecology - (Ref F1)</b></p> <p>In most cases Natural England agrees with the position on WCS, except the following:</p> <ul style="list-style-type: none"> <li>▪ Figures for cable protection requirements at cable crossings</li> <li>▪ Natural England advises the Applicant to provide the necessary updated project parameters, evidence and assessment in updated Application documents as discussed in detailed comments.</li> </ul>	<p>A detailed response in RR-061-244 provides clarification on figures for cable protection requirements at cable crossings. This is also clarified in The Applicant's Errata Sheet (Document Reference 8.4).</p>
RR-061-253	<p><b>Summary of Key Issues – Impacts on SPAs and SACs - Subtidal Benthic Ecology - (Ref F2)</b></p> <p>Impacts on SPAs and SACs: Natural England notes that the Applicant's current assessments of pressures/impacts on supporting benthic habitats for 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 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 windfarm site does not overlap with any SAC and is located over 8km from the nearest SAC with benthic habitat features (the Shell Flat and Lune Deep SAC). Due to this distance, there will be no direct effects and very limited potential for indirect effects to habitats of any SAC as a result of the construction, operations and maintenance and decommissioning of the Project as presented in Section 6.4.2 and Section 6.4.3 of the RIAA (APP-027).</p> <p>With respect to SPAs, the windfarm site is outwith any SPA, although does neighbour the Liverpool Bay SPA boundary.</p> <p>Indirect effects, which would be limited to changes in suspended sediment concentrations (SSCs) and</p>

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		<p>sediment transport, have been assessed within Section 9.6.3.2, Section 9.6.4.6, Section 9.6.5.3, Section 9.7.3.1 and Section 9.7.3.2 of Chapter 9 Benthic Ecology (APP-046) and Chapter 11 Marine Mammals (APP-048) and Chapter 12 Offshore Ornithology (APP-049).</p> <p>No significant effects as a result of indirect effects have been identified given there is no direct overlap and the short scale and transient nature of indirect effects.</p> <p>The Applicant notes also the comment made by NE (RR-061-158) (Ref C8).</p>
RR-061-254	<p><b>Summary of Key Issues – Mitigation - Subtidal Benthic Ecology - (Ref F3)</b></p> <p>Natural England advises that all proposed mitigation measures are secured. In addition to mitigation proposed by the Applicant, we advise that further consideration is given (but not exclusively) to the following mitigation measures for benthic subtidal ecology:</p> <ul style="list-style-type: none"> <li>▪ Commitment to remove infrastructure at the time of decommissioning.</li> </ul> <p>Natural England advises that all embedded mitigation measures proposed are secured in the DCO/dML or through a named plan such as a 'Schedule of mitigation' or 'Commitments Log'. In addition to the mitigation proposed by the Applicant, we advise that further mitigation is considered by the Applicant as discussed in the detailed comments.</p>	<p>A detailed response is provided in RR-061-250 on the commitment to remove infrastructure at the time of decommissioning.</p> <p>As outlined in the Schedule of Mitigation (APP-144), mitigation measures proposed are to be secured in the DCO/DML (APP-012).</p>



ID	RR	Applicant's Response
RR-061-255	<p><b>Summary of Key Issues – Identified impacts - Subtidal Benthic Ecology - (Ref F4)</b></p> <p>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"> <li>▪ Cable protection requirements at cable crossings;</li> <li>▪ Boulder clearance; and</li> <li>▪ UXO clearance</li> </ul> <p>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>A detailed response is provided in RR-061-244 for clarifications to cable protection requirements at cable crossings.</p> <p>A detailed response is provided in RR-061-248 for a response in relation to boulder clearance and UXO clearance.</p>
RR-061-256	<p><b>Summary of Key Issues – Monitoring conditions - Subtidal Benthic Ecology - (Ref F5)</b></p> <p>Future monitoring should be secured, in the DCO, to test assumptions made in the ES and demonstrate recovery. 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 would welcome and encourage the Applicant to consider future monitoring of benthic and physical processes to be included as a commitment to demonstrate recovery from construction activities. In this case, we advise monitoring the recovery of sandwaves. All monitoring will need to be secured in the DCO/ dML and hypothesis to be tested included within an In Principle Monitoring Plan (IPMP).</p>	<p>A detailed response is provided in RR-061-242 in regards to monitoring of sandwave recovery and scouring.</p> <p>As noted in Section 9.10 of Chapter 9 Benthic Ecology (APP-046), there are no Annex I biogenic or geogenic reef features within or near to the windfarm site, and those habitats/biotopes that are present within the windfarm site would not be significantly affected by the Project. Consequently, pre- and post-construction benthic monitoring is not proposed (although consideration of potential INNS colonisation would be taken into account when designing post-construction hard-substrate inspections, as described in the IPMP (APP-148)).</p>
RR-061-257	<p><b>Natural England's Detailed Advice and Recommendations – Subtidal Benthic Ecology</b></p>	<p>Detailed responses (or signposts to the relevant responses in another section) are provided in RR-061-258 – RR-061-264.</p>

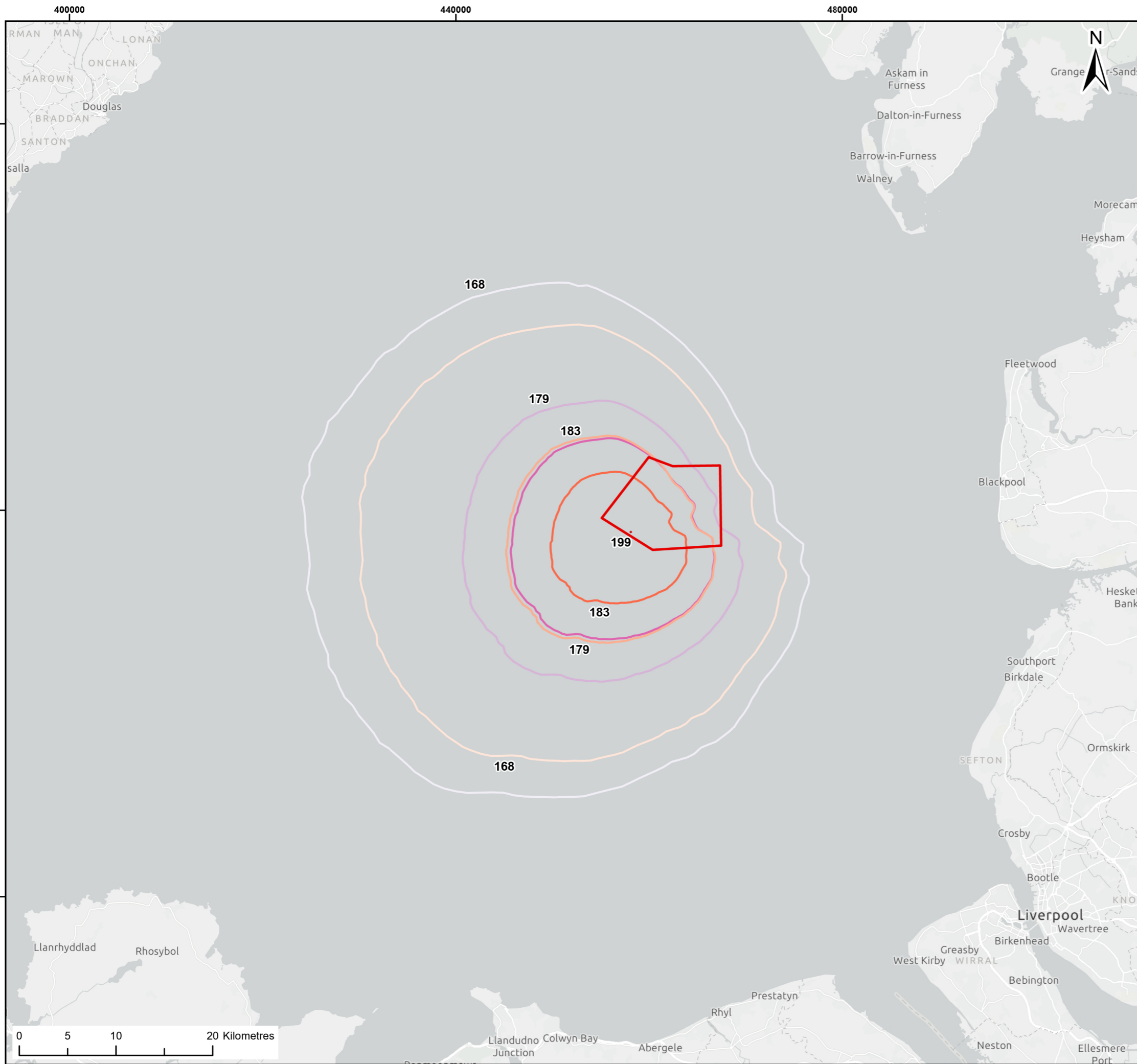
ID	RR	Applicant's Response
	<p><b>Project Parameters - Project Description - Document Used: [APP-042] 5.1.5, Chapter 5: Project Description (Ref F6)</b></p> <p>We advise that further detail is required in the project description to inform the Maximum Design Scenario (MDS) and Environmental Impact Assessment (EIA). Please see detailed comments in relevant headings of this table.</p>	
RR-061-258	<p><b>Natural England's Detailed Advice and Recommendations – Subtidal Benthic Ecology</b></p> <p><b>Project Parameters -Natural England's Position on Worst Case Scenario or Scenarios - Document Used: [APP-042] 5.1.5, Chapter 5: Project Description - (Ref F7)</b></p> <p>Cable/pipeline crossings – Natural England notes that information pertaining to cable protection volumes for cable/pipeline crossings is unclear.</p> <p>In [MOR001-FLO-CON-ENV-RPT-1050] paragraph 5.73 notes that “Cable protection would be required at the crossings (and is additional to the cable protection requirements set out in Table 5.12)”. Table 5.13 sets out the cable/pipeline crossings design envelope and includes maximum cable/pipeline crossing volume per crossing (m3), and maximum cable/pipeline crossing volume for all crossings (m3). However, it is not explicit that these volumes relate to cable protection. Additionally, there is no information on location of crossings. It would be helpful if these could be provided and updated in the final ES. To better understand any potential disruption to 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"> <li>▪ Method(s) to be used;</li> <li>▪ Specific locations (informed by acoustic data);</li> </ul>	<p>Please see detailed response to RR-061-244 for a response to cable protection requirements at cable crossings and a response to the bullets listed in NE's Best Practice Guidance Phase III.</p>

ID	RR	Applicant's Response
	<ul style="list-style-type: none"> <li>▪ Total area of impact;</li> <li>▪ Overlap with MPA(s);</li> <li>▪ Habitats impacted;</li> <li>▪ Presence of sensitive species and habitats;</li> <li>▪ Where applicable total volume of external cable protection;</li> <li>▪ Method(s) (as it generally requires external cable protection the points above also apply); and</li> <li>▪ Impacts from sediment plumes</li> </ul> <p>Once this is provided, we believe that this matter can be readily resolved.</p>	
RR-061-259	<p><b>Natural England's Detailed Advice and Recommendations – Subtidal Benthic Ecology</b>  <b>Baseline Characterisation - Survey Data Acquisition - Document(s) Used: [APP-064] 5.2.9.1 Volume 5, Appendix 9.1: Benthic Characterisation Survey - (Ref F8)</b></p> <p>Natural England agrees that the data included in the baseline characterisation for benthic ecology is sufficient to characterise the study area. Therefore, unless there is a change in the project design parameters, we will provide no further comment on the data during examination.</p>	This is noted and welcomed by the Applicant, noting that the APP number for Appendix 9.1 Benthic Characterisation Survey is APP-063.
RR-061-260	<p><b>Natural England's Detailed Advice and Recommendations – Subtidal Benthic Ecology</b>  <b>Baseline Characterisation - Analysis, Modelling and Reporting - Document(s) Used: [APP-064] 5.2.9.1 Volume 5, Appendix 9.1: Benthic Characterisation Survey, [APP-093] 5.3.9 Volume 5, Chapter 9: Benthic Ecology Figures - (Ref E10)</b></p>	This is noted and welcomed by the Applicant, noting that the APP number for Appendix 9.1 Benthic Characterisation Survey is APP-063.

ID	RR	Applicant's Response
	<p>Natural England agrees with the approach and scenarios conducted to inform the potential changes in the Morgan Generation benthic ecology study area arising from the construction, operation and decommissioning.</p>	
RR-061-261	<p><b>Natural England's Detailed Advice and Recommendations – Subtidal Benthic Ecology</b></p> <p><b>Environmental Impact Assessment – Identified impacts - Document(s) Used: [APP-043] 5.1.6 Volume 5, Chapter 6: EIA Methodology, [APP-046] 5.1.9 Volume 5, Chapter 9: Benthic Ecology, [APP-045] 5.1.8 Volume 5 - Chapter 8 - Marine Sediment and Water Quality, Table 8.2 - (Ref F9)</b></p> <p><u>Seabed preparation</u></p> <p>Natural England notes that Unexploded Ordnance (UXO) clearance has not been considered for impacts in [APP-046] on the basis that UXO clearance activities for the Project would be considered as part of a separate licence application. 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.</p> <p>In addition, there appears to be no consideration given to boulder clearance activities. And it is unclear whether boulder clearance will be required. However, to have confidence in assessments of benthic ecology impacts it is important to understand these requirements and provide assessments for activities if they are to take place.</p> <p>We advise that the Application should provide sufficient information to assess the potential impacts from seabed preparation.</p> <p>Natural England advises that benthic ecology impacts due to UXO clearance and boulder clearance should be considered and assessed within updated Application documents.</p>	<p>A detailed response to boulder clearance and UXO clearance is provided in response to RR-061-248 and in The Applicant's Response to the Rule 9 Letter for Morecambe Offshore Windfarm Generation Assets (Document Reference 8.2), submitted alongside this document at Procedural Deadline A.</p>

ID	RR	Applicant's Response
RR-061-262	<p><b>Natural England's Detailed Advice and Recommendations – Subtidal Benthic Ecology</b></p> <p><b>Environmental Impact Assessment – Identified impacts - Document(s) Used: [APP-144] 5.5 Volume 5, Schedule of Mitigation - (Ref F11)</b></p> <p>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.</p> <p>Natural England advises that all embedded mitigation measures proposed should be agreed prior to consent and secured in the DCO/dML and/or a relevant named plan such as a 'Schedule or mitigation' or a 'Commitments register'.</p>	<p>Embedded mitigation measures for benthic ecology are outlined in Table 9.3 of Chapter 9 Benthic Ecology (APP-046) and in Table 2.2 of the Schedule of Mitigation (APP-144).</p> <p>Table 2.2 of the Schedule of Mitigation (APP-144) also outlines the means of implementation within the DCO/DML (APP-012) for each mitigation measure.</p>
RR-061-263	<p><b>Natural England's Detailed Advice and Recommendations – Subtidal Benthic Ecology</b></p> <p><b>Environmental Impact Assessment – Identified impacts - Document(s) Used: [APP-144] 5.5 Volume 5, Schedule of Mitigation, [APP-042] 5.1.5, Chapter 5: Project Description - (F12)</b></p> <p>Natural England has concerns over the long-term degradation of geotextile bags used for cable protection and/or stabilisation platforms for barges due potential release of plastics and recommend that consideration is given to novel technologies where the bags are also made of rock.</p> <p>Natural England notes that the Applicant is proposing to leave scour and cable protection in-situ. We advise that regardless of legislation or being outside of designated sites, the Applicant should aim to remove infrastructure.</p>	<p>The decision on the type of cable protection has not yet been made by the Applicant, however, consideration will be given to novel technologies as the design is progressed post-consent.</p> <p>A detailed response is provided in response to RR-061-250.</p>

ID	RR	Applicant's Response
	<p>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>Natural England advises that the Applicant considers using scour and cable protection which is more readily removable at the time of decommissioning and reduces the risk to the marine environment as much as possible.</p> <p>We would welcome and encourage this to be secured as a commitment.</p> <p>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 at the pre-construction phase.</p>	
RR-061-264	<p><b>Natural England's Detailed Advice and Recommendations – Subtidal Benthic Ecology</b></p> <p><b>Environmental Impact Assessment – Screening - Document(s) Used: [APP-031] 4.12 Volume 4 - Marine Conservation Zone Assessment Screening Report - (Ref F13)</b></p> <p>Natural England agrees with the MCZ screening conclusions for alone impacts. 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 Marine Conservation Zone Assessment (MCZA) screening conclusions.</p>



**Legend:**

Morecambe Offshore Windfarm Site

**SELcum (Flee) for LF cetacean for 3x Monopiles**

- 199 dB
- 183 dB
- 179 dB
- 168 dB

**SELcum (Flee) for LF cetacean for 4x Pinpiles**

- 199 dB
- 183 dB
- 179 dB
- 168 dB

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**Report:** Morecambe Offshore Windfarm: Generation Assets Environmental Statement

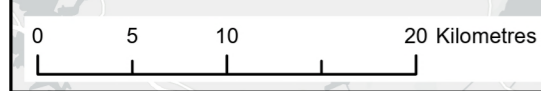
**Title:** Clarification of potential barrier effects to minke whale from underwater noise due to piling

**Figure:** 1      **Drawing No:** PC1165-RHD-ES-OF-DG-Z-0162

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
P01	10/10/2024	JH	SB	A3	1:400,000

**Co-ordinate system:** WGS 1984 UTM Zone 30N



## 2.9 Natural Resources Wales Advisory (NRW (A)) (RR-062)

Table 2.9 The Applicant's comments on NRW (A)'s Relevant Representation (RR)

ID	RR	Applicant's Response
RR-062-01	<p>In relation to the proposed Morecambe Offshore Wind Farm Generation Assets, Natural Resources Wales (NRW) Advisory are interested in matters relating to:</p> <ul style="list-style-type: none"> <li>▪ Marine Ornithology</li> <li>▪ Marine Mammals</li> <li>▪ Cumulative and in-combination effects NRW (A) are particularly interested in matters related to cumulative impacts, in-combination impacts, and/or mobile species in relation to Welsh designated sites.</li> </ul> <p>All other matters pertaining to the development will be deferred to Natural England/the Joint Nature Conservation Committee (JNCC).</p> <p>At present NRW (A) does not have the capacity to provide detailed comments at pre-examination, and specifically in preparing Relevant Representations. However, we hope to provide further details on the above matters in our Written Representations and/or via on-going dialogue with the Applicant in the preparation of Statements of Common Ground (SoCGs).</p>	<p>The Applicant notes NRW (A)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 (NE)/Joint Nature Conservation Committee (JNCC). The Applicant has consulted with NE (with JNCC deferring to NE) as required.</p> <p>The Applicant is keen to make progress on issues arising from NRW (A) review of the Application relating to the agreed subject areas following receipt of Written Representations and has had initial engagement with NRW (A) on preparation of a Statement of Common Ground (SoCG).</p>
RR-062-02	<p>NRW (A) will continue to provide further advice to the Applicant on all the required matters, through correspondence and meetings, with the aim of reaching, as far as is possible, as many positions of agreement and common ground on outstanding matters throughout the examination of the proposal.</p>	<p>The Applicant thanks NRW (A) for all advice received throughout the pre-application and pre-Examination phases of the Project and shall continue to engage with NRW (A) during the Examination phase.</p>



## 2.10 The Crown Estate (TCE) (RR-081)

*Table 2.10 The Applicant's comments on TCE's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-081-01	The Crown Estate requests to be registered as an Interested Party in the examination of the Morecambe Offshore Windfarm. Our interest in the project is that Morecambe Offshore Windfarm Limited holds an Agreement for Lease from The Crown Estate.	Noted. The Applicant will continue to engage with TCE throughout the Examination phase.

## 2.11 UK Health Security Agency (UKHSA) (RR-086)

*Table 2.11 The Applicant's comments on UKHSA's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-086-01	<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.</p> <p>We can confirm that: With respect to Registration of Interest documentation, we are reassured that earlier comments raised by us on 1st June 2023 have been addressed. In addition, we acknowledge that the Environmental Statement (ES) has not identified any issues which could significantly affect public health. UKHSA is satisfied with the methodology used to undertake the environmental assessment. Following our review of the submitted</p>	<p>The Applicant notes the response.</p> <p>Agreement is welcomed that the Project would not result in any significant adverse impacts on public health, as concluded in Chapter 19 Human Health (APP-056).</p>

ID	RR	Applicant's Response
	<p>documentation we are satisfied that the proposed development should not result in any significant adverse impact on public health.</p> <p>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>	

### 3. Comments on local authorities/parish councils RRs

6. The Applicant's comments on RRs received from local authorities/parish councils are provided in **Table 3.1** to **Table 3.4**.

### 3.1 Fylde Council (RR-025)

Table 3.1 The Applicant's comments on Fylde Council's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-025-01	Fylde Council wishes to reserve its position as an interested party in this matter and will provide additional comments once these have been approved by the relevant Committee of the Council.	The Applicant notes the response.

### 3.2 Isle of Man Territorial Seas Committee (RR-031)

Table 3.2 The Applicant's comments on Isle of Man (IoM) Territorial Seas Committee (TSC) Relevant Representation (RR)

ID	RR	Applicant's Response
<b>General Comments</b>		
RR-031-01	The following comments are made on behalf of the Isle of Man Territorial Seas Committee: MORECAMBE OFFSHORE WINDFARM: GENERATION ASSETS: Environmental Statement	The Applicant notes this response.
RR-031-02	The Territorial Seas Committee does have continuing concerns regarding the cumulative impacts that may result from this project in conjunction with other proposed developments in the Irish Sea. There are particular concerns regarding the cumulative impacts to shipping and fishing which could significantly affect the Island. We feel it is essential that continued engagement is required with stakeholders and also between developers to ensure such cumulative impacts can be minimised and produce the most favourable outcome for all parties.	As identified in Chapter 14 Shipping and Navigation (APP-051), the Project has low contribution to effects on ferry routes to the IoM.  Consultation with ferry route operators and other key stakeholders has been extensive throughout the development of the Project as presented within Chapter 14 Shipping and Navigation (APP-051) of the Environmental Statement, the Navigation Risk Assessment (NRA) (APP-073), and

ID	RR	Applicant's Response
		<p>Cumulative Regional Navigational Risk Assessment (CRNRA) (APP-074).</p> <p>The detailed CRNRA was undertaken on behalf of all Round 4 offshore windfarm projects in the Irish sea (Morecambe, Morgan and Mona). The CRNRA brought together significant analysis, consultation, navigation simulations and the findings from hazard workshops to determine the cumulative risks associated with the Round 4 Projects. Key stakeholders participated in the hazard workshop and had the opportunity to input into the hazard scoring process. Where hazards were relevant to the Project, the NRA and CRNRA both concluded that following the changes to the Project's boundaries (between Preliminary Environmental Information Report (PEIR) and Environmental Statement (ES)), all navigation hazards were reduced to acceptable levels.</p> <p>Consideration of the potential cumulative effects with the Round 4 projects, including adverse weather, is also presented in the CRNRA (APP-074) and reflected in Section 14.8 of Chapter 14 Shipping and Navigation (APP-051) and Section 10 of the NRA (APP-073). Due to the release of the Scoping Report for the Moir Vannin Offshore Wind Farm in October 2023, after the completion of many of the activities</p>

ID	RR	Applicant's Response
		<p>undertaken to inform the CRNRA, an addendum was prepared to consider the additional cumulative impacts that might result. This is reported in Appendix D (of the CRNRA (APP-074)). It is noted that the Project does not contribute to any unacceptable hazards identified.</p> <p>The ferry companies and other key stakeholders have provided input to the assessment process through attendance at navigation simulations and a hazard workshop as reflected in the NRA (APP-073) and Chapter 14 Shipping and Navigation (APP-051) submitted as part of the Application.</p> <p>The Applicant is committed to further engagement with stakeholders (including the IoM TSC) and the other Round 4 developers throughout the course of the Examination via the Marine Navigation Engagement Forum (MNEF). As part of the embedded mitigation, the MNEF would continue to facilitate information sharing and identification of additional risk.</p> <p>The Applicant acknowledges the comments from IoM TSC regarding cumulative effects to fishing and highlights that the Cumulative Effects Assessment (CEA) in Section 13.7 of Chapter 13 Commercial Fisheries (APP-</p>

ID	RR	Applicant's Response
		<p>050). This considers the existing offshore windfarm developments, potential future offshore windfarm developments, offshore cables and Marine Protected Areas (MPAs), including potential management measures implemented on fisheries within MPAs. The contribution made by the Project to cumulative effects is considered to be low.</p> <p>The assessment of effects presented in Section 13.6 of Chapter 13 Commercial Fisheries (APP-050) considers the impacts related to loss of access, displacement and increased steaming times during all phases of the Project. Additional mitigation has been proposed by the Applicant and would be delivered through a Fisheries Liaison and Co-existence Plan (FLCP) in line with Fisheries Liaison with Offshore Wind and Wet Renewables Group (FLOWW) guidance in addition to monitoring as outlined in the In-Principle Monitoring Plan (IPMP) (APP-148).</p> <p>The Applicant is working to facilitate co-existence with existing commercial fishing activity and to minimise disruption. An Outline FLCP (APP-147) was submitted with the Application. The Development Consent Order (APP-012) requires that the final FLCP be submitted and approved before development can commence, and</p>

ID	RR	Applicant's Response
		this FLCP will be developed by the Applicant with stakeholders, as appropriate.
<b>Benthic Ecology and Fish and Shellfish Ecology</b>		
RR-031-03	Volume 20, Chapter 9 Benthic Ecology Volume 20, Chapter 10 Fish and Shellfish Ecology IoM TSC note the amendments which have adequately covered the issues raised previously subject to no further concerns being raised by MMO or AFBI.	Noted, the Applicant welcomes this response.
<b>Marine Mammals</b>		
RR-031-04	Volume 20, Chapter 11 Marine Mammals IoM TSC note the additions regarding specific Manx issues and various amendments which have adequately covered the issues raised previously subject to no further concerns being raised by MMO or AFBI.	Noted, the Applicant welcomes this response.
<b>Offshore Ornithology</b>		
RR-031-05	Volume 20, Chapter 12 Offshore Ornithology The TSC acknowledges that within the embedded mitigation, the air gap has been increased to 25m above HAT, which should have the effect of reducing the operational strike risk to many seabirds.	Noted, the Applicant welcomes this response.
RR-031-06	There is continued concern regarding the impact on Great black-backed gull. In recent years there has been a severe decline in the Isle of Man population. Although the impact of this project alone on this species may be small the cumulative impact is rated as 'moderate adverse'. It should also be noted that there are a number of future projects that have not been able to be assessed and are therefore not included in the cumulative assessment.	Section 12.8.1 of Chapter 12 Offshore Ornithology (APP-049) addresses effects on the IoM great black-backed gull population. This confirms that while a moderate adverse cumulative effect on great black-backed gull is predicted, the contribution of the Project to the total mortality is very small (less than 1.5% of the total). This means that the Project



ID	RR	Applicant's Response
		<p>mortality apportioned to the IoM population would be significantly less than one bird per annum, and therefore considered inconsequential; i.e. any predicted mortality would arise almost entirely as a result of existing projects. It is also noted that the Project has sought to minimise collision risk through increase in air gap to 25m above Highest Astronomical Tide (HAT), but given the very small contribution of the Project, further mitigation (e.g. though additional increase in air gap) would make no difference to the cumulative effect.</p> <p>It is correct that future projects have not been included in the cumulative assessment; this is in accordance with standard practice for Environmental Impact Assessment (EIA), as it is not possible to assess the effects of projects for which no quantitative information is available. It will be for those future projects to assess their additional contribution to cumulative effects, and if necessary, provide avoidance or mitigation measures for such effects.</p>
<b>Commercial Fisheries</b>		
RR-031-07	<p>Volume 20, Chapter 13 Commercial Fisheries</p> <p>The developer has made good efforts to consult with the Isle of Man Government on this receptor, however there remains some lack of consistency between Chapter 13 Environmental Statement and the baseline technical report (Appendix 13.1). This should be considered and corrected both for</p>	<p>The Applicant welcomes the IoM TSC's positive comments on consultation and engagement efforts. The Applicant does not consider there is a lack of consistency between Chapter 13 Commercial Fisheries</p>

ID	RR	Applicant's Response
	<p>ensuing accuracy of the record, and also to ensure that the conclusions of the EIA are accurate.</p> <p>IoM Government retains some concerns about the scope (number of years and period) and type of fishing activity data used to characterise the baseline of regional fisheries. Factors such as Covid, Brexit and cyclical patterns of particular species are acknowledged, but apparently not consistently or fully considered. This is common to windfarm developments in the region, but it may have implications for unpredicted impacts on various fisheries, during construction and operational phases of individual windfarms and particularly in relation to cumulative and transboundary impacts of multiple developments</p>	<p>(APP-050) and Appendix 13.1 Commercial Fisheries Technical Report (APP-072). The Applicant welcomes any further clarification on where the lack of consistency has been identified by the IoM TSC.</p> <p>Appendix 13.1 Commercial Fisheries Technical Report (APP-072) assesses landings statistics across a period of seven years (2016 to 2022) for all species, and a longer-term timeseries of 12 years (2011 to 2022) for queen scallop, which is identified as having cyclical landings on a seven-to-nine-year period. Vessel Monitoring System (VMS) data has been analysed across a five-year period (2016 to 2020), with 2020 being the latest available. It is considered that the data available and used is a sufficient basis for the assessment and monitoring has been proposed (see RR-031-08).</p>
RR-031-08	<p>It is therefore very important that adequate monitoring of actual fisheries data occurs during the various phases of the development and, if necessary, scope for mitigation and/or compensatory mechanisms for the future are developed and available for fisheries impacts that were underestimated, or not assessed during the pre-consent phase. These are 30+ year projects, and there are many of them regionally – as such, and acknowledging the limitations of EIA processes in time, the developments must ensure appropriate evidence gathering and flexibility of response in the long term.</p>	<p>The Applicant is committed to commercial fisheries monitoring within the IPMP (APP-148).</p> <p>The IPMP includes monitoring of commercial fisheries data pre, during and post-construction. The aim of commercial fisheries monitoring is to understand variations in commercial fisheries activity in response to the construction of the</p>

ID	RR	Applicant's Response
		<p>windfarm and use this to inform updates to the FLCP. The key objectives are to:</p> <ul style="list-style-type: none"> <li>▪ Collate data on commercial fisheries landings and activity by International Council for the Exploration of the Sea (ICES) rectangle, including landing statistics and VMS data with the objective to extend the baseline assessment provided within the EIA and Commercial Fisheries Technical Report</li> <li>▪ Collate data on commercial fisheries landings by port on a monthly basis</li> <li>▪ Collate such other sources of evidence of commercial fisheries activity as may be reasonably available on a regular basis</li> <li>▪ Monitor available data and evidence to better understand any variations and patterns in commercial fisheries activity</li> </ul> <p>The Applicant is committed to undertaking commercial fisheries monitoring for a minimum of five years, including three years post-construction during the operational phase.</p> <p>With regards to cumulative impacts, Chapter 13 Commercial Fisheries (APP-050) found moderate significant cumulative effects during the construction and</p>

ID	RR	Applicant's Response
		<p>decommissioning phases for the United Kingdom (UK) and IoM dredge and demersal otter trawl (scallop) fishery, and the UK and IoM potting fleets related to reduction in access and/or displacement impacts. However, the Applicant is committed to delivering an FLCP, based on the Outline FLCP (APP-147), which provides a mechanism for the involvement in a potential regional commercial fisheries working group. In addition, the Applicant is committed to monitoring of fishing activity to allow cumulative effects to be considered.</p> <p>The FLCP and the IPMP are secured under a condition of the Deemed Marine Licence (DML) of the Development Consent Order (DCO) (APP-012).</p>
<b>Shipping and Navigation</b>		
RR-031-09	<p>Volume 5, Chapter 14 Shipping and Navigation            20.8.3 – cumulative navigational impacts of Mooir Vannin/Morecambe/Morgan/Mona and Ch 14 app 14.2.... It is noted that the appendix identifies that whilst alone, the Morecambe development doesn't impact the assessment, but that with Mooir Vannin would have a negative impact on routing and adverse weather routing, particularly on the Douglas – Heysham route.</p>	<p>The appendix referenced CRNRA (APP-074) relates to the revised passage plans (which include detailed descriptions of a vessel's voyage from start to finish, including the route and hazards likely to be encountered along the way). These do not consider the presence of Mooir Vannin Offshore Wind Farm as the Mooir Vannin Scoping Report had not been published at the time these were developed. However, following publication of the Mooir Vannin Offshore Wind Farm Scoping Report on 18</p>

ID	RR	Applicant's Response
		<p>October 2023, the Mooir Vannin Offshore Wind Farm has been considered within an addendum (appendix D) to the CRNRA (APP-074). The findings of this addendum (also referenced in Section 10.2.4 of the NRA) showed that the addition of Mooir Vannin Offshore Wind Farm would likely have impacts on ferry routes in typical and adverse conditions and create an unacceptable risk to navigation safety between the Morgan Array Area, Walney Offshore Wind Farms and the Mooir Vannin Offshore Wind Farm. However, given the location of Mooir Vannin Offshore Wind Farm, the Project is not considered to contribute to these impacts. As with all new major infrastructure developments, it is also expected that Mooir Vannin Offshore Wind Farm will do its own detailed assessments (Project-alone and cumulative) at such point that it applies for consent.</p>
RR-031-10	Chapter 14 and the navigational risk assessment omits the commercial/fishing port of Ramsey together with its RNLI station.	<p>A study area of 10nm around the windfarm site has been assessed in line with industry best-practice for shipping and navigation. The Study Area was agreed with the Maritime and Coastguard Agency (MCA), in line with Marine Guidance Note (MGN) 654. The Port of Ramsey falls outside the study area being over 30nm north-west of the Study Area and 40nm from the Array Area. It is therefore not considered within Chapter 14 Shipping and Navigation of the ES (APP-051) and the NRA (APP-073).</p>

ID	RR	Applicant's Response
		<p>Nevertheless, the Port of Ramsey is considered within the CRNRA (APP-074), particularly within appendix D, which was added following the publication of the Moir Vannin Offshore Wind Farm Scoping Report on 18 October 2023, given the proximity to Moir Vannin. The cargo vessel route that runs between Ramsey and Glasson was determined to be the main effected route as a result of this cumulative scenario. This route was determined to most likely deviate south of the Moir Vannin Scoping Boundary, passing between the Moir Vannin Offshore Wind Farm Scoping Boundary and Morgan Array Area, and between Moir Vannin Offshore Wind Farm and Walney Extension Offshore Wind Farm, which measure 2.6nm and 4.7nm in width, respectively. Given this location, the Project is not anticipated to significantly affect the traffic to/from the port of Ramsey.</p>
<b>Civil and Military Aviation and Radar</b>		
RR-031-11	<p>Volume 5, Chapter 16 Civil and Military Aviation and Radar</p> <p>Request continued engagement to ensure that there is no compromise to the safety of the Island's air travel and to agree any mitigation measures that may be necessary.</p>	<p>The Applicant notes the need for continued engagement as identified in Chapter 16 Civil and Military Aviation and Radar (APP-053), in relation to potential cumulative effects, noting the airport's main concern is the potential technical impact of wind turbine generators (WTGs) from a number of projects on the radar's processing capacity. The Applicant will continue to</p>

ID	RR	Applicant's Response
		undertake discussions as necessary regarding any potential impact and discuss contribution to an agreed route to mitigation if needed, noting the Project is located around 70km from the IoM Airport.
<b>Socio-economics, Tourism and Recreation</b>		
RR-031-12	Volume 5, Chapter 20 Socio-economics, Tourism and Recreation 20.343 –, 'this has included the expansion of retail storage to hold greater amount of stock on the Island', this is incorrect, there hasn't been any increase, The TSC are also unaware of any current intent of Tesco's to increase storage capacity significantly over and above their current (including the Shoprite storage) capacity. Neither M&S or the CO-OP have storage and as such are entirely reliant on 'just in time' deliveries, which are likely to be re-directed elsewhere, potentially leading to supply issues.	<p>The Applicant notes recent planning applications by Tesco (21/01025/B) to expand storage facilities within Castle Douglas. The assessment conclusions in Chapter 20 Socio-economics, Tourism and Recreation (APP-057) do not rely on future plans that retailers may have for the expansion of warehouse or storage facilities.</p> <p>Regardless, the reliance of the IoM on deliveries is noted by the Applicant, however the Applicant maintains that the Project does not result in any significant effects to IoM ferry services and associated disruption, as presented in Chapter 14 Shipping and Navigation (APP-051) of the Environmental Statement, the NRA (APP-073), and CRNRA (APP-074).</p>

### 3.3 Newton with Clifton Parish Council (RR-063)

*Table 3.3 The Applicant's comments on Newton with Clifton Parish Council's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-063-01	<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.</p> <p>The proposal is linked to the Morgan Offshore Wind Limited (Morgan OWL), a joint venture between bp and Energie Badenwurttemberg ag (EnBW), developing the Morgan Offshore Wind Project. Two joint venture companies are collaborating to connect the wind farms to the electricity transmission network.</p> <p>Council has previously submitted an objection as part of the non statutory/statutory transmission assets consultations 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 &amp; ecology including making allowance for climate change, proximity to buildings and residential property, proximity to roads, visual impact &amp; amenity, and cultural heritage.</p>	<p>The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Project. The infrastructure included in this Application only relates to the offshore wind turbines generators, offshore inter-array cables, offshore platform link cables and offshore substation platforms. This Application does not include the Transmission Asset infrastructure required to connect the offshore windfarm 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, Morgan Offshore Wind Project (a joint venture between bp Alternative Energy Investments Ltd. (bp) and Energie Badenwurttemberg AG (EnBW)). Both the Morecambe Offshore Windfarm and Morgan 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 (HNDR) to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morecambe Offshore Windfarm and the Morgan Offshore Wind</p>



ID	RR	Applicant's Response
		<p>Project 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 Morecambe Offshore Windfarm 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 DCO application for the Transmission Assets is anticipated to be submitted shortly. Further information on the Transmission Assets project is available at:  <a href="https://morecambeandmorgan.com/transmission/">https://morecambeandmorgan.com/transmission/</a>.</p>

### 3.4 Westmorland and Furness Council (RR-091)

*Table 3.4 The Applicant's comments on Westmorland and Furness Council's Relevant Representation (RR)*

ID	RR	Applicant's Response
<b>Support for the Project</b>		
RR-091-01	<p>The Council is keen to identify and support opportunities and has an ambitious vision for green and inclusive growth, including providing leadership in the drive to become carbon net zero. It is supportive in principle of the Project, which will contribute to renewable energy targets and reducing reliance on fossil fuels. The experience and expertise held within our community are significant assets that can be utilised in the successful delivery of major projects such as this, helping to create a green energy network.</p>	<p>The Applicant welcomes the RR confirming that the Council is supportive of the Project in principle.</p> <p>Further information regarding climate change and socio-economics can be found in Chapter 21 Climate Change (APP-058) and Chapter 20 Socio-economics, Tourism and Recreation (APP-057) of the ES and associated figures (Chapter 20 Socio-economics, Tourism and Recreation Figures (APP-141)).</p>
<b>Energy Excellence in the Westmorland and Furness</b>		
RR-091-02	<p>The Westmorland and Furness area is a recognised leader in nuclear and energy excellence and a home to high value manufacturing capability supported by a highly skilled workforce, leading R&amp;D facilities and a skills pipeline tailored to industry needs.</p> <p>This international reputation is built on a longstanding history of project development and delivery that includes, nuclear submarine construction, gas extraction and processing, and renewable energy generation from the existing windfarms located off the Furness coastline.</p> <p>This reputation is further supported by the authority's track record of supporting and delivering major infrastructure projects. The breadth and complimentary nature of these projects, combined with</p>	<p>The Applicant is appreciative of the information supplied by the Council regarding their Clean Energy Strategy which supports the existing supply chain track record in terms of delivering existing major infrastructure projects. We also recognise that this Strategy identifies future possible strategic potential across various developing technologies and the benefits of wider localised supply chain such as transport, to support future growth.</p> <p>The Applicant is assessing the viability of local ports and harbours to support the development of the Project. A decision on port selection will be made post-consent of the Project. As demonstrated during the statutory and non-statutory consultation periods,</p>

ID	RR	Applicant's Response
	<p>longstanding energy experience has produced a strong skills base of professional and technical expertise, which can help drive forward a wide range of growth opportunities in the future, including offshore wind development.</p> <p>Our Clean Energy Strategy seeks to develop energy assets to support local, regional and national objectives for decarbonisation, green growth and levelling up. The strategy identifies the potential for further offshore windfarms off the coast of Barrow and the importance of these in delivering against the UK's renewable energy targets. It also draws attention to the area's specialist capabilities in delivering this and the ambition for ports like Barrow to provide the operation and maintenance hubs for the expansion of offshore wind generation. In addition, the strategy highlights the significant potential for electrolytic hydrogen generation from offshore wind in the Irish Sea, highlighting the possible use of hydrogen generation as a means of providing flexible storage and/or for use by our large industrial consumers, as well as the potential for transport hubs associated with the M6 and West Coast Mainline.</p>	<p>the Project is committed to hearing from local stakeholders and will continue with this principle into the latter stages of development.</p> <p>The Applicant has created a portal on the Project website (<a href="http://www.morecambeoffshorewind.com">www.morecambeoffshorewind.com</a>) to enable local companies to pair their skills with the Project's needs. The portal provides access for companies of all sizes to register their interest for future work and the Applicant would encourage any relevant suppliers to register their interest, so they can help to deliver this important Project.</p> <p>A Skills and Employment Plan and planning for the Project's supply chain are being developed and further consultation upon these is expected as the Project design (and port(s) selection) progresses post-consent. An Outline Skills and Employment Plan (APP-155) has been provided as part of the Development Consent Order (DCO) Application.</p>
<b>Connectivity</b>		
RR-091-03	<p>Westmorland and Furness is well connected to the rest of the UK through the M6 motorway and West Coast Main Line railway, including Scotland and North-East of England. The dualling of the A66 road between Penrith and Scotch Corner will further enhance these links. The area is served by Barrow Port (operated by ABP), which is located in the south-west of the authority's area, on the Furness peninsula.</p>	<p>The Applicant has considered potential onshore traffic and transport elements of the Project in Environmental Statement (ES) Chapter 22 Traffic and Transport (APP-059) and the Outline Port Access and Transport Plan (PATP) (APP-151).</p> <p>The Applicant is engaging with BAE Systems Marine Limited following its submission of its RR (RR-007).</p>

ID	RR	Applicant's Response
	<p>The port has strong capabilities and is already established as the operation and maintenance hub for the existing offshore windfarms in the Irish Sea. The port benefits from a designated heavy/abnormal route between the port and the M6 motorway (via the A590) and ample open storage at the quayside. Barrow benefits from strategic connectivity, linking sea to road and rail routes and providing access to large supply chains in the marine and energy sectors. It is ideally located and equipped to support the Morecambe and Morgan project and should be considered integral to its delivery.</p> <p>The A595 coast road linking Barrow to Millom and Whitehaven is set to be improved, with construction of the Grizebeck bypass starting in Autumn 2024. Team Barrow Team Barrow is a trilateral partnership between central government, the Council, and BAE Systems, aimed at enabling Barrow to be a new "powerhouse for the north", expanding BAE Systems' defence capability, supporting energy security, and revitalising Barrow and Furness as a place where people choose to live, work, and thrive. Earlier this year, the Government announced over £200 million to support the local area in terms of boosting the economy, developing skills and education, improving health outcomes and providing better housing choice – which is needed to underpin the major expansion of BAE's submarine building programme in Barrow.</p>	
<b>Transport</b>		
RR-091-04	<p>The construction phase will necessitate the transport of large components and materials, potentially increasing traffic on local roads. The Applicant's commitment in the Environmental Statement (ES) to develop a Port Access and Transport Plan (PATP) to manage these impacts for approval by the relevant local highway authority is welcomed.</p> <p>Although past offshore windfarm projects have not significantly</p>	<p>The Applicant welcomes confirmation from Westmorland and Furness Council (WMFC) that the proposed approach to develop a PATP is acceptable. The Applicant also welcomes the acknowledgement from WMFC that past offshore windfarm projects have not significantly impacted Westmorland and Furness.</p>

ID	RR	Applicant's Response
	<p>impacted Westmorland and Furness, the possibility remains and will need be closely monitored and managed.</p> <p>The Council wishes to ensure that, should Barrow port be used for construction of the Project, the PATP assesses and identifies mitigation of potential traffic impacts on local roads, including consideration of highway design and capacity, forecast traffic volume, congestion, damage to the road surface, noise, dust and air quality, parking and loading requirements and impacts on public rights of way.</p> <p>It should also set out plans for stakeholder engagement and communication.</p> <p>Whilst experience with previous offshore windfarms has not resulted in such impacts upon Westmorland and Furness, without clarity on where large volumes of construction materials will be sourced and how the windfarm is to be constructed, it cannot be ruled out.</p> <p>Any construction, operation or maintenance activities at Barrow Port would also need to have regard to existing uses and operations at the port to ensure that the new activities can be integrated positively alongside on existing businesses, notably the primary function of the port in serving the submarine manufacturing operations of BAE Systems.</p>	<p>In support of the strategy to defer the assessment of onshore traffic and transport impacts, an Outline PATP (APP-151) has been submitted with the DCO Application. The requirement to produce a Final PATP, if required, is secured by Requirement 9 of the draft DCO (APP-012).</p> <p>The proposed wording of this requirement sets out that the final PATP is to be approved by the relevant highway authority in consultation with the relevant planning authority. Part 4 of Requirement 9 details: <i>For the purposes of this requirement, “relevant planning authority” and “relevant highway authority” mean the planning or highway authority or authorities in whose area the relevant port is located).</i></p> <p>With regard to the comments on the scope of assessment, Section 4 of the Outline PATP (APP-151) outlines an approach to submit to the relevant highway authorities a screening report to advise if there would be a requirement for a Transport Assessment (TA), the proposed scope of the TA and any required management measures. Section 4 of the Outline PATP (APP-151) also details that a separate screening exercise would be undertaken for noise and air quality.</p> <p>Regarding comments in relation to stakeholder engagement and communication, Section 4 of the Outline PATP (APP-151) details that the scope of governance, communications, mitigation, monitoring</p>

ID	RR	Applicant's Response
		<p>and enforcement would be discussed and agreed with the relevant authorities.</p> <p>The Applicant acknowledges comments in relation to the need for any construction, operation or maintenance activities to have regard to existing uses and operations. The Applicant would note that such matters would intrinsically form part of any future transport assessment (the scope of which the Outline PATP confirms should be agreed with the highway authority), as part of the requirement to consider baseline conditions and the potential for cumulative impacts.</p>
<b>Environment</b>		
RR-091-05	<p>The Project has the potential to impact on the environment directly and indirectly. It is noted that an Environmental Statement has been prepared covering a range of topics, including marine archaeology, marine and coastal processes, marine ecology, traffic and transport, visual impact and socio-economic impact, both during and post-construction.</p> <p>Given the proximity of the proposed developments to Westmorland and Furness and the potential level of interaction between the area and the project, these assessments should include full consideration of the impacts to maximise benefits and ensure appropriate mitigation within the Westmorland and Furness Council area as well as in other areas and within and in proximity to the proposed development sites (both onshore and offshore).</p> <p>In particular, impacts from the Project may have the potential for wider reaching direct and indirect impacts within Morecambe Bay</p>	<p>The Applicant has carried out many assessments in the development of this Project including the range of topics mentioned. These have been presented in Chapter 7 Marine Geology, Oceanography and Coastal Processes (APP-044), Chapter 9 Benthic Ecology (APP-046), Chapter 10 Fish and Shellfish Ecology (APP-047), Chapter 15 Marine Archaeology and Cultural Heritage (APP-052), Chapter 18 Seascape, Landscape and Visual Impact Assessment (APP-055), Chapter 22 Traffic and Transport (APP-059) and Chapter 20 Socio-economics, Tourism and Recreation (APP-057) of the Environmental Statement (ES) for the Project.</p> <p>Information regarding employment growth opportunities is also shown in the Outline Skills and Employment Plan (APP-155). Further engagement</p>

ID	RR	Applicant's Response
	and on the Furness coast which must be fully taken into consideration and mitigated.	will be undertaken with local and regional partners on the Outline Skills and Employment Plan at the appropriate time to ensure that socio-economic benefits for the Local Economic Area are maximised and aligned as much as possible.
<b>Socio-economic Impact</b>		
RR-091-06	<p>The potential socio-economic impacts of the proposals are:</p> <ul style="list-style-type: none"> <li>▪ The impact on economic receptors, including employment, GVA and supply chain demand</li> <li>▪ The impact of increased employment opportunities</li> <li>▪ The impact on the demand for housing, accommodation and local services, and</li> <li>▪ The impact on tourism and recreation.</li> </ul> <p>The socio-economic regional study areas have been linked to the selection of potential construction, operations and maintenance, and decommissioning ports that could support the proposal.</p> <p>The Council strongly supports the use of Barrow Port as it is ideally located and equipped to support the proposals. Barrow Port is already a significant offshore wind supply base, especially with operations and maintenance, which could be increased.</p> <p>Relevant local experience, expertise, skills, training and access to supply chains already exist, and these could be further developed to support the project, whilst delivering socio-economic benefits for the area.</p> <p>The Outline Skills and Employment Plan is supported and the Council would welcome the opportunity to work closely with the Applicant to maximise benefits to the local area if Barrow Port is</p>	<p>The Applicant welcomes the Council's support for the Outline Skills and Employment Plan (APP-155). Further engagement on the plan will be undertaken with local and regional partners at the appropriate time to ensure that socio-economic benefits for the Local Economic Area are maximised and aligned as much as possible.</p> <p>The Applicant has yet to determine which port(s) will be used during the construction phase and the operational and maintenance phase for the Project. This process remains ongoing and a decision on the port selection will be made post-consent.</p> <p>The Applicant has provided socio-economics assessment in Chapter 20 Socio-economics, Tourism and Recreation (APP-057) of the Environmental Statement and associated figures. Information regarding employment growth opportunities is also shown in the Outline Skills and Employment Plan (APP-155).</p> <p>The Applicant has created a portal on the Project website (<a href="http://www.morecambeoffshorewind.com">www.morecambeoffshorewind.com</a>) to enable local companies to pair their skills with the</p>

ID	RR	Applicant's Response
	<p>identified for construction, operation or maintenance activities. The expansion of BAE Systems in Barrow is expected to have a transformative effect on the town, with high levels of growth and further investment in skills and training.</p> <p>The recently completed Submarine Academy for Skills and Knowledge (SASK) is an example of the investment going into further education for engineering training. Whilst this is focused particularly on the needs of BAE it adds to the scale of engineering expertise that is available in the area.</p> <p>In addition, the University of Cumbria Campus, alongside SASK on Barrow Island, is well developed and will be well-placed to support further skills development. Sustainability is key in ensuring positive, long term socio-economic impacts are delivered and the full benefits realised.</p> <p>Capacity would need to be carefully considered and planned, with any required investment in infrastructure identified and secured early.</p> <p>A key area of focus should be the approach to utilising local assets, resource, and facilities. The overarching approach should be to ensure positive socio-economic impacts are anchored locally to support long term improvements.</p> <p>The Council suggests that a similar approach to that currently taken by the Scottish Government and Crown Estate Scotland would be appropriate in this instance.</p> <p>The Scottish approach requires offshore wind developers to consider and agree supply chain commitments early in the development process, with the intention of ensuring wind farm developments</p>	<p>Project's needs. The portal provides access for companies of all sizes to register their interest for future work and would encourage any relevant suppliers to register their interest, so they can help to deliver this important Project.</p> <p>More information on the Applicant's supply chain plans can be found at ID RR-091-02.</p>



ID	RR	Applicant's Response
	realise maximum economic benefits for local areas through the local supply chain.	
<b>A Partnership Approach to Delivery</b>		
RR-091-07	<p>The Council are keen to work with the Applicant developers to ensure maximum local benefits are realised in the delivery of the project and anticipates a partnership approach that aims to fully mobilise local assets and expertise, in a way that delivers genuine benefits for our communities.</p> <p>The Council anticipates that this Project will lead to a community benefits programme and would welcome early discussions to explore this and allow identification of the key areas of focus. The Council anticipates these to include skills, training, supply chain engagement, community benefit and the mechanisms for an inclusive approach that supports green growth and decarbonisation priorities, as well as the emerging plans for Barrow.</p> <p>The Council are particularly keen to begin discussions about how development can help address specific local challenges associated with pockets of deprivation, potentially as part of a comprehensive community benefits package.</p> <p>The Council would also like to explore how the development might act as a catalyst to unlock wider energy related opportunities for Cumbria, as identified in the Clean Energy Strategy and the Borderlands Inclusive Growth Deal.</p>	<p>Information regarding employment growth opportunities is set out in the Outline Skills and Employment Plan (APP-155).</p> <p>Further engagement will be undertaken with local and regional partners on the Outline Skills and Employment Plan at the appropriate time to ensure that socio-economic benefits for the Local Economic Area are maximised and aligned as much as possible.</p> <p>The Project is committed to delivering a community benefit scheme in line with United Kingdom (UK) Government guidance.</p> <p>Ahead of the guidance being published the Applicant has been engaging with local people, businesses and organisations to identify key themes and projects that will deliver strategic benefits and directly support the local community and local priorities.</p> <p>The Applicant welcomes further input to help shape the community benefit scheme.</p>

## 4. Comments on non-statutory consultees RRs

7. The Applicant's comments on RRs received from non-statutory consultees are provided in **Table 4.1** to **Table 4.27**.

## 4.1 BAE Systems (Operations) Ltd (RR-006)

Table 4.1 The Applicant's comments on BAE Systems (Operations) Ltd's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-006-01	<p><b>BAE Systems (Operational) Ltd Air objections to Morecambe Offshore Windfarm Generation Assets National Infrastructure Project.</b></p> <p>Preamble: These are the preliminary objections of BAE Systems Operational Ltd (Warton Aerodrome), thereafter referred to as 'BAE'. At this time, BAE objects to the proposed wind turbines.</p>	<p>The Applicant notes this response.</p>
RR-006-02	<p>BAE cannot trace the engagement of the promoters of the Morecambe Offshore Windfarm Generation Assets project and requests evidence of this engagement.</p>	<p>The Applicant has engaged with the Ministry of Defence (MOD) throughout the Environmental Impact Assessment (EIA) process regarding Warton Aerodrome in line with BAE's safeguarding agreement with the MOD. Consultation was undertaken with the MOD to confirm that a detailed operational assessment had been carried out regarding potential impact on the Warton Primary Surveillance Radar (PSR). The MOD responded by email on the 11 August 2023 confirming that an operational assessment had been carried out and that there would be no operational impact on the Warton PSR. As a result, no further assessment of the receptor was considered necessary at the time. Full details of the relevant consultation with the MOD held to date can be found in the Consultation Report (APP-015) and Chapter 16 Civil and Military Aviation and Radar (APP-053).</p> <p>In receipt of the RR from the MOD, the Applicant has commenced discussions with BAE Systems (Operations) Ltd. The Applicant held further</p>

ID	RR	Applicant's Response
		discussions with the MOD on the 8 October 2024 and will continue to engage with them through the Examination process to identify potential mitigation solutions to Warton's PSR, as appropriate.
RR-006-03	BAE requires funds from the promoters of this National Infrastructure Project to consider the technical details of the project and allow BAE to carry out its own due diligence. Without this, BAE is unable, at this time, to provide a full technical response. Therefore, these objections are preliminary and BAE reserves the right to update and raise further objections in due course.	The Applicant notes that this is preliminary objection and has commenced discussions with BAE Warton regarding a full technical response.
RR-006-04	Background: BAE Systems Air is involved in the development, manufacture upgrade and support of world-leading combat and fast jet trainer aircraft. The involvement ranges from design, development and production, through to provision of aircraft, training, support and maintenance. The BAE operations at Warton Aerodrome are at the core of this. These operations are nationally significant and support national security and national defence.	The Applicant notes this response.
RR-006-05	<p><b>Preliminary Objections / Concerns to the Morecambe Offshore Windfarm Generation Assets National Infrastructure Project</b></p> <p>1. The impact of the wind turbines on radar BAE needs to ensure that the tracking of aircraft over the zone of the wind turbines is to the standard required when the aircraft is flying below a set altitude. The level of service available to aircraft needs to be maintained. There is insufficient evidence that the impacts of the proposed wind turbines on the radar systems relied upon by BAE has been fully appraised. This should be carried out and the costs of this exercise should be accounted for by the promoter.</p>	The Applicant has engaged with MOD throughout the EIA process regarding Warton Aerodrome in line with BAE's safeguarding agreement with MOD. Consultation was undertaken with the MOD to confirm that a detailed operational assessment had been carried out regarding potential impact on the Warton PSR. The MOD responded by email on the 11 August 2023 confirming that an operational assessment had been carried out and that there would be no operational impact on the Warton PSR. As a result, no further assessment of the receptor was considered necessary at the time. Full details of the relevant consultation with MOD held to date can be found in the Consultation Report (APP-015).

ID	RR	Applicant's Response
		<p>In receipt of the RR from the MOD, the Applicant has commenced discussions with BAE Systems (Operations) Ltd. The Applicant held further discussions with the MOD on the 8 October 2024 and will continue to engage with them through the Examination process to identify potential mitigation solutions to Warton's PSR, as appropriate.</p>
RR-006-06	<p>2. The impact on the test and evaluation of combat aircraft flights BAE Systems is concerned that the effect of the proposed wind turbines would be to narrow further the operating space for carrying out the testing and evaluation/production flights of combat aircraft. Full and comprehensive evaluation to is needed to ensure that the level of service would not be reduced (as a consequence of operating directly over the zone of the wind turbines). BAE operates over a range that is 120 nautical miles or greater and from the surface to 12,200 metres (40,000ft). The addition of further wind turbines will impact on the zones where service is potentially reduced. This could have safety consequences with regard to other air traffic operating in the vicinity of the flight area.</p>	<p>The Applicant notes that this is a preliminary objection and has commenced discussions with BAE Systems (Operations) Ltd and the MOD regarding a full technical response and potential mitigation solutions.</p>
RR-006-07	<p>3. Maintain the capability to build, test and maintain current and future combat aircraft. It is vital for national defence and security purposes that the capability to build, test and maintain current and future combat aircraft is maintained. Evaluation and evidence from the promoter to demonstrate that this capability will not be adversely impacted, to BAE's absolute satisfaction, is needed. This should be funded by the promoter.</p>	<p>The Applicant notes that this is preliminary objection and has commenced discussions with BAE Systems (Operations) Ltd and the MOD regarding a full technical response potential mitigation solutions.</p>
RR-006-08	<p>4. Labour costs and management. The labour costs in considering and reviewing this project will be substantial to the BAE business, in terms of technical input from the Air team, plus input from Legal and Real Estate teams. Again, BAE needs the promoter to consider this and make provisions to BAE to cover these costs.</p>	<p>The Applicant notes that this is a preliminary objection and has commenced discussions with BAE Systems (Operations) Ltd and the MOD regarding a full technical response potential mitigation solutions.</p>

## 4.2 BAE Systems Marine Limited (RR-007)

Table 4.2 The Applicant's comments on BAE Systems Marine Limited's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-007-01	<p><b>BAE Systems Marine Limited objections to Morecambe Offshore Windfarm Generation Assets National Infrastructure Project.</b></p> <p>Preamble: These are the preliminary objections of BAE Systems Marine Limited (Barrow-in-Furness Submarines site/shipyard and Walney Aerodrome which supports the site/shipyard), thereafter referred to as 'BAE'.</p>	<p>The Applicant notes that these are preliminary objections.</p>
RR-007-02	<p>BAE cannot trace the engagement of the promoters of the Morecambe Offshore Windfarm Generation Assets project and requests evidence of this engagement.</p>	<p>The Applicant has engaged directly with BAE throughout the Environmental Impact Assessment (EIA) process via the Senior Air Traffic Control Officer (SATCO) at Walney Aerodrome regarding potential impact on Air Traffic Control (ATC) operations. Full details of the relevant consultation held to date can be found in the Consultation Report (APP-015) and Chapter 16 Civil and Military Aviation and Radar (APP-053). The Applicant requested Walney Aerodrome to confirm whether they agree with the findings of Appendix 16.3 Other Instrument Flight Procedure (IFP) Assessments (APP-080) within which adverse impact to the IFP was identified. It was also identified that the affected procedures could be amended in order to mitigate any adverse impact.</p> <p>The mitigation options are discussed in Sections 16.5.2.2 and 16.6.2.2 and set out in detail in Appendix 16.3 Other IFP Assessments (APP-080).</p>

ID	RR	Applicant's Response
		<p>The IFP Assessment (APP-080) undertaken on behalf of the Applicant was provided to BAE during the pre-application stage of the Project. BAE have since requested for National Air Traffic Services (NATS) (as their Approved Procedure Design Organisation) to review the assessment and comment on the findings.</p> <p>The Applicant has commissioned NATS to carry out an IFP assessment on behalf of BAE Marine and Walney Aerodrome. The IFP assessment report is expected late 2024 and the results will be shared with BAE Marine. Mitigation regarding the IFP scheme at Barrow and Walney Island is secured by a Development Consent Order (DCO) requirement included within the draft DCO (APP-012).</p> <p>The Applicant is committed to progressing discussions with BAE Marine and will seek to engage with them through the Examination process.</p>
RR-007-03	BAE requires funds from the promoters of this National Infrastructure Project to instruct the National Air Traffic Service (NATS) to consider the technical details of the project and allow us to carry out or own due diligence. Without the input of NATS, BAE are unable, at this time, to provide a full technical response. Therefore, these objections are preliminary and BAE reserve the right to update and raise further objections in due course.	The Applicant has commissioned NATS to carry out an IFP assessment on behalf of BAE Marine and Walney Aerodrome. The IFP assessment report is expected late 2024 and the results will be shared with BAE.
RR-007-04	Background: BAE Systems Marine Limited's main base is in Barrow-in-Furness. BAE designs, builds, tests, and commissions the most advanced submarines ever operated by the Royal Navy as well as	The Applicant notes this response.

ID	RR	Applicant's Response
	<p>their state of the art combat systems and equipment. BAE are at the forefront of this critical, nationally significant operation which supports the endeavour to provide national security and national defence.</p>	
RR-007-05	<p><b>Preliminary Objections / Concerns to the Morecambe Offshore Windfarm Generation Assets National Infrastructure Project</b></p> <p>1. The proposed height of the wind turbines BAE need to understand, with certainty, the proposed height of the wind turbines. For a safe flight path there must be a gap of 305 metres (1,000ft) between the top of the structure and the aircraft. BAE requires detailed evidence from the promoter that the height has been checked and verified. In addition, BAE needs the height of the wind turbines to be verified by NATS to confirm it would have no impact on flight safety or affect the published instrument approaches for aircraft from the Walney Aerodrome. The cost of this should be funded fully by the project promoters of the Morecambe Offshore Windfarm Generation Assets National Infrastructure Project.</p>	<p>The Applicant has commissioned NATS to carry out an IFP assessment on behalf of BAE and Walney Aerodrome. The IFP assessment report is expected late 2024 and the results will be shared with BAE.</p>
RR-007-06	<p><b>2. Future expansion</b></p> <p>(a) As part of the national endeavour, and the AUKUS trilateral security partnership, it is envisaged that submarine production is likely to expand in the coming years. If this is the case, then the Walney Aerodrome will also need to expand, bringing the third runway back into operation. The proposed windfarm generation assets development could potentially preclude BAE from developing a satellite approach to this runway. Again, BAE would need this to be verified by NATS. This requires funding from the project promoters.</p> <p>(b) Safeguarding checks for the Civil Aviation Authority (CAA) need to be carried out on a five yearly basis and need to consider any changes in future Aviation Legislation. BAE requires the project promoters to cover the costs of this process, and also (but limited to) the costs of any changes BAE is required to make in response to Aviation Legislation due to the implications of the wind turbines,</p>	<p>The Applicant has commissioned NATS to carry out an IFP assessment on behalf of BAE and Walney Aerodrome. The IFP assessment report is expected late 2024 and the results will be shared with BAE.</p>



ID	RR	Applicant's Response
	<p>along with any implications for the approaches both established and future.</p> <p>(c) The Walney Transponder Mandatory Zone (TMZ) would need to be extended to cover all proposed new windfarms and the Walney Aerodrome approaches and ATZ. This would need to be approved by the CAA. This process is costly and takes between 18 months to two years.</p>	
RR-007-07	<p><b>3. Critical national security project</b> The equipment built in Barrow-in-Furness, which Walney Aerodrome services, is a critical national security project. Any activities or developments that impede the approaches to the aerodrome could be of detriment to the delivery of this equipment.</p>	The Applicant notes this response.
RR-007-08	<p><b>4. Nautical impact</b> There appears to have been no consideration or consultation in the published documents as to the impact, if any, the windfarm would have to submarine nautical paths. The Submarine Programme is part of the endeavour to provide national defence and national security. In this respect, BAE requires further and more in-depth consultation with the Royal Navy / MOD on the matter of submarine nautical paths.</p>	<p>As noted in Chapter 16 Civil and Military Aviation and Radar (APP-053), the MOD provided a pre-scoping response to the Project (dated 31 March 2022) where the following was noted: <i>"The proposed wind farm development has the potential to present an obstacle to military vessels operating/navigating within this area. Therefore, the MOD has concerns"</i>.</p> <p>The Applicant has engaged with the MOD who provided feedback on the potential effects on its operations. As set out in APP-05, the correspondence with the MOD stated that the Project does not intersect any highly surveyed routes.</p> <p>Additionally, the MOD attended subsequent Marine Navigation Engagement Forum (MNEF), to discuss</p>

ID	RR	Applicant's Response
		<p>potential risk to vessels and no further concerns have been raised by the MOD.</p> <p>Furthermore, ABP (operator of Port of Barrow in Furness) were consulted during a Project Update Meeting with Ports on 10 March 2022 and during the MNEF meeting held in May 2022. They were additionally invited to subsequent MNEF meetings. Comments were made on the potential impacts to radar, freight, cargo and passenger services but no reference was made to submarine nautical paths.</p> <p>The Applicant has requested a meeting with BAE Systems Marine Ltd to engage following the submission of their RR and will continue to do so. The Applicant requests that BAE Systems Marine Ltd consult with the MOD and provide further information on this matter.</p>
RR-007-09	<p><b>5. Labour costs and management</b>            The labour costs in considering and reviewing this project will be substantial to the BAE business, in terms of technical input from the Aerodrome and Submarine teams, plus input from Legal and Real Estate teams. Again, BAE needs the promoter to consider this and make provisions to BAE to cover these costs.</p>	<p>The Applicant notes that these are preliminary objections. The Applicant has commissioned NATS to carry out an IFP assessment on behalf of BAE and Walney Aerodrome. The IFP assessment report is expected late 2024 and the results will be shared with BAE</p>

### 4.3 Barrow Offshore Wind Limited (RR-008)

Table 4.3 The Applicant’s comments on Barrow Offshore Wind Limited’s Relevant Representation (RR)

ID	RR	Applicant’s Response
RR-008-01	<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 Morecambe Offshore Wind Farm (“MOWF”) can be seen in MOWF’s Environmental Statement (the “ES”) at Table 17.10 and Figure 17.2 of ES Chapter 17 (APP-054; APP-105). 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.</p> <p>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 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 Windfarm is a minimum of 21km from the Project, as stated in Table 17.10 of Chapter 17 Infrastructure and Other Users (APP-054).</p> <p>Potential impacts on the Barrow Offshore Windfarm have been identified and assessed in Section 17.6 of Chapter 17 Infrastructure and Other Users (APP-054) and has been considered in the cumulative effects screening for each topic of the Environmental Statement (ES), where appropriate.</p>
RR-008-02	<p>Concerns were previously highlighted to MOWF via a s48 consultation response and subsequent meetings. We expect further meaningful engagement to seek to address the issues raised below</p>	<p>Engagement has been undertaken with Barrow Offshore Wind Limited during the pre-application phase of the Project and will continue as required throughout the Examination phase.</p>

ID	RR	Applicant's Response
	<p>and previously and are open to addressing such matters within or outside the Examination process.</p> <p>On this basis and in the hope that our concerns may be adequately addressed in due course and remove the need for attendance at Examination Hearings, we intend our representations at this stage to be limited. Our Development's concerns include the following.</p>	
RR-008-03	<p><b>Issue One: cumulative and in-combination effect on wildlife features</b></p> <p>Given the increasingly complex nature of the existing and proposed development environment in the East Irish Sea, we have an interest in ensuring the Environmental Impact Assessment for MOWF accurately assesses the potential effects on wildlife features and identifies appropriate mitigation.</p> <p>Our primary concern relates to the rapidly evolving cumulative and in-combination landscape which may be contributed to by the additional proposed projects:</p> <ul style="list-style-type: none"> <li>(i) Mona Offshore Windfarm ("OWF")</li> <li>(ii) Morgan OWF</li> <li>(iii) Morecambe OWF and</li> <li>(iv) Morgan and Morecambe Transmission Assets.</li> </ul> <p>We are undertaking work to evaluate each of these projects' impacts to ensure that their baselines are robust, their cumulative and in-combination assessment methodologies consistent, and the mitigations proposed effective. We expect to be in a position to set out our key concerns in writing in due course as this work progresses and will continue to engage with MOWF to seek to resolve them.</p>	<p>The Applicant has undertaken a robust cumulative and in-combination assessment of the Project on the environment, informed by appropriate data sources from site-specific surveys and detailed desktop studies, in accordance with relevant guidance. Each cumulative / in-combination assessment is presented per topic in chapters 7 to 21 of the ES (APP-044 to APP-058) and the Report to Inform the Appropriate Assessment (RIAA) (APP-027).</p> <p>Embedded mitigation measures are outlined per topic in chapters 7 to 21 of the ES (APP-044 to APP-058) and detailed in the Schedule of Mitigation (APP-144), which identifies how these are secured in the draft Development Consent Order (DCO).</p> <p>As set out in Table 17.1 of Chapter 17 Infrastructure and Other Users (APP-054), the Applicant has committed to continued communication with other offshore energy operators to facilitate effective co-existence.</p>
RR-008-04	<p><b>Issue Two: Wake loss</b></p> <p>Given their proximity, we believe that MOWF will adversely affect the energy yield of our Development due to its impact on wind speed /</p>	<p>Chapter 17 Infrastructure and Other Users (APP-054) assesses the potential impacts of the Project</p>

ID	RR	Applicant's Response
	<p>direction. For the reasons set out below, this requires to be properly assessed and appropriately mitigated / compensated. Paragraph 2.8.197 of National Policy Statement (“NPS”) EN-3 states that “where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities”. The Secretary of State has previously determined that this wording (as contained in a previous version of EN-3) applies to wake loss by one offshore windfarm on another. In that instance it was concluded “an assessment should have been undertaken by the Applicant” (Awel y Môr Offshore Wind Farm, Secretary of State Decision Letter, 20.09.2023, paragraph 14.78). MOWF lists paragraph 2.8.197 as relevant policy (Table 17.4 and paragraph 17.18, APP-054). However, “potential for wake effects are not considered further” by it on the basis that “the Project sits at a greater distance than 10km from other windfarm sites” (APP-054; paragraph 17.129). This conclusion is at odds with internal modelling undertaken by our Development which indicates that MOWF will, in fact, have an impact on its energy yield, as will the cumulative effect of MOWF, Mona OWF and Morgan OWF.</p> <p>In order to properly understand the effects of a development, the specific environment and relevant developments should be carefully considered. This is required by the NPS as a means of considering impacts experienced by other sea users, it is a matter of good design, and it is also relevant for the consideration of the degree of climate change benefit that MOWF offers. Wake losses experienced by our Development would be a real impact on an existing sea user and should be balanced in terms of the proposed benefits of the Project. MOWF should have to minimise such effects through design. Such an approach requires an evaluation of the potential impacts.</p>	<p>on offshore energy receptors, including offshore wind farm operators.</p> <p>Barrow Offshore Wind Farm has been identified as an offshore energy receptor in the baseline environment (Section 17.5.1).</p> <p>Chapter 17 Infrastructure and Other Users (APP-054) sets out that National Policy Statement (NPS) EN-3 (Table 17.4) recognises that offshore wind development will occur in or close to areas where there is other existing offshore infrastructure. An assessment of the potential effects is required where a potential offshore windfarm is proposed close to existing operational offshore infrastructure (NPS EN-3 para 2.8.197).</p> <p>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 7.5km of an existing offshore wind farm. As described in Paragraph 17.129 of Chapter 17 Infrastructure and Other Users (APP-054), there are no other operational offshore wind farms located within 7.5km of the Project and therefore the Project adheres to the TCE siting criteria and it was considered that the Project is not close to any existing operational offshore wind farms.</p> <p>A recent study (Frazer-Nash Consultancy, 2023) identified that at a greater than 10km separation between windfarms there is a levelling off of total interaction loss with buffer distance and by 20km</p>

ID	RR	Applicant's Response
	<p>We submit that MOWF must, in line with the NPS requirements, model and assess its effects on other developments in the East Irish Sea, and if required, provide suitable mitigation. If MOWF declines to undertake this assessment, our Development will commission it. The ExA may consider that the inclusion of a Requirement to address this issue is suitable. The Awel y Môr Development Consent Order required that no wind turbine generator could be erected "...until an assessment of any wake effects and subsequent design provisions to mitigate any such identified effects as far as possible has been submitted to and approved in writing by the Secretary of State..." (Schedule 2, paragraph 25 of the Awel y Môr Wind Farm Order 2023/1033).</p>	<p>the wake losses become 'vanishingly small'. Therefore, no further assessment was required given the distance between the projects and effects at this range. The Applicant would note that the distance between Awel y Môr and Rhyl Flats, which is the precedent to which Barrow Offshore Wind Limited refers, was 5.1km. The Barrow Offshore Windfarm is a minimum of 21km from the Project.</p> <p>NPS EN-3 recognises that offshore wind farms may be located close to other offshore infrastructure such as oil and gas, carbon capture, telecommunications and other offshore wind farms. NPS EN-3 (para 2.8.342) states that the Secretary of State (SoS) should take a pragmatic approach where a proposed offshore wind farm potentially affects other offshore infrastructure or activity. An applicant will be expected to work with the impacted sector to minimise negative impacts and reduce risks to as low as reasonably practicable (para. 2.8.344). As such, the SoS should be satisfied that the site selection and site design of a proposed offshore wind farm and offshore transmission has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries. Applicants will be required to demonstrate that risks to safety will be reduced to as low as reasonably practicable (para 2.8.345). Where a proposed development is likely to affect the future viability or safety of an existing or approved/licensed offshore infrastructure or activity, the SoS should give these adverse effects substantial weight in its decision-making (para.</p>

ID	RR	Applicant's Response
		<p>2.8.347). Providing proposed schemes have been carefully designed, and that the necessary consultation with relevant bodies and stakeholders has been undertaken at an early stage, mitigation measures may be possible to negate or reduce effects on other offshore infrastructure or operations to a level sufficient to enable the SoS to grant consent (para 2.8.348).</p> <p>As noted above, site selection was undertaken as part of TCE Round 4 leasing process, which built in 7.5km buffer zones around existing wind farms. Barrow Offshore Wind Limited does not raise safety issues in its RR, and the Applicant maintains that the presence of the proposed development does not constitute a safety risk. Furthermore, the Applicant does not consider that the presence of the Project will materially or adversely affect the future viability of the Barrow Offshore Windfarm. The Applicant requests that Barrow Offshore Wind Limited explain what steps it has taken to engage with TCE during the agreement of its own lease and during the Round 4 leasing process in relation to these matters.</p>
RR-008-05	<p><b>Issue Three: Shipping and navigation</b></p> <p>Our Development has concerns regarding MOWF's potential impact on shipping and navigation, given the level of proposed development in the East Irish Sea which gives rise to a potentially complex cumulative impact scenario which we require to understand and consider. For instance, the MOWF Navigational Risk Assessment ("NRA") highlights the potential for rerouting to be required and for traffic to increase in the vicinity of our Development. However, at</p>	<p>The Shipping and Navigation assessment has been undertaken with due regard to the relevant policies of the NPS, as outlined in Section 14.4.1 of Chapter 14 Shipping and Navigation (APP-051). This included impacts to approaches to ports, strategic routes and lifeline ferry services. Impacts described within Section 17.6. 17.7 and 17.9 of Chapter 14</p>

ID	RR	Applicant's Response
	<p>present it is not clear if there are relevant risks in the vicinity of our Development as a result.</p> <p>We require to engage with MOWF to understand the effects on our Development and further information – such as confirmation of proposed ports such as Barrow or Heysham (Table 41, NRA) – will be required before we can properly understand the changes in risk levels. Our Development considers some level of coordination will be required between developers and other sea users in the area which our Development will require to be involved in. We require to better understand the procedures that MOWF intends to undertake to minimise and mitigate risk.</p>	<p>Shipping and Navigation (APP-051) address these impacts.</p> <p>Impacts to existing vessel routing, and by extension approaches to ports, is assessed in Section 14.7 and Section 14.8 of Chapter 14 Shipping and Navigation (APP-051), Section 8.2 and 8.3 of Appendix 14.1 Navigation Risk Assessment (NRA) (APP-073) and Section 7.3 and 7.4 of Appendix 14.2 Cumulative Regional Navigation Risk Assessment (CRNRA) (APP-074).</p> <p>The Applicant has committed to a number of risk controls in relation to shipping and navigation as detailed within the NRA (APP-073). Development of controls will be undertaken post-consent in line with more advanced details of the Project design and upon port selection, coordination would be considered as required during the development of Vessel Traffic Management Plan (VTMP), which is outlined in APP-153. A final VTMP will be further developed and agreed with stakeholders prior to construction, taking account the final detailed design of the Project (as detailed in Schedule 6, Condition 9(1)(j) of the draft DCO/Deemed Marine Licence (DML) (APP-012)). A decision on port selection will be made post-consent of the Project.</p> <p>As set out in Section 17.3.3 and Section 17.6 of Chapter 17 Infrastructure and Other Users (APP-054), embedded mitigation includes ongoing engagement with other offshore windfarms to</p>



ID	RR	Applicant's Response
		facilitate effective co-existence and reduce or avoid potential risk of adverse effects to the operations of other windfarms. Engagement has been initiated with offshore windfarm developers across the study area and would continue throughout all phases of the Project in relation to planned activities.

## 4.4 The Belgian Government (RR-009)

*Table 4.4 The Applicant's comments on the Belgian Government's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-009-01	Follow-up of impact on the Belgian marine environment or human activities.	The Applicant notes this response. Potential transboundary effects for commercial fisheries are assessed in Section 13.8 within Chapter 13 Commercial Fisheries (APP-050). The Applicant has also responded to the Flemish Agency of Agriculture and Fisheries (see responses to AS-011-01 – AS-011-04).

## 4.5 Blackpool Airport Ltd (RR-013)

*Table 4.5 The Applicant's comments on Blackpool Airport Ltd's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-013-01	The airport has a responsibility to ensure that any development does not compromise the safe operation of aircraft in and around Blackpool Airport.	The Applicant notes this response.

ID	RR	Applicant's Response
	<p>Further, the airport has regulatory obligations to ensure its aviation infrastructure remains operational at all times, and has an obligation to its shareholder, based operators and visiting customers to maintain a fully operational airport at all times prior to, during and subsequent to any windfarm developments.</p>	
RR-013-02	<p>The operation of the windfarm, notwithstanding the distance from the airport, has the potential to impact upon aircraft directly by visual interference and indirectly to navigation infrastructure both at the airport and the wider local area but also to aircraft themselves.</p> <p>It is essential that the developers demonstrate that they can mitigate any direct or indirect impacts that may compromise the safe operation of Blackpool Airport. Failure to do so could result in catastrophic consequences.</p>	<p>The Applicant consulted with Blackpool Airport during the pre-application phase of the Project and discussions remain ongoing.</p> <p>The impact on Blackpool Airport's Instrument Flight Procedures (IFPs) are discussed in Sections 16.5.2.2 and 16.6.2.2 of Chapter 16 Civil and Military Aviation and Radar (APP-053) and set out in detail in Appendix 16.2 Blackpool IFP Safeguarding Report (APP-079).</p> <p>It has been agreed that the impact identified in Appendix 16.2 Blackpool IFP Safeguarding Report (APP-079) can be mitigated by amending the current IFPs.</p> <p>The Applicant has received details of preferred mitigation solutions from Blackpool Airport and the parties are engaging to secure the mitigation. IFP mitigation is predicated on revision of Blackpool Airport's IFPs following the Civil Aviation Authority (CAA) five-year audit review. The audit remains ongoing and is expected to be complete by November 2024. Thereafter, the IFP assessment may need to be reassessed.</p>

ID	RR	Applicant's Response
		Mitigation is secured by way of an IFP requirement for Blackpool Airport within the draft Development Consent Order (DCO) (APP-012).
RR-013-03	Blackpool Airport would therefore request that they are invited to appear at the public examination for the Morecambe Offshore Windfarm Generation Assets application where they will elaborate on these issues.	<p>The Applicant notes this response.</p> <p>The Applicant consulted with Blackpool Airport during the pre-application phase of the Project and discussions remain ongoing. Most recently, a meeting took place with Blackpool Airport on the 4 October 2024 to discuss their RR in more detail and the process for progressing a Statement of Common Ground (SoCG).</p>

## 4.6 Burbo Extension Ltd (RR-014)

Table 4.6 The Applicant's comments on Burbo Extension Ltd's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-014-01	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 Morecambe Offshore Wind Farm ("MOWF") can be seen in MOWF's Environmental Statement (the "ES") at Table 17.10 and Figure 17.2 of ES Chapter 17 (APP-054; APP-105). 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.	<p>The Applicant notes your response.</p> <p>Burbo Bank Extension Wind Farm is a minimum of 29km from the Project, as stated in Table 17.10 of Chapter 17 Infrastructure and Other Users (APP-054).</p> <p>Potential impacts on the Burbo Bank Extension Wind Farm have been identified and assessed in Section 17.6 of Chapter 17 Infrastructure and Other Users (APP-054) and has been considered in the cumulative effects screening for each topic</p>

ID	RR	Applicant's Response
	<p>Our Development requires that its operations, consents (including conditions), and any stakeholder agreements entered into by it are unaffected by MOWF. 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>of the Environmental Statement (ES), where appropriate.</p>
RR-014-02	<p>Concerns were previously highlighted to MOWF via a s48 consultation response and subsequent meetings. We expect further meaningful engagement to seek to address the issues raised below and previously and are open to addressing such matters within or outside the Examination process.</p> <p>On this basis and in the hope that our concerns may be adequately addressed in due course and remove the need for attendance at Examination Hearings, we intend our representations at this stage to be limited. Our Development's concerns include the following.</p>	<p>Engagement has been undertaken with Burbo Extension Ltd during the pre-application phase of the Project and will continue as required throughout the Examination phase.</p>
RR-014-03	<p><b>Issue One: cumulative and in-combination effect on wildlife features</b></p> <p>Given the increasingly complex nature of the existing and proposed development environment in the East Irish Sea, we have an interest in ensuring the Environmental Impact Assessment for MOWF accurately assesses the potential effects on wildlife features and identifies appropriate mitigation. Our primary concern relates to the rapidly evolving cumulative and in-combination landscape which may be contributed to by the additional proposed projects:</p> <ul style="list-style-type: none"> <li>(i) Mona Offshore Windfarm ("OWF")</li> <li>(ii) Morgan OWF</li> <li>(iii) Morecambe OWF and</li> </ul>	<p>The Applicant has undertaken a robust cumulative and in-combination assessment of the Project on the environment, informed by appropriate data sources from site-specific surveys and detailed desktop studies, in accordance with relevant guidance. Each cumulative / in-combination assessment is presented per topic in chapters 7 to 21 of the ES (APP-044 to APP-058) and the Report to Inform Appropriate Assessment (RIAA) (APP-027).</p> <p>Embedded mitigation measures are outlined per topic in chapters 7 to 21 of the ES (APP-044 to</p>

ID	RR	Applicant's Response
	<p>(iv) Morgan and Morecambe Transmission Assets.</p> <p>We are undertaking work to evaluate each of these projects' impacts to ensure that their baselines are robust, their cumulative and in-combination assessment methodologies consistent, and the mitigations proposed effective. We expect to be in a position to set out our key concerns in writing in due course as this work progresses and will continue to engage with MOWF to seek to resolve them.</p>	<p>APP-058) and detailed in the Schedule of Mitigation (APP-144), which identifies how these are secured in the draft Development Consent Order (DCO).</p> <p>As set out in Table 17.1 of Chapter 17 Infrastructure and Other Users (APP-054), the Applicant has committed to continued communication with other offshore energy operators to facilitate effective co-existence.</p>
RR-014-04	<p><b>Issue Two: Wake loss</b></p> <p>Given their proximity, we believe that MOWF will adversely affect the energy yield of our Development due to its impact on wind speed / direction. For the reasons set out below, this requires to be properly assessed and appropriately mitigated / compensated. Paragraph 2.8.197 of National Policy Statement ("NPS") EN-3 states that "where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities". The Secretary of State has previously determined that this wording (as contained in a previous version of EN-3) applies to wake loss by one offshore windfarm on another. In that instance it was concluded "an assessment should have been undertaken by the Applicant" (Awel y Môr Offshore Wind Farm, Secretary of State Decision Letter, 20.09.2023, paragraph 14.78). MOWF lists paragraph 2.8.197 as relevant policy (Table 17.4 and paragraph 17.18, APP-054). However, "potential for wake effects are not considered further" by it on the basis that "the Project sits at a greater distance than 10km from other windfarm sites" (APP-054; paragraph 17.129). This conclusion is at odds with internal modelling undertaken by our Development which</p>	<p>Chapter 17 Infrastructure and Other Users (APP-054) assesses the potential impacts of the Project on offshore energy receptors, including offshore windfarm operators.</p> <p>Burbo Bank Extension Wind Farm has been identified as an offshore energy receptor in the baseline environment (Section 17.5.1).</p> <p>Chapter 17 Infrastructure and Other Users (APP-054) sets out that National Policy Statement (NPS) EN-3 (Table 17.4) recognises that offshore wind development will occur in or close to areas where there is other existing offshore infrastructure. An assessment of the potential effects is required where a potential offshore windfarm is proposed close to existing operational offshore infrastructure (NPS EN-3 para 2.8.197).</p> <p>The project boundary requirements in The Crown Estate's (TCE's) Round 4 Information</p>

ID	RR	Applicant's Response
	<p>indicates that MOWF will, in fact, have an impact on its energy yield, as will the cumulative effect of MOWF, Mona OWF and Morgan OWF.</p> <p>In order to properly understand the effects of a development, the specific environment and relevant developments should be carefully considered. This is required by the NPS as a means of considering impacts experienced by other sea users, it is a matter of good design, and it is also relevant for the consideration of the degree of climate change benefit that MOWF offers. Wake losses experienced by our Development would be a real impact on an existing sea user and should be balanced in terms of the proposed benefits of the Project. MOWF should have to minimise such effects through design. Such an approach requires an evaluation of the potential impacts.</p> <p>We submit that MOWF must, in line with the NPS requirements, model and assess its effects on other developments in the East Irish Sea, and if required, provide suitable mitigation. If MOWF declines to undertake this assessment, our Development will commission it. The ExA may consider that the inclusion of a Requirement to address this issue is suitable. The Awel y Môr Development Consent Order required that no wind turbine generator could be erected "...until an assessment of any wake effects and subsequent design provisions to mitigate any such identified effects as far as possible has been submitted to and approved in writing by the Secretary of State..." (Schedule 2, paragraph 25 of the Awel y Môr Wind Farm Order 2023/1033).</p>	<p>Memorandum specified that no offshore wind projects could be located within 7.5km of an existing offshore wind farm. As described in Paragraph 17.129 of Chapter 17 Infrastructure and Other Users (APP-054), there are no other operational offshore wind farms located within 7.5km of the Project and therefore the Project adheres to the TCE siting criteria and it was considered that the Project is not close to any existing operational offshore wind farms.</p> <p>A recent study (Frazer-Nash Consultancy, 2023) identified that at a greater than 10km separation between windfarms there is a levelling off of total interaction loss with buffer distance and by 20km the wake losses become 'vanishingly small'. Therefore, no further assessment was required given the distance between the projects and effects at this range. The Applicant would note that the distance between Awel y Môr and Rhyl Flats, which is the precedent to which Burbo Extension Ltd refers, was 5.1km. The Burbo Bank Extension Wind Farm is a minimum of 29km from the Project.</p> <p>NPS EN-3 recognises that offshore wind farms may be located close to other offshore infrastructure such as oil and gas, carbon capture, telecommunications and other offshore wind farms. NPS EN-3 (para 2.8.342) states that the Secretary of State (SoS) should take a pragmatic approach where a proposed offshore wind farm potentially affects other offshore infrastructure or activity. An applicant will be expected to work with</p>

ID	RR	Applicant's Response
		<p>the impacted sector to minimise negative impacts and reduce risks to as low as reasonably practicable (para. 2.8.344). As such, the SoS should be satisfied that the site selection and site design of a proposed offshore wind farm and offshore transmission has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries. Applicants will be required to demonstrate that risks to safety will be reduced to as low as reasonably practicable (para 2.8.345). Where a proposed development is likely to affect the future viability or safety of an existing or approved/licensed offshore infrastructure or activity, the SoS should give these adverse effects substantial weight in its decision-making (para. 2.8.347). Providing proposed schemes have been carefully designed, and that the necessary consultation with relevant bodies and stakeholders has been undertaken at an early stage, mitigation measures may be possible to negate or reduce effects on other offshore infrastructure or operations to a level sufficient to enable the SoS to grant consent (para 2.8.348).</p> <p>As noted above, site selection was undertaken as part of TCE Round 4 leasing process, which built in 7.5km buffer zones around existing wind farms. Burbo Extension Limited does not raise safety issues in its RR, and the Applicant maintains that the presence of the proposed development does not constitute a safety risk. Furthermore, the Applicant does not consider that the presence of</p>

ID	RR	Applicant's Response
		<p>the Project will materially or adversely affect the future viability of the Burbo Bank Extension. The Applicant requests that Burbo Extension Limited explain what steps it has taken to engage with TCE during the agreement of its own lease and during the Round 4 leasing process in relation to these matters.</p>
RR-014-05	<p><b>Issue Three: Radar</b></p> <p>Our Development is implementing appropriate mitigation in relation to potential impacts on the Warton Airfield Primary Surveillance Radar and is concerned about the impacts of MOWF on its development in respect of radar mitigation. Our Development is engaging with MOWF regarding this issue and potential impacts on this mitigation and will continue to do so and will make further submissions in Written Representations should it require to do so.</p>	<p>As described in Table 16.1 of Chapter 16 Civil and Military Aviation and Radar (APP-053), consultation was undertaken by the Applicant with the Ministry of Defence (MOD) to confirm that a detailed operational assessment had been carried out regarding potential impact on the Warton Primary Surveillance Radar (PSR).</p> <p>MOD responded by email on the 11 August 2023 confirming that an operational assessment had been carried out and that there would be no operational impact on the Warton PSR. As a result, no further assessment of the receptor was considered necessary at the time.</p> <p>The Applicant has since received an objection from the MOD Defence Infrastructure Organisation (DIO) dated 19 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 continues to engage with the MOD and BAE Systems (Operations) Ltd regarding potential mitigation solutions, as appropriate to Warton PSR.</p>



## 4.7 Canal and Rivers Trust (RR-016)

*Table 4.7 The Applicant's comments on Canal and Rivers Trust Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-016-01	<p>The project the subject of this DCO would not have a direct impact on any assets or infrastructure owned by the Canal &amp; River Trust. We therefore have no comments to make on this DCO for the windfarm. We would however be interested in the wider aspects of the scheme where the cabling makes landfall. As set out within document 4.2 - Cable Statement, that part of the wider scheme will be the subject of a separate DCO for Transmission assets. As set out at paragraph 19 of that document, we look forward to working with the applicant on the detailed methodologies for the crossing of cables and pipelines where they interface with our assets. Our preference would be for any such crossing of our assets to be underground. We look forward to being engaged on the separate DCO application for the Transmission assets in due course. The Canal &amp; River Trust do not require to be involved further in this current DCO and we do not intend to submit any further representations.</p>	<p>Noted, the Applicant welcomes this response and the engagement the Canal and Rivers Trust will have on the separate Transmission Assets Development Consent Order (DCO) application.</p>

## 4.8 Harbour Energy (RR-027)

*Table 4.8 The Applicant's comments on Harbour Energy's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-027-01	<p>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 Morecambe Offshore Windfarm Generation Assets. Chrysaor</p>	<p>The Applicant welcomes Harbour Energy's commitment to cooperation and collaboration and will continue to engage with Harbour Energy to ensure its operations can co-exist with the Project.</p>

ID	RR	Applicant's Response
	<p>Resources (Irish Sea) Limited is the owner of the Calder gas field which is within 3.3nm of the proposed development.</p> <p>The proposed windfarm will, by virtue of its proximity to the Calder field facilities, have a potentially significant detrimental impact upon continuing production operations and subsequent decommissioning of field facilities. This detrimental impact arises primarily from restrictions that would apply to helicopter aviation operations during production operations and subsequent decommissioning, but detrimental impacts may also arise affecting marine operations, platform communications and mutually exclusive simultaneous operations such as piling and diving operations.</p> <p>Chrysaor Resources (Irish Sea) Limited is committed to cooperating and collaborating with the Applicant to explore acceptable solutions to mitigate these issues.</p>	<p>The Applicant provided Harbour Energy with a draft co-existence agreement in the pre-application Stage and has been having, and will continue to have, meetings with Harbour Energy to work towards a mutually agreeable position. Protective provisions in favour of Harbour Energy have been included within Part 2 of Schedule 3 of the draft Development Consent Order (DCO) (APP-012) to regulate co-existence.</p> <p>National Policy Statements (NPS) EN-3 recognises that offshore wind farms may be located close to other offshore infrastructure such as oil and gas, carbon capture and telecommunications. The scale and location of future offshore wind development around England and Wales means that development has occurred, and will continue to occur, in or close to areas where there is other offshore infrastructure (para 2.8.196). Where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities (para 2.8.197). NPS EN-3 (para 2.8.342) states that the Secretary of State (SoS) should take a pragmatic approach where a proposed offshore wind farm potentially affects other offshore infrastructure or activity. The applicant will be expected to work with the impacted sector to minimise negative impacts and</p>

ID	RR	Applicant's Response
		<p>reduce risks to as low as reasonably practicable (para. 2.8.344).</p> <p>As such, the SoS should be satisfied that the site selection and site design of a proposed offshore wind farm and offshore transmission has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries. Applicants will be required to demonstrate that risks to safety will be reduced to as low as reasonably practicable (para 2.8.345) Where a proposed development is likely to affect the future viability, or safety, of an existing or approved/licensed offshore infrastructure or activity, the SoS should give these adverse effects substantial weight in its decision-making (para. 2.8.347). Providing proposed schemes have been carefully designed, and that the necessary consultation with relevant bodies and stakeholders has been undertaken at an early stage, mitigation measures may be possible to negate or reduce effects on other offshore infrastructure or operations to a level sufficient to enable the SoS to grant consent (para 2.8.348).</p> <p>The Applicant has been engaging with Harbour Energy on the location of the proposed site since February 2020. The Applicant has undertaken a careful site design process, building in buffer zones around current oil and gas platforms and pipelines (as secured in the draft DCO by protective provisions in favour of Harbour Energy), to allow for appropriate co-existence and to</p>

ID	RR	Applicant's Response
		<p>minimise disruption and economic loss to Harbour Energy, with input from aviation and offshore safety experts (Schedule 3 Part 2 of the draft DCO APP-012). The Applicant has undertaken a full assessment of the potential impacts on Harbour Energy, with input from aviation and offshore safety experts as presented in the following documents Chapter 14 Shipping and Navigation of the Environmental Statement (ES) (APP-051), Chapter 17 Infrastructure and Other Users of the ES (APP-054), Appendix 17.1 Helicopter Access Study (APP-081) and Appendix 17.2 Radar Early Warning System Technical Report (APP-082).</p> <p>Taking into account mitigation measures proposed in the projective provisions, the Applicant does not consider (and has not seen evidence to suggest) that the presence of Morecambe Offshore Windfarm (MOWF) would present a safety risk to the operation or decommissioning of Harbour Energy's Calder field, or materially or adversely affect its future viability. Notwithstanding this, the Applicant is content to enter into, and will continue to progress, an agreement to facilitate cooperation and co-existence to the extent appropriate in addition to protective provisions.</p> <p>The Applicant also intends to progress an initial Statement of Common Ground by Deadline 1.</p>

## 4.9 Isle of Man Steam Packet Company (RR-032)

Table 4.9 The Applicant's comments on the Isle of Man Steam Packet Company's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-032-01	Due consideration has been given to any potential impact of the windfarm site concerning ferry sailings between the Isle of Man and the UK. Due consideration has been given to safety of navigation, ability to render assistance, weather routing, increased cost and emissions due to extra mileage, and socio-economic impact to the Isle of Man as a result of ferry disruption.	Noted, the Applicant welcomes this response.

## 4.10 J.W.Kirkham & Sons, J.W.Kirkham & Sons (Eastham) Ltd (RR-033)

Table 4.10 The Applicant's comments on J.W.Kirkham & Sons, J.W.Kirkham & Sons (Eastham) Ltd's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-033-01	<p>The proposed on shore cable route and sub-stations will have a devastating effect on many landowners, farmers, residents and tourism in a coastal environment.</p> <p><b>2. Farming –</b> The land is low-lying, wet and there has been no detail on how the land will be re-drained. The land is highly productive (subject to climate ) but the proposed cable route and sub- stations will bisect many farms and the substations will make farms unviable on their reduced acreages. The land, being very wet for half the year, will have the structure of the soil destroyed and will likely take generations to recover, if ever.</p> <p><b>Depth of cable</b> - our land has deep dykes which will be bisected by the proposed route and deep drains. The cable would need to be at</p>	<p>The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). 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>

ID	RR	Applicant's Response
	<p>least 3.5 metres deep to avoid damage to the cables when the dykes are de-silted using excavators and to allow re- drainage of the cable route after installation.</p> <p><b>3. Tourism –</b>            We operate a large holiday home and touring caravan park immediately adjacent to the proposed cable route. We are incredulous that the proposed cable route deviates south on a longer route as if it is the wish of the applicant to come as close to our long established quiet, secluded park and cause as much disruption to the peace and relaxation of our customers as possible ! The noise of drilling through the railway line and road adjacent to our tranquil holiday park will be totally unacceptable to our guests. We for-see many touring bookings, irate customers and many lost holiday home sales if the proposed route is not changed to a direct straight line which would be cheaper for the applicant. There is no reason why the proposed route cannot take a straight line.</p> <p><b>4. Alternative routes-</b>            There are at least 3 alternative on-shore routes for cabling which would cause much, much less damage to the soil, productive farmland, peoples livelihoods, far less disruption, noise, dust and minimal effect on tourism. I believe there is existing brownfield sites at : Fleetwood and Heysham nuclear power station. Both sites are far far more suitable. Heysham power station would be ideal. A third option is cabling either up the river Ribble bed or the adjacent marshes. This is a very popular route with the public who live in the Fylde. The argument against this route is invalid that it would affect the marine environment and birdlife. The river used to be dredged regularly when the port of Preston was open. The vast majority of birds are winter migrants. They are not present in summer. They do not breed on the</p>	<p>The transmission assets for this Project are being developed in collaboration with another developer, Morgan Offshore Wind Project (a joint venture between bp and Energie Baden-Württemberg AG (EnBW). Both the Morecambe Offshore Windfarm and Morgan 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 was responsible for conducting a Holistic Network Design Review (HNDR) to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morecambe Offshore Windfarm and the Morgan Offshore Wind Project 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 Morecambe Offshore Windfarm 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.</p>

ID	RR	Applicant's Response
	<p>river or the marshes. The non- migratory birds do not breed either as the marxhes always flood in the high spring tides at nesting time.</p> <p><b>5. Conclusion –</b> The applicant should not route its on-shore assets through the Fylde. There are far, far better alternatives which need to be investigated further.</p>	<p>The Development Consent Order (DCO) application for the Transmission Assets is anticipated to be submitted shortly. Further information on the Transmission Assets project is available at: <a href="https://morecambeandmorgan.com/transmission/">https://morecambeandmorgan.com/transmission/</a>.</p> <p>As noted on page 2 of the Examining Authority's Rule 6 letter dated 23 September 2024 (PD-007), 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 accepted for Examination by the Planning Inspectorate. The status of that application, and any associated documents, is available at: <a href="https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN020032">https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN020032</a></p>

## 4.11 Mona Offshore Wind Ltd. (RR-055)

*Table 4.11 The Applicant's comments on Mona Offshore Wind Ltd.'s Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-055-01	<p>Mona Offshore Wind Farm is one of the three proposed offshore wind farms (together with the Morgan and Morecambe projects) which are located in the Irish Sea. All three projects are currently the subject of individual applications for development consent made to the Planning Inspectorate. The Environmental Statement for the Mona development consent application has identified potential cumulative effects arising from these projects in combination with Mona. These broadly relate to ornithology, marine mammals, shipping and navigation, aviation and commercial fisheries. Mona Offshore Wind Ltd is supportive in principle of the Morecambe Offshore Windfarm Generation Assets DCO application and would like to register an interest, based on the possible need to provide information to the Morecambe Offshore Wind Project Generation Assets examination in due course.</p>	<p>The Applicant notes the potential for cumulative effects in combination with Mona Offshore Wind Project broadly covering ornithology, marine mammals, shipping and navigation, aviation and commercial fisheries and will engage with Mona Offshore Wind Project throughout the Examination phase.</p>

## 4.12 Morecambe Wind Limited (RR-056)

*Table 4.12 The Applicant's comments on Morecambe Wind Limited's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-056-01	<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 Morecambe Offshore Wind Farm ("MOWF") can be seen in MOWF's Environmental Statement (the</p>	<p>The Applicant notes your response.</p> <p>West of Duddon Sands (WoDS) is a minimum of 12.9km from the Project, as stated in Table 17.10 of Chapter 17 Infrastructure and Other Users (APP-054).</p>



ID	RR	Applicant's Response
	<p>“ES”) at Table 17.10 and Figure 17.2 of ES Chapter 17 (APP-054; APP-105). 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 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>Potential impacts on the WoDS have been identified and assessed in Section 17.6 of Chapter 17 Infrastructure and Other Users (APP-054) and has been considered in the cumulative effects screening for each topic of the Environmental Statement (ES), where appropriate.</p>
RR-056-02	<p>Concerns were previously highlighted to MOWF via a s48 consultation response and subsequent meetings. We expect further meaningful engagement to seek to address the issues raised below and previously and are open to addressing such matters within or outside the Examination process.</p> <p>On this basis and in the hope that our concerns may be adequately addressed in due course and remove the need for attendance at Examination Hearings, we intend our representations at this stage to be limited. Our Development's concerns include the following.</p>	<p>Engagement has been undertaken with Ørsted and Morecambe Wind Ltd regarding WoDS during the pre-application phase of the Project and will continue as required throughout the Examination phase.</p>
RR-056-03	<p><b>Issue One: cumulative and in-combination effect on wildlife features</b></p> <p>Given the increasingly complex nature of the existing and proposed development environment in the East Irish Sea, we have an interest in ensuring the Environmental Impact Assessment for MOWF accurately assesses the potential effects on wildlife features and</p>	<p>The Applicant has undertaken a robust cumulative and in-combination assessment of the Project on the environment, informed by appropriate data sources from site-specific surveys and detailed desktop studies, in accordance with relevant guidance. Each cumulative / in-combination</p>

ID	RR	Applicant's Response
	<p>identifies appropriate mitigation. Our primary concern relates to the rapidly evolving cumulative and in-combination landscape which may be contributed to by the additional proposed projects:</p> <ul style="list-style-type: none"> <li>(i) Mona Offshore Windfarm ("OWF")</li> <li>(ii) Morgan OWF</li> <li>(iii) Morecambe OWF and</li> <li>(iv) Morgan and Morecambe Transmission Assets.</li> </ul> <p>We are undertaking work to evaluate each of these projects' impacts to ensure that their baselines are robust, their cumulative and in-combination assessment methodologies consistent, and the mitigations proposed effective. We expect to be in a position to set out our key concerns in writing in due course as this work progresses and will continue to engage with MOWF to seek to resolve them.</p>	<p>assessment is presented per topic in chapters 7 to 21 of the ES (APP-044 to APP-058) and the Report to Inform Appropriate Assessment (RIAA) (APP-027).</p> <p>Embedded mitigation measures are outlined per topic in chapters 7 to 21 of the ES (APP-044 to APP-058) and detailed in the Schedule of Mitigation (APP-144), which identifies how these are secured in the draft Development Consent Order (DCO).</p> <p>As set out in Table 17.1 of Chapter 17 Infrastructure and Other Users (APP-054), the Applicant has committed to continued communication with other offshore energy operators to facilitate effective co-existence.</p>
RR-056-04	<p><b>Issue Two: Wake loss</b></p> <p>Given their proximity, we believe that MOWF will adversely affect the energy yield of our Development due to its impact on wind speed / direction. For the reasons set out below, this requires to be properly assessed and appropriately mitigated / compensated. Paragraph 2.8.197 of National Policy Statement ("NPS") EN-3 states that "where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities". The Secretary of State has previously determined that this wording (as contained in a previous version of EN-3) applies to wake loss by one offshore windfarm on another. In that instance it was concluded "an assessment should have been undertaken by the Applicant" (Awel y Môr Offshore Wind Farm, Secretary of State Decision Letter, 20.09.2023, paragraph 14.78). MOWF lists paragraph 2.8.197 as relevant policy (Table 17.4 and</p>	<p>Chapter 17 Infrastructure and Other Users (APP-054) assesses the potential impacts of the Project on offshore energy receptors, including offshore wind farm operators.</p> <p>WoDS has been identified as an offshore energy receptor in the baseline environment (Section 17.5.1).</p> <p>Chapter 17 Infrastructure and Other Users (APP-054) sets out that National Policy Statement (NPS) EN-3 (Table 17.4) recognises that offshore wind development will occur in or close to areas where there is other existing offshore infrastructure. An assessment of the potential effects is required where a potential offshore windfarm is proposed</p>

ID	RR	Applicant's Response
	<p>paragraph 17.18, APP-054). However, “potential for wake effects are not considered further” by it on the basis that “the Project sits at a greater distance than 10km from other windfarm sites” (APP-054; paragraph 17.129). This conclusion is at odds with internal modelling undertaken by our Development which indicates that MOWF will, in fact, have an impact on its energy yield, as will the cumulative effect of MOWF, Mona OWF and Morgan OWF.</p> <p>In order to properly understand the effects of a development, the specific environment and relevant developments should be carefully considered. This is required by the NPS as a means of considering impacts experienced by other sea users, it is a matter of good design, and it is also relevant for the consideration of the degree of climate change benefit that MOWF offers. Wake losses experienced by our Development would be a real impact on an existing sea user and should be balanced in terms of the proposed benefits of the Project. MOWF should have to minimise such effects through design. Such an approach requires an evaluation of the potential impacts.</p> <p>We submit that MOWF must, in line with the NPS requirements, model and assess its effects on other developments in the East Irish Sea, and if required, provide suitable mitigation. If MOWF declines to undertake this assessment, our Development will commission it. The ExA may consider that the inclusion of a Requirement to address this issue is suitable. The Awel y Môr Development Consent Order required that no wind turbine generator could be erected “...until an assessment of any wake effects and subsequent design provisions to mitigate any such identified effects as far as possible has been submitted to and approved in writing by the Secretary of State...” (Schedule 2, paragraph 25 of the Awel y Môr Wind Farm Order 2023/1033).</p>	<p>close to existing operational offshore infrastructure (NPS EN-3 para 2.8.197).</p> <p>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 7.5km of an existing offshore wind farm. As described in Paragraph 17.129 of Chapter 17 Infrastructure and Other Users (APP-054), there are no other operational offshore wind farms located within 7.5km of the Project and therefore the Project adheres to the TCE siting criteria and it was considered that the Project is not close to any existing operational offshore wind farms.</p> <p>A recent study (Frazer-Nash Consultancy, 2023) identified that at a greater than 10km separation between windfarms there is a levelling off of total interaction loss with buffer distance and by 20km the wake losses become ‘vanishingly small’. Therefore, no further assessment was required given the distance between the projects and effects at this range. The Applicant would note that the distance between Awel y Môr and Rhyl Flats, which is the precedent to which Morecambe Wind Limited refers, was 5.1km. The WoDS is a minimum of 12.9km from the Project.</p> <p>NPS EN-3 recognises that offshore wind farms may be located close to other offshore infrastructure such as oil and gas, carbon capture,</p>

ID	RR	Applicant's Response
		<p>telecommunications and other offshore wind farms. NPS EN-3 (para 2.8.342) states that the Secretary of State (SoS) should take a pragmatic approach where a proposed offshore wind farm potentially affects other offshore infrastructure or activity. An applicant will be expected to work with the impacted sector to minimise negative impacts and reduce risks to as low as reasonably practicable (para. 2.8.344). As such, the SoS should be satisfied that the site selection and site design of a proposed offshore wind farm and offshore transmission has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries. Applicants will be required to demonstrate that risks to safety will be reduced to as low as reasonably practicable (para 2.8.345). Where a proposed development is likely to affect the future viability or safety of an existing or approved/licensed offshore infrastructure or activity, the SoS should give these adverse effects substantial weight in its decision-making (para. 2.8.347). Providing proposed schemes have been carefully designed, and that the necessary consultation with relevant bodies and stakeholders has been undertaken at an early stage, mitigation measures may be possible to negate or reduce effects on other offshore infrastructure or operations to a level sufficient to enable the SoS to grant consent (para 2.8.348).</p> <p>As noted above, site selection was undertaken as part of TCE Round 4 leasing process, which built in 7.5km buffer zones around existing wind farms.</p>

ID	RR	Applicant's Response
		<p>Morecambe Wind Limited does not raise safety issues in its RR, and the Applicant maintains that the presence of the proposed development does not constitute a safety risk. Furthermore, the Applicant does not consider that the presence of the Project will materially or adversely affect the future viability of the West of Duddon Sands Wind Farm. The Applicant requests that Morecambe Wind Limited explain what steps it has taken to engage with TCE during the agreement of its own lease and during the Round 4 leasing process in relation to these matters.</p>
RR-056-05	<p><b>Issue Three: Shipping and navigation</b>            Our Development has concerns regarding MOWF's potential impact on shipping and navigation, given the level of proposed development in the East Irish Sea which gives rise to a potentially complex cumulative impact scenario which we require to understand and consider.</p> <p>For instance, the MOWF Navigational Risk Assessment ("NRA") highlights the potential for rerouting to be required and for traffic to increase in the vicinity of our Development. However, at present it is not clear if there are relevant risks in the vicinity of our Development as a result. We require to engage with MOWF to understand the effects on our Development and further information – such as confirmation of proposed ports such as Barrow or Heysham (Table 41, NRA) – will be required before we can properly understand the changes in risk levels.</p> <p>Our Development considers some level of coordination will be required between developers and other sea users in the area which our Development will require to be involved in. We require to better</p>	<p>The Shipping and Navigation assessment has been undertaken with due regard to the relevant policies of the NPS, as outlined in Section 14.4.1 of Chapter 14 Shipping and Navigation (APP-051). This included impacts to approaches to ports, strategic routes and lifeline ferry services. Impacts described within Section 17.6. 17.7 and 17.9 of Chapter 14 Shipping and Navigation (APP-051) address these impacts.</p> <p>Impacts to existing vessel routeing, and by extension approaches to ports, is assessed in Section 14.7 and Section 14.8 of Chapter 14 Shipping and Navigation (APP-051), Section 8.2 and 8.3 of Appendix 14.1 Navigation Risk Assessment (NRA) (APP-073) and Section 7.3 and 7.4 of Appendix 14.2 Cumulative Regional Navigation Risk Assessment (CRNRA) (APP-074).</p>

ID	RR	Applicant's Response
	<p>understand the procedures that MOWF intends to undertake to minimise and mitigate risk.</p>	<p>The Applicant has committed to a number of risk controls in relation to shipping and navigation as detailed within the NRA (APP-073). Development of controls will be undertaken post-consent in line with more advanced details of the Project design and upon port selection, and coordination would be considered as required during the development of a Vessel Traffic Management Plan (VTMP) which is outlined in APP-153. A final VTMP will be further developed and agreed with stakeholders prior to construction, taking account of the final detailed design of the Project (as detailed in Schedule 6, Condition 9(1)(j) of the draft DCO/Deemed Marine Licence (DML) (APP-012)). A decision on port selection will be made post-consent of the Project.</p> <p>As set out in Section 17.3.3 and Section 17.6 of Chapter 17 Infrastructure and Other Users (APP-054), embedded mitigation includes ongoing engagement with other offshore windfarms to facilitate effective co-existence and reduce or avoid potential risk of adverse effects to the operations of other offshore windfarms. Engagement has been initiated with offshore windfarm developers across the study area and would continue throughout all phases of the Project in relation to planned activities.</p>

## 4.13 Morgan Offshore Wind Limited (RR-057)

*Table 4.13 The Applicant's comments on Morgan Offshore Wind Limited's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-057-01	<p>Morgan Offshore Wind Farm is one of the three proposed offshore wind farms (together with the Mona and Morecambe projects) which are located in the Irish Sea. All three projects are currently the subject of individual applications for development consent made to the Planning Inspectorate. The Environmental Statement for the Morgan Generation Assets development consent application has identified the potential cumulative effects arising from these projects in combination with Morgan Generation Assets. These broadly relate to ornithology, marine mammals, shipping and navigation, aviation and commercial fisheries. In addition to these three applications, the Morecambe and Morgan projects are also preparing a joint application for development consent that includes the transmission infrastructure that will connect these offshore wind farms to the electricity network at Penwortham substation. This approach is to facilitate effective delivery of new transmission assets in line with the Offshore Transmission Network Review and is pursuant to a direction issued by the Secretary of State on 4 October 2022 under section 35 of the Planning Act 2008. Morgan Offshore Wind Ltd is supportive in principle of the Morecambe Offshore Windfarm Generation Assets DCO application and would like to register an interest, based on the possible need to provide information to the Morecambe Offshore Wind Project Generation Assets examination in due course.</p>	<p>The Applicant notes the potential for cumulative effects in combination with Morgan Offshore Wind Project Generation Assets broadly covering ornithology, marine mammals, shipping and navigation, aviation and commercial fisheries and will engage with Morgan Offshore Wind Project Generation Assets throughout the Examination phase.</p>

## 4.14 National Federation of Fishermen's Organisations (NFFO) and Welsh Fishermen's Association (WFA-CPC) (RR-059)

Table 4.14 The Applicant's comments on NFFO and WFA-CPC's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-059-01	<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 and have asked the NFFO to represent their concerns.</p>	<p>The Applicant notes the NFFO's and WFA-CPC's coordinated response.</p>
RR-059-02	<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>The Applicant acknowledges the comments from NFFO and WFA-CPC and highlights that the cumulative effects assessment in Section 13.7 of Chapter 13 Commercial Fisheries (APP-050) considers the existing offshore windfarm developments, potential future offshore windfarm developments, offshore cables and Marine Protected Areas (MPAs), including potential management measures implemented on fisheries within MPAs. The assessment of effects presented in Section 13.6 of Chapter 13 Commercial Fisheries (APP-050) considers the impacts related to loss of access, displacement and increased steaming times during all phases of the Project. Additional mitigation has been proposed by the Applicant and would be delivered through a Fisheries Liaison and Co-existence Plan (FLCP) (APP-147) in line with Fisheries Liaison with Offshore Wind and Wet</p>



ID	RR	Applicant's Response
		<p>Renewables Group (FLOWW) guidance as secured in Schedule 6 Condition 9(k), which would be approved by the Marine Management Organisation (MMO) with consultation with the fishing industry.</p> <p>The Applicant is working to facilitate co-existence with existing commercial fishing activity and to minimise disruption. An Outline FLCP (APP-147) was submitted with the Application. The Development Consent Order (DCO) (APP-012) requires that the final FLCP be submitted and approved before development can commence, and this FLCP will be developed by the Applicant with stakeholders.</p>
RR-059-03	<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. Although ICES/IBTS data is presented in the assessment, the resolution of these data is too coarse to characterise and accurate baseline.</p>	<p>This response is acknowledged by the Applicant. The existing environment data upon which the assessment is based is set out in Section 10.5 of Chapter 10 Fish and Shellfish Ecology (APP-047). The data sources used include both historic and contemporary data, including:</p> <ul style="list-style-type: none"> <li>▪ Published peer-reviewed literature (including standard data sources such as Coull <i>et al.</i>, 1998 and Ellis <i>et al.</i>, 2012, and tracking projects for migratory species such as Centre for Environment, Fisheries and Aquaculture Science (Cefas), 2020; Lilly <i>et al.</i>, 2023)).</li> <li>▪ Landings data at the level of International Council for the Exploration of the Seas (ICES) rectangle averaged over the previous five years is used to characterise the key species for the contemporary baseline for commercial species, including shellfish, in relation to the</li> </ul>

ID	RR	Applicant's Response
		<p>Project, and also reduces the potential for interannual variations to skew the baseline. Highly mobile populations are better understood at a more regional scale and cannot be sufficiently characterised by site-specific survey snapshots.</p> <ul style="list-style-type: none"> <li>▪ Landings data and peer reviewed literature are supplemented with recent shellfish stock assessment reports where available recent (e.g. Bloor <i>et al.</i>, 2022, Delargy <i>et al.</i>, 2019)</li> </ul> <p>In addition, site specific benthic survey data was collected for the Project by Ocean Ecology Limited (OEL) in May/June 2022. The sediment Particle Size Analysis (PSA) data generated has been used to inform the baseline habitat suitability for sandeel and spawning herring (Section 10.5.4 of Chapter 10 Fish and Shellfish Ecology, APP-047).</p> <p>Further contemporary data on basking shark sightings in the area has also been included.</p> <p>The Agri-Food and BioSciences Institute (AFBI) have provided the previous 10 years of Northern Irish Herring Larvae Survey (NIHLS) data which have been used to generate a herring larvae heatmap to provide present-day context to the extent of the Isle of Man (IoM) herring spawning ground, as discussed and agreed with Expert Topic Group (ETG) members (Section 10.5.4 of Chapter 10 Fish and Shellfish Ecology, APP-047).</p>

ID	RR	Applicant's Response
		<p>The limitations of historic data sources used have been noted (Section 10.4.6 of Chapter 10 Fish and Shellfish Ecology, APP-047), however the data is considered a sufficient basis for the Environmental Impact Assessment (EIA) assessment.</p>
RR-059-04	<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 Morecambe Transmission Assets project, often from surveys that have not used the correct methodology for the assumptions made.</p>	<p>This response is acknowledged by the Applicant.</p> <p>Site specific benthic survey data was collected for the Project by OEL in May/June 2022 across the Morecambe windfarm site. As set out in Section 10.5.4 of Chapter 10 Fish and Shellfish Ecology (APP-047), the grab sampling involved in this survey is primarily designed to provide a contemporary and site-specific understanding of the types of sediment present. This understanding of sediment characteristics is valuable for building an understanding of the distribution of habitat that is suitable for species with highly specific sediment requirements. The sediment PSA data generated by the benthic survey has been used to inform the baseline habitat suitability for sandeel and spawning herring (Section 10.5.4 of Chapter 10 Fish and Shellfish Ecology, APP-047).</p> <p>This benthic survey has not been used as a method to directly sample for fish and shellfish species. The data sources used to build the baseline for fish and shellfish are set out in Section 10.4.2 of Chapter 10 Fish and Shellfish Ecology (APP-047).</p>

ID	RR	Applicant's Response
RR-059-05	<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.</p>	<p>The impact assessment in Chapter 13 Commercial Fisheries (APP-050) assesses the potential impacts of the Project to United Kingdom (UK), IoM and Irish dredge, UK and IoM demersal otter trawl and UK and Belgian beam trawl fisheries, which are all considered to be mobile gear. The impact assessment found relatively low levels of activity by these fleets within the Morecambe windfarm site, as evidenced by vessel monitoring system data and scallop grounds mapped by the ICES Scallop Working Group, as well as consultation via the Fisheries Liaison Officer. The impact assessment concluded minor adverse significance for reduced access due to the levels of current mobile fishing activity within the windfarm site.</p>
RR-059-06	<p>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 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>	<p>The impact assessment in Chapter 13 Commercial Fisheries (APP-050) assesses the potential impact of the Project causing displacement leading to gear conflict and increased pressure on adjacent grounds. The impact assessment found a moderate adverse significant effect for the UK potting fleet during construction, requiring additional mitigation through an to lower the residual effect to minor adverse.</p> <p>Mitigation would be delivered through a FLCP (an Outline FLCP (APP-147) was submitted with the DCO Application) in line with FLOWW guidance, as secured in Schedule 6 Condition 9(k), which would be approved by the MMO with consultation with the fishing industry.</p>

ID	RR	Applicant's Response
		For all mobile and all other static gears, the effect of displacement was found to be minor adverse, due to the limited overlap with these fisheries and therefore limited displacement. The only receptor where the effect of displacement was found to be negligible was the pelagic trawl fleet due to a negligible sensitivity due to the alternative fishing grounds targeted in the Irish Sea.
RR-059-07	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 Morecambe Generation Assets project.	The Applicant acknowledges the support of an Outline FLCP (APP-147). The Applicant is looking to progress a Statement of Common Ground (SoCG) with the NFFO combined with WFA-CPC during the Examination process.

## 4.15 North West Wildlife Trusts (NWWT) (RR-065)

Table 4.15 The Applicant's comments on NWWT's Relevant Representation (RR)

ID	RR	Applicant's Response
<b>Summary of Key Points</b>		
RR-065-01	<ul style="list-style-type: none"> <li>▪ We are supportive of offshore wind generation, but development must not be at the expense of nature</li> <li>▪ We welcome the strategic coordination of energy generation and transmission infrastructure</li> <li>▪ We expect Morecambe OWF to aim to achieve an overall net positive impact on biodiversity and ecology in the marine environment and would like to see a greater commitment.</li> </ul>	The response is noted by the Applicant who has responded to all the key points made by NWWT in the subsequent sections of this table.

ID	RR	Applicant's Response
	<ul style="list-style-type: none"> <li>▪ 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</li> <li>▪ We are pleased to see that the Morecambe 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.</li> <li>▪ We welcome that there will be the adherence to, a Marine Mammal Mitigation Protocol (MMMP) but would like to emphasise the use of mitigations options available such as bubble curtains, timing of piling, or piling methods in accordance with industry best practice.</li> <li>▪ Ornithology - 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.</li> </ul> <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>	
<b>Position on offshore wind development</b>		
RR-065-02	<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</p>	<p>The Applicant acknowledges the NWWTs position on offshore wind development.</p>

ID	RR	Applicant's Response
	<p>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>	
<b>Strategic coordination of energy generation and transmission infrastructure</b>		
RR-065-03	<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> <p>We therefore welcome that the Morgan and Morecambe OWF have been scoped into the Pathways to 2030 Workstream under the OTNR and will therefore share transmission assets.</p>	The Applicant welcomes this response.
<b>Strategic compensation and enhancement</b>		
RR-065-04	One opportunity of strategically planned offshore energy generation and electricity transmission infrastructure (including onshore	The Applicant agrees with the NWWTs' position that strategic initiatives may have potential to deliver

ID	RR	Applicant's Response
	<p>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 Morecambe OWF to aim to achieve an overall net positive impact on biodiversity and ecology in the marine environment.</p> <p>We note that you have said (in 4.4 Volume 4 - Environmental Benefit and Net Gain Statement) that you have contributed resources to the Fylde Sand Dunes Project. Although we would like to thank you for your one day of volunteering planting Christmas trees, we believe the statement is misleading to how much 'resource' has been contributed. We would like to see a greater commitment to environment net gain post consent.</p>	<p>compensation for residual environmental effects that cannot be mitigated. It is noted that for ecological receptors, no Project-alone significant effects were identified following mitigation (see Assessment Summary sections in Chapter 9 Benthic Ecology (APP-046), Chapter 10 Fish and Shellfish Ecology (APP-047), Chapter 11 Marine Mammals (APP-048) and Chapter 12 Offshore Ornithology (APP-049)) and that significant effects relate to cumulative effects with other plans and projects where the Project can only mitigate its contribution to effects.</p> <p>The Project aims to conserve marine habitat. The Applicant has embedded a number of measures into the Project design which act to further effects on receptors (see the Schedule of Mitigation (APP-144)).</p> <p>The Applicant's approach to Environmental Net Gain (ENG) is set out in the Environmental Benefit and Net Gain Statement (APP-022). The Applicant intends to explore, and consider ENG measures further with stakeholders post-consent.</p>
<b>Monitoring plans</b>		
RR-065-05	<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</p>	<p>A number of monitoring commitments have been made by the Applicant (see In-Principle Monitoring Plan (IPMP) (APP-148)). A final Monitoring Plan (which accords with the IPMP) will be further developed and agreed with stakeholders prior to construction, taking account of the final detailed design of the Project (as detailed in Schedule 6,</p>



ID	RR	Applicant's Response
	<p>significant effects' to benthic ecology receptors as a result of the Morecambe 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>Condition 9(1)(c) of the draft Development Consent Order (DCO)/Deemed Marine Licence (DML) (APP-012)).</p> <p>In regard to physical processes, as is typical for development projects of this nature, a range of geophysical surveys would be carried out both before and after construction, both for engineering/asset integrity purposes (including scour protection) and would provide monitoring of changes in seabed topography, including scour processes. No additional monitoring is proposed in relation to marine geology, oceanography and physical processes given that all of the potential impacts considered would result in either no change or a negligible adverse effect on marine geology, oceanography and physical processes (Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-044)). The conclusions can be made with a high degree of certainty on account of the separation of the windfarm site to receptors and an accumulation of evidence from a range of studies and other existing windfarms, including comparable modelling from three other windfarm projects within the study area.</p> <p>In regard to benthic ecology, a large amount of geophysical and benthic ecology monitoring information is available from the Project site-specific survey, as described in Chapter 9 Benthic Ecology (APP-046) and other accompanying chapters within the Environmental Statement (ES) (Chapter 7 Marine Geology, Oceanography and Physical Processes (APP-044)). No residual effects greater than minor</p>

ID	RR	Applicant's Response
		<p>adverse were predicted within Chapter 9 Benthic Ecology (APP-046) (Project-alone or cumulatively). This is driven by the area of development in relation to the availability of similar wider habitats, and the lack of features of conservational interest such as Annex I biogenic or geogenic reef features within the windfarm site. Consequently, pre- and post-construction benthic surveys are not proposed.</p> <p>The Applicant acknowledges the gaps in understanding of Invasive Non-Native Species (INNS) and the benefits that monitoring could achieve. Therefore, the Applicant has committed to monitoring of INNS colonisation in line with post-construction hard-substrate inspections, as described in the IPMP (APP-148).</p> <p>In regard to fisheries monitoring, the Applicant agrees with the importance of collecting evidence of fishing patterns. As such the IPMP (APP-148) includes for the monitoring of commercial fisheries data pre, during and post-construction. The aim of commercial fisheries monitoring would be to understand variations in commercial fisheries activity in response to the construction of the windfarm and use this to inform updates to the Fisheries Liaison Co-existence Plan (FLCP) which is provided in draft (APP-147).</p>
<b>Designated sites</b>		
RR-065-06	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	<p><b>Consultation</b></p> <p>The Applicant undertook consultation throughout the pre-application period through the Evidence Plan</p>

ID	RR	Applicant's Response
	<p>infrastructure. We are pleased to see that the Morecambe OWF array area 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>Process (EPP) to agree the study area of each topic and to ensure that all designated sites were appropriately screened into the Environmental Impact Assessment (EIA), Report to Inform Appropriate Assessment (RIAA) (APP-027) and Marine Conservation Zone Assessment (MCZA) (APP-032). This is outlined in the Evidence Plan Report (Appendix A1 of the Consultation Report Appendices Part 1 (A to C) (APP-016)).</p> <p><b>Assessment of adverse impacts on designated sites</b></p> <p>The Applicant notes the windfarm site is outwith any designated sites. The Applicant has robustly assessed all potential direct impacts on marine ecology associated with the Project's Zone of Influence (Zoi). Assessments of direct effects are presented in the respective ecological topic chapters of the ES (Chapter 9 Benthic Ecology (APP-046), Chapter 10 Fish and Shellfish Ecology (APP-047), Chapter 11 Marine Mammals (APP-048) and Chapter 12 Offshore Ornithology (APP-049)).</p> <p><b>Report to Inform the Appropriate Assessment and Marine Conservation Zone Assessment</b></p> <p>The predicted Zoi, which is the geographical extent of impacts of the Project, was taken into account as part of the Habitats Regulations Assessment (HRA) screening (APP-028) and Marine Conservation Zone (MCZ) screening (APP-031).</p>

ID	RR	Applicant's Response
		<p>Where a designated site and its qualifying features overlapped with the Zol it was screened into the assessment.</p> <p>The assessments presented in the RIAA (APP-027) 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.</p> <p>The MCZA (APP-032) concluded that there is no significant risk of the Project hindering the achievement of the conservation objectives stated for any MCZ and therefore a Stage 2 MCZA was not required for any MCZ for the Project.</p> <p><b>Assessment of adverse impacts outside designated sites</b></p> <p>Each of the above chapters considers the Zol of each impact (as per Planning Inspectorate (PINS) Advice Note 17 (2019)), including indirect effects on designated sites and species and habitats surrounding the Project as well as those outside designated sites.</p>
<b>Noise mitigation</b>		
RR-065-07	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 Morecambe OWF will be carried out in accordance with guidance or any future guidance that might supersede it. A	The Applicant thanks NWWT for welcoming the Draft Marine Mammal Mitigation Protocol (MMMP) (APP-149).

ID	RR	Applicant's Response
	<p>significant number of high noise generating activities will take place in the Irish Sea during the survey and construction period for Morecambe. 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.</p> <p>We welcome that there is the draft Marine Mammal Mitigation Protocol (MMMP) included in the DCO submission but would like to emphasise the use of mitigations options available such as bubble curtains, timing of piling, or piling methods in accordance with industry best practice to reduce effects in relation to European Protected Species (EPS) protection.</p>	<p>The Applicant notes the potential mitigation options, including Noise Abatement Systems (NAS), are within the draft MMMP (APP-149) which would be finalised post-consent in line with the final design of the Project (secured in Schedule 2, Condition 9(i) of the draft DCO/DML). It is recognised that upon more developed design information, where there remains a residual significant effect, any need for the implementation of NAS will be decided in consultation with the licencing authority.</p> <p>The finalisation of the MMMP for piling and European Protected Species (EPS) licencing applications will consider the latest available policy on noise abatement in consultation with the licensing authority and Statutory Nature Conservation Bodies (SNCB), in advance of construction activities.</p> <p>The Applicant is planning appropriately for the potential requirement for NAS but maintains the position that the effects may be suitably mitigated through further design changes and other embedded mitigation.</p> <p>It is noted the Project is outside of any Marine Protected Areas (MPAs) and in the United Kingdom (UK). There is currently no guidance on the requirement to use NAS within or outside MPAs.</p> <p>The Applicant will seek to discuss further with Natural England (NE) (as requested by NE in their RR (see ID RR-061-29; Ref. P6 and ID RR-061-165; Ref. D1) the</p>

ID	RR	Applicant's Response
		<p>potential use of an Underwater Sound Management Strategy as a mechanism of agreeing mitigation post-consent, which will also consider measures the Project may need to take in light of potential cumulative effects and in line with other projects on similar timescales.</p>
<b>Ornithology</b>		
RR-065-08	<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.</p>	<p>The Applicant has embedded a number of measures into the Project design which act to further minimise effects on receptors (see the Schedule of Mitigation (APP-144)).</p> <p>The Applicant has incorporated a number of measures into the Project design that will further reduce impacts on offshore ornithological receptors (Section 12.3.3 of Chapter 12 Offshore Ornithology (APP-049)). These include a commitment to a minimum lower blade tip height (creating a greater air gap) of 25m above Highest Astronomical Tide (HAT) (increased from 22m in the Preliminary Environmental Information Report (PEIR)) to reduce collision impacts.</p> <p>A full cumulative and in-combination assessment for all relevant receptors is provided in Section 12.7.3 and Section 12.7.4 of Chapter 12 Offshore Ornithology (APP-049) and in the RIAA (a summary of in-combination effects is presented in Table 8.199 of the RIAA (APP-027)).</p>

ID	RR	Applicant's Response
		<p>Potential transboundary effects for offshore ornithological receptors are assessed in Section 12.8 within Chapter 12 Offshore Ornithology (APP-049).</p> <p>An assessment of disturbance, displacement and barrier effects on ornithological receptors has been carried out in the following sections of Chapter 12 Offshore Ornithology (APP-049):</p> <ul style="list-style-type: none"> <li>▪ <b>Construction phase:</b> Impact 1: Disturbance, displacement and barrier effects (Section 12.6.2.1)</li> <li>▪ <b>Operation and maintenance phase:</b> Impact 1: Disturbance, displacement and barrier effects (Section 12.6.3.1)</li> <li>▪ <b>Decommissioning phase:</b> Impact 1: Disturbance and displacement (Section 12.6.4.1)</li> </ul> <p>There were no significant residual effects concluded for Project-alone or cumulatively with regard to disturbance, displacement or barrier effect.</p>
<b>Transboundary</b>		
RR-065-09	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	The Project 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 (IoM) is a Crown Dependency of the UK and not a European Economic Area (EEA) State, but has been assessed within the ES where the ZoI of impacts interaction with the IoM and IoM territorial

ID	RR	Applicant's Response
	<p>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>waters. Where the Zol interacts in Welsh waters, assessments are also provided within the ES, this is particularly relevant for mobile species including birds, marine mammals and fish.</p> <p>A transboundary assessment is provided in each relevant ES chapter, and discussed in further detail below:</p> <ul style="list-style-type: none"> <li>▪ Chapter 10 Fish and Shellfish Ecology (APP-047): Section 10.8</li> <li>▪ Chapter 11 Marine Mammals (APP-048): Section 11.8</li> <li>▪ Chapter 12 Offshore Ornithology (APP-049): Section 12.8</li> </ul> <p><b>Fish and shellfish ecology</b></p> <p>For the fish and shellfish ecology assessment, the assessment for the Project has been undertaken taking account of the distribution of fish stocks and populations irrespective of national jurisdictions. Environmental receptors relevant to the IoM, such as herring spawning grounds, are covered in the main ES assessment in Sections 10.6 and 10.7 of Chapter 10 Fish and Shellfish Ecology (APP-047). No significant Project-alone or cumulative effects were concluded.</p> <p><b>Marine mammals</b></p> <p>The highly mobile nature of marine mammals included within the marine mammal assessment means that there is the potential for transboundary</p>



ID	RR	Applicant's Response
		<p>effects. This was taken into account throughout the assessments in Section 11.6, 11.8 and 11.8 in Chapter 11 Marine Mammals (APP-048) as the study area for each species was based on their relevant Management Unit (MU) (or area within which the same individuals were considered to be part of one larger overall population). The MUs (and therefore reference populations) for each species covered an area wider than the UK. The countries and areas considered are summarised in Table 11.111 of Chapter 11 Marine Mammals (APP-048).</p> <p>The potential for barrier effects has also been assessed for harbour porpoise, minke whale, dolphins and seals in Chapter 11 Marine Mammals (APP-048). The Project-alone assessment concluded there would be no significant barrier effects from the Project during the construction, operation and maintenance or decommissioning phases. The CEA also concluded no significant cumulative barrier effects.</p> <p>Marine mammals features designated within Marine Nature Reserves (MNRs) in the IoM are also considered in Section 11.8 of Chapter 11 Marine Mammals (APP-048). Considering the minimal impact evident from the Project-alone, along with the assessment of cumulative effects, the likelihood of significant transboundary effects with the IoM MNRs was determined to be low for all species given mitigations required by all projects.</p>

ID	RR	Applicant's Response
		<p><b>Offshore ornithology</b></p> <p>Potential cumulative transboundary effects are assessed in Section 12.8 (including the IoM and the Republic of Ireland) of Chapter 12 Offshore Ornithology (APP-049). IoM designated sites were also considered under transboundary impacts (Section 12.8 of Chapter 12 Offshore Ornithology (APP-049)), except for Ballaugh Curragh Ramsar site, which has been appropriately considered in the RIAA.</p> <p>As noted in Paragraph 12.430 of Chapter 12 Offshore Ornithology (APP-049), the predicted mortality apportioned to the IoM Areas of Special Scientific Interest (ASSI)s would be much less than one bird per annum, and inconsequential. It is also noted that the Project has provided mitigation to minimise collision risk (i.e. increase of air gap to 25m above HAT), and that, as the contribution of the Project would be so small, there would be no potential for additional Project mitigation (even if this was possible) to make a measurable difference to the assessment conclusion.</p> <p><b>Report to Inform Appropriate Assessment</b></p> <p>The RIAA (APP-027) assessed all UK and European Sites (designated nature conservation sites which include the National Site Network (NSN) (designated within the UK) and Natura 2000 sites (designated in any European Union (EU) country). This includes candidate Special Areas of Conservation (cSAC), Sites of Community Importance (SCI), Special Areas</p>

ID	RR	Applicant's Response
		<p>of Conservation (SAC) and Special Protection Areas (SPAs).</p> <p><b>Consultation</b></p> <p>Extensive consultation was undertaken with Natural Resources Wales (NRW) and IoM stakeholders where effects were identified in their territorial waters as a result of the Project. How the Applicant has had regard to comments received from NRW and the IoM stakeholders is outlined below per topic.</p> <ul style="list-style-type: none"> <li>▪ <b>Fish and shellfish ecology</b> <ul style="list-style-type: none"> <li>○ Table 10.1 of Chapter 10 Fish and Shellfish Ecology (APP-047)</li> </ul> </li> <li>▪ <b>Marine mammals</b> <ul style="list-style-type: none"> <li>○ Consultation with the Isle of Man Government is outlined in Table 2.5, Section 2.5 of Appendix 11.5 Marine Mammals Consultation Responses (APP-069)</li> <li>○ Consultation with NRW is outlined in Table 2.6 of Appendix 11.5 Marine Mammals Consultation Responses (APP-069)</li> </ul> </li> <li>▪ <b>Offshore Ornithology</b> <ul style="list-style-type: none"> <li>○ Table 12.1 of Chapter 12 Offshore Ornithology (APP-049)</li> </ul> </li> </ul>

## 4.16 P Wilson and Company LLP (RR-067)

*Table 4.16 The Applicant's comments on P Wilson and Company LLP's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-067-01	Impact of onshore transmission infrastructure on farming clients.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response to RR-033-01 above.

## 4.17 Royal Society for the Protection of Birds (RSPB) (RR-073)

*Table 4.17 The Applicant's comments on the RSPB's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-073-01	<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 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.</p>	The Applicant notes this response.

ID	RR	Applicant's Response
RR-073-02	<p>We are grateful for the constructive pre-application discussions that have taken place with Morecambe Offshore Wind Farm in respect of this proposal, particularly through the Evidence Plan process. As set out in Searle <i>et al</i> (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.</p>	<p>Noted. The Applicant welcomes RSPB's confirmation that constructive pre-application discussions occurred through the Evidence Plan Process (EPP).</p> <p>The Applicant recognises that there is inherent uncertainty in the assessment of offshore wind development, but advises that the assessments presented in Chapter 12 Offshore Ornithology of the Environmental Statement (ES) (APP-049) and the Report to Inform Appropriate Assessment (RIAA) (APP-027) accord with current best practice recommended by the Statutory Nature Conservation Bodies (SNCBs), and include sufficient precaution to ensure that uncertainty is accounted for, and that conclusions are scientifically robust.</p>
RR-073-03	<p>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>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>Noted. As above, the Applicant considers that the best practice methods used for the assessment include sufficient precaution to account for complexity and uncertainty in the marine environment. Accordingly, it is considered that the assessment conclusions are sufficiently robust to inform the decision-making process.</p>

ID	RR	Applicant's Response
RR-073-04	<p>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. This relevant representation outlines the RSPB's position on the offshore ornithology impacts of the Morecambe application.</p>	<p>Noted. Please see specific responses below.</p>
RR-073-05	<p>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.</p> <p>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.</p>	<p>Noted. The Applicant welcomes RSPB's continued engagement during the Examination period.</p>
RR-073-06	<p><b>OFFSHORE ORNITHOLOGY IMPACTS - SUMMARY OF RSPB POSITION</b></p> <p>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.</p>	<p>Noted. Please see specific responses below.</p>

ID	RR	Applicant's Response
RR-073-07	<p><b>Project alone – RSPB AEOI conclusions</b></p> <p>We are unable to reach conclusions with regard to AEOI on Manx shearwater in relation to the following Special Protection Areas:</p> <ul style="list-style-type: none"> <li>▪ Irish Sea Front SPA</li> <li>▪ Copeland Islands SPA</li> <li>▪ Glannau Aberdaron ac Ynys Enlli/Aberdaron Coast and Bardsey Island SPA</li> <li>▪ Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA</li> <li>▪ Rum SPA</li> <li>▪ Isles of Scilly SPA</li> <li>▪ St Kilda SPA</li> </ul>	<p>The Applicant notes RSPB's position on this matter but considers that sufficient information has been presented within the RIAA (APP-027) to conclude no Adverse Effect on Integrity (AEOI) for the Special Protection Area (SPA)s referred to by RSPB.</p> <p>In respect of the Irish Sea Front SPA, it is noted that the Habitats Regulations Assessment Screening Report (APP-028) concluded that likely significant effect for this site could be ruled out. This is because the site is designated for its habitats known to be of importance to feeding Manx shearwaters from colonies in the wider Irish and Celtic Seas. The SPA is distant (approximately 80km) from the Project, and there is considered to be no linkage or impact pathway through which the Project would be likely to affect the ability of habitats within the SPA to continue to support this species. It is also noted that separate assessments of potential effects on the relevant Manx shearwater SPA colonies (i.e. that are likely to utilise that Irish Sea Front SPA) are presented in the RIAA (APP-027).</p> <p>In respect of the remaining SPAs to which the RSPB refers, it is considered that the Applicant has presented sufficient precautionary and scientifically robust information within the RIAA (APP-027) to conclude that AEOI can be ruled out for all sites. Please also refer to detailed responses below in respect of this species.</p>
RR-073-08	<p><b>Project in combination with other plans and projects – RSPB AEOI conclusions</b></p>	<p>The Applicant notes RSPB's position on this matter but reiterates the conclusion of the RIAA (APP-027) in</p>

ID	RR	Applicant's Response
	<p>We are unable to rule out an adverse effect on the integrity of the Lesser Black-backed Gull (LBBG) feature of both the Morecambe Bay and Duddon Estuary SPA and the Ribble and Alt Estuaries SPA due to the impact of collision mortality in-combination with other projects. We are unable to reach a conclusion on whether there will be an adverse effect on site integrity on the Great Black-backed Gull (GBBG) feature of the Isles of Scilly SPA due to the impact of collision mortality in-combination with other projects.</p> <p>This is because the Applicant has not carried out the necessary in-combination assessment and associated Population Viability Analysis. The need for such an assessment is underlined by severe concerns with the predicted in-combination impacts of the Morgan and Mona offshore wind farm schemes. 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>	<p>respect of lesser black-backed gull from Morecambe Bay and Duddon Estuary SPA and the Ribble and Alt Estuaries SPA. Very low mortality is predicted for the Project alone, and it is the Applicant's position that there would be no measurable contribution to in-combination effects. Detailed information is presented within the RIAA (APP-027) to support the Applicant's position, but it is noted that information on potential in-combination effects, including Population Viability Analysis (PVA), has also been presented (without prejudice to the Applicant's position of no AEOI) to provide context to the Project-alone assessment.</p> <p>Notwithstanding this position, the Applicant is proposing to update the in-combination assessment for this species at Deadline 1. This is primarily to address concerns raised by Natural England (NE) in respect of the apportioning approach used for the assessment presented in the RIAA (APP-027), and also to update the cumulative/in-combination values for this species.</p> <p>It is noted that for the historic projects, there is only one (Robin Rigg Offshore Windfarm (OWF)) for which no mortality data have been identified. It is the Applicant's position that this Project is not likely to significantly affect the predicted in-combination mortality, nor the conclusions to the assessment.</p> <p>It is also noted that the Applicant has presented a 'without prejudice' derogation case and compensation proposals for this species, in relation to Morecambe</p>



ID	RR	Applicant's Response
		<p>Bay and Duddon Estuary SPA and the Ribble and Alt Estuaries SPA, in the event that the Secretary of State concludes that AEOI cannot be ruled out.</p> <p>In respect of great black-backed gull from Isles of Scilly SPA, the Applicant has concluded that there would be no AEOI for this species, given the very small predicted mortality apportioned to the SPA for the Project alone. This would comprise a small fraction of a bird (0.10) annually, and an increase in background mortality of only 0.08%. This level of mortality is so negligible that it would not contribute to in-combination effects. The Applicant maintains that this conclusion is robust and that no AEOI can be concluded. Given this position, there is no requirement to present in-combination data or PVA for this feature.</p>
RR-073-09	<p>The RSPB cannot rule out an adverse effect on the integrity of the Liverpool Bay SPA, arising through the project alone and in combination. This is due to the impact of displacement (from vessel movement during construction and decommissioning and operations and maintenance) on the SPA's red-throated diver population. The Applicant has not fully considered the Conservation Objectives relevant to that population.</p> <p>The numbers of red throated divers, their distribution within the SPA and their ability to use all suitable habitat contained in the SPA are relevant to the SPA conservation objectives but are not considered by the Applicant. If red-throated divers are displaced from part of the SPA which would otherwise be suitable for them the effect is to reduce the functional size of the SPA, undermining the conservation objectives.</p>	<p>RSPB's position on red-throated diver from Liverpool Bay SPA is noted. The Applicant maintains that no AEOI can be concluded for this feature. However, the Applicant will provide a further update on its position in respect of red-throated diver at Deadline 1.</p>

ID	RR	Applicant's Response
RR-073-10	<p>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 Applicant considers that ecosystem effects have been appropriately addressed within the assessment. In particular, the Applicant highlights the consideration of indirect effects on prey species (e.g. in Sections 12.6.2.2 and 12.6.3.4 of Chapter 12 Offshore Ornithology (APP-049)) and the assessment of inter-relationships (Section 12.9 of Chapter 12 Offshore Ornithology (APP-049)).</p>
RR-073-11	<p><b>IMPACT ASSESSMENT – METHODOLOGICAL CONCERNS</b> The RSPB's key concerns with the impact assessment relate to:</p> <ul style="list-style-type: none"> <li>▪ Manx Shearwater: Baseline characterisation and Potential Impacts arising through collision.</li> <li>▪ Gannet: the application of a macro-avoidance correction factor to baseline densities for collision risk modelling.</li> <li>▪ Methodology for assessment of cumulative/in-combination impacts.</li> <li>▪ Ecosystem impacts.</li> <li>▪ A lack of consideration of impacts compounded by Highly Pathogenic Avian Influenza.</li> <li>▪ Approach to non-measurable “de minimis” impacts.</li> </ul>	<p>Please see detailed responses below.</p>
RR-073-12	<p><b>MANX SHEARWATER</b> <u>Baseline characterisation</u> 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 <i>et al.</i>, 2016), while nocturnal foraging was observed from tracking of birds from High Island, Ireland (Kane <i>et al.</i>, 2020).</p>	<p>The Applicant agrees that evidence indicates that patterns of Manx shearwater activity can vary through the day and night. However, for the purposes of the assessment as presented in the ES Chapter 12 Offshore Ornithology (APP-049) and the RIAA (APP-027), it is the density/abundance of birds that is used as the basis of numerical estimation of effect. This is in accordance with best practice guidance from the SNCBs (e.g. Parker, 2022). The Applicant has not</p>

ID	RR	Applicant's Response
	<p>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, (although this cannot be verified as the timings of survey flights are not presented in the Aerial Survey Report (App 071 ES 5.2.12.2)).</p> <p>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. 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.</p> <p>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. Deakin <i>et al.</i>, 2023 highlight a need for experimental validation of these potential biases in aerial survey methods, including detectability, identification and diel variation.</p> <p>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>identified any evidence to indicate that surveys are likely to have significantly underestimated the daytime densities of birds occurring at the Project site. As Manx shearwaters typically occur in flocks, this reduces the risk of birds not being detected. Indeed, the Applicant would argue that the regular records of this species during site surveys confirm that aerial surveys have been effective in its detection.</p> <p>Thus, when RSPB refers to the importance of considering levels of nocturnal activity in the assessment, this is only relevant when that activity results in a substantial change in the distribution (and ultimately density/abundance) of birds within the potential area of impact.</p> <p>For example, when considering displacement effects, the assessment approach makes no differentiation between effects during the day and night, as it utilises the mean peak seasonal abundance derived from the Project-specific surveys. It would only be the case that this would underestimate the predicted displacement effect if densities of birds around the Project site were significantly higher at night than during the day. There is no evidence to suggest that this is the case. Tracking data from colonies in the Celtic and Irish Seas (e.g. Guilford <i>et al.</i>, 2008; Dean <i>et al.</i>, 2010; Dean, 2012; Padget <i>et al.</i>, 2019; and Richards <i>et al.</i>, 2019) indicate that the area around the Project site is not of particular importance for foraging Manx shearwaters. Based on available evidence, the only situation where densities of birds are likely to be highest at night are in the vicinity of</p>

ID	RR	Applicant's Response
		<p>breeding colonies, where it is known that birds assemble prior to coming ashore (Guilford <i>et al.</i>, 2008). The Project site is distant from all SPA colonies (i.e. the closest is Aberdaron Coast and Bardsey Island SPA, which is approximately 125km from the Project site at its closest point). Therefore, there is no likelihood that such nighttime concentrations would occur at the Project site. That is not to say that birds will not be present around the Project site at night, but rather that there is no likelihood that birds would occur in higher numbers that have been recorded during daytime surveys.</p> <p>It is considered most likely that nighttime densities of Manx shearwaters will be lower than during the day, as birds are more likely to have moved towards the breeding colonies at that time. This would suggest, therefore, that prediction of displacement effect would be overestimated, rather than underestimated.</p> <p>On that basis, the Applicant maintains that the assessment includes a suitable level of precaution, and that there can be high confidence in the presented conclusions.</p>
RR-073-13	<p><u>Potential impacts arising through collision</u>            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 calculations do not reflect potential behaviour in the vicinity of turbines.</p>	<p>The Applicant does not agree with RSPB's position in respect of collision risk to Manx shearwater. A review of the potential effects of lighting is presented in Paragraphs 12.247 to 12.250 of Chapter 12 Offshore Ornithology (APP-049). Whilst it is acknowledged that lighting has the potential to affect Manx shearwater behaviour, it is considered very unlikely that this could</p>

ID	RR	Applicant's Response
	<p>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 and support vessels. Such attraction will cause behaviour change, which could in turn increase collision risk, for example if birds fly higher when attracted to lights.</p> <p>There is abundant evidence of light-induced disorientation of Manx shearwaters. This evidence includes the grounding of fledglings in lit areas (Miles <i>et al.</i>, 2010) and collision with lighthouses and other illuminated structures (Guilford <i>et al.</i>, 2019, Archer <i>et al.</i>, 2015).</p> <p>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.</p> <p>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.</p>	<p>affect the assessment conclusions as the available evidence suggests:</p> <ul style="list-style-type: none"> <li>(a) Young fledgling birds are most likely to be affected, and such effects have been shown to occur at a short distance from the colony only (e.g. Syposz <i>et al.</i>, 2018); and</li> <li>(b) Effects are most likely from bright lights (e.g. from a lighthouse) but that the effects of lights in the red spectrum appear to have a limited effect (e.g. Syposz, 2020).</li> </ul> <p>Given that the Project site is distant from known colonies, and that lighting would be the minimum required for navigation and aviation safety (i.e. would be significantly less than would be required for a lighthouse), it is considered very unlikely that this would result in significant disorientation or increase in collision risk to any Manx shearwaters that might be present in the area.</p> <p>For collision risk, the assessment summary presented in Table 12.46 of Chapter 12 Offshore Ornithology (APP-049) confirms that no measurable collision mortality is predicted for this species. Accordingly, no measurable collision mortality would be apportioned to any of the SPAs for which Manx shearwater is a qualifying feature. The assessment is based on SNCB recommended parameters, including nocturnal activity factor, which takes into account the fact that birds may also be active in the vicinity of the wind farm at night, and recognising the absence of nocturnal survey information. Given the low</p>

ID	RR	Applicant's Response
		vulnerability of Manx shearwater to collision risk and predicted absence of collision mortality at the Project, collision was screened out from further assessment for all sites considered within the RIAA (APP-027).
RR-073-14	<p><b>GANNET: THE APPLICATION OF A MACRO-AVOIDANCE CORRECTION FACTOR TO BASELINE DENSITIES FOR COLLISION RISK MODELLING</b></p> <p>The Applicant has applied a reduction of 70% to the baseline densities inputted into the gannet collision risk modelling in order to account for macro-avoidance, in APP-055. This approach follows suggestions in Cook (2021) and Pavat <i>et al.</i>, (2023). However, while, Natural England support this approach, it is not accepted by all the Statutory Nature Conservation Organisations (JNCC <i>et al</i>, 2024) and the RSPB disagree for reasons given below.</p> <p>The RSPB acknowledge that the Applicant has presented the results of Collision Risk Modelling without the application of macro-avoidance correction factor in the Offshore Ornithology Technical Report (App 070 ES 5.2.12.1). However, these outputs are not taken forward to further assessment of the significance of impacts. The RSPB does not agree with the approach for two reasons. Firstly, it does not take into account the likely seasonal variation in macro avoidance. Secondly, as well as applying the macro-avoidance correction factor, it relies on a 'within wind farm' avoidance rate based on the 'all gull' rate, thereby assuming 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.</p> <p>This will result in a lesser ability to make rapid reactions and consequently have a greater risk of collision. Any evidence of macro avoidance should also be seen in the context of recent work in</p>	<p>The Applicant welcomes RSPB's agreement that collision risk is unlikely to result in an adverse effect on site integrity in respect of gannet, due to the low numbers of birds recorded at the Project site.</p> <p>The application of a 70% macro-avoidance to collision risk estimates is an accordance with the advice provided by NE, as were the other parameters (including avoidance rate) used in the collision risk assessment.</p> <p>The Applicant was made aware that RSPB did not support the use of macro-avoidance during the EPP, and in response provided estimates of collision mortality both with and without macro-avoidance applied. However, as RSPB acknowledge, this would not result in changes to the assessment conclusions.</p>

ID	RR	Applicant's Response
	<p>Belgian offshore windfarms that has shown potential habituation to the presence of turbines.</p> <p>This effectively results in lower 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 <i>et al.</i>, 2009), and the imperfect detection of these corpses indicate that there may be many more.</p> <p>Despite these concerns the RSPB acknowledge that due to low numbers of gannets recorded during surveys, the predicted Gannet mortalities are low and therefore unlikely to have any adverse effects on site integrity through the impacts associated with the project alone.</p>	
RR-073-15	<p><b>METHODOLOGY FOR ASSESSMENT OF CUMULATIVE/IN-COMBINATION IMPACTS</b></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>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 collision risk but both are to a greater or lesser extent indicative of the potential scale rather than absolute quantification of impact.</p>	<p>The Applicant acknowledges RSPB's comments regarding the approach to the cumulative and in-combination 'gap filling' for historic projects, and notes that Natural England has raised similar concerns. The Applicant has been working with the other Irish Sea Round projects to agree a methodology for cumulative/in-combination assessment and enable consistent estimates to be presented across the projects.</p> <p>The Applicant proposes to provide an update to cumulative/in-combination assessments at Deadline 1, to incorporate additional information for historic projects, for species where Natural England has identified this requirement in its RRs.</p>

ID	RR	Applicant's Response
	<p>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 necessity of presenting the outputs of the recommended approach is emphasised by the results of the assessment for the LBBG feature of the Morecambe Bay and Duddon Estuary SPA and the Ribble and Alt Estuaries SPA.</p> <p>Population Viability Analysis carried out using the Applicant's preferred methods predicts that after the 35-year lifetime of the wind farm the LBBG population size of the Morecambe Bay and Duddon Estuary SPA is expected to be reduced by 35.8% of what it would have been in the absence of the development in-combination with other projects and the population size of the Ribble and Alt Estuaries to be reduced by 18.3%.</p> <p>While the RSPB does not have full confidence in the methods used by the Applicant to derive these figures, they are indicative of a scale of impact that is unacceptable and likely to cause adverse effects on site integrity.</p>	
RR-073-16	<p><b>ECOSYSTEM IMPACTS</b></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 <i>et al</i>, 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 Applicant considers that ecosystem effects have been appropriately addressed within the assessment. In particular, the Applicant highlights the consideration of indirect effects on prey species (e.g. in Sections 12.6.2.2 and 12.6.3.4 of Chapter 12 Offshore Ornithology (APP-049)) and the assessment of inter-relationships (Section 12.9 of Chapter 12 Offshore Ornithology (APP-049)).</p>
RR-073-17	<p><b>HIGHLY PATHOGENIC AVIAN INFLUENZA</b></p> <p>The current H5N1 strain of Highly Pathogenic Avian Influenza (HPAI) has affected UK wild bird populations on an unprecedented scale</p>	<p>Consideration of the effects of Highly Pathogenic Avian Influenza (HPAI) and its relevance to the assessment are presented in Section 12.6.6 of Chapter 12 Offshore Ornithology (APP-049). This</p>



ID	RR	Applicant's Response
	<p>since it was first recorded in the country in Great Skuas in summer 2021, with seabirds and waterfowl particularly affected.</p> <p>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.</p> <p>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 <i>et al</i>, 2023). It is currently unclear what the population scale impacts of the outbreak will be, but it is likely that they will be severe.</p> <p>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.</p> <p>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.</p>	<p>recognises the uncertainty on the long-term impacts of HPAI on seabird populations. However, it also notes that any reduction in seabird populations would be expected to result in a proportionate reduction in Project effects (which is in line with Natural England advice (2022)), and also that no mechanisms or pathways have been identified whereby the Project would be likely to interact with or exacerbate the impacts from HPAI.</p> <p>Whilst the Applicant acknowledges the uncertainty around the long-term effects of HPAI, it does not agree that it can be assumed that population impacts are likely to be 'severe'. It is noted that there is substantially reduced incidence of HPAI within seabird populations during the 2024 breeding season, and also the ability of populations to recover from seemingly significant decline (for example, in populations where former predation risk has been reduced or eliminated). The Applicant also highlights the substantial levels of precaution that are inherent in the assessments presented in (the RIAA (APP-027) and Chapter 12 Offshore Ornithology (APP-049)). On this basis, the Applicant considers that HPAI has been appropriately addressed within the assessment, and that assessment conclusions are suitably robust.</p>
RR-073-18	<p><b>APPROACH TO NON-MEASURABLE “DE MINIMIS” IMPACTS</b> The Applicant appears to be suggesting that, at the appropriate assessment stage, small scale negative impacts should be regarded as not measurable and therefore should be ignored in determining</p>	<p>The Applicant does not agree that there is no threshold below which a project would not be considered to contribute to cumulative/in-combination effects. Whilst it is accepted that such a threshold should be considered on a case-by-case basis, there</p>

ID	RR	Applicant's Response
	<p>whether or not AEOI has been avoided due to in-combination impacts.</p> <p>This is equivalent to “de minimis” arguments that have been put in other offshore windfarm applications and the RSPB disagrees with these. To us it is clear that the ‘de minimis’ concept may be engaged when considering whether an appropriate assessment is required under relation 63: it is part and parcel of the consideration of whether the project is likely to have “significant” effects on the designated site.</p> <p>What is less clear, however, is whether and, if so, how, any such concept may be brought into effect at the second stage of appropriate assessment.</p> <p>In this context, it is worth highlighting that the language used in the case-law generally is the need, under regulation 63 for the competent authority to be satisfied to the requisite degree of certainty as to the “absence” of adverse effects on the integrity of the site. We therefore question whether it is open to the competent authority to decide there would be some adverse effects on the integrity of a designated site, but because those effects were “de minimis” that consent could still be granted under regulation 63.</p> <p>This approach is particularly problematic in the context of the GBBG feature of the Isles of Scilly SPA. 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, <i>et al.</i>, 2024).</p>	<p>is precedent to demonstrate that such a threshold can be applied, even where an impacted population is known to be in decline. The RIAA (APP-027) provides such an example in relation to the Sheringham and Dudgeon Extension Projects (SEP and DEP), where Natural England (2023) concluded that lesser black-backed gull mortality apportioned to Alde Ore Estuary SPA (mortality of 0.24 birds per annum, equivalent to 0.06% increase in background mortality; Equinor, 2023) would result in ‘<i>no measurable contribution from SEP and DEP to in-combination effects</i>’.</p> <p>In the case of great black-backed gull from Isles of Scilly SPA, the predicted mortality would be substantially below one bird per annum (0.10), resulting in an increase in background mortality of 0.08%. Such an effect would not be detectable against natural variation and would not have a measurable effect on in-combination totals.</p> <p>In that context, the contribution is considered to be nugatory, and that no AEOI can be concluded.</p>

ID	RR	Applicant's Response
	<p>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.</p> <p>The RSPB has raised concerns in relation to potential in-combination impacts on the GBBG feature of the Isles of Scilly SPA in its relevant representations for both the Mona and Morgan schemes. Population Viability Analysis carried out by the Morgan scheme predicts that after the 35-year lifetime of that wind farm the GBBG population size of the SPA is expected to be c.97% lower than it would have been in the absence of the development in-combination with other projects. This scale of impact would clearly be unacceptable and any additional impacts, regardless of the magnitude, will be contributory to this impact. The RSPB would be happy to expand on its position to assist the Examining Authority.</p>	
RR-073-19	<p><b>DEROGATION CASE WITH PARTICULAR REFERENCE TO COMPENSATION MEASURES</b></p> <p>Based on the RSPB's conclusions on adverse effect on integrity, the RSPB considers a derogation case is required if the Secretary of State for the Department for Energy Security and Net Zero (DESNZ) is to consider consenting a damaging project. The RSPB welcomes the information provided by the Applicant to enable its derogation case to be reviewed.</p> <p>As part of any derogation case, and based on our initial conclusions regarding adverse effects on integrity the RSPB considers compensation measures are likely to be required for the following species: Red-throated Diver, Manx Shearwater, LBBG and GBBG should the Secretary of State decide to consent the Application as it is currently proposed.</p>	<p>The Applicant notes that a derogation case and compensation proposals have been submitted in respect of lesser black-backed gull (Morecambe Bay and Duddon Estuary SPA and the Ribble and Alt Estuaries SPA) on a 'without prejudice' basis. RSPB's acknowledgement of this submission is welcomed by the Applicant.</p> <p>The Applicant's position is that no AEOI can be concluded for all species referred to by RSPB, and therefore no compensation measures will be required. However, the Applicant acknowledges that the RSPB and other consultees wish to see additional information in order to support the Applicant's conclusions, and the Applicant is committed to</p>

ID	RR	Applicant's Response
	<p>We set out below how we will approach our assessment of the Applicant's compensation proposals, the level of detail we expect to see and an outline of our concerns with each of the compensation measures as they are currently presented.</p>	<p>providing such information during the course of the Examination, where possible.</p>
RR-073-20	<p><b>RSPB APPROACH TO ASSESSING COMPENSATION PROPOSALS</b></p> <p>The RSPB has reviewed the available published EC (2018 – Managing Natura 2000 sites) and Defra (2023 – Habitats Regulations Assessments: protecting a European site) guidance where they relate to compensatory measures. Both are in broad alignment as to the principles to adopt when considering compensatory measures. We supplement this based on the RSPB's practical experience of applying the principles when assessing compensatory measures. We will use the combination of the EC guidance and the RSPB's experience in this field to assess the Applicant's compensatory measures. Below, we set out our initial comments on the Applicant's compensation proposals.</p>	<p>The Applicant notes RSPB's comments on this matter. It is considered that the level of information provided with the Application HRA (APP-029) and Outline Compensation Implementation and Monitoring Plan (APP-030)) is appropriate and aligns with previous submissions to existing consented offshore wind projects. It is also noted that the Applicant is proposing to further develop its 'without prejudice' compensation proposals for lesser black-backed gull during the course of the Examination. Again, this approach is considered to align with existing comparable projects.</p>
RR-073-21	<p>These are necessarily initial comments as it is the RSPB's view that there is still substantive work to be done with regards to the compensation proposals, based on agreement of the nature and scale of predicted adverse effects on integrity.</p> <p>This is critical to inform discussions on:</p> <ul style="list-style-type: none"> <li>▪ What ecologically effective compensation for those impacts could comprise;</li> <li>▪ The options to be considered to provide such compensation; and</li> <li>▪ The detailed consideration of possible locations and designs to implement ecologically effective compensation with a reasonable guarantee of success.</li> </ul> <p>Compensatory measures must be additional to existing obligations e.g. measures necessary to site management of an SPA or SAC to restore or maintain a designated feature to favourable status.</p>	<p>Noted. See response to RR-073-20 above.</p>

ID	RR	Applicant's Response
	<p>We also consider that there must be an appropriate level of detail on the proposed compensation measures provided sufficiently in advance of the start of the examination to enable interested parties to assess it fully. This is critical to enable proper scrutiny of any compensation proposals by interested parties and the Examining Authority.</p> <p>At this stage, despite the work carried out by the Applicant and the material presented, we do not consider the necessary detail has been provided to enable proper scrutiny of the compensation measures.</p>	
RR-073-22	<p><b>LEVEL OF DETAIL REQUIRED</b></p> <p>The RSPB considers that detail about the location, design, implementation, monitoring and review of any proposed compensatory measures is needed to: inform the application and examination process and enable proper public scrutiny. This should provide the Secretary of State with the necessary confidence as to whether those measures can be secured and implemented with a reasonable guarantee of success, thereby protecting the coherence of the National Site Network. We note that these details should be settled before DCO consent is decided, and be available as part of the application documentation. This enables potential interested parties the opportunity to fully review and assess the adequacy of the compensation measures before deciding whether to formally register as an interested party and submit a relevant representation. The details include:</p> <ul style="list-style-type: none"> <li>▪ Nature/magnitude of compensation: sufficient detail to enable agreement on the scale of compensation required in relation to the predicted impacts, including the detailed compensation objectives, associated success criteria and timeline;</li> </ul>	Noted. See response to RR-073-20 above.

ID	RR	Applicant's Response
	<ul style="list-style-type: none"> <li>▪ Location: legal securing of proposed compensation site(s) with ability to scrutinise design, potential impacts, evidence of relevant consents and relevant legal agreements to secure land;</li> <li>▪ Monitoring and review: detailed monitoring and review packages agreed in advance including terms of reference and ways of working for any “regulators group” to oversee implementation of measure;</li> <li>▪ Compliance and enforcement: details and evidence of how the proposed compensation measures will be reviewed by the relevant regulator and the legal mechanisms available to those regulators to review and enforce any approved compensation plans.</li> </ul> <p>By providing these details it should ensure these and related issues are properly addressed before the Secretary of State is required to make a decision on whether to grant DCO consent. We consider it is unsafe to assume an outline compensation measure can be translated in to a detailed, workable and ecologically effective measure “on the ground” at a later date and all the necessary consents and agreements successfully secured.</p> <p>The criteria, guidance and associated requirements set out above will guide how the RSPB assesses the Morecambe compensation measure proposals submitted as part of the application.</p> <p>Below we set out our initial comments in respect of the Applicant’s compensation measures for LBBG, based on potential adverse effects on the LBBG features of the Morecambe Bay and Duddon Estuary SPA and the Ribble and Alt Estuaries SPA. We have not commented on every option explored or referred to by the Applicant</p>	

ID	RR	Applicant's Response
	at this stage and any lack of comment should not be taken as support or otherwise.	
RR-073-23	<p><b>LESSER BLACK-BACKED GULL COMPENSATION</b></p> <p>The RSPB's comments are based on an initial assessment of the Applicant's documents, with particular reference to APP-029 (Habitats Regulations Assessment Without Prejudice Derogation Case), especially:</p> <ul style="list-style-type: none"> <li>▪ Appendix 1: Compensatory Measures Overview</li> <li>▪ Annex 1A Initial Review of Compensatory Measures for LBBG</li> <li>▪ Appendix 2: LBBG Compensation Document <ul style="list-style-type: none"> <li>○ Annex 2A: Site Selection for Compensatory Measures for LBBG</li> <li>○ Annex 2B: Evidence Plan and Roadmap for LBBG.</li> </ul> </li> </ul> <p>Based on our reading of the Applicant's approach to its without prejudice compensation measures for LBBG, we summarise it as follows. Following an initial review of possible compensation measures for LBBG, the Applicant has selected two measures to take forward at the project level: predator exclusion fencing and habitat management (Annex 1A). Annex 2A considers seven potential sites to implement the selected measures and assesses their suitability, focused on improving breeding productivity.</p> <ul style="list-style-type: none"> <li>▪ Six of the seven potential sites are considered for predator exclusion fencing. All are located in north-west England in proximity to the affected SPAs. Some are inside existing SPAs, some are located outside existing SPAs. One potential site (Steep Holm SSSI) is considered for habitat management and is located in the Severn Estuary.</li> </ul>	Noted. No response required.

ID	RR	Applicant's Response
	<ul style="list-style-type: none"> <li>▪ Following evaluation of the seven locations, the Applicant rules out three of them and selects the following four locations to take forward:               <ul style="list-style-type: none"> <li>○ Barrow Gas Terminal (outside protected areas)</li> <li>○ Lagoon complex, South Walney (inside Morecambe Bay and Duddon Estuary SPA/Ramsar site)</li> <li>○ Banks Marsh (part of Natural England's component of the Ribble Estuary National Nature Reserve and inside Ribble and Alt Estuaries SPA/Ramsar site)</li> <li>○ Steep Holm SSSI, Severn Estuary.</li> </ul> </li> <li>▪ Based on its preferred level of predicted impacts on breeding LBBGs from the two affected SPAs, the Applicant sets out its calculations on the scale of compensation to be provided i.e. number of breeding pairs. This is based on the number of breeding adults it calculates would need to be recruited into the breeding population each year to compensate for its predicted impacts.</li> <li>▪ Ongoing areas of work are identified by the Applicant, including the issue of additionality raised by the RSPB in respect of measures inside SPAs. Annex 2B sets out a generic evidence plan and roadmap on how a potential compensation site could be implemented and monitored. It contains no site-specific information.</li> </ul>	
RR-073-24	<p><b>The RSPB's initial comments on the Applicant's without prejudice compensation measures</b></p> <p>The RSPB welcomes the work done to date but notes that the outline nature of the information presented in the application documents means the level of detail necessary to enable the Examining</p>	<p>The Applicant acknowledges RSPB's comments. As above, the Applicant proposes to further develop proposals during the course of the Examination. The timetable for development is not yet known, as it is, in part, dependent on third parties.</p>



ID	RR	Applicant's Response
	<p>Authority and Interested Parties to assess the likely efficacy of any proposed compensation measure is not available.</p> <p>Further to this, it is not clear whether the Applicant intends to bring forward more detailed information on final site selection and design at an early stage, preferably before the commencement of the examination. We would welcome clarification on this critical issue given it not practicable to provide detailed comments at this stage.</p> <p>Given this situation, we make the following brief observations:</p> <ul style="list-style-type: none"> <li>▪ It will be necessary to agree the range of predicted mortalities (using the preferred outputs of the Applicant, Natural England and the RSPB) and apply these to an agreed approach to calculating the scale of compensation that may be required. This should take account of any uncertainty associated with the predicted impacts from other offshore wind schemes, with particular reference to the live applications for the Mona and Morgan schemes.</li> <li>▪ The RSPB welcomes the Applicant's acknowledgement of the significant declines in the LBBG populations of both the Morecambe Bay and Duddon Estuary SPA and the Ribble and Alt Estuaries SPA. We note that the LBBG population at the Banks Marsh colony in the Ribble and Alt Estuaries SPA has declined significantly from the 2021 population of 4,489 pairs noted in Annex 1A and now stands at 2319 pairs (BTO Seabird Monitoring Programme, accessed 16 August 2024).</li> <li>▪ Both SPAs are in unfavourable condition in respect of their breeding LBBG feature, meaning both are vulnerable to additional external pressures that could undermine their site</li> </ul>	<p>In response to RSPB's brief observations:</p> <ul style="list-style-type: none"> <li>▪ It is noted that Natural England has requested an update to the calculation of scale of compensation, to align with the approach used for kittiwake for Hornsea Project 3. The Applicant is proposing to update Project-alone mortality estimates to reflect a change in apportioning approach requested by Natural England and will subsequently review the required scale of compensation that may be required.</li> </ul> <p>The Applicant notes the RSPB's comments regarding the SPA populations and condition.</p> <ul style="list-style-type: none"> <li>▪ The Applicant welcomes RSPB's agreement that predator fencing and management measures can be appropriate in increasing breeding success.</li> <li>▪ As above, the Applicant is proposing to update the scale of compensation requirements.</li> <li>▪ The Applicant agrees that it is seeking to agree a proportionate compensation measure and develop it as far as practicable before the end of Examination (though noting that the measure is being presented on a without prejudice basis).</li> <li>▪ RSPB's comments in relation to breeding density are noted. This information will be reviewed as part of update to the compensation</li> </ul>

ID	RR	Applicant's Response
	<p>conservation objectives. Both require appropriate management measures to restore them to favourable condition, in line with the SPA Conservation Objectives and Supplementary Advice set out in Annex 1A. This is relevant to the additionality issue described above.</p> <ul style="list-style-type: none"> <li>▪ The RSPB agrees with the Applicant that, in principle, predator exclusion fencing and habitat management measures can be appropriate to support increasing breeding success of LBBGs. As with all such measures, it is important to provide evidence on the pressures causing any observed decline in breeding population and success (e.g. productivity and recruitment) at a specific location and to confirm there are no other contributory factors that may have been overlooked. Failure to do so risks undermining the success of any measures deployed.</li> <li>▪ Any compensation objectives for LBBG compensation must specifically address the requirement to recruit sufficient breeding adults into the LBBG National Site Network to compensate for the agreed impacts. In turn, this will require agreement on the number of nesting pairs required to generate that number of breeding adults, based on agreed parameters regarding productivity and recruitment. At present, neither the Evidence Plan and Roadmap (Annex 2B) or Schedule 7 of the draft DCO set out explicit compensation objectives. This will lead to unnecessary ambiguity and uncertainty should consent be granted for the scheme.</li> <li>▪ We consider it should be practicable to agree such objectives, applied to the range of predicted impacts referred to above. We consider it critical to attempt to agree these objectives at an</li> </ul>	<p>proposals, although the Applicant highlights that any of the potential measures are likely to be capable of delivering significant over-compensation for potential loss.</p> <ul style="list-style-type: none"> <li>▪ It is the Applicant's understanding that lesser black-backed gull is not a designated feature of Steep Holm Sites of Special Scientific Interest (SSSI); this is stated in Natural England's RR.</li> </ul>

ID	RR	Applicant's Response
	<p>early stage in the examination. This would enable a suitable and proportionate compensation measure to be identified, agreed and developed as far as practicable before the end of the examination.</p> <ul style="list-style-type: none"> <li>▪ Predator exclusion fencing and breeding density: it is important to understand the variation in typical, local breeding densities in assessing the likely success of predator fencing measures. The Applicant argues that based on a “low density” of 0.14 nests/square metre, a 4ha fenced area could theoretically support 5,600 pairs of LBBG.</li> </ul> <p>The RSPB urges caution. For example, the breeding density of the main LBBG colony in the Alde-Ore Estuary SPA (the RSPB's Havergate Marshes reserve) ranges from 0.002 nests/square metre (mixed quality habitat) to 0.005 nests/square metre (good quality habitat). This is the equivalent of 80-200 pairs in a 4ha area, substantially lower than the figures cited by the Applicant.</p> <p>Steep Holm SSSI: we recommend the Applicant confirms with Natural England the notified features of the SSSI and whether or not this includes the population of breeding LBBGs.</p> <p>In general, we consider significant information remains to be presented to the Examination to enable the Examining Authority and Interested Parties to assess the efficacy of the Applicant's compensation proposals and determine whether any selected compensation measure will have a reasonable guarantee of success.</p>	

ID	RR	Applicant's Response
RR-073-25	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.	Noted, no response required.

## 4.18 Scottish Power Renewables (WoDS) Ltd (RR-076)

*Table 4.18 The Applicant's comments on WoDS Ltd's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-076-01	Due to the DCO boundary we are registering as an interested party on the below grounds: * Environmental impact * Wake loss assumptions * Shipping and navigation * Search and rescue	<p>The Applicant notes your response.</p> <p>WoDS is a minimum of 12.9km from the Project, as stated in Table 17.10 of Chapter 17 Infrastructure and Other Users (APP-054).</p> <p>Potential impacts on the WoDS have been identified and assessed in Section 17.6 of Chapter 17 Infrastructure and Other Users (APP-054) and has been considered in the cumulative effects screening for each topic, where appropriate.</p> <p><b>Environmental impact</b></p> <p>The Applicant has undertaken a robust cumulative and in-combination assessment of the Project on the environment, informed by appropriate data sources from site-specific surveys and detailed desktop studies, in accordance with relevant guidance. Each cumulative / in-combination assessment is presented per topic in chapters 7 to 21 of the Environmental Statement (ES) (APP-044</p>

ID	RR	Applicant's Response
		<p>to APP-058) and Report to Informa Appropriate Assessment (RIAA) (APP-027)</p> <p><b>Wake loss assumptions</b></p> <p>Chapter 17 Infrastructure and Other Users (APP-054) assesses the potential impacts of the Project on offshore energy receptors, including offshore wind farm operators.</p> <p>WoDS has been identified as an offshore energy receptor in the baseline environment (Section 17.5.1).</p> <p>Chapter 17 Infrastructure and Other Users (APP-054) sets out that National Policy Statement (NPS) EN-3 (Table 17.4) recognises that offshore wind development will occur in or close to areas where there is other offshore infrastructure. An assessment of the potential effects is required where a potential offshore windfarm is proposed close to existing operational offshore infrastructure (NPS EN-3 para 2.8.197).</p> <p>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 7.5km of an existing offshore wind farm. As described in Paragraph 17.129 of Chapter 17 Infrastructure and Other Users (APP-054), there are no other operational offshore wind farms located within 7.5km of the Project and therefore the Project adheres to the TCE siting criteria and it was</p>

ID	RR	Applicant's Response
		<p>considered that the Project is not close to any existing operational offshore wind farms.</p> <p>A recent study (Frazer-Nash Consultancy, 2023) identified that at a greater than 10km separation between windfarms there is a levelling off of total interaction loss with buffer distance and by 20km the wake losses become 'vanishingly small'. Therefore, no further assessment was required given the distance between the projects and effects at this range.</p> <p>The Applicant would note that the distance between Awel y Môr and Rhyl Flats, which is the precedent to which Morecambe Wind Limited refers, was 5.1km. The WoDS is a minimum of 12.9km from the Project.</p> <p>NPS EN-3 recognises that offshore wind farms may be located close to other offshore infrastructure such as oil and gas, carbon capture, telecommunications and other offshore wind farms. NPS EN-3 (para 2.8.342) states that the Secretary of State (SoS) should take a pragmatic approach where a proposed offshore wind farm potentially affects other offshore infrastructure or activity. An applicant will be expected to work with the impacted sector to minimise negative impacts and reduce risks to as low as reasonably practicable (para. 2.8.344). As such, the SoS should be satisfied that the site selection and site design of a proposed offshore wind farm and offshore transmission has</p>

ID	RR	Applicant's Response
		<p>been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries. Applicants will be required to demonstrate that risks to safety will be reduced to as low as reasonably practicable (para 2.8.345). Where a proposed development is likely to affect the future viability or safety of an existing or approved/licensed offshore infrastructure or activity, the SoS should give these adverse effects substantial weight in its decision-making (para. 2.8.347). Providing proposed schemes have been carefully designed, and that the necessary consultation with relevant bodies and stakeholders has been undertaken at an early stage, mitigation measures may be possible to negate or reduce effects on other offshore infrastructure or operations to a level sufficient to enable the SoS to grant consent (para 2.8.348).</p> <p>As noted above, site selection was undertaken as part of TCE Round 4 leasing process, which built in 7.5km buffer zones around existing wind farms. Scottish Power Renewables (WoDS) Ltd does not raise safety issues in its RR, and the Applicant maintains that the presence of the proposed development does not constitute a safety risk. Furthermore, the Applicant does not consider that the presence of the Project will materially or adversely affect the future viability of the West of Duddon Sands Wind Farm. The Applicant requests that Scottish Power Renewables (WoDS) Ltd explain what steps it has taken to engage with TCE during the agreement of its own lease and during</p>

ID	RR	Applicant's Response
		<p>the Round 4 leasing process in relation to these matters.</p> <p><b>Shipping and navigation</b></p> <p>The Shipping and Navigation assessment has been undertaken with due regard to the relevant policies of the NPS, as outlined in Section 14.4.1 of Chapter 14 Shipping and Navigation (APP-051). This included impacts to approaches to ports, strategic routes and lifeline ferry services. Impacts described within Section 17.6, 17.7 and 17.9 of Chapter 14 Shipping and Navigation (APP-051) address these impacts.</p> <p>Impacts to existing vessel routing, and by extension approaches to ports, is assessed in Section 14.7 and Section 14.8 of Chapter 14 Shipping and Navigation (APP-051), Section 8.2 and 8.3 of Appendix 14.1 Navigation Risk Assessment (NRA) (APP-073) and Section 7.3 and 7.4 of Appendix 14.2 Cumulative Regional Navigation Risk Assessment (CRNRA) (APP-074).</p> <p>The Applicant has committed to a number of risk controls in relation to shipping and navigation as detailed within the NRA (APP-073). Development of controls will be undertaken post-consent in line with more advanced details of the Project design and upon port selection, coordination would be considered as required during the development of Vessel Traffic Management Plan (VTMP), which is outlined in APP-153. A final VTMP will be further developed and agreed with stakeholders prior to</p>



ID	RR	Applicant's Response
		<p>construction, taking account the final detailed design of the Project (as detailed in Schedule 6, Condition 9(1)(j) of the draft Development Consent Order (DCO)/Deemed Marine Licence (DML) (APP-012)). A decision on port selection will be made post-consent of the Project.</p> <p><b>Search and rescue</b></p> <p>An assessment of the Project on Search and Rescue (SAR) is presented in Section 14.7.1.5, Section 14.7.2.5, Section 14.7.3.5 and Section 14.8.3.2 of Chapter 14 Shipping and Navigation (APP-051), Section 8.6 of Appendix 14.1 NRA (APP-073) and Section 7.10 of Appendix 14.2 CRNRA (APP-074). It was concluded that helicopter access guidance is met through the Project's commitments to two lines of orientation and its minimum turbine spacing. Moreover, the Applicant acknowledges that specific layouts will be finalised in consultation with the Maritime and Coastguard Agency (MCA) and Trinity House (TH), in order to ensure that access of SAR assets is not compromised and confirm that principles contained in Marine Guidance Note (MGN) 654 Annex 5 are followed.</p> <p>As set out in Table 17.1 of Chapter 17 Infrastructure and Other Users (APP-054), the Applicant also acknowledges continued communication with other offshore energy operators throughout the Examination phase to facilitate effective co-existence.</p>

ID	RR	Applicant's Response
		The Applicant also notes that, as with other similar projects, the first responders to incidents within the offshore windfarm (OWF) are most likely to be project vessels, to some extent mitigating any loss in aerial asset effectiveness.

## 4.19 Spirit Energy (RR-077)

Table 4.19 The Applicant's comments on Spirit Energy's Relevant Representation (RR)

ID	RR	Applicant's Response
<b>Overall comments</b>		
RR-077-01	Please see the attached Relevant representation of Spirit Energy Production UK Limited in Response to the S56 Notice	The Applicant notes this response.
RR-077-02	<p>'Spirit Energy' is the trading name used by Spirit Energy Limited and its subsidiaries, including Spirit Energy Production UK Limited, a group which collectively conducts European oil and gas operations.</p> <p>We are instructed by Spirit Energy (Spirit) in relation to the proposed development consent order application (the Application) made by Morecambe Offshore Windfarm Ltd (the Applicant) for the proposed Morecambe Offshore Windfarm Generation Assets (the Project). This written representation in response to the section 56 notice from the Applicant is made on behalf of Spirit.</p> <p>Spirit is headquartered in the UK and collectively operates and/or holds interests in 27 producing fields and more than 70 petroleum licences across the UK and the Netherlands. Spirit is also the holder of Carbon Dioxide Appraisal and Storage Licence CS010.</p>	The Applicant notes this response.

ID	RR	Applicant's Response
	<p>The Spirit operated Morecambe Hub currently comprises three fields in the East Irish Sea: North Morecambe, South Morecambe and Rhyl. These operations are licenced by the Oil and Gas Authority under Seaward Production Licences with references P.251 (6 July 1976), P.1483 (13 June 2007) and P.153 (10 July 1972) (SPLs). Spirit is designated duty holder, and therefore operator, of the East Irish Sea fields including Calder, licenced by Chrysaor Resources (Irish Sea) Limited (a Harbour Energy plc group company) (Harbour). Spirit has interests that lie within or adjacent to the order limits and the area for offshore works identified in the DCO and supporting plans that accompany the Application. Spirit's assets in the East Irish Sea include platforms, pipelines, seabed infrastructure and licensed blocks. The Morecambe Hub comprises late life assets which, paired with regulatory requirements and operating standards, inevitably presents a challenging environment for operation and maintenance activities to ensure the assets are safely managed.</p> <p>Spirit aligns with the UK government's latest OGA Strategy, encompassing Net Zero and Maximising Economic Recovery (MER) principles, and therefore the company seeks to:</p> <ol style="list-style-type: none"> <li>1) safely deliver production from their existing assets into the 2030's;</li> <li>2) meet and de-risk decommissioning obligations; and</li> <li>3) actively pursue energy transition opportunities that could repurpose existing infrastructure.</li> </ol>	
RR-077-03	<p>In summary, whilst Spirit does not object to the principle of offshore wind development, it is concerned that the location of the Project as proposed in the Application does not allow for continued safe petroleum operations and managing decommissioning obligations in the East Irish Sea. Approval of the Project would fundamentally undermine Spirit's existing regulatory obligations and therefore licensed operations and would give rise to serious safety concerns and operational impacts including the ability to operate in an efficient and</p>	<p>Please refer to below subsequent responses on these matters, in particular RR-077-22 and RR-077-25.</p>

ID	RR	Applicant's Response
	cost-effective manner. This relates in particular to the effects of the Project on aviation activity as well as shipping and navigation.	
RR-077-04	The effects of the Project associated with aviation activity and shipping and navigation also has implications with respect to future transition of the Morecambe Hub fields for carbon dioxide (CO <sub>2</sub> ) storage as part of the Morecambe Net Zero Project (MNZ) pursuant to obligations under the Carbon Dioxide Appraisal and Storage Licence CS010.	The Applicant notes this response. Please refer to our response in relation to Carbon Capture, Usage and Storage (CCUS) under Part 8 of this Spirit Energy response.
RR-077-05	<p>This representation comprises the following parts:</p> <p>Part 3 - a summary of Spirit's assets and operations in the Irish Sea including the interface with the Project;</p> <p>Part 4 - an overview of the legislation and policy that underpins this representation;</p> <p>Part 5 - a summary of Spirit's concern with respect to maintaining safe operations given the impact of the Project on helicopter access;</p> <p>Part 6 - a summary of Spirit's concern with respect to maintaining safe operations given the impact of the Project on shipping and navigation;</p> <p>Part 7 - the implications of the Project with respect to Spirit's decommissioning activities and obligations;</p> <p>Part 8 - the implications of the Project with respect to MNZ and the UK's carbon capture utilisation and storage (CCUS) ambitions and targets;</p> <p>Part 9 - Spirit's initial observations on the Applicant's 'Habitats Regulations Assessment Without Prejudice Derogation Case';</p> <p>Part 10 - Spirit's position with respect to the protective provisions for its benefit in the draft Development Consent Order (dDCO) (PINS Document Reference:3.1).</p>	The Applicant notes this response. Please refer to below subsequent responses on these matters.
<b>Part 3 – Spirit's Assets and Operations</b>		
RR-077-06	Drawing PC1165-RHD-ES-OF-DR-Z-0055 illustrating the relevant oil and gas infrastructure, Licences and the Order Limits is provided in the Applicant's Environmental Statement (ES) Volume 5, Chapter 17 "Infrastructure and Other Users Figures" (PINS Document Reference: 5.3.17). This is copied below.	The Applicant notes this response.

ID	RR	Applicant's Response
RR-077-07	<p>The Morecambe Hub comprises:</p> <ul style="list-style-type: none"> <li>▪ Three fields in the East Irish Sea - North Morecambe, South Morecambe and Rhyl. The fields lie approximately 25km south west of Walney Island, across blocks 110/2a, 110/3a, 110/8a and 113/27b, in water depths that range from 17 to 35m. One of the largest gas fields in the UKCS, at its peak, the Morecambe Hub met 20% of the UK's domestic gas demand. Despite being in production for over 30 years, the Morecambe Hub remains a cornerstone operated asset in the Spirit portfolio with production expected into the 2030's</li> <li>▪ South Morecambe was discovered in 1974 and was the first of Spirit's fields to be developed, with production starting in 1985. The field has been developed using seven fixed jacket platforms, including the three-platform manned Central Processing Complex, four Normally Unmanned Installations (NUIs) and 36 development wells. Gas is exported via a 36" dedicated pipeline to the Barrow Gas Terminals.</li> <li>▪ North Morecambe was discovered in 1976, with first gas in 1994. The development includes the normally unmanned DPPA platform which acts as the main gathering hub for the area, 10 development wells and a 12" pipeline to the Barrow Gas Terminals.</li> <li>▪ Rhyl, which is north of the North Morecambe field, was discovered in 2009 and brought into production in March 2013. It has been developed as a two-well subsea tieback to DPPA.</li> <li>▪ Gas from all the fields is processed at Barrow Gas Terminals, which is located near Barrow-in-Furness in Cumbria, before entry into the National Transmission System.</li> <li>▪ Spirit's offshore facilities and onshore terminal also provides gathering and processing services for third parties in the East Irish Sea.</li> </ul>	<p>The Applicant notes this response, including that production is expected into the 2030s. The Morecambe Offshore Windfarm is expected to begin operation by 2030 and The Crown Estate (TCE) lease is for 60 years, so it is acknowledged there will be overlap albeit for a relatively small part of the overall operation of the windfarm.</p>

ID	RR	Applicant's Response
	As set out at paragraph 1.4, Spirit is designated duty holder, and therefore operator, of East Irish Sea fields including Calder, licenced by Harbour.	
RR-077-08	<p><b>National Significance of Spirit's Operations</b></p> <p>As a leading upstream producer of natural gas, Spirit contributes substantially to the UK's energy landscape by ensuring a steady supply of domestic resources, reducing dependency on foreign imports which have higher emissions. This not only stabilises energy prices across the UK but supports thousands of jobs directly and indirectly. Spirit directly employs in excess of 600 employees across sites in both the UK and Netherlands. Revenue across the group for the 2023 financial year totalled £950 million with a further £1.05 billion of total tax charges.</p> <p>The Morecambe Hub, and associated producing fields are fundamental to ensuring sustained, long-term energy security for the UK. Despite being in production for over 30 years, the Morecambe Hub remains a cornerstone operated asset in the Spirit portfolio. Spirit's fields continue to produce in excess of 18 million cubic feet of natural gas per year, and Spirit's ambition is for continued investment in the assets so that they can continue to operate into the 2030's. There are remaining gas volumes of up to 192 bcf that could be extracted from the licenced area which would ultimately require Spirit's Central Processing Complex infrastructure to facilitate economic recovery. The Project would not allow for continued safe operations of the asset so as to allow for these resources to be produced in line with obligations under the UK Governments MER Strategy. Spirit is therefore forecasting significant capital expenditure over the next 5 years to ensure continued gas production.</p>	Please refer to responses RR-077-22 and RR-077-25 below. The Applicant also notes paragraph 3.3.62 of National Policy Statement (NPS) EN-1: <i>"Government has concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure."</i> The Morecambe Offshore Windfarm is critical national priority infrastructure.
RR-077-09	<p><b>Morecambe's transition to Net Zero</b></p> <p>The Morecambe Hub fields will play a pivotal part in the UK's journey to net zero. Once the gas fields have ceased natural gas production,</p>	The Applicant notes this response. Please refer to our response in relation to Carbon Capture, Usage

ID	RR	Applicant's Response
	<p>repurposing the reservoirs and associated infrastructure for carbon storage is of paramount importance to ensure the UK can meet its Net Zero targets. As a result, Spirit's vision for repurposing of the fields has been endorsed by the UK Government through the award of Carbon Storage licence CS010 in September 2023, pursuant to section 18 of the Energy Act 2008. The UK's Net Zero Strategy, published in 2021 sets out a target of 20-30 million tonnes per annum (MTPA) of CCUS in the UK by 2030, rising to at least 50 MTPA by 2035. It is expected that Spirit's Morecambe Net Zero CCS project could facilitate up to 25MTPA of carbon storage by 2040, delivering half of the UK's storage target. The cumulative volume that can be stored is up to 1 GT of CO2 which is equivalent to 10 years of the UK's current industrial CO2 emissions.</p> <p>The initial phase of the MNZ project seeks to bring together a number of the UK's leading cement and lime producers (the Peak Cluster) to deliver CO2 volumes into Spirit's carbon stores. The MNZ Peak Cluster partnership was created with the fundamental goal of decarbonising 40% of the UK's cement and lime industry and to ensure that close to four million tonnes of carbon dioxide emissions will be captured and permanently stored per year.</p> <p>The Climate Change Committee's (CCC) latest report (July 2024) highlights that rapid initial deployment and scale-up of CCUS technologies are critical in the context of meeting the ambitious goals outlined in the Carbon Budget Delivery Plan, which includes at least 5 MtCO2 of engineered removals by 2030. The CCC has affirmed that CCUS is a necessity in achieving Net Zero goals. The scale of MNZ and capacity for storage at the Morecambe Hub must not be understated and is absolutely critical to realising these aspirations.</p>	<p>and Storage (CCUS) under Part 8 of this Spirit Energy response.</p>

ID	RR	Applicant's Response
	<p>The technical implications of the Project with respect to MNZ and the UK's CCS ambitions is set out at Part 8: CCUS Implications.</p>	
RR-077-10	<p><b>Affected Assets</b>            Spirit assets in the East Irish Sea include platforms, pipelines, seabed infrastructure and licensed blocks.</p> <p>Spirit's specific assets within close proximity of the Project are identified in Table 7.13 of Volume 5 Chapter 17 of the ES "Infrastructure and Other Users" (PINS Document Reference: 5.1.17). This has been reproduced at Appendix A for reference.</p> <p>In summary, the Affected Assets comprise the following; with related operations being within proximity to the potential location the wind farm boundary and turbines (the Unconstrained Areas as defined in the ES):</p> <ol style="list-style-type: none"> <li>1. South Morecambe Central Processing Complex (CPC) comprises of the Accommodation Platform 1 (AP-1), Central Processing Platform 1 (CPP-1) and Drilling Platform 1 (DP-1). There are two helidecks within the Central Processing Complex – one at AP-1 and one at DP-1.</li> <li>2. Calder CA1 (Calder) remote drilling and production platform with helideck which (as set out in paragraph 1.4) Spirit is designated duty holder, and therefore operator, under licence from Harbour.</li> <li>3. South Morecambe DP6 NUI (with helideck).</li> <li>4. South Morecambe DP8 NUI (with helideck).</li> </ol> <p>North Morecambe DPPA NUI (with helideck).</p>	<p>The Applicant confirms that all identified assets have been considered within Environmental Statement (ES) Chapter 17 Infrastructure and Other Users (APP-054). Please refer to below subsequent response (RR-077-11) on this matter.</p>
RR-077-11	<p>Spirit notes that Table 7.13 provided by the Applicant (and replicated at Appendix A) does not include the North Morecambe DPPA platform. Spirit considers that the North Morecambe DPPA platform (in addition to all of the platforms listed at Appendix A) are the Affected Assets due to the nature of the flight operations via the Central Processing</p>	<p>The Applicant notes that the North Morecambe DPPA platform is listed in the second page (page 64) of Table 17.13 of ES Chapter 17 Infrastructure</p>



ID	RR	Applicant's Response
	Complex. The below table references the distances noting proximity to the wind farm boundary and unconstrained areas.	and Other Users (APP-054), and also considered in Appendix 17.1 Helicopter Access Study (APP-081).  Appendix 17.1 Helicopter Access Study (APP-081) identifies that a low percentage of helicopter flights were flown to the North Morecambe DPPA platform at night and under Instrument Meteorological Conditions (IMC).
RR-077-12	Throughout the remainder of this representation, we use the term the Affected Assets which means all of the assets above and listed as under the ownership of Spirit (plus Calder that is under the ownership of Harbour) and referred to above. We will refer elsewhere to specific assets within the list of Affected Assets, as the context requires.	The Applicant notes this response.
<b>DCO comments</b>		
RR-077-13	<p>For the purposes of securing the powers to construct, operate and maintain the Project, the Applicant's Offshore Works Plan (PINS Document Reference: 2.3) shows the Order Limits edged red and the area within which turbines may be installed hatched light green. The Central Processing Complex infrastructure is illustrated in purple and is denoted as AP-1, DP-1 and CPP-1 due north of the Order limits. Calder is shown (illustrated in purple) to the east of the Order limits. The Offshore Works Plan is enclosed at Appendix B.</p> <p>It is instructive at the outset to explain how the 1.5nm "buffer zone" used in the ES is currently secured in the dDCO.</p>	The Applicant notes this response.
RR-077-14	Paragraph 3 (restriction on unauthorised development) of Part 3 of Schedule 3 of the dDCO (Protective provisions for the protection of Spirit Energy) states: " <i>No wind turbine generator or offshore substation platform shall be erected in the pipeline and cable proximity area or in</i>	The Applicant notes this response.

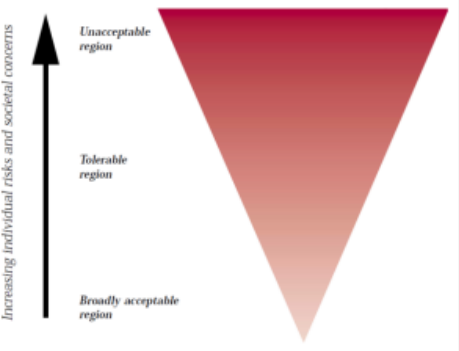
ID	RR	Applicant's Response
	<p><i>the WTG and OSP buffer zone unless otherwise agreed in writing between the owner and the undertaker.</i></p> <p>The following terms referred to above are defined at paragraph 2:  <i>“pipeline and cable proximity area” means the area five hundred meters (500m) either side and directly above the pipeline and cable;”</i>  <i>“WTG and OSP buffer zone” means an area of one point five nautical miles (1.5 nm) of clear airspace measured from the outer extremity edge of each of the AP-1 helideck and DP-1 helideck to any tip from any wind turbine generator located within the Licence and extending vertically from mean sea level.”</i></p> <p>It is the latter definition that is particularly important. Specifically, that the 1.5nm “buffer zone” used in the ES is secured by virtue of the protective provisions applying a 1.5nm minimum separation distance between turbine tips measured from (only) the following:</p> <ul style="list-style-type: none"> <li>▪ The AP-1 helideck – defined paragraph 2 as “...the helideck located on the accommodation platform which is linked by bridge to CPP1”; and</li> <li>▪ The DP-1 helideck – defined in paragraph 2 as “the helideck located on the drilling platform 1 located in the United Kingdom Continental Shelf Block 110/2a, 110/3a and 110/8a”.</li> </ul> <p>With respect to Calder, paragraph 3 (restriction on unauthorised development) Part 2 of Schedule 2 of the dDCO (Protective provisions for the protection of Harbour Energy) states: <i>“No wind turbine generator or offshore substation platform shall be erected in the pipeline and cable proximity area or in the WTG and OSP buffer zone unless otherwise agreed in writing between the owner and the undertaker.”</i></p>	

ID	RR	Applicant's Response
	<p>The definitions in paragraph 2 are similar to those that apply in Spirit's protective provisions except in respect of applying instead to Calder:</p> <p><i>"WTG and OSP buffer zone" means an area of one point five nautical miles (1.5 nm) of clear airspace measured from the outer extremity edge of the Calder Platform to any tip from any wind turbine generator located within the Licence and extending vertically from mean sea level"</i></p> <p><i>"Calder Platform" means the normally unattended, minimum facilities wellhead platform located in the United Kingdom Continental Shelf Block 110/7a"</i></p> <p>Any references to a 1.5nm "buffer zone" in this representation must be considered by reference to the aforementioned protective provisions and definitions.</p>	
RR-077-15	<p>As an important preliminary matter, Spirit note that the protective provisions for its benefit are framed in a way that only secures the 1.5nm buffer zone for aviation purposes – this separation distance being measured from the AP-1 helipad and DP-1 helipad. The consequence is that the removal of those helipads in turn removes the 1.5nm buffer zone. That being the case:</p> <ul style="list-style-type: none"> <li>▪ The protective provisions effectively only secure a 500m buffer zone for shipping and navigation purposes. For reasons that we come onto at Part 6 that is inadequate, especially as marine requirements will remain to enable Spirit to manage decommissioning obligations and secure rig and heavy lift vehicle access until mid-2030's. For the foregoing reason, and to aid clarity, Spirit's position is that the protective provision must be split out and articulated separately for marine and aviation requirements.</li> <li>▪ The protective provisions do not contemplate any change to the helipad locations at the Central Processing Complex or a new location for the take-off and landing of helicopters to serve the</li> </ul>	<p>The Applicant notes this response. The Applicant will continue to engage with Spirit Energy to ensure that the definition of the buffer zones within the protective provisions (Schedule 3 Part 3 of the draft DCO APP-012) is appropriate for Spirit Energy's operations.</p> <p>As set out in at RR-077-88 below, the Applicant proposes to include revised protective provisions in the version of the draft DCO submitted at Deadline 2.</p>

ID	RR	Applicant's Response
	<p>Central Processing Complex infrastructure. Thus the 1.5nm simply assumes the “status quo”. That is plainly inadequate: the buffer zone (which for the reasons we come onto must be a greater distance than 1.5nm in any event) must be measured, as we note is the case with the protective provision in respect of Calder, from the “outer extremity” of all of the Central Processing Complex infrastructure.</p>	
<b>Part 4 – Legislative and policy context</b>		
RR-077-16	<p>We generally agree with the statement of legislation and policy set out in chapter 2 of the ES. However, the following section is of particular relevance to consideration of the Application in light of Spirit’s interests and operations in the area.</p> <p>The oil and gas sector is highly regulated. The impacts of the Project on Spirit’s existing and future operations will require to be managed by Spirit in the context of that regulatory framework. Accordingly, the implications of applicable regulatory frameworks (as set out in the paragraphs that follow) are relevant to the determination of the Application. As discussed in the remainder of this representation, the EIA undertaken by the Applicant does not fully capture the impacts of the Project in relation to Spirit’s interests. Moreover, the health and safety regulatory regime under which Spirit operates requires it to assess the risks arising from the Project in a different manner and respond to those risks accordingly. For this reason, it is very important and highly relevant for the Examining Authority to consider the potential impacts of the Project as viewed within that health and safety context and the consequential implications for Spirit.</p>	<p>The Applicant notes this response.</p> <p>Please refer to the Applicant’s subsequent responses on these matters under Parts 4, 5, 6 and 7 of this Spirit Energy Relevant Representation (RR).</p>
RR-077-17	<p><b>Health and safety - Legislative requirements</b></p> <p>This section of the representation sets out the health and safety requirements that apply to Spirit’s operations – it must be read together with the health and safety risks as a consequence of the</p>	<p>The Applicant notes this response and agrees that these are the primary relevant health and safety pieces of legislation.</p>

ID	RR	Applicant's Response
	<p>Project that are identified and illustrated at Part 5: Aviation related safety. It is also important and relevant in the context of appraising the risks identified as a consequence of the Project at Part 6: Shipping and Navigational Risk.</p> <p>The primary legislation that gives rise to Spirit's representation, and that must be afforded full weight in appraising the safety risk of the Project, relates to workplace health and safety requirements in operating offshore installations. In particular, the following:</p> <ol style="list-style-type: none"> <li>1. The Health and Safety at Work etc. Act 1974 (HSWA) enables wide-ranging regulatory instruments to be developed and enforced. Secondary legislation in the form of regulations express general duties, principles and goals with subordinate detail set out in Approved Codes of Practice (ACOP) and guidance. The general duties in HSWA are comprehensive in coverage.</li> <li>2. The Management of Health and Safety at Work Regulations 1999 (MHSWR) require the assessment of risks to identify the measures required to comply with duties under health and safety law – the assessment provisions of MHSWR permeate all other workplace health and safety legislation.</li> </ol> <p>A range of regulations were put in place specifically for the offshore oil and gas industry following the Piper Alpha disaster in July 1988 that claimed the lives of 167 men – recommendations from the Cullen enquiry transformed the regulations for offshore installations with the two key regulations (comprising related requirements):</p> <ol style="list-style-type: none"> <li>1. The Offshore Installations (Offshore Safety Directive)(Safety Case etc) Regulations 2015 (SCR): The primary aim of SCR is to reduce risks from major accident hazards, and to implement the central recommendation of the Cullen enquiry, requiring preparation of a Safety Case Standards for the control of major accident risks are set by PFEER (see next paragraph) and other regulations. A</li> </ol>	

ID	RR	Applicant's Response
	<p>Safety Case demonstrates that arrangements are in place which, if implemented, are capable of achieving compliance with these legal objectives. These arrangements include the Safety and Environment Critical Elements (SECE) to prevent major accidents or reduce their consequences, and the development of an independent verification scheme to demonstrate the ongoing condition and suitability of SECEs. Spirit, as an offshore operator, are legally required to comply with the provisions described in the Safety Case.</p> <p>Offshore Installations (Prevention of Fire and Explosion, and Emergency Response Regulations 1995) (PFEER): PFEER requires a formal risk assessment of major accident hazards to be carried out, and sets out specific requirements for equipment that must be in place to reduce the likelihood of a fire or explosion event, to quickly bring such an event under control, mitigate the consequences and ensure that people are kept safe from harm. Measures specified within PFEER are SECE under SCR."</p>	
	<p><b>ALARP</b></p> <p>The concept of 'reasonably practicable' is a core principle of UK health and safety law, and is a key part of the general duties of the HSWA and specific regulatory requirements placed on offshore installations under SCR and PFEER.</p> <p>ALARP is short for 'As Low As Reasonably Practicable' and describes the level to which Spirit is obliged to ensure that workplace risks are controlled. The term 'reasonably practicable' is a narrower term than 'physically possible' and involves weighing a risk against the sacrifice (trouble, time and cost) needed to reduce it. Generally, risk reduction measures need to be adopted except where they involve grossly disproportionate sacrifice.</p>	<p>The Applicant notes this response and agrees with definitions provided by Spirit Energy.</p>

ID	RR	Applicant's Response
	<p>A framework for the tolerability of risk has been published by the Health and Safety Executive:</p> <div style="border: 1px solid black; padding: 5px;"> <p>The triangle represents increasing level of 'risk' for a particular hazardous activity as we move from the bottom of the triangle towards the top</p>  <p><b>Unacceptable:</b> The dark zone at the top represents an unacceptable region where an activity is regarded as unacceptable whatever the level of benefits it may bring</p> <p><b>Broadly Acceptable:</b> The light zone at the bottom represents a broadly acceptable region where risks are generally regarded as insignificant and adequately controlled</p> <p><b>Tolerable:</b> Between the unacceptable and broadly acceptable regions is the tolerable region representing risks from activities that people are prepared to tolerate in order to secure benefits</p> </div>	
RR-077-20	<p>Under SCR and PFEER, Spirit is required to assess the risks of a major accident and ensure that suitable SECE are in place to control these risks to ALARP. Crucially, Spirit must carry out regular Maintenance, Inspection and Testing (MIT) to demonstrate that SECEs continue to be suitable and remain in good repair and condition to perform their required safety function when required.</p>	<p>The Applicant notes this response and is aware of Spirit Energy's requirements under Single Central Record (SCR) and Prevention of Fire and Explosion, and Emergency Response (PFEER) regulations.</p>
RR-077-21	<p>MIT activities are carried out in accordance with maintenance strategies designed to preserve equipment availability and reliability; the strategy specifies the MIT intervals to achieve the required performance – any deviation from the MIT strategy, including MIT intervals, could have significant adverse effects on equipment performance i.e. MIT cannot simply be 'bundled' up for delivery in a less frequent campaign.</p>	<p>The Applicant considers that it is common practice for oil and gas operators to optimise delivery of maintenance campaigns in line with operating or other conditions or constraints, including bundling of activities in less frequent campaigns where necessary.</p> <p>Further detail is provided in the response to RR-077-25 and RR-077-27.</p>

ID	RR	Applicant's Response
RR-077-22	<p><b>National planning policy</b></p> <p>With respect to national planning policy relevant to the determination of the Application Spirit make the following observations – particularly in the context of the safety concerns identified in this representation:</p> <p>National Policy Statement for Renewable Energy Infrastructure (EN-3) provides as follows:</p> <ol style="list-style-type: none"> <li>a. Where a proposed offshore wind farm potentially affects other offshore infrastructure or activity, a pragmatic approach should be employed by the Secretary of State. Much of this infrastructure is important to other offshore industries as is its contribution to the UK economy. In such circumstances the Secretary of State should expect the applicant to minimise negative impacts and reduce risks to as low as reasonably practicable (Para 2.8.342 - 2.8.344).</li> <li>b. As such, the Secretary of State should be satisfied that the site selection and site design of the proposed offshore wind farm has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries. The Secretary of State should not consent applications which pose unacceptable risks to safety after mitigation measures have been considered (Para 2.8.346).</li> <li>c. Where a proposed development is likely to affect the future viability or safety of an existing or approved/licensed offshore infrastructure or activity, the Secretary of State should give these adverse effects substantial weight in its decision-making (Para 2.8.347).</li> </ol>	<p>NPS EN-3 recognises that offshore wind farms may be located close to other offshore infrastructure such as oil and gas, carbon capture and telecommunications. The scale and location of future offshore wind development around England and Wales means that development has occurred, and will continue to occur, in or close to areas where there is other offshore infrastructure (para 2.8.196). Where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities (para 2.8.197). NPS EN-3 (para 2.8.342) states that the Secretary of State should take a pragmatic approach where a proposed offshore wind farm potentially affects other offshore infrastructure or activity. The Applicant will be expected to work with the impacted sector to minimise negative impacts and reduce risks to as low as reasonably practicable (para. 2.8.344).</p> <p>As such, the Secretary of State should be satisfied that the site selection and site design of a proposed offshore wind farm and offshore transmission has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries. Applicants will be required to demonstrate that risks to safety</p>



ID	RR	Applicant's Response
		<p>will be reduced to as low as reasonably practicable (para 2.8.345). Where a proposed development is likely to affect the future viability, or safety, of an existing or approved/licensed offshore infrastructure or activity, the Secretary of State should give these adverse effects substantial weight in its decision-making (para. 2.8.347). Providing proposed schemes have been carefully designed, and that the necessary consultation with relevant bodies and stakeholders has been undertaken at an early stage, mitigation measures may be possible to negate or reduce effects on other offshore infrastructure or operations to a level sufficient to enable the Secretary of State to grant consent (para 2.8.348).</p> <p>The Applicant has been engaging with Spirit Energy on the location of the proposed site since February 2020. The Applicant has undertaken a careful site design process, building in buffer zones around current oil and gas platforms and pipelines (as secured in the draft Development Consent Order (DCO) (APP-012) by protective provisions in favour of Spirit Energy), to allow for appropriate co-existence and minimise disruption and economic loss to Spirit Energy (Schedule 3 Part 3 of the draft DCO APP-012). The Applicant has undertaken a full assessment of the potential impacts on Spirit Energy, with input from aviation and offshore safety experts, as presented in the following documents Chapter 14 - Shipping and Navigation of the ES (APP-051), Appendix 14.1 - Navigational Risk Assessment (NRA) (APP-073), Chapter 17 - Infrastructure and Other Users of the ES (APP-</p>

ID	RR	Applicant's Response
		<p>054), Appendix 17.1 - Helicopter Access Study (APP-081) and Appendix 17.2 - Radar Early Warning System Technical Report (APP-082).</p> <p>For the reasons summarised in response to RR-077-25 below, the Applicant's position is that the presence of MOWF does not present a safety risk to Spirit Energy's operations and infrastructure at the Morecambe Hub. Furthermore, the Applicant does not consider that the presence of MOWF will materially or adversely affect the future viability, or safety, of the Morecambe Hub. Notwithstanding this, the Applicant is content to enter into, and will continue to progress, an agreement to facilitate cooperation and co-existence to the extent appropriate in addition to Protective Provisions.</p>
RR-077-23	<p>More generally, the Overarching National Policy Statement for Energy (EN-1) states that natural gas will continue to play an important part in the UK's fuel mix. It notes at paragraph 3.4.5 that "The Energy White Paper signals a decisive shift away from unabated natural gas to clean energy. This transformation, as reiterated in the British Energy Security Strategy, cannot be instantaneous without jeopardising a secure, reliable, and affordable energy system".</p>	<p>The Applicant notes this response. Offshore wind is designated as Critical National Priority under section 4.2 of EN-1, a designation afforded to low carbon infrastructure.</p>
RR-077-24	<p>For the reasons set out in the remainder of this representation, it is Spirit's position that the Application does not accord with relevant national policy in that it does not:</p> <ul style="list-style-type: none"> <li>▪ Provide for the appropriate co-existence of Spirit's gas production operations with the Project – both in terms of its current operations and statutory obligations under the OGA Strategy, see Appendix C;</li> </ul>	<p>The Applicant notes this response and refers to the response to RR-077-22 above and RR-077-25 and RR-077-27 below.</p> <p>Please also refer to the Applicants responses on these matters under Parts 4, 5, 6 and 7 of this Spirit Energy RR.</p>

ID	RR	Applicant's Response
	<ul style="list-style-type: none"> <li>▪ Allow Spirit to comply with its obligations to decommission its relevant offshore infrastructure in accordance with the conditions of its SPL and the Petroleum Act 1998;</li> <li>▪ Seek to minimise negative impacts and reduce safety risks to as low as reasonably practicable in respect of Spirit's operations and assets, or</li> <li>▪ Avoid or minimise disruption, economic loss or adverse effects on safety in so far as Spirit's interest are concerned</li> </ul>	
<b>Part 5 – Aviation</b>		
RR-077-25	<p>Spirit's primary concerns with respect to aviation related safety are as follows:</p> <p>First, that the minimum 1.5nm "buffer zone" between the potential siting of wind turbines and the Central Processing Complex infrastructure and Calder helipads is simply inadequate for the purposes of ensuring safe helicopter arrivals and departures to and from (and between) those Affected Assets. There remains uncertainty as to the precise extent of what would constitute a safe "buffer" for take-off and landing purposes, and the corresponding risk given the current distances between other Affected Assets and the Unconstrained Areas.</p>	<p>The impact of the Project Wind Turbine Generator (WTGs) on helicopter access to gas platform helidecks is detailed in ES Appendix 17.1 Helicopter Access Study (APP-081). A 1.5nm separation radius from WTGs and OSPs would allow day Visual Meteorological Conditions (VMC) access to the Calder CA1 and South Morecambe (CPC-1/DP1) platforms, as secured in protective provisions in the draft DCO (APP-012). Based on Vantage data (showing flight times and destinations from Jan 2018 - Sept 2023) provided by Spirit Energy, flights under VMC access represent the vast majority of helicopter flights accessing these platforms. Whilst some IMC access would be restricted to these platforms, these restrictions would be a logistical operational access impact rather than a safety issue.</p> <p>The Applicant notes that flight delays and cancellations to the platforms will already occur (e.g. due to weather, logistical or operational reasons) and that it is normal operational practice</p>

ID	RR	Applicant's Response
		<p>to manage such delays as part of the MIT programme. It is not credible that a short delay in flight access due to the presence of the Project will significantly adversely impact on the functioning of a Safety and Environmentally Critical Elements (SECE). Since 27 June 2023, the Applicant has requested that Spirit Energy share its aviation access study report and present any data to support its statements. A report by AviateQ (revision 2.1, dated August 2024) in relation to helicopter access was provided to the Applicant on 11 October 2024, and the Applicant is considering the contents with its aviation experts and will provide any additional comments by Deadline 1 (the deadline for the Applicant to respond to Spirit Energy's RR). Complete Vantage data that is up to date and that shows the actual payloads carried on flights, in addition to the flight times and destinations, has not yet been provided.</p> <p>The Applicant notes that daily helicopter flights are currently being flown to oil and gas platform helidecks located inside and adjacent to other operational wind farms with less than 1.5nm to the closest WTG. These flights are conducted under the same Commercial Air Transport (CAT) Regulations using the same or similar types as used in Morecambe Hub.</p> <p>Examples include the Blythe Normally Unmanned Installations (NUIs) in the Southern North Sea where turbines are located 0.65nm from the platform, and the Rhyl gas field operated by Spirit</p>

ID	RR	Applicant's Response
		<p>Energy in the Northern Irish Sea, which is located within the Walney offshore wind farm, with WTG within circa 1nm from the subsea wells. This location has had Non-production Installations (NPI) with helidecks working over it on a number of occasions.</p> <p>Taking into account the mitigation secured in the protective provisions in the draft DCO (APP-012), the Applicant does not consider (and has seen no evidence to suggest) that the presence of the Project will materially or adversely affect the future viability, or safety, of Spirit Energy's operations at the Affected Assets.</p> <p>Notwithstanding, the Applicant is content to enter into a commercial agreement to the extent appropriate in addition to the protective provisions. The Applicant provided Spirit Energy with a draft co-existence agreement on 11 April 2024 and is continuing to engage with Spirit Energy to ensure that the definition of the buffer zones and the other operative clauses within the protective provisions is appropriate for Spirit Energy's operations. The Applicant proposes to include revised protective provisions in the version of the draft DCO submitted at Deadline 2.</p> <p>The Applicant is committed to continuing to work with Spirit towards a mutually agreeable position, and a meeting between the parties is being arranged for early November.</p>

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		<p>The Applicant also intends to progress an initial Statement of Common Ground by Deadline 1.</p>
RR-077-26	<p>Second, that the Applicant's assessment of the implications of helicopter flight restrictions (including daylight and visual flight rules (VFR)) that apply where there is the potential siting of wind turbines within proximity of oil and gas installations is not fit for purpose. Rather it severely underestimates the number and frequency of delays and cancellations to and from (and between) all of the Affected Assets.</p>	<p>As set out in ES Appendix 17.1 Helicopter Access Study (APP-081), meteorological and Vantage data provided by Spirit Energy and Harbour Energy has been used to make the Applicant's assessment in relation to potential helicopter flight restrictions to Spirit's platforms. Representative data has therefore been used to inform the Applicants helicopter access study.</p> <p>As noted above (RR-077-25), the Applicant has, since 27 June 2023 requested Spirit Energy share its aviation access study report (now received on 11 October 2024) and underlying data (not yet received). A report by AviateQ (Revision 2.1, dated August 2024) in relation to helicopter access was provided to the Applicant on 11 October, and the Applicant is considering the contents with its aviation experts and will provide any additional comments by Deadline 1 (the deadline for the Applicant to respond to Spirit Energy's RR). The Applicant further requests that the data underlying the report, including complete Vantage data that is up to date and that shows the actual payloads carried on flights, in addition to the flight times and destinations, is provided so that the Applicant can have a better understanding of Spirit Energy's position.</p>

ID	RR	Applicant's Response
RR-077-27	Third that the consequence of the two preceding issues is significant implications for the safe operation of all of the Affected Assets and related uncertainty over Spirit's residual ability to comply with health and safety regulatory requirements.	See RR-077-25 above.
RR-077-28	<p>Fourth that the only way to effectively mitigate that safety risk whilst ensuring the continued operation of the Affected Assets (operations which themselves are of national significance for the reasons set out at Part 3: Spirit's Assets and Operations) is for the Applicant to increase the "buffer zone" between the siting of wind turbines and the Affected Assets. That being imperative in order to ensure:</p> <p>A. safe helicopter arrivals and departures to and from (and between) the helipads at the Affected Assets; and</p> <p>the removal of helicopter flight restrictions (including daylight and VFR) in order that Spirit could maintain an acceptable level of helicopter operations to and from (and between) the helipads including using instrument flying rules (IFR) at the Affected Assets.</p>	See RR-077-25 above.
RR-077-29	<p><b>1.5nm buffer zone</b></p> <p>To explain this matter in as clear and helpful terms as possible, it is necessary to first provide context with respect to the Applicant's assessment and corresponding measures that it has secured in its dDCO:</p> <ul style="list-style-type: none"> <li>▪ The starting point is that the Applicant seeks flexibility as to the location and layout of the Project. There are two important definitions in this regard, as defined in Chapter 17 of the ES (PINS Document Reference: 5.1.17): <ul style="list-style-type: none"> <li>a. <i>Windfarm Site – the area within which the wind turbine generators (WTGs), inter-array cables, offshore substation platforms (OSP(s)) and platform link cables will be present</i></li> <li>b. <i>Unconstrained Areas - areas within the windfarm site where WTGs or OSP(s) would be located, used when developing</i></li> </ul> </li> </ul>	<p>The Applicant notes this response.</p> <p>It is further noted that the North Morecambe DPPA platform is listed in the second page (page 64) of Table 17.13 of ES Chapter 17 - Infrastructure and Other Users (APP-054), and also has been considered in Volume 5 - Appendix 17.1 - Helicopter Access Study (APP-081).</p>

ID	RR	Applicant's Response
	<p><i>layout scenarios within the windfarm site and secured in the DCO by Protective Provisions.</i></p> <ul style="list-style-type: none"> <li>▪ None of the Affected Assets (excluding the decommissioned South Morecambe DP3 platform) are located within the Windfarm Site. Furthermore, the Applicant has set a minimum 1.5nm “buffer zone” between Unconstrained Areas (or as expressed in the DCO protective provisions, simply the location of turbines) and the helipads at the Central Processing Complex infrastructure and Calder.</li> <li>▪ The other Morecambe Platforms are located at greater distances but still within the vicinity of the Unconstrained Areas (between 2.2nm (4km) and 8nm (13km)).</li> <li>• The precise separation distances between the Affected Assets and the Unconstrained Area is set out in the fourth column of Table 7.13 of Volume 5, Chapter 17 of the ES (Appendix A). As noted at paragraph 3.13 (and in the table that follows below that paragraph) Spirit also consider that the North Morecambe DPPA forms part of the Affected Assets.</li> <li>•</li> </ul> <p>The Applicant states that the 1.5nm “buffer zone” has been secured in the dDCO as “embedded mitigation” and asserts (at various parts in Chapter 17 of the ES (PINS Document Reference: 5.1.17)) that this minimum distance provides a sufficient unobstructed airspace requirement to: a) safely descend on approach and land at offshore oil and gas platforms; and b) safely depart offshore oil and gas platforms and achieve sufficient altitude.</p>	
RR-077-30	<p>Spirit cannot accept the aforementioned conclusion of the Applicant: the 1.5nm “buffer zone” is wholly inadequate between the helipads that serve the Affected Assets and wind turbines.</p>	<p>See RR-077-25 above.</p> <p>A report by AviateQ (dated August 2024) was provided to the Applicant on 11 October, and the Applicant is considering the contents with its</p>



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	<p>Spirit has arrived at this conclusion with the support of robust technical evidence.</p> <p>Recognising the need for co-existence and the potential of turbines to become obstacles in the current obstacle free environment, Spirit (at its own expense) engaged the services of AviateQ International Limited (AviateQ), a global aviation consultancy to provide specialist aviation assurance support to: a) review the windfarm development plans and the proposed positioning of wind turbines; and b) taking into consideration Spirit's responsibilities associated with the operation of the facilities and the continuing need beyond 2026 for access by air in Leonardo AW139 and AW169 helicopters, determine the integrity of operations based on 1.5nm of buffer zone.</p>	<p>aviation experts and will provide any additional comments by Deadline 1 (the deadline for the Applicant to respond to Spirit's RR).</p>
RR-077-31	<p>AviateQ has also been engaging (and is continuing to engage) with NHV, the operator of the helicopters that fly to the Affected Assets, in order to verify that the underlying assumptions that inform the aforementioned assessment are complete and accurate.</p>	<p>The Applicant notes this response. As noted above (RR-077-25), the Applicant requests that Spirit Energy provide the full data underlying a report by AviateQ (dated August 2024) in relation to helicopter access which was provided to the Applicant on 11 October so that the Applicant can have a better understanding of Spirit Energy's position.</p>
RR-077-32	<p>There is common ground in some respects of the assessment between AviateQ and the Applicant. In particular that, with the presence of the Project, Visual Meteorological Conditions (VMC) would apply and that it is "...an industry requirement to stabilise the approach, i.e. be flying into wind, in level flight at the required airspeed and power, with the aircraft configured for landing, at a defined point in space. The CAA requires operators to define their offshore approach profiles (Ref. iii), but the CAA does not set any parameters"</p>	<p>The Applicant notes this response.</p>
RR-077-33	<p>Nevertheless, there are serious deficiencies that have been identified with respect to the assumptions and calculations that have informed the Applicant's conclusion that a 1.26nm VMC applies and that the</p>	<p>In response to Points 1 &amp; 2: The Applicant notes that daily helicopter flights are being flown to oil and gas platform helidecks located inside and</p>

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	<p>1.5nm buffer zone would provide (as the Applicant appears to be claiming) a precautionary minimum obstacle free distance:</p> <ol style="list-style-type: none"> <li>1. The proposed 1.5nm distance between the turbines and the closest Spirit offshore installation(s) in East Irish Sea is not sufficient to perform safe Aviation Commercial Air Transport (CAT) operations and to deliver operational and maintenance requirements.</li> <li>2. With the proposed distance the aircraft crew will be under undue pressure to perform "Rate One" turns in close proximity to the nearest turbines, and will not have adequate airspace to establish the aircraft on the correct path prior to meeting the stabilised approach requirements at Stabilised Approach Point (SAP), creating a missed approach scenario and increasing HSE exposure to the crew and passengers onboard.</li> <li>3. In addition, for the One Engine Inoperative (OEI) scenario during take-off from the offshore installation, the aircraft will not be able to climb to the altitude above the turbine height prior to performing a "Rate One" turn exposing the aircraft with crew and passengers to risk of colliding with turbines.</li> <li>4. Spirit conducts helicopter shuttling operations on all 365 days of the year between the manned platform on the Central Producing Complex and all other NUI platforms in the area (Calder, DP6, DP8 and North Morecambe PPA) to ensure compliance with statutory and regulatory requirements. The offshore intervention teams are stationed on the Central Processing Complex. The proposed proximity of 1.5nm to helipads at those installations will impact its ability to comply with relevant statutory and licensing requirements.</li> </ol> <p>Furthermore, during the field decommissioning operations, the helicopter operations will be conducted to the helidecks onboard the decommissioning vessels/barges/rigs which can be positioned on the south face of the existing offshore installations which would</p>	<p>adjacent to wind farms with less than 1.5nm to the closest wind turbine. These flights are conducted under the same Commercial Air Transport (CAT) Regulations, including the requirement for a stabilised approach, using the same or similar types as used in Morecambe Bay.</p> <p>For further detail and examples of helicopter operations to oil and gas platform helidecks and other infrastructure located inside and adjacent to other operational wind farms see the response to RR-077-25 above.</p> <p>In response to Point 3: For the One Engine Inoperative (OEI) scenario during take-off from the offshore installation, the Applicant notes that it is not necessary to climb above the turbine height before starting to turn. This is noted in United Kingdom (UK) Standardised European Rules of the Air (SERA) (UK Reg European Union (EU) No 923/2012).</p> <p>Response to Point 4: See RR-077-25 above.</p> <p>Point 5: The statement is that these can be located on the south face, presumably at CPC1. This imposes an access restriction for vessels / barges etc. during the temporary decommissioning operations. As the flare platform is to the North it's likely the preferred approach is to the South face, but without further details of the decommissioning programme, we cannot assess whether this is a</p>

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	necessitate further reducing the distance between the vessel/barge/rig helideck and the potential location of turbines – further degrading safe flying operations.	significant restriction. This could give rise to some operational issues but will not represent a flight safety risk. Given that the decommissioning activities will be temporary, and that flights during the decommissioning phase will be much less frequent than those during operations, the Applicant maintains that during decommissioning the presence of the Project will not materially or adversely affect the viability or safety of Spirit Energy's operations.
RR-077-34	Taken together, the physical separation of 1.5nm from turbines is simply inadequate from a safety perspective. There is no scope for operational mitigation to address this issue whilst maintaining compliance with regulatory requirements. Accordingly physical mitigation is required by increasing the distance between the turbines and the Affected Assets.	See RR-077-25 above.
RR-077-35	<p><b>Flight Restrictions</b></p> <p>Determining the acceptable distance between the Unconstrained Areas and the Affected Assets cannot solely be established by recalculating the buffer distance required to allow take off and landings. Rather, it is also imperative to:</p> <ul style="list-style-type: none"> <li>▪ understand the broader implications of other (operational) flight restrictions that apply; and</li> <li>▪ quantify whether those measures introduce an unacceptable degree of risk which, as a consequence, necessitates mitigation in the form of a different (potentially greater) "buffer zone" than may otherwise apply for safe take-offs and landings.</li> </ul>	See RR-077-25 above.
RR-077-36	Of particular significance in the context of the Project is the regulatory requirements that exist where offshore wind turbines are located within 3nm of an oil and gas platform. In that scenario tighter flying restrictions automatically apply (the Flight Restrictions):	The Applicant welcomes Spirit Energy's acknowledgement that the Applicant has considered within its assessment a potential Civil Aviation Authority (CAA) rule change that would impose tighter flying restrictions to oil and gas

ID	RR	Applicant's Response
	<p>1. a blanket restriction on nighttime flying (i.e. daylight flying only);</p> <p>2. VFR only flying including a requirement for:</p> <p style="margin-left: 20px;">a) 5000m horizontal visibility (relative to obstruction free flying of 4000m); and</p> <p style="margin-left: 20px;">b) 700 feet minimum base cloud cover instead of 600 feet.</p> <p>Spirit acknowledges that the Applicant has been aware of the Flight Restrictions and has contemplated them in its assessment of the operational impact of the Project. However certain assumptions in the assessment indicate a misunderstanding of the operational helicopter arrangements. More generally, the corresponding implications of the Flight Restrictions has been severely underestimated. The consequence is a far higher number of helicopter flights that will be the subject of delays and cancellations (the Delays and Cancellations) than the Applicant has reported.</p>	<p>platforms within 3nm of WTGs. As set out in ES Chapter 17 Infrastructure and Other Users (APP-054) and Appendix 17.1 Helicopter Access Study (APP-081), the Applicant's assessment has been carried out on a 'worst-case' basis that this proposed CAA rule change would come into effect. This proposed CAA rule change however is not yet in force and at present, there is no indication if or when these new limitations would be imposed.</p> <p>The Applicant also notes that if the CAA rule change did occur then it is likely to be at the level of Acceptable Means of Compliance (AMC) and Guidance Material (GM). AMC adopted by the CAA are means by which the requirements in the UK Regulation (EU) 2018/1139 (UK Basic Regulation) and its Implementing Rules can be met. For example, AMC1 SPA.HOFO. 125 covers airborne radar approaches to offshore locations.</p> <p>Since requirements can be met by other means, regulated persons and organisations may apply for permission to use alternative procedures to comply with the law by the use of Alternative Means of Compliance (AltMoC).</p> <p>For the CAA to accept an AltMoC the helicopter operator would need to demonstrate that the alternative approach nonetheless maintains compliance with the law. Applicants may also apply for AltMoCs as a means to establish compliance with the UK Basic Regulation and its Implementing Rules for which no associated AMC has been</p>

ID	RR	Applicant's Response
		<p>adopted. Where regulated persons or organisations wish to utilise their own alternative means of compliance, they must first obtain the approval of the CAA.</p> <p>Therefore, if the CAA regulatory change covering helicopter flights within 3nm of WTGs did progress, then helicopter operators would still have the option to apply for an AltMoc to continue some operations under day IMC and night providing an acceptable level of safety was maintained. The AltMoc process is described in Civil Aviation Publication (CAP) 1721.</p> <p>With regard to the estimated number of helicopter flights that will be the subject of delays and cancellations, meteorological and Vantage data provided by Spirit Energy and Harbour Energy has been used to make the Applicant's assessment in relation to potential helicopter flight restrictions to Spirit's platforms (Appendix 17.1 Helicopter Access Study (APP-081). Representative data has therefore been used to inform the Applicants helicopter access study.</p> <p>As noted above (RR-077-25), the Applicant requests that Spirit Energy provide the full data underlying a report by AviateQ (dated August 2024) in relation to helicopter access which was provided to the Applicant on 11 October so that the Applicant can have a better understanding of Spirit Energy's position.</p>

ID	RR	Applicant's Response
RR-077-37	<p><b>Assumptions</b></p> <p>As a preliminary matter, the Applicant has noted in communications that there is minimal impact on South Morecambe DP8 and North Morecambe DPPA as a consequence of the Flight Restrictions. This is not correct due to the manner in which the flight schedules are managed. Specifically flight patterns are managed via the helipads at the Central Processing Complex with intervention crew stationed on the Central Processing Complex, where flights are arranged in the most efficient manner to enable helicopter visits between the Central Processing Complex and all NUIs – including South Morecambe DP6 and DP8 and North Morecambe DPPA - to carry out the required maintenance, inspection and other asset integrity work scopes.</p>	<p>ES Appendix 17.1 Helicopter Access Study (APP-081) identifies that a low percentage of flights were flown to NUIs at night and in Instrument Meteorological Conditions (IMC). It is acknowledged that DPPA and DP8 would be impacted by the flight restrictions at the Central Processing Complex but the evidence shows the historic impact would have been low.</p>
RR-077-38	<p>The consequence is that an assumption of “minimal impact” due to the greater separation distance from the wind turbines is fundamentally flawed - the DP8 and North Morecambe DPPA will also be restricted to Day VMC due to the nature of shuttling within the field and the use of Central Processing Complex as a central hub with all flights travelling via the platform.</p>	<p>As above (ID RR-077-37), it is agreed that DPPA and DP8 would be impacted due to the flight restrictions at the Central Processing Complex but the evidence shows the historic impact would have been low. Therefore the Applicant considers any impacts to flight patterns as a result of the Project will not materially or adversely affect the future viability, or safety, of Spirit Energy's operations at DP8 and North Morecambe DPPA.</p>
RR-077-39	<p><b>Delays and Cancellations</b></p> <p>Since becoming aware of the Project and the proximity of turbines to Spirit's existing offshore infrastructure that impose potential flight restrictions to existing operations, Spirit has undertaken an analysis of recent flight data in order to inform its understanding of the Project's implications on efficient flying operations. See the 'Morecambe Offshore Wind Farm Impact Report' (August 2024) (the Impact Report) at Appendix D.</p> <p>In summary, the Impact Report:</p>	<p>The Impact Report provided in Appendix D of the Spirit Energy representation is a summary of an aviation study commissioned by Spirit Energy. However, the Applicant notes that Appendix D does not provide a clear methodology or explain how Spirit Energy's aviation advisors reached their conclusions. As noted above (RR-077-25), the Applicant requests that Spirit Energy provide the full data underlying a report by AviateQ (dated August 2024) in relation to helicopter access which was provided to the Applicant on 11 October 2024,</p>

ID	RR	Applicant's Response
	<ol style="list-style-type: none"> <li>1. analyses approximately 5000 flights between 2018 and 2022 to and from (and between) each of the Affected Assets (the Historic Flights) and that (if the Project was installed) would have been subject to the Flight Restrictions;</li> <li>2. analyses the prevailing weather and sea conditions at the time of the Historic Flights; and</li> <li>3. after discounting flights that would not have taken off or landed as a consequence of the weather and/or sea conditions (c.1% of flights) determines the impact that the Flight Restrictions would have had on the Historic Flights.</li> </ol> <p>The findings of the Impact Report are in contrast to the Applicant's assessment. Spirit trust that the Applicant (and Examining Authority) will have full cognisance of the important and detailed findings in Appendix D, including (but not limited to) the following:</p> <ol style="list-style-type: none"> <li>1. On an individual flight basis, the Flight Restrictions imposed by the Project would have delayed / cancelled an overall annual average of 14% of flights that include Central Processing Complex within their routing. This average rises to 23% during the winter months (October to March);</li> <li>2. The impact becomes worse for NUIs when factoring in the requirement for both an outbound and return flight, as one flight being delayed / cancelled affects the other too. As such, an overall annual average of 23% of flights would have been delayed / cancelled, rising to 39% during the winter months.</li> </ol> <p>Spirit's findings are markedly higher than the Applicant's own assessment (using the same starting data).</p>	<p>so that the Applicant can properly understand Spirit Energy's position. .To date this information has not been forthcoming. The Applicant would welcome the opportunity to review this data, should it be provided from Spirit Energy.</p> <p>With regards to the content of Appendix D, the Applicant has identified a number of factual errors as set out below. The Applicant would welcome the opportunity to discuss these points with Spirit Energy to seek resolution:</p> <ul style="list-style-type: none"> <li>▪ Weather and Sea Conditions (Page 7 of Appendix D states: "Visibility – Visibility should be at least 4,000m / 5,000m during the day / night respectively for Visual Flying Rules (VFR) flying. This can be reduced to 1,500m when flying with Instrument Flying Rules (IFR) flying." - The Applicant notes that Instrument Flight Rules permit flight in zero visibility.</li> <li>▪ Appendix D has effectively applied the proposed Day VMC restriction within 3nm of a windfarm (under the worst-case scenario that the CAA rule change comes into effect) to all flights and not just the relevant locations (Appendix II). Even accepting that CPC-1 is a hub for Spirit's NUI operations, it is considered that this is still overestimating the impact.</li> <li>▪ Within Appendix D Spirit has assumed that flights would be cancelled rather than rescheduled. Currently if a flight is delayed due to fog, high wind, high sea states or other weather factors, then the work on the NUI would</li> </ul>

ID	RR	Applicant's Response
		<p>be rescheduled along with the flight. This will also be the case in the future if weather or other factors cause a delay to a flight. This is considered normal operational practice when scheduling helicopter flights.</p> <ul style="list-style-type: none"> <li>▪ Within the Impact Report set out in Appendix D, Spirit has assumed that flights to/from Blackpool Airport are restricted to the airport opening times less 30 minutes, i.e. reducing the flight operating envelope by one hour and resulting in more constraints on flying. Within Appendix 17.1 Helicopter Access Study (APP-081), the Applicant has based its assessment on the Blackpool Airport published opening times which is considered more representative of actual arrangements (noting that It is understood that Spirit Energy do not pay for an out of hours service from their helicopter operator when Blackpool Airport is closed).</li> <li>▪ Spirit Energy has not used the aviation definition of 'night' in its Impact Report but instead subtracted 30 minutes from evening and added 30 minutes to dawn, thus reducing the operating envelope. While this might be a planning assumption when scheduling flights, as the Applicant has used actual flight data from Vantage in its assessment (Appendix 17.1 Helicopter Access Study (APP-081)), the impact on actual operations has been assessed.</li> <li>▪ The Applicant has assessed the impact on individual installations by breaking down the Vantage flight data provided by Spirit Energy into sectors. It is considered that using the</li> </ul>



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		<p>overall flight period (as applied in Spirit Energy's Impact Report) is overly pessimistic as it does not take account of the helicopter's capabilities to fly in IMC or at night outside the 3nm buffer around the WTGs.</p> <p>Spirit Energy's request for a 3.3nm obstacle free buffer only addresses the take-off case into IMC and not the longer distance for an approach. Therefore, the benefits claimed by Spirit Energy are less than stated. The Applicant has identified the key wind directions where IMC take-offs will be impacted and therefore provided a more realistic assessment of the impact.</p>
RR-077-40	<p><b>Safety implications</b></p> <p>The consequence of the "real world" Delays and Cancellations is significant implications for the safe operation of the Affected Assets and related uncertainty over Spirit's ability to comply with health and safety regulatory requirements (See Part 4: Legislation and Policy Context).</p>	<p>See RR-077-25 above.</p> <p>Any postponement of a flight to a NUI would not have a direct impact on the safe operation of these facilities, noting that Spirit Energy will have a means to manage any delay in inspection, testing and maintenance of Safety and Environmentally Critical Elements (SECE). This is a subject of health and safety guidance, commonly termed "Operational Risk Assessment (ORA)", and any platform operator will have a number of open ORAs at any time. An open ORA does not lead to a situation where risks are intolerable and would not necessarily lead to a requirement for production shutdown.</p>
RR-077-41	<p>The first issue (the proposed 1.5nm buffer zone) can be dealt with in short order: the physical separation between the turbines and Affected Assets is simply inadequate from a safety perspective. There is no</p>	<p>As set out in ES Appendix 17.1 Helicopter Access Study (APP-081), a 1.5nm separation radius from WTGs and OSPs would allow day VMC access to</p>

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	<p>scope for operational mitigation whilst maintaining compliance with regulatory requirements. Accordingly, only physical mitigation – in the form of an extended buffer zone – provides an acceptable remedy.</p>	<p>the Calder and CPC platforms as secured in protective provisions in the draft DCO (APP-012). Based on Vantage data provided by Spirit Energy, flights under VMC access represent the vast majority of helicopter flights accessing these platforms. Whilst some IMC access would be restricted to these platforms that could result in potential short delay in access to these platforms, and to other NUIs serviced from CPC, the Applicant does not consider this restriction on IMC access would result in safety or compliance issues with any statutory or licence obligations.</p> <p>See further RR-077-25 above.</p>
RR-077-42	<p>The second issue (Delays and Cancellations as a consequence of the Flight Restrictions) ultimately requires the same mitigation. For the reasons that follow, the safety risks associated with the Delays and Cancellations (as identified in the Impact Report) are unacceptable. The consequence must be that the Flight Restrictions are unacceptable and thus must not apply. It follows that the only way to secure safe and efficient operations at the Affected Assets is to increase the physical distance between that infrastructure and the potential location of turbines. That would in turn allow for flying in instrument flight conditions (IMC) including at night and with reduced cloud base cover and horizontal visibility.</p>	<p>The Applicant acknowledges that flight restrictions arising from the presence of the Project would lead to some logistical changes including the potential need to reschedule some flights. However, the Applicant maintains that an established limitation of no IMC flying is not a safety issue.</p>
RR-077-43	<p><i>Transportation risk</i></p> <p>The Delays and Cancellations will have a direct impact on Spirit's ability to access NUIs to complete scheduled MIT activities. The Impact Report demonstrates that there will be significantly reduced access to the NUIs and Central Processing Complex Infrastructure during the winter months (as well as reduced access in summer</p>	<p>The Applicant maintains that a delay of a scheduled flight to a NUI would not lead to a significant impact on the ability of a SECE to perform its function. A SECE will have a set inspection or testing interval and it is accepted in risk assessment that a random failure can occur at</p>

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	<p>months) that will result in difficulties carrying out MIT strategies. This will adversely affect the requirements of the performance standards, the ability to comply with the verification scheme and assurance of SECE within the QRA barrier performance. In turn this will have a direct negative impact on risk exposure to the personnel carrying out this maintenance.</p> <p>Flight restrictions will also shorten the productive working window on each platform, requiring a significant number of additional trips to complete scheduled MIT activities.</p> <p>Each flight taken by personnel carries with it a quantifiable risk, and significantly increasing the number of flights required to deliver the current volume of MIT activity will therefore significantly increase personnel transportation risk.</p> <p>Such a significant increase in transportation risk could present a significant regulatory challenge and burden on Spirit to demonstrate that risks remain ALARP (as it is legally obliged to ensure).</p>	<p>any point in that period, within this risk model failure of an individual SECE or failure on test will not lead to a situation where an individual on the NUI is exposed to intolerable risk. It is accepted that at any point in time SECEs may be impaired and the HSE provide guidance on the management of such.</p> <p>Risk for the purposes of demonstrating as low as reasonably practicable (ALARP) in line with HSE guidance is measured as Individual Risk Per Annum (IRPA). Helicopter flight risk is incorporated in this calculation. Deferring a flight to a later day or flying to a different NUI does not increase the calculated IRPA. The threshold for Intolerable risk is taken as an IRPA of <math>1 \times 10^{-3}</math> per annum, the risk from helicopter flights is <math>3 \times 10^{-6}</math> per flight (as given in the Spirit Energy RR). If additional flights are required due to a shorter working day this will lead to a small increase in calculated IRPA in line with the <math>3 \times 10^{-6}</math> per flight above. Note; this increase is not per flight, but per flight that a typical individual will make in a year and represents 0.3% of the Intolerable risk level. However, this will not be significant in terms of the overall contributors to IRPA of a typical offshore worker, and the risks will remain well below the Intolerable threshold. The extent of this change can only be assessed by the asset Quick Reaction Alert (QRA) model holder.</p>
RR-077-44	<p><i>Emergency evacuation</i></p> <p>Under PFEER, Spirit is required to establish suitable arrangements that will ensure, so far as is reasonably practicable, the safe evacuation of all persons. In compliance with PFEER Spirit have</p>	<p>The figures used in the Spirit Energy QRA are industry standard. The context of the 0.13 evacuation fatality rate is not given, but the Spirit</p>

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	<p>identified its primary means of evacuation as the normal means of getting people to and from the installation – for all Morecambe Hub installations, this is helicopter transport.</p> <p>Alternative means of evacuation are available by lifeboat to account for occasions where weather conditions or the nature of the major accident emergency makes helicopter evacuation impracticable; evacuation by lifeboat exposes personnel to higher risks than the primary means of evacuation by helicopter. Helicopter transportation is the primary means of emergency evacuation from the Central Processing Complex. Lifeboats are provided as the secondary means of emergency evacuation in the event that helicopter evacuation cannot be achieved.</p> <p>Currently, helicopter transportation remains the primary means of emergency evacuation from the Central Processing Complex given the bridge-linked platform design that locates the helideck some distance away from process hazards, thereby reducing the potential for the event to impair the helideck by thermal radiation or smoke.</p> <p>The Flight Restrictions would preclude helicopter operators from approaching the Central Processing Complex in poor weather or during the hours of darkness, even if the helideck were unimpaired and available to support evacuation.</p> <p>Restrictions, particularly during the winter months that could compromise Spirit's ability to access offshore installations by helicopter, have the potential to place a higher reliance on lifeboat evacuation than would otherwise be the case, and hence increase risks to personnel.</p>	<p>Energy QRA as reviewed by the HSE uses the figure of 0.06.</p> <p>The risk figures above need to be put into context, as they are used in a series of less than 1 multipliers aligned to a developing scenario to arrive at a number that demonstrates that the risks are ALARP. These will contribute to the overall IRPA as calculated in the asset QRA. The existing QRA and asset Safety Case will already address scenarios where evacuation by lifeboat is required. Only the asset QRA model holder can assess the impact, however, a small change in the frequency of such an event in the QRA would not materially change the assessment that risks are ALARP.</p> <p>As all of the evacuation and recovery arrangements as described in the Safety Case remain the same, this would not constitute a requirement for a Safety Case material change update. In the case that Spirit Energy decided to submit a Safety Case update, for the same reasons as above, there would not be grounds for the Competent Authority to not accept the new Safety Case.</p> <p>In relation to emergency evacuation, the Applicant also notes the following points:</p> <ul style="list-style-type: none"> <li>▪ PFEER 7 refers to a helicopter accident on the platform and so is not relevant to this discussion.</li> </ul>

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	<p>National Search and Rescue (SAR) provisions would not be affected but other helicopter operators are not guaranteed to respond, potentially delaying helicopter evacuation efforts and increasing likelihood of the Offshore Installation Manager (OIM) opting for lifeboat evacuation. It should be noted that national search and rescue would not be affected by the windfarm restrictions, but they are based some distance away from the Central Processing Complex and would be unable to respond in the tiRR-077-47).frames that would be achievable by NHV if they had an unobstructed flight path.</p> <p>Where a helideck remains unimpaired, emergency evacuation by helicopter presents far lower risk to personnel than would be the case for evacuation by lifeboat. The individual likelihood of death for helicopter transportation from an unimpaired helideck is typically of the order 0.000003 (3 in 1 million) per flight. In contrast, the fatality probability for evacuation by lifeboat has been estimated in the Central Processing Complex Quantified Risk Assessment (QRA) to be on average 0.06 (6 in 100). The windfarm restrictions on helicopter access to the Central Processing Complex would therefore significantly increase the fatality probability during an emergency evacuation. An industry review of real emergency evacuations by lifeboat found the average emergency evacuation fatality rate to be 0.13 i.e., much higher in real experience than the QRA estimate.</p>	<ul style="list-style-type: none"> <li>▪ PFEER 15 concerns the arrangements for evacuation, including helicopters. When there is a fire, explosion or hydrocarbon release, helicopters cannot land on a platform and so cannot be the primary means of evacuation, although they might be the preferred means of evacuation for a more minor emergency. PFEER 15 Guidance says “(a) evacuation – is defined in regulation 2; means of evacuation may include helicopters, direct sea transfer, bridge-links and Totally Enclosed Motor Propelled Survival Craft (TEMPSC);” Spirit Energy has identified that the CPC-1 is a bridge linked platform design, so the requirement to immediately evacuate personnel is less likely as their refuge will be away from the process hazard.</li> <li>▪ It is understood that CPC-1 has approximately 170 personnel onboard. Using a single 8-seat AW169 under contract to evacuate the platform would take more than a day and so cannot be the primary means of evacuation during an emergency. Maritime and Coastguard Agency (MCA) helicopters are likely to be used during a major emergency. They operate under UK Helicopter Search and Rescue (SAR) National Approval Guidance (CAP 999) and so are not constrained by the proposed CAA rule change or CAT weather limits.</li> </ul> <p>It is understood that Spirit Energy do not pay for an out of hours service from their helicopter operator. Accordingly, when Blackpool Airport is closed there</p>

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RR-077-45	<p><i>Non-emergency downmanning</i></p> <p>Spirit is reliant on helicopter transportation for the “downmanning” of offshore installations in the event of significant health, safety or welfare issues, there are no other viable options to downman the asset.</p> <p>Alternative means of evacuation by lifeboat are available for use in an emergency but these are only suitable for situations requiring rapid evacuation in response to an imminent threat to life e.g., hydrocarbon fire.</p> <p>Under the HSWA, Spirit is required to reduce risks to the workforce so far as is reasonably practicable and the ALARP guidance published by the Health and Safety Executive builds on this general duty of care to provide the guiding principles for risk related decision making. Under this framework, use of lifeboats to downman the installation in the event of a significant health, safety or welfare issue evacuation could not be demonstrated to be ALARP.</p> <p>Restrictions that could compromise Spirit’s ability to access offshore installations by helicopter would therefore severely limit Spirit’s ability to downman a large population in a reasonable timeframe, extending their exposure to the health, safety or welfare threat.</p>	<p>is no commercial helicopter on call and they are reliant on the MCA for any emergency situation.</p> <p>The Applicant has addressed individual down manning scenarios below (in response to RR-077-47) and considers such scenarios would not lead to a situation where risks cannot be demonstrated to be ALARP.</p>
RR-077-46	<p><i>Enforcement risk</i></p> <p>Ultimately, restrictions that could compromise Spirit’s ability to maintain safe operations in compliance with the Safety Case could lead to regulatory enforcement action, potentially to the point of requiring a cessation of operations of nationally significant energy infrastructure assets.</p>	<p>The Applicant considers that it is not credible that the presence of the windfarm and any consequent impact on operations will lead to a position where risks cannot be demonstrated to be ALARP. See RR 077-25 above.</p> <p>Risk per flight number used in the QRA is not modified to be specific to the facility in question so</p>

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	<p>Regulatory bodies can take enforcement action where inspection or investigation identifies a failure to comply with health and safety law; for industries regulated by the Health and Safety Executive, an Enforcement Management Model (EMM) has been defined – this model sets out the principles inspectors should apply when determining what enforcement action to take in response to breaches of health and safety legislation, with the guiding principle being that enforcement action should be proportional to the health and safety risks and the seriousness of the breach.</p> <p>Inspectors use various enforcement techniques to deal with risks and secure compliance with the law, ranging from the provision of advice to enforcement notices – they can also initiate or recommend prosecution where the circumstances warrant punitive action.</p> <p>Regulators will consider the following enforcement action options:</p> <ul style="list-style-type: none"> <li>▪ Prosecution;</li> <li>▪ Prohibition Notice (requires specific activity or operation to cease);</li> <li>▪ Improvement Notice (sets out compliance failings and expected action to be taken);</li> <li>▪ Formal Letter Item (sets out compliance failings and expected action to be taken);</li> <li>▪ Verbal Warning.</li> </ul>	<p>would not require to be updated and resubmitted to the Competent Authority.</p> <p>The Health and Safety Executive (HSE) are the Competent Authority (CA) who regulate the helicopter operations measures on the installation.</p> <p>As set out by the HSE: installation operators are responsible for the safety of the entire installation, including the helideck and helideck operations. They are required to ensure that the helideck operating environment is such that helicopter operators can discharge their duties.</p> <p>The presence of the Project will not impact those aspects of helicopter operations that the HSE will expect to see covered in the Safety Case.</p> <p>The HSE and CAA have a Memorandum of Understanding (MOU) in place regarding the management of helicopter safety offshore. Helicopter operators and flights are regulated by the CAA as the CA.</p> <p>Aspects regarding platform helicopter operations and evacuation and recovery arrangements would remain unchanged as a result of the presence of the Project. As a result, there would be no grounds for the CAA to not accept the revised Safety Case, and regulatory enforcement relating to these changes is not credible.</p>

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RR-077-47	<p><b>Scenarios</b></p> <p>To aid understanding of the aforementioned safety risk, it is instructive to consider “scenarios” where the Flight Restrictions (that would lead to an inability to fly in poor weather conditions or in hours of darkness) would significantly impact non-essential evacuation. Non-essential crew evacuation may be required for a number of reasons and is most often dealt with by the operator and its aviation provider where there is a need to efficiently reduce the number of personnel on board without it being deemed as an emergency scenario requiring SAR.</p> <p>The following are examples of situations that require evacuation.</p> <ol style="list-style-type: none"> <li>1. Reducing to essential crew only due to non-operational reasons. This would be for reasons such as contagious illness, where the platform would require to be down manned to essential personnel only. Extended function in this mode would negatively impact on emergency response protocols whereby evacuation of nonessential personnel is a primary risk mitigation. Specifically in the case of communicable illness, extension would negatively impact on capability to maintain coverage of safety critical roles, provide adequate quarantine capacity, be of greater detriment on workforce morale in a period of stress, and increase threat to those with underlying health conditions. For further detail and examples of helicopter operations to oil and gas platform helidecks and other infrastructure located inside and adjacent to other operational wind farms see the response to RR-077-25 above.</li> <li>2. Reducing to essential crew only due to operational reasons, such as loss of power, water or heating where the platform would require to be down manned to essential personnel only. Extended function in this mode would protract recovery of the situation as, in the first instance, priority remains the welfare of those onboard ahead of recovery of the system failure. It is foreseeable that individuals with specialist skills would require to be mobilised to the</li> </ol>	<ol style="list-style-type: none"> <li>1. Any extension to planned down manning activities could not lead to a situation where safety critical roles could not be covered. Priority could still be given to evacuating those with underlying health conditions.</li> <li>2. In this situation the core crew would still need support, water, diesel, food etc. The provisions needed for welfare support are supplied by supply vessels so these arrangements would not be interrupted by any flight restrictions.</li> <li>3. We have no information on the vulnerability of CPC1 to extreme weather events, noting extreme freezing events are very rare offshore. In the scenarios suggested a core crew is still retained and it is accepted that the platform is a safe location for these people. This will not change.</li> </ol> <p>It is noted that there are already restrictions on non-emergency medical evacuation due to airport opening times and helicopter / crew availability.</p>



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	<p>asset and delay in this or the provision of supplementary welfare packages to satisfy physiological needs would be detrimental. With extension to the situation recovery, the potential for event escalation increases – for instance, power outage could deteriorate if diesel supplies are consumed and cannot be replenished escalating to a full platform evacuation without the required return protocols being in place and water system contamination (for instance) could become more widespread resulting in protracted recovery.</p> <p>3. Extreme weather events will also require the removal of non-essential personnel until the situation is under control. Speed and efficiency will be paramount. It could be a storm closing in, or extreme cold resulting in diesel and water freezing leaving the platform without basic services. In the event of extreme weather, it is foreseeable the emergency and rescue vessel (ERRV) may not be able to maintain station and thus expediting the requirement to evacuate nonessential personnel ahead of the weather front.</p> <p>Non-emergency medical evacuation will no longer be able to be dealt with outwith hours of daylight which will introduce delay for potential less common issues such as a death on the platform or a deteriorating medical condition. Commercial air transportation is required to ensure police and other authorities can access the platform and for subjects to be removed in a timely manner so as not to distress family and colleagues any further at an already distressing time.</p>	
RR-077-48	<p>In a scenario that persons on board must be reduced to minimum levels due to operational issues, maximum persons on board will have to reduce from a maximum of 174 to 45 and in other scenarios to 25.</p> <p>174-45 personnel reduction: will require 19 flights to remove 129 people which will take 1.5 days. If flights are restricted to day-only flights, this will take 2 days minimum.</p>	<p>The Applicant notes this response but does not consider that the impacts identified would result in safety or compliance issues with any statutory or licence obligations.</p>

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	<p>174-25 personnel reduction: will require 22 flights to remove 149 people which will take 2 days. If flights are restricted to day-only flights, this will take 3 days minimum.</p>	
RR-077-49	<p>In all these cases, an event that starts out as a non-emergency evacuation, can result in an increased requirement for SAR to become involved with evacuations due to the constraints the wind farm turbine placement will impose upon flight ability of the operator's commercial air transportation. There is a serious risk for each of these events to deteriorate to the point where it then impairs essential personnel.</p> <p>In all scenarios, increasing the length of time personnel must wait to be evacuated has significant detrimental impact to their wellbeing. If long evacuation delays are experienced and risk to life is increases, it will impact the organisations reputation and regulatory requirements plus ability to maintain and attract workforce.</p>	<p>The Applicant considers this comment does not relate to specific scenarios or potentially co-incident situations and will not have an impact on Spirit Energy's existing evacuation procedures.</p>
RR-077-50	<p><i>Buffer requirements</i></p> <p>The only acceptable mitigation is the removal of the Flight Restrictions applying to helicopter operations to and from (and between) the Affected Assets. Whilst that may lead to the assumed imposition of a new 3nm "buffer zone", Spirit's early analysis (based on the work undertaken by AviateQ) indicates that at least 3.3nm is required. This being the minimum unobstructed airspace requirement to operate in IMC based on (according to the work undertaken by AviateQ): a 2.3nm unobstructed airspace requirement plus 1nm legal requirement comprising the requirements to execute an engine failure at the missed approach point (MAPt) following airborne radar approach (ARA).</p>	<p>Current Commercial Air Transport operations to oil and gas platforms adjacent to wind farms demonstrate that 1.5nm is safe accepted practice and compliant with aviation regulations and industry best practice.</p> <p>These buffer zones proposed by Spirit Energy in the Relevant Representation are not a proportionate or necessary approach to safe co-existence between oil and gas infrastructure and offshore wind for the Project, in particular considering the Applicant's proposed protective provisions, precedent, and RR-077-25 above.</p>

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RR-077-51	<p>It must be noted that, at the time of the commissioning AviateQ to prepare its initial technical report, Spirit's understanding was that turbine tip heights would be up to 290m. Spirit now understands that turbine tip heights may in fact be higher – up to 310m. That is now being accounted for in further work being undertaken by AviateQ. Furthermore, Spirit is currently awaiting responses to a number of technical clarifications that underpin the Applicant's conclusions in Volume 5 - Appendix 17.1 - Helicopter Access Study (PINS Document Reference: 5.2.17.1). Further work is therefore required in order to verify the final acceptable airspace requirements and accordingly there remains a possibility that an increase unobstructed distance is necessary in order to operate safely in IMC.</p>	<p>The Applicant confirms that the maximum turbine tip height would be 310m above Highest Astronomical Tide (HAT) as set out in ES Chapter 5 Project Description (APP-042).</p> <p>With reference to ES Appendix 17.1 Helicopter Access Study (APP-081), the Applicant has applied current aviation practice whereby the helicopter would turn 1nm before the boundary of the windfarm. Therefore, the Applicant notes that the height of the turbines is not relevant to the study findings.</p> <p>The Applicant confirms that it responded to Spirit's technical clarifications on 20 August 2024.</p>
RR-077-52	<p>Drawing Part 5 together, Spirit's position is that the 1.5nm buffer zone is not fit for purpose. Furthermore, the Impact Report provides compelling evidence, based on recent flight data, that the Delays and Cancellations will be far more frequent and severe than the Applicant has reported. It is the consequences of these impacts that Spirit is primarily concerned with: namely that the "real world" levels of the Delays and Cancellations present a very serious risk to the safe operations of the Affected Assets and Spirit's ability to comply with related safety regulatory requirements. That necessitates increasing the buffer zone to a distance that allows for flying in VFR and IFR.</p>	<p>See RR-077-25 above.</p>
<b>Part 6 – Shipping and Navigation Safety</b>		
RR-077-53	<p>Spirit has been involved in the Marine and Navigation Engagement Forum (MNEF) to understand the cumulative implications and potential impact of the introduction of wind farms within the wider East Irish Sea area and as supported by the conclusions drawn from the desktop gas field interaction desktop study and HAZID (Hazard identification)</p>	<p>The Applicant appreciates the input from Spirit Energy on the MNEF and various hazard workshops conducted as part of the Navigation Risk Assessment (NRA) (Volume 5 – Appendix 14.1 (APP-073)) for the project alone and the</p>

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	<p>workshop in March 2023, further studies and work are required to understand the proposed development, including to determine suitable turbine locations and appropriate marine and aviation requirements.</p>	<p>cumulative scenarios. The results of which have confirmed that navigation risk would be at acceptable levels with the Project in place.</p> <p>The Applicant is not currently able to finalise WTG and offshore substation platform (OSP) positions, but has agreed to maintain a 1.5nm buffer zone for above sea surface infrastructure from CPC and Calder platforms, and a 500m distance either side of pipelines and umbilicals (as set out in Table 17.3 of Chapter 17 Infrastructure and Other Users (APP-054) and as secured in protective provisions in the draft DCO (APP-012)). No WTGs or OSPs will be located within the buffer zones.</p>
RR-077-54	<p>The following is a summary of the marine impacts that must be considered.</p> <p>If the Application is granted, the number of vessels (transiting and operating) in the vicinity of the Affected Assets and licensed blocks will increase. Relevant categories of vessel include: (1) vessels supporting Spirit's platforms and operations such as ERRV and platform supply vessels (PSVs); (2) vessels involved in the construction and operation of the Project; and (3) third party vessels displaced as a result of the Project. This increased traffic will increase the potential for collisions with platforms and is likely to result in false alarms resulting in possible production shutdowns and (if manned) evacuation of personnel.</p>	<p>The Applicant has assessed potential navigation risk on oil and gas assets as part of shipping and navigation assessments as well as access studies, which concluded that risk levels were acceptable. Assessment details are provided in Chapter 14 Shipping and Navigation (APP-051), and Volume 5 - Appendix 14.1 Navigation Risk Assessment (NRA) (APP-073).</p> <p>The effects on the Radar Early Warning System in terms of ability to detect targets and the false alarms that may be generated have been assessed as part of Appendix 17.2 - Radar Early Warning System Technical Report (APP-082).</p> <p>Mitigations (detailed in Section 14.3.3 of Chapter 14 Shipping and Navigation (APP-051)) include the realignment of the project boundary, commitment to</p>

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		<p>two lines of orientation, continuing the Marine Navigation and Engagement Forum (MNEF) and the implementation of a vessel traffic management plan (VTMP) (which includes defining passage plans for project vessels, in consultation with stakeholders to minimise interaction with vessels and therefore mitigate against platform collisions and false alarms). An outline VTMP has been provided with the Application (APP-153).</p>
RR-077-55	<p>Vessels supporting operations such as PSVs and ERRV which routinely operate within the 500m exclusion zones of offshore facilities bringing supplies, equipment and removing waste and responding to real time emergencies must have continual access to the installations. Emergency response procedures must not be compromised by Project. Existing operational vessel movements for PSVs and ERRV will be impaired and compromised due to the introduction of wind turbines in such proximity to the petroleum licence activities and consequently designated access paths and escape routes will be required along with exclusion zones out with the standard 500m exclusion zones.</p>	<p>The Applicant notes the importance of vessels servicing Spirit Energy's platforms for both operations and emergency situations. The change to the project boundary, which occurred post Preliminary Environmental Information Report (PEIR) to address cumulative shipping and navigation concerns (Section 14.3.3. of Chapter 14 Shipping and Navigation (APP-051), ensures that there is unencumbered access to the Calder platform from south west to north east.</p> <p>The Applicant has agreed to maintain a 1.5nm buffer zone for above sea surface infrastructure from CPC and Calder platforms (as secured in protective provisions in the draft DCO (APP-012)). No WTGs or OSPs will be located within the buffer zones, allowing the necessary marine access/egress to/from platforms.</p>
RR-077-56	<p>The ability to safely manoeuvre jack up rigs onto, and off, locations within, and close to, the Project must not be compromised. A minimum obstruction free radius of 1.5nm surrounding each platform has been requested to deploy spread moored vessels, including heavy lift</p>	<p>The Applicant has agreed to maintain a 1.5nm buffer zone for above sea surface infrastructure from CPC and Calder platforms (as secured in protective provisions in the draft DCO (APP-012)).</p>

ID	RR	Applicant's Response
	<p>vessels and drilling rigs into position. The use of dynamic positioning and anchors must also be considered for larger vessels interacting with the platform. Dynamic positioning is achieved by a number of thrusters operating continuously to compensate for any movement of the vessel. In the event that the vessel loses power, one or more thrusters fail, or if the sea state or weather conditions are sufficiently strong to overcome the vessel power, the vessel may drift. Where anchors are used, the vessel will often not have its own propulsion and will rely on tugs when relocating. Due to shallow depths and strong tidal currents up-to 2.5 knots in EIS, the use of Dynamic Positioning system on a heavy lift decommissioning vessels can be significantly restricted requiring spread anchor mooring system.</p>	<p>No WTGs or OSPs will be located within the buffer zone, enabling deployment of vessels / rigs servicing Calder and CPC platforms.</p>
RR-077-57	<p>The ability to safely manoeuvre jack up rigs onto, and off, locations within, and close to, the Project must not be compromised. In the event that a Major Accident Event, such as an uncontrolled loss of reservoir fluids (e.g. blow-out), offset relief well drilling could be required. The locations of these wells are being determined.</p>	<p>The Applicant notes this response and that further information may be provided by Spirit Energy. It is noted that the Applicant has committed to a 1.5nm buffer zone for above sea surface infrastructure from CPC and Calder platforms, and a 500m distance either side of pipelines and umbilicals (as secured in protective provisions in the draft DCO (APP-012)) to enable rig access the vicinity of the Project.</p>
RR-077-58	<p>In the event that one or more anchors fail (or the lines to one or more of the tugs are disconnected), the vessel is likely to drift. Due to the potential for these vessels to drift (referred to as being not under command), it is usually necessary to maintain a clear path in the direction of drift (which will depend upon met-ocean conditions) to a drift off point. The distance to the drift-off point will again depend upon met-ocean conditions and the time it is reasonable to expect to regain command (e.g. by connecting a line to a tug or undertaking maintenance to regain power). The time required (which will depend on the type of vessel and the availability of other vessels to assist) could by way of illustration be of order 30 minutes even when one or</p>	<p>In the event of an anchor failure from a heavy lift vessel servicing a platform, then a standard mitigation is the provision of standby towage by the contractor. This protects the platform from accidental contact, which would be the most likely scenario should an anchor failure occur.</p>

ID	RR	Applicant's Response
	<p>more tugs are in attendance. A clear path to the drift off position is particularly important when a vessel is being moved or temporarily stationed.</p>	
RR-077-59	<p>Prior to entering a controlled 500m zone or in some cases when commencing operations at another location, a vessel will remain at a standby position until entry checks have been performed and it has been authorised to enter the 500m zone or proceed to its operational location. If there a situation (such as a mechanical failure, changing weather conditions or an operational change of plan) with the vessel still under command, the vessel would retreat to the stand-off position which would be at a safe distance and usually a drift off position. Clear pathways are required to allow for stand by and drift off positions and space for additional associated vessels (e.g. tugs and/or anchor handlers) to also operate safely.</p>	<p>All the below commitments provide for sufficient sea room for Platform Supply Vessels (PSVs) and Emergency Response and Rescue Vessels (ERRVs).</p> <p>Since PEIR, the Project has committed to a reduced project boundary and minimum spacings between WTGs of 1,060m, as set out in ES Chapter 5 Project Description (APP-042) and Schedule of Mitigation (APP-144).</p> <p>The Applicant has also committed to two lines of orientation for WTGs and a 1.5nm buffer zone for above sea surface infrastructure from CPC and Calder platforms, and a 500m distance either side of pipelines and umbilicals (as secured in protective provisions in the draft DCO (APP-012)).</p>
RR-077-60	<p>Sea room is a term used to describe the unfettered space needed to safely operate. Spirit considers that a lack of sea room will be one of the main impacts of the Project for vessels operating in support of Spirit's oil &amp; gas activities placing restrictions on the use of larger vessels such as drilling rigs, crane barges and accommodation vessels. Designated access paths and exclusion areas in addition to the 500m exclusion zone around each platform will be required for drilling rigs, construction and decommissioning vessels and barges for further operational, construction and/or decommissioning activities in order for Spirit to be able to fulfil its petroleum licence binding obligations.</p>	<p>All the below commitments provide for sufficient sea room for PSVs, ERRVs and larger vessels, barges and rigs.</p> <p>As noted above, since PEIR, the Project has committed to a reduced project boundary and minimum spacings between WTGs of 1,060m, as set out in ES Chapter 5 Project Description (APP-042) and Schedule of Mitigation (APP-144).</p>

ID	RR	Applicant's Response
		<p>The Applicant has also committed to two lines of orientation for WTGs and a 1.5nm buffer zone for above sea surface infrastructure from CPC and Calder platforms, and a 500m distance either side of pipelines and umbilicals (as secured in protective provisions in the draft DCO (APP-012)).</p>
RR-077-61	<p>In addition, there is the risks related to the displacement of third-party passing traffic towards Spirit's assets, increasing the traffic density and hence risk of collision with installations with severe or catastrophic consequences. This displacement will increase the major accident hazard risks in the area.</p>	<p>The individual Appendix 14.1 - Navigation Risk Assessment (APP-073)) and cumulative regional navigation risk assessment (CRNRA) (Appendix 14.2 Cumulative Regional Navigation Risk Assessment (APP-074)) assessed the increase in vessel density as a result of the Project to be acceptable in navigation risk terms.</p> <p>Furthermore, the position of the Project windfarm site will deviate Stena Line ferries from passing close to the Calder and CPC platforms thereby reducing the possibility of collision with the platforms themselves and associated standby/ service vessels, as shown by the allision modelling laid out in Section 8.4.2 of the Appendix 14.1 - Navigation Risk Assessment (APP-073).</p>
RR-077-62	<p>During the construction of the Project, it is recognised that seabed disturbance will occur and pre and post construction surveys will be required in order to understand any changes as this will further impact the ability to deploy moored vessels.</p>	<p>The Applicant notes that pre and post construction bathymetric surveys are conditioned within the draft DCO (APP-012) within Schedule 6, Part 2, Conditions 14 and 16. Areas within the windfarm site disturbed would be restricted to seabed preparation for foundation and cable installation and subsequent installation. Locations would be defined alongside the development of the layout post consent.</p>



ID	RR	Applicant's Response
RR-077-63	<p>Considerable additional simultaneous operation plans will be required to ensure that the additional effects of the Project in both the construction and operational stages do not compromise existing operations and increase risk beyond those that are as low as reasonably practicable.</p> <p>These measures will be required to ensure that Spirit can manage safe and reliable operations and to ensure Spirit can meet its decommissioning obligations through the mid 2030's.</p>	<p>The Applicant has committed to further engagement with Spirit through the MNEF and the development of a VTMP to ensure that simultaneous operations can be deconflicted through the construction, operation and decommissioning phases of the Project with the various operational and decommissioning phases of the Spirit platforms and operations. The Applicant has also committed, through the draft cooperation and coexistence agreement, to coordinate on mutually exclusive activities, including activities during decommissioning, with Spirit Energy.</p> <p>With the implementation of the identified mitigation measures there is no basis to state that decommissioning could still not be undertaken safely.</p>
RR-077-64	<p>In light of the above, Spirit considers the key impacts in relation to shipping and navigation on its assets and, to the extent applicable, licences to be a more heavily constrained ability than currently in order to carry out work essential to Spirit's oil and gas operations. There is a far higher risk of emergency production shutdowns due to vessels on collision course with platforms or breakdowns caused as a result of emergency shutdowns<sup>1</sup> and waiting for repairs. Failure to carry out, or delays in, such work may result in loss of production<sup>2</sup> and/or increased costs resultant in negative economic impact to managing safe and reliable managing operations. There is also an unacceptable risk of collision with platforms due to increased volume and displacement of existing traffic nearer to the existing platforms.</p>	<p>Identified mitigations are laid out in Section 14.3.3 of Chapter 14 Shipping and Navigation (APP-051) including a VTMP, 1.5nm buffer zone around platforms and engagement with Sprit Energy via the MNEF. Furthermore, the presence of the Project will result in the displacement of vessels further from the Calder platform (especially the displacement of Stena Line Ferries) and the risk of collision to Spirit platforms would be less with the Project in place, shown by the allision modelling laid out in Section 8.4.2 of the NRA (APP-073). The Project NRA concluded that all navigation risk levels were acceptable. For these reasons it is the</p>

ID	RR	Applicant's Response
		<p>position of the Applicant that the presence of MOWF will not materially or adversely affect the future viability, or safety, of the Morecambe Hub.</p>
RR-077-65	<p>Significant cost and effort would be necessary in making additional updates to installation Safety Cases to account for changes resulting from the proximity of the Project<sup>3</sup>. Where material change is required, those changes must be submitted to the Competent Authority for approval. It should be noted that in order to gain safety case amendment approval, the relevant authority must be satisfied that risks are demonstrated to be as low as reasonably practicable and submission of a new safety case does not guarantee acceptance.</p>	<p>The Applicant considers that it is not credible that the presence of the windfarm and any consequent impact on operations will lead to a position where risks cannot be demonstrated to be ALARP.</p> <p>As set out above (RR-077-60) the Applicant has committed to a 1.5nm buffer surrounding each platform, this is secured in protective provisions within the DCO (APP012). Therefore, as set out in the response to RR-077-55 above the presence of the Project infrastructure will not impact the standard 500m exclusion zone and will allow the necessary marine access/egress to/from platforms and will not result in any changes to the Safety Cases.</p> <p>Further response to the potential impacts to marine operations are addressed in RR-077-56 to RR-077-63 above. As noted with the implementation of mitigation measures and other controls it is considered that the presence of the Project will not impact any of Spirit Energy's Affected Assets or operations in any way that would result in any material changes to the Safety Cases.</p> <p>If there are aspects which require to be addressed in the Safety Case, as none of these aspects would be affected a material change, it is the view of the Applicant that there would be no grounds for the</p>

ID	RR	Applicant's Response
		Competent Authority to not accept the revised Safety Case.
RR-077-66	<p>In addition to the points noted above, Spirit has identified other key areas that will require consideration and action prior to finalising development plans. These include those noted below:</p> <p>1. minimum of 500m exclusion zone will be necessary around all oil and gas production platforms to ensure ongoing legislative compliance by all parties and there may be certain cases for a larger exclusion zone area.</p>	<p>As noted in Table 17.3 of Chapter 17 Infrastructure and Other Users (APP-054), the Applicant has committed to a 1.5nm buffer zone for above sea surface infrastructure from CPC and Calder platforms. This is secured in the protective provisions for the benefit of Spirit Energy included in the draft DCO (APP-012). No WTGs or OSPs will be located within the buffer zones.</p>
RR-077-67	<p>2. The International Guidance for Offshore Marine Operations (G-OMO guidelines) state that vessels should plan for a vessel passing distance (i.e., a transit corridor) of at least 1 nautical mile (1.8km) from each facility and any operations which may be in progress in its immediate vicinity. This should be considered when planning turbine and infrastructure locations.</p>	<p>The International Guidance for Offshore Marine Operations states at “8.15 <i>Field Transits Some offshore developments may consist of several independent facilities. In some instances, vessels that are not supporting or undertaking operations within the safety zones around such facilities may be required to pass through the development. When making such a field transit, courses should be planned so that, where practical, the vessel passes at a distance of at least one nautical mile from each facility and any operations which might be in progress in its immediate vicinity.</i>”</p> <p>Both CPC and Calder platforms have a 1.5nm buffer to any Project above sea surface infrastructure (WTGs/OSPs) and have clear access (e.g. CPC has clear access from the east and west and Calder has clear access from south west to north east). The buffers are secured in the protective provisions for the benefit of Spirit Energy included in the draft DCO (APP-012).</p>

ID	RR	Applicant's Response
RR-077-68	3. Both the CPP-1 and Calder platforms will require a minimum of 1 nautical mile (1.8km) wide corridor on the East and West side of each platform to allow PSV and ERRV access and a minimum straight corridor of 1 nautical mile (1.8km) wide will also be needed between Calder and CPP-1.	<p>With the Project in place, CPPC-1 (CPC) has a 1.5nm buffer and clear access of at least 1nm from the north east, east, south west and west.</p> <p>For the Calder platform there is a 1.5nm buffer zone and clear access from south west to north east.</p> <p>These buffers are secured in the protective provisions for the benefit of Spirit Energy included in the draft DCO (APP-012).</p>
RR-077-69	4. For the remaining life of the infrastructure, it will be necessary for the relevant owner to be able to carry out surveys and inspection, repair, and maintenance activities on all existing pipelines and cables which will require a minimum of 500m either side of pipelines/cables, including any pipelines awaiting full decommissioning.	<p>The Project has committed to a 500m buffer zone either side of pipelines/cables/umbilicals, as laid out in Table 17.3 of Chapter 17 Infrastructure and Other Users (APP-054)), including any pipelines awaiting full decommissioning. No WTGs or OSPs will be located within the buffer zones. This is secured in the protective provisions for the benefit of Spirit included in the draft DCO (APP-012).</p>
RR-077-70	5. Additional attention will be required between all parties to manage simultaneous operations and additional exclusion areas and designated access paths and escape routes.	<p>As set out in Section 14.3.3 of Chapter 14 Shipping and Navigation (APP-051) and Schedule of Mitigation (APP-144), the Applicant has committed to further engagement with Spirit Energy through the MNEF and the development of a VTMP to ensure that simultaneous operations can be managed through the construction, operation and decommissioning phases of the Project with the various operational and decommissioning phases of the Spirit platforms and operations.</p> <p>The Applicant has offered, through the draft cooperation and coexistence agreement, to</p>

ID	RR	Applicant's Response
		coordinate on mutually exclusive activities with Spirit Energy.
RR-077-71	<p>The shipping and navigation assessment has assumed that there will be at least 1.5nm distance between the wind turbines and Central Processing Complex, Calder and other NUI Infrastructure. That buffer zone is secured in the protective provisions in the dDCO. However, Spirit notes that the protective provisions (per the analysis at Part 3 of this representation) only secures the 1.5nm buffer between the “active” AP-1, DP-1 and Calder “heli-decks”. The consequence is that the protective provision is solely aviation related with the effect that when a heli-deck is no longer active, the buffer zone would cease to have effect. Consequently, in the absence of amending the protective provisions, all that remains (following a heli-deck becoming inactive) is the 500m buffer from the “pipeline and cable proximity area”. That is not adequate for safe marine operations. Spirit will still require a minimum obstruction free radius of 1.5nm surrounding each platform’s current location to deploy a spread moored vessel, including heavy lift vessels and drilling rigs into position, and a minimum straight corridor of 1 nautical mile (1.8km) between Calder and the Central Processing Complex. That 1.5nm marine buffer zone must be secured independently of any corresponding aviation related buffer zone in order that Spirit can fulfil all full and final decommissioning obligations (regardless of what infrastructure remains in situ).</p>	<p>The Applicant notes this response. The Applicant will continue to engage with Spirit Energy to ensure that the definition of the buffer zones within the protective provisions is appropriate for Spirit Energy’s operations.</p>
RR-077-72	<p><b>Radar Early Warning System</b></p> <p>Radar Early Warning Systems (REWS) are critical radars installed onboard offshore Oil and Gas platforms to monitor nearby vessels to provide protection against collisions. Wind turbines near REWS can interfere with the system due to their large and varying returns, radar shadows and overloading of the track table.</p>	<p>Responses to the comments provided in Appendix E of the RR are presented below RR-077-75 to RR-077-80.</p>

ID	RR	Applicant's Response
	<p>The Applicant has attempted to assess the impact of the Project on REWS within Appendix 17.2 of its ES (PINS Document Reference: 5.2.17.2). Having reviewed this assessment, Spirit's technical team has identified a number of incorrect assumptions which are considered to undermine the assessment and the extent of likely impacts on Spirit's REWS system and consequently the safety of its installation. These observations are summarised in Appendix E.</p>	
RR-077-73	<p>Spirit considers that the Applicant should be required to review and update the assessment using the correct information. The results of this revised assessment should then be considered, and appropriate mitigation identified. Spirit will engage with the Applicant in relation to any mitigation proposed and appropriate drafting to be incorporated in protective provisions.</p>	<p>The Applicant is considering this technical representation and will provide a further update at the Deadline 1 (the deadline for a response to this RR). Responses to the comments provided in Appendix E of the RR are presented below RR-077-75 to RR-077-80.</p>
RR-077-74	<p>In addition, Spirit considers that the Applicant should review mitigations and safety measures outlined in Maritime and Coastguard Agency (MCA) MGN 543 Safety of Navigation: Offshore Renewable Energy Installations (OREIs) - Guidance on UK Navigational Practice, Safety and Emergency Response and ensure that the output is incorporated in protective provisions.</p>	<p>MGN 543 was replaced by MGN 654 (M+F) Offshore Renewable Energy Installations (OREI) safety response. The Project Appendix 14.1 - Navigation Risk Assessment (APP-073) and CRNRA (APP-074) were undertaken in accordance with MGN 654 and a checklist can be found in Appendix A of the individual Appendix 14.1 - Navigation Risk Assessment (APP-073) demonstrating compliance.</p>
RR-077-75	<p><b>Appendix E - Comments on REWS Technical Report (paragraph - 3.5.1.1)</b></p> <p>The Closest Point of Approach (CPA) and Time to Closest Point of Approach (TCPA) for Amber/Red alarms used for modelling the impact for Spirit is different to the actual distances and times used. Spirit has the following alarms set for all manned and unmanned installations (apart from DPPA):</p> <ul style="list-style-type: none"> <li>▪ "AMBER" alarms at a CPA of 0.27nm. (0.27 nm = 500 metres) and a TCPA of 45 minutes</li> </ul>	<p>As set out in ES Appendix 17.2 Radar Early Warning System Technical Report (APP-082), all the modelled platforms were assumed to be manned platforms. Therefore, the models used the following alarm parameters for all Spirit Energy's platforms:</p> <ul style="list-style-type: none"> <li>▪ Time to the Closest Point of Approach (TCPA) Amber: 40 minutes (vs 45 minutes)</li> <li>▪ Closest Point of Approach (CPA) Amber: 0.5 nm (vs 0.27 nm)</li> </ul>

ID	RR	Applicant's Response
	<ul style="list-style-type: none"> <li>▪ “RED” alarms at a CPA of 0.27 nm. (0.27 nm = 500 metres) and a TCPA of 30 minutes</li> </ul> <p>Note: DPPA warning times are reduced on an Amber Alarm to 30.4 minutes due to Walney 1 and 2 Windfarms.</p> <p>The study for REWS modelling sets the following parameters for manned installations; an Amber TCPA alarm is raised if a vessel is 40 minutes away and a Red alarm is raised if the vessel is 30 minutes away. For normally un-manned installations (NUI) an Amber TCPA alarm is raised if a vessel is 25 minutes away and a Red alarm is raised if the vessel is 15 minutes away.</p> <p>With the reduction of the TCPA time for raising the alarm, the effective REWS coverage distance can be reduced significantly especially for NUI installations, where the coverage can be reduced for a vessel travelling at 12 knots speed from 9nm (45 min TCPA) down to 5nm (25 min). The reduced modelled distances would compromise safety and that further assessment will be required with the correct alarm distances (noted above) that are the performance standard safe distances for management of collision risk.</p>	<ul style="list-style-type: none"> <li>▪ TCPA Red: 30 Minutes</li> <li>▪ CPA Red: 0.27 nm</li> </ul> <p>It is noted that the Amber alarm setting is slightly different with the TCPA being less than the actual setting of Spirit Energy’s settings and the CPA being larger. The modelled lower TCPA is expected to produce slightly more optimistic results (better than reality). However, the larger CPA is expected to produce more conservative results (worse than reality).</p>
RR-077-76	<p><b>Appendix E - Comments on REWS Technical Report (paragraph - 3.8.1.3 and 4.2.1.1 &amp; 4.2.1.2)</b></p> <p>The assessment of shadowing effects considers only vessels passing behind the shadowed sector along the edge of the windfarm / wind turbines. Maritime and Coastguard agency guidance MGN 543 (Offshore Renewable Energy Installations (OREIs) - Guidance on UK Navigational Practice, Safety and Emergency Response) indicates that merchant vessels can pass through OREIs (Offshore Renewable Energy Installations). The presence of OREIs will degrade the ability to identify such vessels. The study indicates that each shadow sector could be as wide as 20m which is significantly wider than a 1000 GRT</p>	<p>The Applicant has committed to a 1.5nm buffer zone for above sea infrastructure from the Central Processing Complex (as secured in protective provisions in the draft DCO (APP-012)). No WTGs or OSPs will be located within the buffer zone.</p> <p>It is acknowledged that the Central Processing Complex is 1.5nm away from the proposed WTGs which is very close in terms of moving traffic in the area. It is also possible that the shadowing regions might be wider than typical 1000GT vessels.</p>

ID	RR	Applicant's Response
	<p>vessel which can pass through the windfarm array without being detected by the REWS system. This will result in significant delay for REWS system to issue TCPA alarms, resulting in inability for Spirit to maintain Safety Case Performance Standard for vessel collision. With close proximity of the windfarm, and assuming that it will be positioned 1.5nm from the Central Processing Complex, a vessel travelling at 12 knots speed might only be detected as late as 7.5 minutes from collision with the Central Processing Complex.</p>	<p>However, REWS is equipped with tracking software that maintains a track of a vessel for a number of radar rotations. This means that if a vessel is momentarily lost (undetected by the radar due to shadowing or blind spots) the REWS tracking software will maintain the track for that vessel for a few radar rotations before abandoning the track/target. However, a vessel moving at 12 knots is not expected to remain in the shadow regions for more than one or two radar rotations. This along with the Automatic Identification System (AIS) integration will provide sufficient capabilities to maintain tracking of vessels travelling within the wind farm</p>
RR-077-77	<p><b>Appendix E - Comments on REWS Technical Report (figure 4.28)</b>  A vessel with 1000 GRT travelling within the windfarm will have significantly smaller area than 1000m<sup>2</sup>. Assuming vessel with circa 14m breadth and height of superstructure of 30m, the target size will be 420m<sup>2</sup>.</p>	<p>The assumption of a 1000m<sup>2</sup> Radar Cross Section (RCS) assumption has been previously used in assessments and was deemed to be acceptable. It is noted that the reduction of the RCS to 420m<sup>2</sup> will result in slightly increased non-detection areas around the WTGs. But this is not expected to affect the results of the assessment.</p>
RR-077-78	<p><b>Appendix E - Comments on REWS Technical Report (paragraph - 4.3.1.2)</b>  It is assumed that a vessel travelling within the windfarm should be supported by the tracker software and AIS system which cannot be relied on as an effective mean of the vessel monitoring. To use the tracker software the vessel should be acquired by the REWS system prior to entering the windfarm to allow further monitoring of the vessel movement. To enable such approach all vessels travelling in the direction of the windfarm from South/South-East/South-West should be selected by the REWS system for further monitoring.</p>	<p>AIS usage in the area around the Project is characterised by vessels carrying either a Class A AIS system or a Class B AIS system.</p> <p>Carriage of A Class A AIS is a requirement of the Safety of Life At Sea Convention - Safety of Life at Sea (SOLAS) regulation V/19 (and other domestic UK legislation). The regulation requires:</p> <ol style="list-style-type: none"> <li>1. AIS to be fitted aboard all ships of 300 gross tonnage and upwards engaged on international voyages, cargo ships of 500 gross tonnage and</li> </ol>



ID	RR	Applicant's Response
	<p>Also such approach does not negate the scenario in which a vessel “appears” from the windfarm 1.5nm / 7.5min (travelling at 12 knots speed) from collision with the Central Processing Complex platform. Such monitoring potentially requires a new full-time role offshore and modification for the existing REWS to enable such functionality. The Central Processing Complex REWS does not have an AIS system and the tracking system noted in the Applicant's mitigation measures and therefore currently cannot perform in the way envisaged by the assessment.</p> <p>It is also worth noting that AIS system has its own limitations like following:</p> <ul style="list-style-type: none"> <li>▪ It must consider that positional data contained within the transmissions may be inaccurate.</li> <li>▪ AIS data is also susceptible to spoofing or jamming.</li> <li>▪ If an AIS unit is malfunctioning onboard the vessel, there are chances the navigator may receive false data, thus might not be aware of the actual position of the virtual aid to navigation.</li> <li>▪ There can be GPS errors causing positional inaccuracies</li> <li>▪ Equipment installed onboard the offshore platform may not show them at all.</li> <li>▪ Control Room personnel may not be properly trained/ familiar with AIS</li> </ul>	<p>upwards not engaged on international voyages and all passenger ships irrespective of size.</p> <p>2. Ships fitted with AIS shall maintain AIS in operation at all times except where international agreements, rules or standards provide for the protection of navigational information.</p> <p>The occurrence of errors in Class A AIS transmission have dramatically reduced since implementation of the regulations, and it is now rare for errors to occur. And when they do occur, they tend to be associated with non-critical information.</p> <p>Class B AIS is commonly installed on smaller vessels not mandated to carry Class A AIS such as recreational boats and smaller fishing vessels. Update refresh rates are less frequent such that Class A AIS and static information, such as vessel name, can occasionally be incorrect. The size of these vessels will however be less than 300 gross tonnes and so less significant to platform operations.</p>
RR-077-79	<p><b>Appendix E - Comments on REWS Technical Report (paragraphs - 4.4.3.3 &amp; 4.4.3.4)</b></p> <p>The assessment assumptions state that “<i>there will be small gaps in the detection map due to the elevated thresholds and shadowing effects from the wind turbines, however these effects will be largely mitigated</i>”. The assessment does not take into account vessels travelling through the Project, nor that all proposed mitigations – REWS Tracking techniques and AIS data tracking is not available on</p>	<p>As set out in RR-077-76 above, the REWS is equipped with a tracking software that is capable of compensating for momentary loss of detection. It is unclear whether Spirit Energy is suggesting that their system does not include a tracking software and/or AIS integration. The Applicant requests that Spirit Energy provide clarification on the capability of their REWS.</p>

ID	RR	Applicant's Response
	the Central Processing Complex. In addition, the offshore manning would need to be increased to ensure 24/7 effective vessel tracking and management of collision risks.	
RR-077-80	<p><b>Appendix E - Comments on REWS Technical Report (paragraph – 7.1.1.5)</b></p> <p>This paragraph suggests that shadow sectors from turbine nulls varies between 4m and 15m, yet paragraph 3.8.1.3 suggests 20m, which would fully exceed the width of the 1000 GRT vessel heading through the windfarm. This inconsistency should be clarified.</p>	Please refer to response above for RR-077-76.
<b>Part 7 - Decommissioning</b>		
RR-077-81	<p>Spirit has serious concerns regarding the Project's implication on the ability to perform safe and efficient decommissioning activities throughout the East Irish Sea, in accordance with its SPLs and the Petroleum Act 1998. Potential implications and concerns are listed below:</p> <p>1. As the wider Morecambe field has yet to be decommissioned, the Project has potential implications on access for jack up rigs and large heavy lift vessels which require a 1nm (1.8km) wide corridor. The proximity of the wind farm will also impact the ability to safely manoeuvre vessels in the area as heavy lift vessels and rigs require approximately a 1.5nm (2.8km) radius for manoeuvring. Jack up rigs relying on anchor spreads will not have the available seabed area due to the presence of cables.</p>	The Applicant has committed to a 1.5nm buffer zone for above sea infrastructure from the CPC and Calder platforms (as secured in protective provisions in the draft DCO (APP-012)). No WTGs or OSPs will be located within the buffer zone, allowing an unfettered access to each platform during decommissioning.
RR-077-82	2. As identified at Part 5: Aviation Related Safety, the proximity of the wind turbines to the Affected Assets will likely restrict the ability to fly to the asset on a continual basis to carry out decommissioning activities in all phases of the Project (this has an approximate financial impact noted below as still accurate). This will also result in an extension to the overall decommissioning schedule and associated	Current Commercial Air Transport operations to oil and gas platforms adjacent to wind farms demonstrate that 1.5nm is safe accepted practice and compliant with aviation regulations and industry best practice. For further detail and examples of helicopter operations to oil and gas platform helidecks and other infrastructure located

ID	RR	Applicant's Response
	<p>knock-on impacts on operations (delays, cancelled flying) presenting an overall increase in risk to the decommissioning activities.</p>	<p>inside and adjacent to other operational wind farms see the response to RR-077-25 above.</p> <p>The Applicant's Helicopter Access Study (APP-081) has identified that the impact on a NPI during decommissioning will be low and for a short period of time.</p> <p>Based on recent decommissioning projects in the North Sea, the majority of the project execution phase utilises the existing platform accommodation and helicopter operations. Flight restrictions during this phase will result in rescheduled flights, not additional flights and the platform remains a safe location for people. The Applicant does not consider that any restrictions on helicopter access during decommissioning would result in safety or compliance issues with any statutory or licence obligations.</p> <p>The Applicant acknowledges there would be a logistical impact to some Spirit Energy operations during decommissioning. The Applicant is content to enter into, and will continue to progress, an agreement to facilitate cooperation and co-existence to the extent appropriate in addition to protective provisions.</p>
RR-077-83	<p>3. The area proposed for the windfarm is also in the area of the decommissioned DP3 asset and pipelines. The majority of the infrastructure at DP3 was removed, however buried pipelines remain in-situ. Spirit is required to close out the decommissioning programmes by demonstrating clear seabed for pipeline corridors and</p>	<p>The protective provisions included in the draft DCO (APP-012) for the benefit of Spirit Energy include a buffer zone of 500m on either side of and directly above any pipelines or cables used by Spirit</p>

ID	RR	Applicant's Response
	<p>the 500mz of where DP3 was previously located. Spirit would therefore still require access to the decommissioned pipeline (500m either side) in order to demonstrate that all potential residual hazards and debris do not remain. This access could be limited by the presence of the wind farm preventing Spirit from closing out its decommissioning programmes.</p>	<p>Energy. This would extend to any decommissioned infrastructure that remained in-situ.</p>
RR-077-84	<p>4. Furthermore, post-decommissioning surveys are required in these areas for a number of years until the regulator is satisfied, and the work within the wind farm (laying cables, surveys, etc) will need to demonstrate that it will not have an impact on Spirit's decommissioning obligations (for example, by operations negatively impacting Spirit's pipelines that remain in-situ).</p>	<p>As noted above, the protective provisions included in the draft DCO (APP-012) for the benefit of Spirit Energy include a buffer zone of 500m on either side of and directly above any pipelines or cables used by Spirit Energy. This would extend to any decommissioned infrastructure that remained in-situ.</p>
RR-077-85	<p>5. It is anticipated that aviation restrictions could result in significant changes to the length of decommissioning campaigns. Such delays to complex decommissioning activity would inevitably have very significant cost implications (not currently addressed in protective provisions), well into the tens of millions of pounds. Added to other mitigation and compensation for which the Applicant will be responsible, Spirit is concerned about the ability of the Applicant to maintain a viable project whilst addressing these foreseeable impacts.</p>	<p>See response to RR-077-82 above. The Applicant considers that any logistical impacts to decommissioning activities would be limited and can best be managed through protective provisions and/or as appropriate an agreement to facilitate cooperation and co-existence.</p> <p>The Applicant has also committed, through the draft cooperation and coexistence agreement, to coordinate on mutually exclusive activities, including activities during decommissioning, with Spirit Energy.</p>
<p><b>Part 8 - MNZ and UK CCUS Implications</b></p>		
RR-077-86	<p>Whilst the need for coexistence is accepted by Spirit, it is important to recognise the challenges that the presence of the Project may present for future (nationally significant) CCUS projects in the area, including</p>	<p>The Applicant is aware that Spirit Energy hold a Carbon Dioxide Appraisal and Storage License (CDSAL) granted in September 2023, and is</p>

ID	RR	Applicant's Response
	<p>the need for additional design time and ongoing liaison and collaboration.</p> <p>Whilst unlikely to be exhaustive, Spirit contemplate the following challenges:</p> <p><u>Monitoring Plan</u> As part of an application for a Carbon Storage Permit, the Carbon Storage (CS) licence operator is required to submit an approved Monitoring Plan and an associated Corrective Measures Plans. A Monitoring Plan commits the operator to repeated acquisition of various type of survey data to confirm the emplacement of the injected CO2 in the subsurface conforms to operator's models and that the CO2 is being contained within the storage site.</p> <p>There is a regulatory requirement to undertake these surveys at least every 5 years for the initial injection phase although these may decrease over time towards closure of the storage site (minimum of 25 years of injection) and post closure.</p> <p>For most operators the key technology for this will be seismic surveys using towed streamers such as Spirit has recently undertaken. The key reason seismic data is important is that it has high geospatial accuracy enabling 3D descriptions of the subsurface at a scale required for operational planning. As established wind farm poses problems for seismic acquisition. For this reason, Spirit is investigating the use of ROV (remote operated vehicles) technology to deploy individual sensors on the seabed (technology called 'ocean bottom node seismic' or OBN seismic).</p> <p>This alternative approach being considered is a technology known as 4D seabed gravity which, although in operation for over 20 years in Norway, Spirit understands has not been used in the UK to date so</p>	<p>seeking to engage on appropriate coexistence arrangements. The Applicant has been engaging with Spirit Energy on their plans for CCUS since July 2023 to coordinate survey activities carried out by both parties including geotechnical surveys and seismic surveys.</p> <p>The Applicant notes that, to seek permission to store carbon dioxide, an applicant would then need to apply to the NSTA for a CS Permit. An applicant can only apply for a CS Permit where they hold and have complied with the conditions in their CDSAL. Moreover, the CDSAL issued to Spirit Energy provides the date by which an application for a CS Permit must be made (being 1 January 2028). As such, there is no current permit for CCUS operations in the area.</p> <p>The Applicant is also committed to co-existence and will continue to engage with Spirit Energy on protective provisions which appropriately accommodate Spirit Energy's potential future operations.</p>

ID	RR	Applicant's Response
	<p>presents some regulatory uncertainty that will require further consultation with NSTA (as the CS licence regulator) and The Crown Estate (as the seabed owner). 4D seabed gravity surveys use sensors placed on pre-defined concrete pads on the seabed deployed by ROV and then uses Spirit's recent 3D seismic survey to provide the geospatial definition for confirming conformance with the CO2 monitoring models. As a result, the concrete sensor pads can be placed around wind turbines with low risk and should enable co-existence. However, that is contingent on agreeing survey operational procedures for working within a windfarm area – a matter which at the time of writing has not been resolved with Applicant (and upon which further work will be required between the parties to overcome environmental, technical and commercial challenges).</p> <p>In addition, sampling of legacy exploration and appraisal wells which are abandoned with wellheads cut to a few metres below the seabed will continue to be a requirement. Within the wind farm site, there is one legacy appraisal well. Spirit will require the area around this (minimum 100m) to remain clear of wind turbines so that it can acquire the necessary samples.</p> <p>Other monitoring technologies will be undertaken in the wells drilled for CO2 injection as part of the MNZ project. Monitoring will be undertaken using wireline logging: where a drilling rig will be used to deploy sensors down the injection wells to confirm measurements such as reservoir pressure and temperature. This monitoring will again be required at least every 5 years and needs a drilling rig to access the wellheads on the platform(s) installed. It follows that it must be located in an area with a corridor for safe access.</p>	
<b>Part 9 - HRA Derogation Case - Compensation at Barrow Gas Terminal</b>		
RR-077-87	The Applicant has submitted a 'Habitats Regulations Assessment Without Prejudice Derogation Case' (Volume 4, PINS Ref 4.11). This	The Applicant notes a number of compensation options were presented in the Habitats Regulations

ID	RR	Applicant's Response
	<p>includes a review of possible site locations for compensatory measures for Lesser Black-Backed Gulls that includes Spirit's Barrow Gas Terminal.</p> <p>As communicated within the email from Spirit to the Applicant on 22/04/2024, Spirit cannot provide a location suitable for the Project's 'Compensation Plan' due to near-term plans to utilise the former South Morecambe Terminal area for CCUS infrastructure. That remains Spirit's position.</p> <p>Should the Applicant require an HRA derogation case in respect of the protection of the Lesser Black-Backed Gulls, and therefore be obliged to secure related compensatory measures, an alternative suitable site to the Barrow Gas Terminal must be secured.</p>	<p>Assessment Without Prejudice Derogation Case (APP-029), including consideration of Barrow Gas Terminal. It is noted within this document the position of Sprit Energy following discussions:</p> <p><i>'Email from Spirit Energy outlining that it is not possible to define an area over the Barrow Gas Terminal which may be suitable for the Project's Compensation Plan at the current time.'</i></p> <p>The Applicant notes that the Barrow Gas Terminal option will not be progressed further at this time, noting the Applicant has provided other compensation options that are being progressed.</p>
<b>Part 10 – Protective Provisions</b>		
RR-077-88	<p>The protective provisions as proposed in Part 3, Schedule 3 of the dDCO are inadequate and do not serve to safeguard Spirit's assets and operations. In turn the protective provisions do not ensure that Spirit is in a position to full comply with its regulatory safety requirements.</p> <p>Spirit expects to see amendments to the draft Order to address these issues and is open to working constructively with the Applicant in this regard.</p> <p>As matters stand, there is no certainty that protective provisions are capable of being secured to address Spirit's in principle concerns with respect to the aviation impacts of the Project on the Affected Assets.</p>	<p>The Applicant notes this response. The Applicant is continuing to engage with Spirit Energy to ensure that the definition of the buffer zones and the other operative clauses within the protective provisions is appropriate for Spirit Energy's operations.</p> <p>The Applicant proposes to include revised protective provisions in the version of the draft DCO submitted at Deadline 2.</p>

ID	RR	Applicant's Response
<b>Part 11 – Objection</b>		
RR-077-89	<p>For these reasons Spirit OBJECTS to the DCO application in its current form.</p> <p>It is acknowledged that discussions with the Applicant are ongoing, and it is hoped that Spirit's safety concerns can be addressed.</p>	<p>The Applicant's position is as set out above.</p> <p>Notwithstanding this, the Applicant is content to enter into, and will continue to progress, an agreement to facilitate cooperation and co-existence to the extent appropriate in addition to protective provisions, see also RR-077-88 above.</p> <p>The Applicant is committed to continuing to work with Spirit towards a mutually agreeable position, and a meeting between the parties is being arranged for early November.</p> <p>The Applicant also intends to progress an initial Statement of Common Ground by Deadline 1.</p>

## 4.20 Stena Line (RR-078)

*Table 4.20 The Applicant's comments on Stena Line's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-078-01	<p>Stena line operates six passenger and freight RoRo vessels in this area on three separate routes.</p> <p>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</p>	<p>An initial Navigation Risk Assessment (NRA) (FLO-MOR-REP-0042) and Chapter 14 Shipping and Navigation (FLO-MOR-REP-0006-14) of the Preliminary Environmental Information Report (PEIR) identified that in normal and adverse weather conditions, some transits by Stena Line ferries on their Liverpool to Belfast service would be</p>



ID	RR	Applicant's Response
	<p>new offshore wind farms to be constructed right on the course lines of these strategic services.</p> <p>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.</p> <p>We are happy to continue to explore this with the developer and Planning Inspectorate. Kind Regards [REDACTED] DPA &amp; CSO</p>	<p>required to deviate around the Project and this could result in a slight increase in transit distance.</p> <p>Following statutory consultation on the PEIR, the Project modified the red line boundary of the windfarm array area which has significantly increased the available searoom. This was undertaken to minimise the impacts to Stena Line ferries (as set out in Section 14.3.3 of Chapter 14 Shipping and Navigation (APP-051), and in Section 4.5.1 of Chapter 4 Site Selection and Assessment of Alternatives (APP-041)).</p> <p><b>Navigational Safety</b></p> <p>The Applicant has worked together with the developers of the Morgan Offshore Wind Project Generation Assets and Mona Offshore Wind Project who have also amended the red line boundaries of their respective projects to increase searoom and reduce the cumulative impacts on ferries, and other vessels transiting through the area.</p> <p>Ferry companies including Stena Line and other key stakeholders have inputted into the assessment process through attendance at navigation simulations and NRA hazard workshops. As set out in Table 14.3 of Chapter 14 Shipping and Navigation (APP-051) commitments to control measures have been made by the Applicant include development and adherence to an Aids to Navigation Management Plan, a Design Plan, an</p>

ID	RR	Applicant's Response
		<p>Offshore Environmental Management Plan, a Fisheries Liaison and Co-existence Plan (FLCP)), an Offshore Construction Method Statement (which includes a Cable Specification and Installation Plan), a Vessel Traffic Management Plan (VTMP), an Emergency Response and Cooperation Plan and use of notice to mariners. These are all secured within the deemed marine licence in Schedule 6 of the draft DCO (APP-012). As a result of these changes and commitments, the NRA Hazard Workshop (attended by Stena Line) concluded that all hazards, previously identified as unacceptable at PEIR stage had been reduced to As Low As Reasonably Practicable (ALARP) and are therefore acceptable.</p> <p>The results of the NRA and the Cumulative Regional Navigation Risk Assessment (CRNRA) are set out in Appendix 14.1 NRA (APP-073) and Volume 5 -Appendix 14.2 CRNRA (APP-074) respectively.</p> <p><b>Routeing Impacts</b></p> <p>The routing impacts to Stena Line are set out in Chapter 14 Shipping and Navigation (APP-051), Appendix 14.1 NRA (APP-073) and CRNRA (APP-074).</p> <p>The Applicant notes that the Stena Line Ltd Liverpool to Belfast passage has a number of route options. One route option is impacted by the Project. For this route option ((east of Isle of Man</p>

ID	RR	Applicant's Response
		<p>(IoM (east of Calder) passage)), a revised passage plan was developed to route around the Morecambe windfarm site that would necessitate an additional 1.6nm transit distance. This has been assessed as being equivalent to 5.1 minutes of steaming time per trip to accommodate the Project-alone. This impact is assessed as being of minor adverse significance (not significant in Environmental Impact Assessment (EIA) terms) for the Project-alone.</p> <p>In adverse weather, cumulatively with other projects, plans and activities, the routing impact is assessed as being of moderate adverse and significant in EIA terms. However, the contribution of the Project is considered to be small given the Project has only a minor effect the Stena Line Liverpool-Belfast (east of IoM (east of Calder)) route, with the remaining normal and adverse weather routes largely unaffected by the Project itself. It is, therefore, considered that the Project is not materially contributing to the significance of this impact.</p> <p>The Applicant has set out a summary of its compliance with NPS policy on shipping and navigation in response to ID RR-084-03 below.</p> <p>The Applicant is committed to further engagement with Stena Line on the residual impacts throughout the examination phase of the Project.</p>

## 4.21 The Traditional & Sustainable Commercial Fishing Association (RR-083)

Table 4.21 The Applicant's comments on the Traditional & Sustainable Fishing Association's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-083-01	<p>The biggest concerns for our members who are commercial fishermen is the noise of the construction of the wind farms impacting the migration routes of Sea Bass. We have documents published by CFAS in February 2024 of a study done on tagged Sea Bass in the Irish Sea showing there migration route. This is the first time a study like this has been done in the North West, we believe the heavy pilling and construction of the wind farms in the area could have an effect on the migration route of the Sea Bass. Over the last 15 years we have seen the impact the construction of previous wind farms have had on the area and we now have scientific evidence from CEFA of the migration route. Our commercial fishermen fish mostly for Sea Bass as it's highly sort after and demands a good price at the fish markets. If the construction of the wind farms have a massive impact on the Sea Bass migration then our members could lose there businesses and way of life.</p>	<p>The Applicant notes the Traditional and Sustainable Commercial Fishing Association's response.</p> <p>The Centre for Environment, Fisheries and Aquaculture Science (Cefas)-run C-Band All Sky Survey (C-BASS) tracking project has been considered, to understand the movements of seabass in and around the Morecambe windfarm site (Section 10.5.5 of Chapter 10 Fish and Shellfish Ecology (APP-047)). This information on seasonal seabass movements then informs subsequent assessments, particularly for underwater noise and barrier effects found in Sections 10.6.2.4 and 10.6.2.5 of Chapter 10 Fish and Shellfish Ecology (APP-047), noting no significant effects are identified.</p> <p>The impact assessment on commercial fisheries in Chapter 13 Commercial Fisheries (APP-050) assesses the potential impacts of the Project to fixed nets fisheries targeting sea bass, and sea bass caught by gear using hooks. The reduction in access to established fishing grounds and potential displacement leading to gear conflict were found to be of minor adverse significance for the sea bass fixed net and hook fisheries (Section 13.6.2.1 of Chapter 13 Commercial Fisheries (APP-050)).</p>

ID	RR	Applicant's Response
		<p>While limited spatial data is available for the net and hook fisheries activity, landing statistics indicate that the majority of vessels deploying nets and hooks commercially are under 10m in length and are expected to predominantly operate in waters inside 12nm and therefore inshore of the windfarm site. The potential for disruption to the sea bass resource was also found to be of minor adverse significance during the construction phase (Section 13.6.2.3 of Chapter 13 Commercial Fisheries (APP-050)).</p> <p>The Applicant is working to facilitate co-existence with existing commercial fishing activity and to minimise disruption. An Outline Fisheries Liaison and Coexistence Plan (FLCP) (APP-147) was submitted with the Application. The Development Consent Order (DCO) (APP-012) requires that a final FLCP be submitted and approved before development can commence, and this FLCP will be developed by the Applicant with stakeholders.</p>

## 4.22 The UK Chamber of Shipping (RR-084)

Table 4.22 The Applicant's comments on the UK Chamber of Shipping's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-084-01	<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 &amp; ferry), offshore supply and construction, towage, and specialist, as well as professional service providers with shipping interests.</p>	<p>This response has been noted.</p> <p>Consultation has been undertaken with the Chamber of Shipping throughout the pre-application phase, including via the Marine Navigation Engagement Forum (MNEF), Hazard Workshops and targeted meetings between 2022 and 2024 (see Consultation Report (Table 6.3) for further information (APP-015)).</p> <p>The Applicant will continue to engage with Chamber of Shipping through the Examination period.</p>
RR-084-02	<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 &amp; maintenance, and decommissioning.</p>	<p>The Applicant notes this response.</p>
RR-084-03	<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.</p>	<p>The Shipping and Navigation assessment has been undertaken with due regard to the relevant policies of the National Policy Statement (NPS) as outlined in Section 14.4.1 of Chapter 14 Shipping and Navigation (APP-051). This included impacts to approaches to ports, strategic routes and lifeline ferry services.</p>

ID	RR	Applicant's Response
	<p>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 most carbon efficient 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>Impacts to existing vessel routeing, and by extension approaches to ports, is assessed in Section 14.7.1.1, 14.7.1.2, 14.7.2.1, 14.7.2.2, 14.7.3.1 and 14.7.3.2 of Chapter 14 Shipping and Navigation (APP-051) and Appendix 14.1 Navigational Risk Assessment (NRA) (APP-073).</p> <p>NPS EN-3 recognises that offshore wind farms will inevitably have an impact on navigation in and around the area of the wind farm site (para 2.8.178). To ensure the safety of shipping, applicants should reduce risks to navigation safety to as low as reasonably practicable (para 2.8.179). Engagement with shipping operators should seek solutions that allow offshore wind farms, offshore transmission and navigation and shipping users of the sea to co-exist successfully (para 2.8.185). Applicants must undertake an NRA in accordance with relevant government guidance prepared in consultation with the Maritime and Coastguard Agency (MCA) and other stakeholders. This will necessitate, amongst other things, cumulative and in-combination risks associated with the development and other developments (including other wind farms in the same area of sea (para 2.8.189, 190). The Secretary of State (SoS) should not grant development consent in relation to the construction or extension of an offshore wind farm if it considers that interference with the use of recognised sea lanes essential to international navigation is likely to be caused by the development (para 2.8.326). The SoS should be satisfied that the site selection has been made with</p>

ID	RR	Applicant's Response
		<p>a view to avoiding or minimising 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 ("Lifeline ferries" provide an essential service between islands or an island and the mainland on which the occupiers of the island rely for transportation of passengers and goods) and recreational users of the sea (para 2.8.328). Where a proposed offshore wind farm is likely to affect less strategically important shipping routes, the SoS should take a pragmatic approach to considering proposals to minimise negative impacts (para 2.8.33). Where after carrying out a site selection, a proposed development is likely adversely to affect major commercial navigation routes, for instance by causing appreciably longer transit times, the SoS should give these adverse effects substantial weight in its decision making (para 2.8.238, 239).</p> <p>The Project is not located near and would not interfere with recognised sea lanes essential to international navigation, as identified in Appendix 14.1 NRA (APP-073).</p> <p>Since the publication of the PEIR, and having regard to Section 42 PEIR consultation responses received, the Applicant made commitments to address risks through changes to the site boundary and increasing lines of orientation for the windfarm layout. Key design changes made by the Applicant to reduce impacts were (i) realignment of the</p>



ID	RR	Applicant's Response
		<p>Project's western boundary extent to minimise course changes (and deviation distance) for vessels navigating north-south between the Project and the Mona Offshore Wind Project, and between the Project and the Morgan Offshore Wind Project Generation Assets; and (ii) commitment to two lines of orientation in the layout of surface structures within the Project's windfarm site, as set out in Chapter 14 Shipping and Navigation of the Environmental Statement (ES) (APP-051). The Applicant's Design Statement (APP-021) also summarises how site selection and design has been made with a view to minimising disruption to the shipping and navigation industry.</p> <p>As noted above, an NRA (APP-073) was carried out by the Applicant, concluding that the Project alone does not cause appreciably longer transit times for any major commercial navigation routes. The NRA also concluded that the Project alone does not significantly adversely affect any routes essential to regional, national and international trade or major commercial navigation routes and that risks to navigation safety have been reduced to as low as reasonably practicable.</p>
RR-084-04	The Chamber has been closely involved in the planning process for Morecambe 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.	Noted, the Applicant welcomes this response.

ID	RR	Applicant's Response
	<p>The Chamber has welcomed constructive manner the Red Line Boundary (development area) has been amended to take account of navigational safety concerns for national and international scheduled services.</p>	
RR-084-05	<p><b>Cumulative effects</b></p> <p>There remain ongoing cumulative (with other scoped in projects) concerns relating to safety, 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. The cumulative impact to the commercial shipping industry of Morecambe OWF in addition to Mona and Morgan which are also in the DCO process, in addition to Mooir Vannin in Isle of Man territorial waters is unprecedented in its simultaneous nature and requires a precautionary approach.</p> <p>The Chamber therefore requests the opportunity to provide further representation regarding navigational safety and impact upon commercial routing at Examination where appropriate.</p>	<p>A detailed Cumulative Regional Navigation Risk Assessment (CRNRA) has been undertaken on behalf of all Round 4 offshore windfarm projects in the Irish sea (Appendix 14.2 CRNRA (APP-074)). The CRNRA brought together significant analysis, consultation, navigation simulations and the findings from hazard workshops to determine the cumulative risks associated with the Round 4 Projects.</p> <p>Key stakeholders, including the United Kingdom (UK) Chamber of Shipping, participated in these activities and inputted into the hazard scoring process. Where navigational safety hazards were relevant to the Project, the NRA and CRNRA both concluded that following the changes to the boundaries, all navigational safety hazards have been reduced to acceptable levels.</p> <p>Consideration of the potential cumulative effects with the Round 4 projects, including adverse weather, is presented in the CRNRA (APP-074) and reflected in Section 14.8 of Chapter 14 Shipping and Navigation (APP-051). The ferry companies and other key stakeholders have provided input to this process through attendance at navigation simulations and a hazard workshop. These inputs are reflected in the NRA (APP-073)</p>

ID	RR	Applicant's Response
		<p>and Chapter 14 Shipping and Navigation (APP-051) submitted as part of the Application.</p> <p>Following publication of the Moir Vannin Offshore Wind Farm Scoping Report (Moor Vannin Offshore Wind (OWF) Farm Limited, 2023) on 18<sup>th</sup> October 2023, the Moir Vannin OWF has been considered within an addendum (Appendix D) to the CRNRA (APP-074) and within the Cumulative Effects Assessments in Chapter 14 Shipping and Navigation (APP-051), where appropriate. The findings of this addendum (referenced in Section 10.2.4 of the NRA (APP-073)) showed that the addition of Moir Vannin OWF would likely have impacts on ferry routes in typical and adverse conditions and create an unacceptable risk to navigation safety between the Morgan Array Area, Walney OWFs and the Moir Vannin OWF. However, given the location of Moir Vannin OWF, Morecambe OWF is not considered to contribute to these further impacts.</p> <p>The Applicant notes that in regards to route deviation and associated operational effects there are no identified Project-alone significant effects and contribution to cumulative effects are considered to be low. However, the Applicant is committed to further engagement with operators on the residual impacts throughout the examination phase of the Project.</p>

## 4.23 Walney (UK) Offshore Windfarms Limited (RR-088)

Table 4.23 The Applicant's comments on Walney (UK) Offshore Windfarms Limited's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-088-01	<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 Morecambe Offshore Wind Farm ("MOWF") can be seen in MOWF's Environmental Statement (the "ES") at Table 17.10 and Figure 17.2 of ES Chapter 17 (APP-054; APP-105). 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.</p> <p>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 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 Windfarms are a minimum of 20.3km from the Project, as stated in Table 17.10 of Chapter 17 Infrastructure and Other Users (APP-054).</p> <p>Potential impacts on Walney 1 and 2 Offshore Windfarms have been identified and assessed in Section 17.6 of Chapter 17 Infrastructure and Other Users (APP-054) and has been considered in the cumulative effects screening for each topic, where appropriate.</p>
RR-088-02	<p>Concerns were previously highlighted to MOWF via a s48 consultation response and subsequent meetings. We expect further meaningful engagement to seek to address the issues raised below</p>	<p>Engagement has been undertaken with Walney (UK) Offshore Windfarms Limited during the pre-application phase of the Project and will continue as required throughout the Examination phase.</p>

ID	RR	Applicant's Response
	<p>and previously and are open to addressing such matters within or outside the Examination process.</p> <p>On this basis and in the hope that our concerns may be adequately addressed in due course and remove the need for attendance at Examination Hearings, we intend our representations at this stage to be limited. Our Development's concerns include the following [outlined below].</p>	
RR-088-03	<p><b>Issue One: cumulative and in-combination effect on wildlife features</b></p> <p>Given the increasingly complex nature of the existing and proposed development environment in the East Irish Sea, we have an interest in ensuring the Environmental Impact Assessment for MOWF accurately assesses the potential effects on wildlife features and identifies appropriate mitigation.</p> <p>Our primary concern relates to the rapidly evolving cumulative and in-combination landscape which may be contributed to by the additional proposed projects:</p> <ul style="list-style-type: none"> <li>(i) Mona Offshore Windfarm ("OWF")</li> <li>(ii) Morgan OWF</li> <li>(iii) Morecambe OWF and</li> <li>(iv) Morgan and Morecambe Transmission Assets.</li> </ul> <p>We are undertaking work to evaluate each of these projects' impacts to ensure that their baselines are robust, their cumulative and in-combination assessment methodologies consistent, and the mitigations proposed effective. We expect to be in a position to set out our key concerns in writing in due course as this work progresses and will continue to engage with MOWF to seek to resolve them.</p>	<p>The Applicant has undertaken a robust cumulative and in-combination assessment of the Project on the environment, informed by appropriate data sources from site-specific surveys and detailed desktop studies, in accordance with relevant guidance. Each cumulative / in-combination assessment is presented per topic in chapters 7 to 21 of the Environmental Statement (ES) (APP-044 – APP-058) and the Report to Inform Appropriate Assessment (RIAA) (APP-027).</p> <p>Embedded mitigation measures are outlined per topic in chapters 7 to 21 of the ES (APP-044 to APP-058) and detailed in the Schedule of Mitigation (APP-144), which identifies how these are secured in the draft Development Consent Order (DCO).</p> <p>As set out in Table 17.1 of Chapter 17 Infrastructure and Other Users (APP-054), the Applicant has committed to continued communication with other offshore energy operators to facilitate effective co-existence.</p>

ID	RR	Applicant's Response
RR-088-04	<p><b>Issue Two: Wake loss</b></p> <p>Given their proximity, we believe that MOWF will adversely affect the energy yield of our Development due to its impact on wind speed / direction. For the reasons set out below, this requires to be properly assessed and appropriately mitigated / compensated. Paragraph 2.8.197 of National Policy Statement (“NPS”) EN-3 states that “where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities”.</p> <p>The Secretary of State has previously determined that this wording (as contained in a previous version of EN-3) applies to wake loss by one offshore windfarm on another. In that instance it was concluded “an assessment should have been undertaken by the Applicant” (Awel y Môr Offshore Wind Farm, Secretary of State Decision Letter, 20.09.2023, paragraph 14.78). MOWF lists paragraph 2.8.197 as relevant policy (Table 17.4 and paragraph 17.18, APP-054). However, “potential for wake effects are not considered further” by it on the basis that “the Project sits at a greater distance than 10km from other windfarm sites” (APP-054; paragraph 17.129). This conclusion is at odds with internal modelling undertaken by our Development which indicates that MOWF will, in fact, have an impact on its energy yield, as will the cumulative effect of MOWF, Mona OWF and Morgan OWF.</p> <p>In order to properly understand the effects of a development, the specific environment and relevant developments should be carefully considered. This is required by the NPS as a means of considering impacts experienced by other sea users, it is a matter of good</p>	<p>Chapter 17 Infrastructure and Other Users (APP-054) assesses the potential impacts of the Project on offshore energy receptors, including offshore wind farm operators.</p> <p>Walney 1 and 2 Offshore Windfarms have been identified as an offshore energy receptor in the baseline environment (Section 17.5.1).</p> <p>Chapter 17 Infrastructure and Other Users (APP-054) sets out that National Policy Statement (NPS) EN-3 (Table 17.4) recognises that offshore wind development will occur in or close to areas where there is other existing offshore infrastructure. An assessment of the potential effects is required where a potential offshore windfarm is proposed close to existing operational offshore infrastructure (NPS EN-3 para 2.8.197).</p> <p>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 7.5km of an existing offshore wind farm. As described in Paragraph 17.129 of Chapter 17 Infrastructure and Other Users (APP-054), there are no other operational offshore wind farms located within 7.5km of the Project and therefore the Project adheres to the TCE siting criteria and it was considered that the Project is not close to any existing operational offshore wind farms.</p>

ID	RR	Applicant's Response
	<p>design, and it is also relevant for the consideration of the degree of climate change benefit that MOWF offers. Wake losses experienced by our Development would be a real impact on an existing sea user and should be balanced in terms of the proposed benefits of the Project. MOWF should have to minimise such effects through design. Such an approach requires an evaluation of the potential impacts.</p> <p>We submit that MOWF must, in line with the NPS requirements, model and assess its effects on other developments in the East Irish Sea, and if required, provide suitable mitigation. If MOWF declines to undertake this assessment, our Development will commission it. The ExA may consider that the inclusion of a Requirement to address this issue is suitable. The Awel y Môr Development Consent Order required that no wind turbine generator could be erected "...until an assessment of any wake effects and subsequent design provisions to mitigate any such identified effects as far as possible has been submitted to and approved in writing by the Secretary of State..." (Schedule 2, paragraph 25 of the Awel y Môr Wind Farm Order 2023/1033).</p>	<p>A recent study (Frazer-Nash Consultancy, 2023) identified that at a greater than 10km separation between windfarms there is a levelling off of total interaction loss with buffer distance and by 20km the wake losses become 'vanishingly small'. Therefore, no further assessment was required given the distance between the projects and effects at this range. The Applicant would note that the distance between Awel y Môr and Rhyl Flats, which is the precedent to which Walney (UK) Offshore Windfarms Limited refers, was 5.1km. The Walney 1 and 2 Offshore Windfarms are a minimum of 20.3km from the Project.</p> <p>NPS EN-3 recognises that offshore wind farms may be located close to other offshore infrastructure such as oil and gas, carbon capture, telecommunications and other offshore wind farms. NPS EN-3 (para 2.8.342) states that the Secretary of State (SoS) should take a pragmatic approach where a proposed offshore wind farm potentially affects other offshore infrastructure or activity. An applicant will be expected to work with the impacted sector to minimise negative impacts and reduce risks to as low as reasonably practicable (para. 2.8.344). As such, the SoS should be satisfied that the site selection and site design of a proposed offshore wind farm and offshore transmission has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries. Applicants will be required to demonstrate that risks to safety will be reduced to as low as reasonably practicable</p>

ID	RR	Applicant's Response
		<p>(para 2.8.345). Where a proposed development is likely to affect the future viability or safety of an existing or approved/licensed offshore infrastructure or activity, the SoS should give these adverse effects substantial weight in its decision-making (para. 2.8.347). Providing proposed schemes have been carefully designed, and that the necessary consultation with relevant bodies and stakeholders has been undertaken at an early stage, mitigation measures may be possible to negate or reduce effects on other offshore infrastructure or operations to a level sufficient to enable the SoS to grant consent (para 2.8.348).</p> <p>As noted above, site selection was undertaken as part of TCE Round 4 leasing process, which built in 7.5km buffer zones around existing wind farms. Walney (UK) Offshore Windfarms Limited does not raise safety issues in its RR, and the Applicant maintains that the presence of the proposed development does not constitute a safety risk. Furthermore, the Applicant does not consider that the presence of the Project will materially or adversely affect the future viability of the Walney 1 and Walney 2 Wind Farms. The Applicant requests that Walney (UK) Offshore Windfarms Limited explain what steps it has taken to engage with TCE during the agreement of its own lease and during the Round 4 leasing process in relation to these matters.</p>



## 4.24 Walney Extension Limited (RR-089)

Table 4.24 The Applicant's comments on Walney Extension Limited's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-089-01	<p>Walney Extension Limited owns the Walney Extension Windfarm comprising Walney 3 and 4, and operational offshore windfarm with a Development Consent Order (DCO) and relevant marine licences ("our Development Its proximity to Morecambe Offshore Wind Farm ("MOWF") can be seen in MOWF's Environmental Statement (the "ES") at Table 17.10 and Figure 17.2 of ES Chapter 17 (APP-054; APP-105). 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.</p> <p>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 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 3 and 4 Offshore Windfarms are a minimum of 30.7km and 18.8km from the Project, as stated in Table 17.10 of Chapter 17 Infrastructure and Other Users (APP-054).</p> <p>Potential impacts on Walney 3 and 4 Offshore Windfarms have been identified and assessed in Section 17.6 of Chapter 17 Infrastructure and Other Users (APP-054) and has been considered in the cumulative effects screening for each topic, where appropriate.</p>
RR-089-02	<p>Concerns were previously highlighted to MOWF via a s48 consultation response and subsequent meetings. We expect further meaningful engagement to seek to address the issues raised below</p>	<p>Engagement has been undertaken with Walney Extension Limited during the pre-application phase of the Project and will continue as required throughout the Examination phase.</p>

ID	RR	Applicant's Response
	<p>and previously and are open to addressing such matters within or outside the Examination process.</p> <p>On this basis and in the hope that our concerns may be adequately addressed in due course and remove the need for attendance at Examination Hearings, we intend our representations at this stage to be limited. Our Development's concerns include the following [outlined below].</p>	
RR-089-03	<p><b>Issue One: cumulative and in-combination effect on wildlife features</b></p> <p>Given the increasingly complex nature of the existing and proposed development environment in the East Irish Sea, we have an interest in ensuring the Environmental Impact Assessment for MOWF accurately assesses the potential effects on wildlife features and identifies appropriate mitigation.</p> <p>Our primary concern relates to the rapidly evolving cumulative and in-combination landscape which may be contributed to by the additional proposed projects:</p> <ul style="list-style-type: none"> <li>(v) Mona Offshore Windfarm ("OWF")</li> <li>(vi) Morgan OWF</li> <li>(vii) Morecambe OWF and</li> <li>(viii) Morgan and Morecambe Transmission Assets.</li> </ul> <p>We are undertaking work to evaluate each of these projects' impacts to ensure that their baselines are robust, their cumulative and in-combination assessment methodologies consistent, and the mitigations proposed effective. We expect to be in a position to set out our key concerns in writing in due course as this work progresses and will continue to engage with MOWF to seek to resolve them.</p>	<p>The Applicant has undertaken a robust cumulative and in-combination assessment of the Project on the environment, informed by appropriate data sources from site-specific surveys and detailed desktop studies, in accordance with relevant guidance. Each cumulative / in-combination assessment is presented per topic in chapters 7 to 21 of the Environmental Statement (ES) (APP-044 – APP-058) and the Report to Inform Appropriate Assessment (RIAA) (APP-027).</p> <p>Embedded mitigation measures are outlined per topic in chapters 7 to 21 of the ES (APP-044 to APP-058) and detailed in the Schedule of Mitigation (APP-144), which identifies how these are secured in the draft Development Consent Order (DCO).</p> <p>As set out in Table 17.1 of Chapter 17 Infrastructure and Other Users (APP-054), the Applicant has committed to continued communication with other offshore energy operators to facilitate effective co-existence.</p>

ID	RR	Applicant's Response
RR-089-04	<p><b>Issue Two: Wake loss</b></p> <p>Given their proximity, we believe that MOWF will adversely affect the energy yield of our Development due to its impact on wind speed / direction. For the reasons set out below, this requires to be properly assessed and appropriately mitigated / compensated. Paragraph 2.8.197 of National Policy Statement (“NPS”) EN-3 states that “where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities”.</p> <p>The Secretary of State has previously determined that this wording (as contained in a previous version of EN-3) applies to wake loss by one offshore windfarm on another. In that instance it was concluded “an assessment should have been undertaken by the Applicant” (Awel y Môr Offshore Wind Farm, Secretary of State Decision Letter, 20.09.2023, paragraph 14.78). MOWF lists paragraph 2.8.197 as relevant policy (Table 17.4 and paragraph 17.18, APP-054). However, “potential for wake effects are not considered further” by it on the basis that “the Project sits at a greater distance than 10km from other windfarm sites” (APP-054; paragraph 17.129). This conclusion is at odds with internal modelling undertaken by our Development which indicates that MOWF will, in fact, have an impact on its energy yield, as will the cumulative effect of MOWF, Mona OWF and Morgan OWF.</p> <p>In order to properly understand the effects of a development, the specific environment and relevant developments should be carefully considered. This is required by the NPS as a means of considering impacts experienced by other sea users, it is a matter of good</p>	<p>Chapter 17 Infrastructure and Other Users (APP-054) assesses the potential impacts of the Project on offshore energy receptors, including offshore wind farm operators.</p> <p>Walney 3 and 4 Offshore Windfarms have been identified as an offshore energy receptor in the baseline environment (Section 17.5.1).</p> <p>Chapter 17 Infrastructure and Other Users (APP-054) sets out that National Policy Statement (NPS) EN-3 (Table 17.4) recognises that offshore wind development will occur in or close to areas where there is other existing offshore infrastructure. An assessment of the potential effects is required where a potential offshore windfarm is proposed close to existing operational offshore infrastructure (NPS EN-3 para 2.8.197).</p> <p>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 7.5km of an existing offshore wind farm. As described in Paragraph 17.129 of Chapter 17 Infrastructure and Other Users (APP-054), there are no other operational offshore wind farms located within 7.5km of the Project and therefore the Project adheres to the TCE siting criteria and it was considered that the Project is not close to any existing operational offshore wind farms.</p>

ID	RR	Applicant's Response
	<p>design, and it is also relevant for the consideration of the degree of climate change benefit that MOWF offers. Wake losses experienced by our Development would be a real impact on an existing sea user and should be balanced in terms of the proposed benefits of the Project. MOWF should have to minimise such effects through design. Such an approach requires an evaluation of the potential impacts.</p> <p>We submit that MOWF must, in line with the NPS requirements, model and assess its effects on other developments in the East Irish Sea, and if required, provide suitable mitigation. If MOWF declines to undertake this assessment, our Development will commission it. The ExA may consider that the inclusion of a Requirement to address this issue is suitable. The Awel y Môr Development Consent Order required that no wind turbine generator could be erected "...until an assessment of any wake effects and subsequent design provisions to mitigate any such identified effects as far as possible has been submitted to and approved in writing by the Secretary of State..." (Schedule 2, paragraph 25 of the Awel y Môr Wind Farm Order 2023/1033).</p>	<p>A recent study (Frazer-Nash Consultancy, 2023) identified that at a greater than 10km separation between windfarms there is a levelling off of total interaction loss with buffer distance and by 20km the wake losses become 'vanishingly small'. Therefore, no further assessment was required given the distance between the projects and effects at this range. The Applicant would note that the distance between Awel y Môr and Rhyl Flats, which is the precedent to which Walney Extension Limited refers, was 5.1km. The Walney 3 and 4 Offshore Windfarms are a minimum of 30.7km (Walney 3) and 18.8km (Walney 4) from the Project.</p> <p>NPS EN-3 recognises that offshore wind farms may be located close to other offshore infrastructure such as oil and gas, carbon capture, telecommunications and other offshore wind farms. NPS EN-3 (para 2.8.342) states that the Secretary of State (SoS) should take a pragmatic approach where a proposed offshore wind farm potentially affects other offshore infrastructure or activity. An applicant will be expected to work with the impacted sector to minimise negative impacts and reduce risks to as low as reasonably practicable (para. 2.8.344). As such, the SoS should be satisfied that the site selection and site design of a proposed offshore wind farm and offshore transmission has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries. Applicants will be required to demonstrate that risks to safety will be reduced to as low as reasonably practicable</p>

ID	RR	Applicant's Response
		<p>(para 2.8.345). Where a proposed development is likely to affect the future viability or safety of an existing or approved/licensed offshore infrastructure or activity, the SoS should give these adverse effects substantial weight in its decision-making (para. 2.8.347). Providing proposed schemes have been carefully designed, and that the necessary consultation with relevant bodies and stakeholders has been undertaken at an early stage, mitigation measures may be possible to negate or reduce effects on other offshore infrastructure or operations to a level sufficient to enable the SoS to grant consent (para 2.8.348).</p> <p>As noted above, site selection was undertaken as part of TCE's Round 4 leasing process, which built in 7.5km buffer zones around existing wind farms. Walney Extension Limited does not raise safety issues in its RR, and the Applicant maintains that the presence of the proposed development does not constitute a safety risk. Furthermore, the Applicant does not consider that the presence of the Project will materially or adversely affect the future viability of the Walney 3 and 4 Offshore Windfarms. The Applicant requests that Walney Extension Limited explain what steps it has taken to engage with TCE during the agreement of its own lease and during the Round 4 leasing process in relation to these matters.</p>
RR-089-05	<p><b>Issue Three: Radar</b></p> <p>Our Development is implementing appropriate mitigation in relation to potential impacts on the Warton Airfield Primary Surveillance Radar</p>	<p>As described in Table 16.1 of Chapter 16 Civil and Military Aviation and Radar (APP-053), consultation was undertaken by the Applicant with the Ministry of Defence (MOD) to confirm that a detailed</p>

ID	RR	Applicant's Response
	<p>and is concerned about the impacts of MOWF on its development in respect of radar mitigation. Our Development is engaging with MOWF regarding this issue and potential impacts on this mitigation and will continue to do so and will make further submissions in Written Representations should it require to do so.</p>	<p>operational assessment had been carried out regarding potential impact on the Warton Primary Surveillance Radar (PSR).</p> <p>MOD responded by email on the 11 August 2023 confirming that an operational assessment had been carried out and that there would be no operational impact on the Warton PSR. As a result, no further assessment of the receptor was considered necessary at the time.</p> <p>The Applicant has since received an objection from the MOD Defence Infrastructure Organisation (DIO) dated 19 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 continues to engage with the MOD and BAE Systems (Operations) Ltd regarding potential mitigation solutions, as appropriate to Warton PSR.</p>

## 4.25 Ørsted Burbo (UK) Limited (RR-093)

Table 4.25 The Applicant's comments on Ørsted Burbo (UK) Limited's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-093-01	<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 Morecambe Offshore Wind Farm ("MOWF") can be seen in MOWF's Environmental Statement (the "ES") at Table 17.10 and Figure 17.2 of ES Chapter 17 (APP-054; APP-105). 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 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 Wind Farm is a minimum of 33.4km from the Project, as stated in Table 17.10 of Chapter 17 Infrastructure and Other Users (APP-054).</p> <p>Potential impacts on the Burbo Bank Wind Farm have been identified and assessed in Section 17.6 of Chapter 17 Infrastructure and Other Users (APP-054) and has been considered in the cumulative effects screening for each topic of the Environmental Statement (ES), where appropriate.</p>
RR-093-02	<p>Concerns were previously highlighted to MOWF via a s48 consultation response and subsequent meetings. We expect further meaningful engagement to seek to address the issues raised below and previously and are open to addressing such matters within or outside the Examination process.</p> <p>On this basis and in the hope that our concerns may be adequately addressed in due course and remove the need for attendance at</p>	<p>Engagement has been undertaken with Ørsted Burbo (UK) Limited during the pre-application phase of the Project and will continue as required throughout the Examination phase.</p>

ID	RR	Applicant's Response
	<p>Examination Hearings, we intend our representations at this stage to be limited. Our Development's concerns include the following.</p>	
RR-093-03	<p><b>Issue One: cumulative and in-combination effect on wildlife features</b></p> <p>Given the increasingly complex nature of the existing and proposed development environment in the East Irish Sea, we have an interest in ensuring the Environmental Impact Assessment for MOWF accurately assesses the potential effects on wildlife features and identifies appropriate mitigation. Our primary concern relates to the rapidly evolving cumulative and in-combination landscape which may be contributed to by the additional proposed projects: (i) Mona Offshore Windfarm ("OWF") (ii) Morgan OWF (iii) Morecambe OWF and (iv) Morgan and Morecambe Transmission Assets. We are undertaking work to evaluate each of these projects' impacts to ensure that their baselines are robust, their cumulative and in-combination assessment methodologies consistent, and the mitigations proposed effective. We expect to be in a position to set out our key concerns in writing in due course as this work progresses and will continue to engage with MOWF to seek to resolve them.</p>	<p>The Applicant has undertaken a robust cumulative and in-combination assessment of the Project on the environment, informed by appropriate data sources from site-specific surveys and detailed desktop studies, in accordance with relevant guidance. Each cumulative / in-combination assessment is presented per topic in chapters 7 to 21 of the ES (APP-044 – APP-058) and the Report to Inform Appropriate Assessment (RIAA) (APP-027).</p> <p>Embedded mitigation measures are outlined per topic in chapters 7 to 21 of the ES (APP-044 – APP-058) and detailed in the Schedule of Mitigation (APP-144), which identifies how these are secured in the draft Development Consent Order (DCO).</p> <p>As set out in Table 17.1 of Chapter 17 Infrastructure and Other Users (APP-054), the Applicant has committed to continued communication with other offshore energy operators to facilitate effective co-existence.</p>
RR-093-04	<p><b>Issue Two: Wake loss</b></p> <p>Given their proximity, we believe that MOWF will adversely affect the energy yield of our Development due to its impact on wind speed / direction. For the reasons set out below, this requires to be properly assessed and appropriately mitigated / compensated. Paragraph 2.8.197 of National Policy Statement ("NPS") EN-3 states that "where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect</p>	<p>Chapter 17 Infrastructure and Other Users (APP-054) assesses the potential impacts of the Project on offshore energy receptors, including offshore wind farm operators.</p>



ID	RR	Applicant's Response
	<p>activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities". The Secretary of State has previously determined that this wording (as contained in a previous version of EN-3) applies to wake loss by one offshore windfarm on another. In that instance it was concluded "an assessment should have been undertaken by the Applicant" (Awel y Môr Offshore Wind Farm, Secretary of State Decision Letter, 20.09.2023, paragraph 14.78). MOWF lists paragraph 2.8.197 as relevant policy (Table 17.4 and paragraph 17.18, APP-054). However, "potential for wake effects are not considered further" by it on the basis that "the Project sits at a greater distance than 10km from other windfarm sites" (APP-054; paragraph 17.129). This conclusion is at odds with internal modelling undertaken by our Development which indicates that MOWF will, in fact, have an impact on its energy yield, as will the cumulative effect of MOWF, Mona OWF and Morgan OWF.</p> <p>In order to properly understand the effects of a development, the specific environment and relevant developments should be carefully considered. This is required by the NPS as a means of considering impacts experienced by other sea users, it is a matter of good design, and it is also relevant for the consideration of the degree of climate change benefit that MOWF offers. Wake losses experienced by our Development would be a real impact on an existing sea user and should be balanced in terms of the proposed benefits of the Project. MOWF should have to minimise such effects through design. Such an approach requires an evaluation of the potential impacts.</p> <p>We submit that MOWF must, in line with the NPS requirements, model and assess its effects on other developments in the East Irish Sea, and if required, provide suitable mitigation. If MOWF declines to undertake this assessment, our Development will commission it. The ExA may consider that the inclusion of a Requirement to address this</p>	<p>Burbo Bank Wind Farm has been identified as an offshore energy receptor in the baseline environment (Section 17.5.1).</p> <p>Chapter 17 Infrastructure and Other Users (APP-054) sets out that National Policy Statement (NPS) EN-3 (Table 17.4) recognises that offshore wind development will occur in or close to areas where there is other existing offshore infrastructure. An assessment of the potential effects is required where a potential offshore windfarm is proposed close to existing operational offshore infrastructure (NPS EN-3 para 2.8.197).</p> <p>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 7.5km of an existing offshore wind farm. As described in Paragraph 17.129 of Chapter 17 Infrastructure and Other Users (APP-054), there are no other operational offshore wind farms located within 7.5km of the Project and therefore the Project adheres to the TCE siting criteria and it was considered the Project is not close to any existing operational offshore wind farms.</p> <p>A recent study (Frazer-Nash Consultancy, 2023) identified that at a greater than 10km separation between windfarms there is a levelling off of total interaction loss with buffer distance and by 20km the wake losses become 'vanishingly small'.</p>

ID	RR	Applicant's Response
	<p>issue is suitable. The Awel y Môr Development Consent Order required that no wind turbine generator could be erected "...until an assessment of any wake effects and subsequent design provisions to mitigate any such identified effects as far as possible has been submitted to and approved in writing by the Secretary of State..." (Schedule 2, paragraph 25 of the Awel y Môr Wind Farm Order 2023/1033).</p>	<p>Therefore, no further assessment was required given the distance between the projects and effects at this range. The Applicant would note that the distance between Awel y Môr and Rhyl Flats, which is the precedent to which Ørsted Burbo (UK) Limited refers, was 5.1km. The Burbo Bank Wind Farm is a minimum of 33.4km from the Project.</p> <p>NPS EN-3 recognises that offshore wind farms may be located close to other offshore infrastructure such as oil and gas, carbon capture, telecommunications and other offshore wind farms. NPS EN-3 (para 2.8.342) states that the Secretary of State (SoS) should take a pragmatic approach where a proposed offshore wind farm potentially affects other offshore infrastructure or activity. An applicant will be expected to work with the impacted sector to minimise negative impacts and reduce risks to as low as reasonably practicable (para. 2.8.344). As such, the SoS should be satisfied that the site selection and site design of a proposed offshore wind farm and offshore transmission has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries. Applicants will be required to demonstrate that risks to safety will be reduced to as low as reasonably practicable (para 2.8.345). Where a proposed development is likely to affect the future viability or safety of an existing or approved/licensed offshore infrastructure or activity, the SoS should give these adverse effects substantial weight in its decision-making (para. 2.8.347). Providing proposed schemes have</p>

ID	RR	Applicant's Response
		<p>been carefully designed, and that the necessary consultation with relevant bodies and stakeholders has been undertaken at an early stage, mitigation measures may be possible to negate or reduce effects on other offshore infrastructure or operations to a level sufficient to enable the SoS to grant consent (para 2.8.348).</p> <p>As noted above, site selection was undertaken as part of TCE's Round 4 leasing process, which built in 7.5km buffer zones around existing wind farms. Ørsted Burbo (UK) Limited does not raise safety issues in its RR, and the Applicant maintains that the presence of the proposed development does not constitute a safety risk. Furthermore, the Applicant does not consider that the presence of the Project will materially or adversely affect the future viability of the Burbo Bank Wind Farm. The Applicant requests that Ørsted Burbo (UK) Limited explain what steps it has taken to engage with TCE during the agreement of its own lease and during the Round 4 leasing process in relation to these matters.</p>

## 4.26 Wrea Green Equitation Centre (RR-092)

Table 4.26 The Applicant's comments on Wrea Green Equitation Centre's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-092-01	Disruption to business premises which has been in business for 43 years teaching able and disabled riders towards health and employment. The proposed compound is to be built next door to the indoor school causing noise, vibration, extra noise from plant machinery and an increase in heavy goods vehicles driving in and out onto a small B road with very limited access.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response to RR-033-01 above.

## 4.27 The Flemish Agency of Agriculture and Fisheries (AS-011)

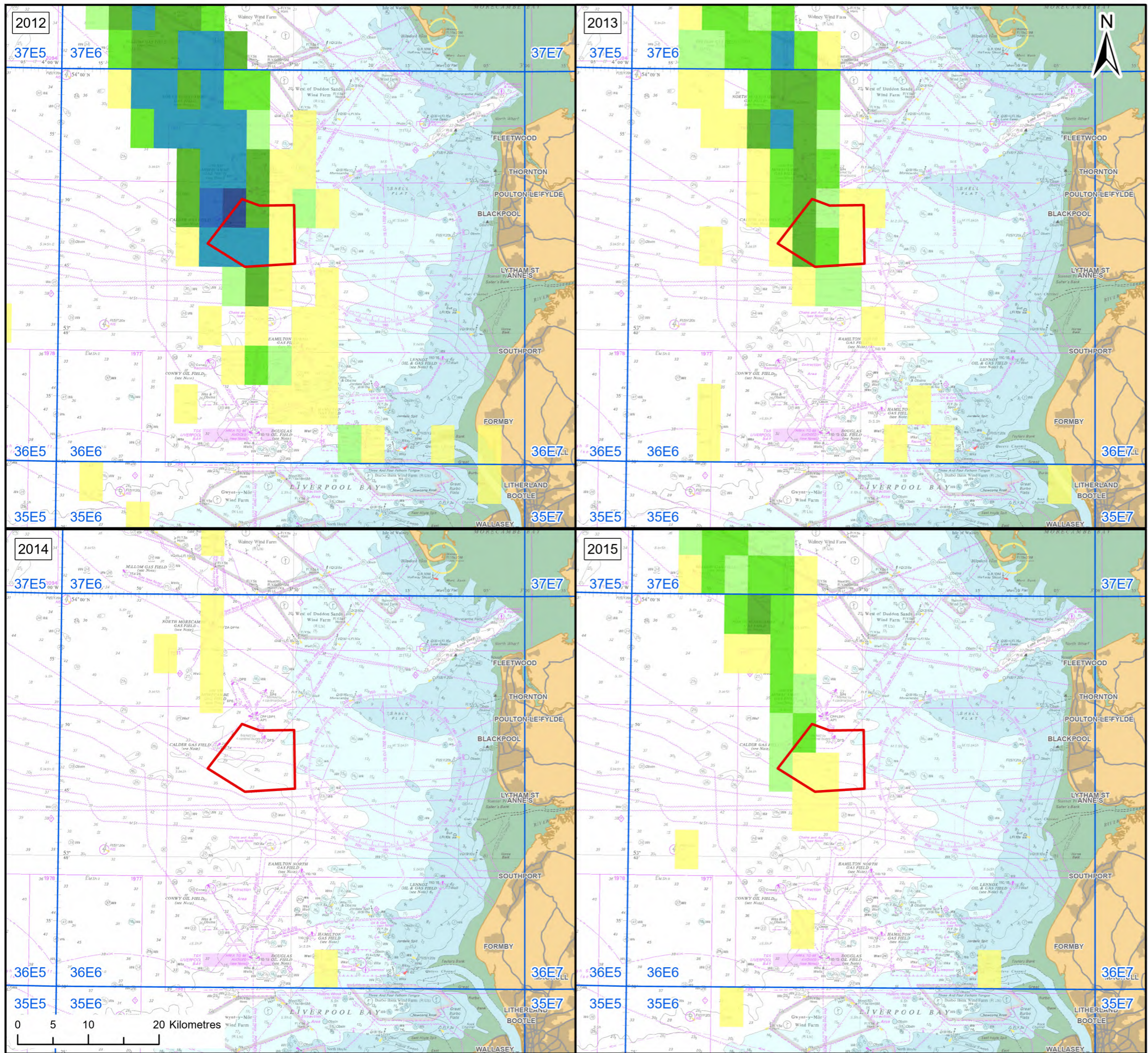
Table 4.27 The Applicant's comments on the Flemish Agency of Agriculture and Fisheries Relevant Representation (RR)

ID	RR	Applicant's Response
AS-011-01	<p>The Flemish agency of Agriculture and fisheries would like to react on the progress of the Morecambe Offshore Windfarm Generation Assets - Transboundary Consultation.</p> <p>The agency does not agree with Volume 5 Chapter 13 Commercial Fisheries and Appendix 13.1 Commercial Fisheries Technical Report in regards to the conclusion of the impact on the Belgian fisheries active in the Morecambe area.</p>	<p>Impact to the Belgian beam trawl fleet is assessed in Chapter 13 Commercial Fisheries, Section 13.6 Impact Assessment (APP-050). The assessment concluded a minor adverse significance for a range of impacts on the Belgian beam trawl fleet during all phases of the Project, including:</p> <ul style="list-style-type: none"> <li>▪ Reduction in access to, or exclusion from established fishing grounds</li> <li>▪ Displacement leading to gear conflict and increased fishing pressure on adjacent grounds.</li> <li>▪ Displacement or disruption of commercially important fish and shellfish resources.</li> </ul>

ID	RR	Applicant's Response
		<p>The Applicant remains of the position that this assessment is valid, with further justification provided below.</p>
AS-011-02	<p>The Morecambe ICES rectangle 36E6 and surrounding area is an important area for the BE fisheries. Between 2019 and 2023 the landings of the area was on average 136 ton which account for at least 1% of the annual turnover of the Belgian fleet The agency notices that the cited data used in the technical report were from 2012 to 2016, which are not recent data and does not reflect the current activity and importance of the area for the Belgian fisheries. Furthermore recent data suggest the opposite of the cited data and show quite high steady fisheries activity with some fluctuation but no sign of decrease.</p>	<p>The Applicant would like to highlight Figure 4.2 of Appendix 13.1 Commercial Fisheries Technical Report (APP-072) which presents surface swept area ratio data for European Union (EU) beam trawls, including United Kingdom (UK) and Belgian Vessel Monitoring System (VMS) data based on an annual average from 2016 to 2020. The spatial data indicates that beam trawl activity occurs within 36E6, including occasional activity within the Project and higher intensity fishing by beam trawling outside and to the north and north-west of the Project.</p> <p>The spatial activity of the EU beam trawl fleet was presented to the Belgian Producers Organisation, Rederscentrale during a pre-application consultation meeting (6<sup>th</sup> December 2023), and considered representative of the Belgian activity at that time.</p> <p>The Applicant highlights that the Morecambe windfarm site is an area of 87km<sup>2</sup> and overlaps with 2.4% of International Council for the Exploration of the Seas (ICES) rectangle 36E6 (which is 3,668.2km<sup>2</sup> in area). To further examine activity across 36E6, the Applicant has mapped the EU beam trawl VMS data annually from 2012 to 2020 indicating the fishing effort (kilowatt-hour (kWh)) by c-square. This data is presented in <b>Figure 2a</b> and</p>

ID	RR	Applicant's Response
		<p><b>Figure 2b</b> below this RR response. The data further demonstrates the higher intensity activity to the north and north-west of the Project. Based on analysis of the fishing effort within 36E6 on average, approximately 8% of the EU (including UK) beam trawl fishing intensity within 36E6 occurs within the Project boundaries (based on a 9 year average from 2012 and 2020).</p> <p>As secured by the Fisheries Co-existence and Liaison Plan (FLCP), with an outline submitted within the Development Consent Order (DCO) Application (APP-147), the Applicant is committed to updating the fishing industry, including Rederscentrale, on the timing and location of any construction works. Fishers would not be prohibited from entering the site, with exception of Safety Zones around infrastructure under construction and major maintenance activities.</p> <p>The Applicant considers the impact assessment and conclusions for the Belgian beam trawl fleet to remain valid, as set out in Chapter 13 Commercial Fisheries (APP-050).</p> <p>The Applicant would welcome further data on the Belgian beam trawl spatial activity and landings. While landings data for period 2012 to 2016 is recognised as historic (landings data for non-UK vessels was not available post-2016 by ICES rectangle), it has been supplemented with spatial VMS data up to 2020.</p>

ID	RR	Applicant's Response
AS-011-03	Further the Agency is puzzled why there was no mention of any assessment of the possible impact of Brexit on the EU-fisheries within the chapter and the technical report, and due to the use of data before 2020 this is also not reflected in the outcomes.	Section 6 of Appendix 13.1 Commercial Fisheries Technical Report (APP-072) discusses the implications of the UK withdrawal from EU, including quota transferral and market changes.
AS-011-04	The Flemish Agency of Agriculture therefore asks to reevaluate Chapter 13 and the conclusions made by the technical report. The Agency would like to continue monitoring the developments and is open to be actively involved in further discussions. We will also always be available to provide additional or more detailed information if needed.	<p>The Applicant considers the impact assessment and conclusions (minor adverse) for the Belgian beam trawl fleet to remain valid, as set out in Chapter 13 Commercial Fisheries (APP-050).</p> <p>The Applicant is committed to monitoring fisheries activity data pre, during and post construction, as secured by the In Principle Monitoring Plan (IPMP) (APP-148). The Applicant would seek to engage further and encourage provision of Belgian fisheries data to support the commercial fisheries monitoring and any updates of the FLCP as appropriate.</p> <p>The Applicant highlights that the commitments within the FLCP are relevant to Belgian fisheries who will continue to be updated on Project developments.</p>



**Legend:**

- Morecambe Offshore Windfarm Site
- ICES rectangles

**Total fishing effort (kwh) by UK & EU vessels using beam trawls**

- < 10,000
- 10,000 - 20,000
- 20,000 - 40,000
- 40,000 - 80,000
- 80,000 - 160,000
- 160,000 - 320,000
- > 320,000

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**Report:**  
Morecambe Offshore Windfarm: Generation Assets

**Title:**  
Annual fishing effort by vessels utilising beam trawls (2012-2015)

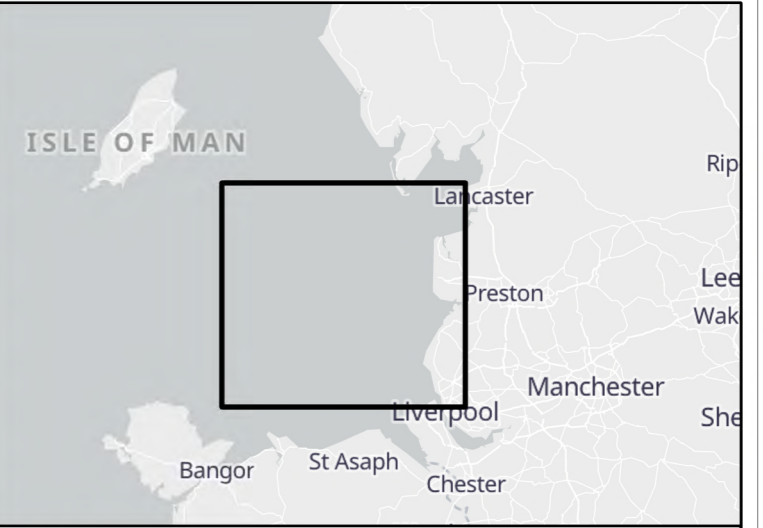
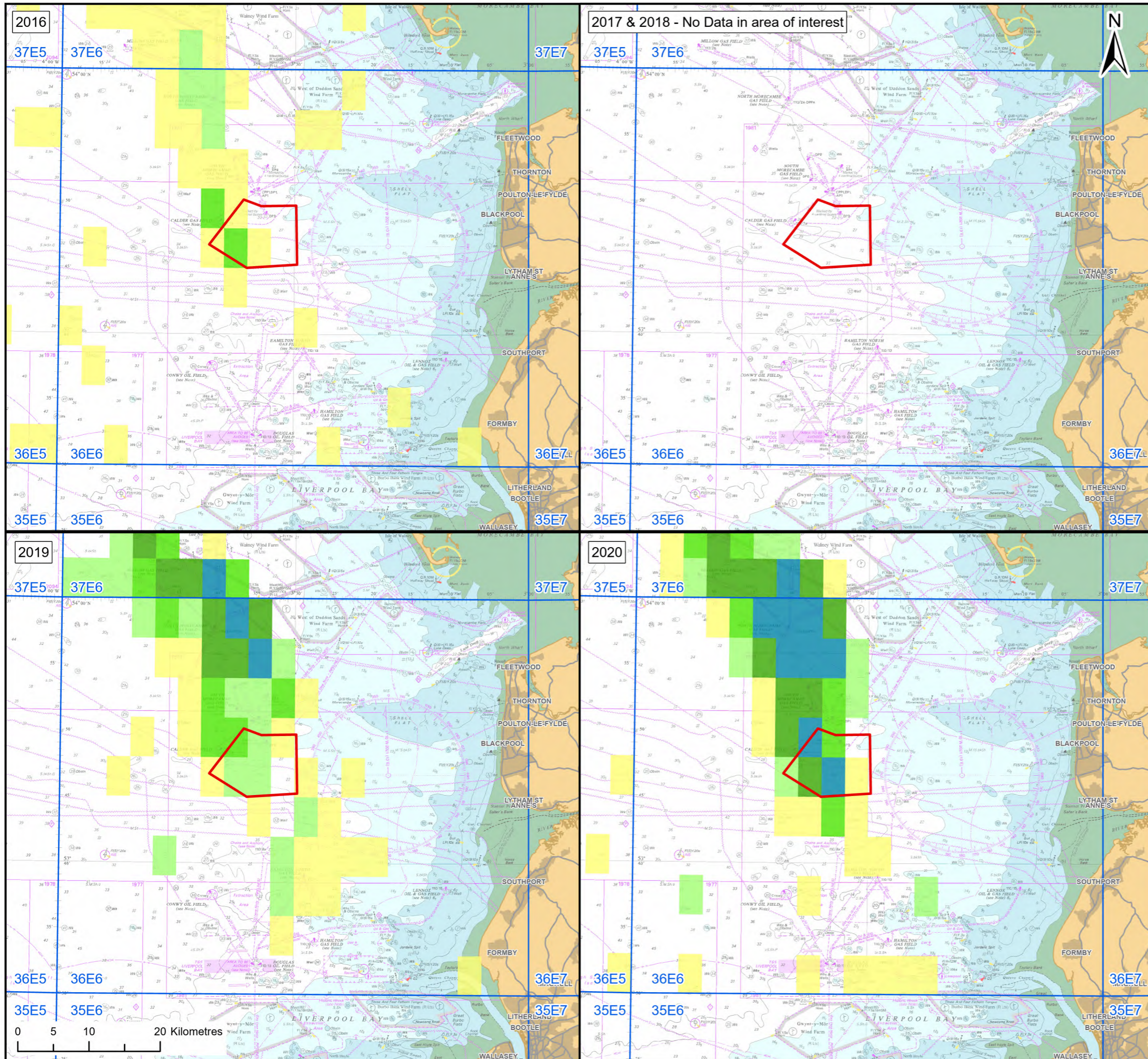
**Figure:** 2a      **Drawing No:** PC1165-RHD-ES-OF-DG-Z-0157

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
P01	18/09/2024	SB	FN	A3	1:550,000

**Co-ordinate system:** WGS 1984 UTM Zone 30N







**Legend:**

- Morecambe Offshore Windfarm Site
- ICES rectangles

**Total fishing effort (kwh) by UK & EU vessels using beam trawls**

- < 10,000
- 10,000 - 20,000
- 20,000 - 40,000
- 40,000 - 80,000
- 80,000 - 160,000
- 160,000 - 320,000
- > 320,000

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**Report:**  
Morecambe Offshore Windfarm: Generation Assets

**Title:**  
Annual fishing effort by vessels utilising beam trawls (2016-2020)

**Figure:** 2b      **Drawing No:** PC1165-RHD-ES-OF-DG-Z-0157

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
P01	18/09/2024	SB	FN	A3	1:550,000

Co-ordinate system: WGS 1984 UTM Zone 30N



## 5. Comments on members of the public RRs

8. The Applicant's comments on RRs received from members of the public are provided in **Table 5.1** to **Table 5.52**.

## 5.1 Adam Logsdon (RR-001)

Table 5.1 The Applicant's comments on Adam Logsdon's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-001-01	<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 RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). The infrastructure included in this Application only relates to the offshore wind turbine 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, Morgan Offshore Wind Project (a joint venture between bp Alternative Energy Investments Ltd. (bp) and Energie Baden-Württemberg AG (EnBW)). Both the Morecambe Offshore Windfarm and Morgan 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 was responsible for conducting a Holistic Network Design Review (HNDR) to assess options to improve the coordination of offshore wind generation connections and transmission networks. The output of this process concluded that the Morecambe Offshore Windfarm and the Morgan Offshore Wind Project should both connect at Penwortham in Lancashire. The developers agreed to work</p>

ID	RR	Applicant's Response
		<p>collaboratively to progress a single development consent application for both grid connections.</p> <p>The transmission infrastructure assets for the Morecambe Offshore Windfarm 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 (SoS) under the Planning Act 2008. The Development Consent Order (DCO) application for the Transmission Assets is anticipated to be submitted shortly. Further information on the Transmission Assets project is available at:  <a href="https://morecambeandmorgan.com/transmission/">https://morecambeandmorgan.com/transmission/</a>.</p> <p>As noted on page 2 of the Examining Authority's (ExA) Rule 6 letter dated 23 September 2024 (PD-007), 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 accepted for Examination by the Planning Inspectorate (PINS). The status of that application, and any associated documents, is available at:  <a href="https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN020032">https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN020032</a></p>

## 5.2 Alexander Miller Cairns (RR-002)

Table 5.2 The Applicant's comments on Alexander Miller Cairns' Relevant Representation (RR)

ID	RR	Applicant's Response
RR-002-01	<p>I am writing to disapprove of the planned sub-stations.</p> <p>The decisions were illegally predetermined, making the consultation process flawed, and the reasons are false and inaccurate. I strongly oppose the development in this area. No detailed maps or models were made available to the public but were made available to land owners before the statutory consultation. All parties should legally have the same information, making the statutory consultation flawed. Our local MP has been 'hoodwinked' over time, being drip-fed information and intentionally misled. The Non-statutory consultation was also flawed and, therefore, should be ignored as there was no explanation as to how the four search zone locations were identified in the first place.</p> <p>The PIER overlooks Fylde Borough Council's local plan, identifying Enterprize Zones, brownfield sites, and potential candidate zones. FBC should, therefore, refute the current plans and force them to be reconsidered in line with their strategy for the region. The PIER shows evidence of a predetermined outcome in favour of Zone 1. The RAG assessment has a bias favouring Zone 1—no consideration of locale to residential properties, greenbelt, light pollution or separation zones. The RAG survey ratings are inconsistent, contradictory, subjective and factually incorrect.</p> <p>Visual impacts are grossly understated; no renderings were provided to give the public a reasonable impression of substance and scale. The development will significantly adversely impact local amenities, change of character from rural to industrial, and potential flooding due</p>	<p>The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.</p>

ID	RR	Applicant's Response
	<p>to massive displacement caused by the enormous industrial development, ruining farmland for decades and placing homes at risk. People invest their money to live in a semi-rural environment for mental health and wellbeing. This development promises to devalue their properties and well being.</p> <p>Decisions are being made based on cost and nothing more. Environmental, local community, sensitivity for agriculture and wildlife, FBC strategy, noise pollution, community health and other critical factors are being pushed aside in favour of profits.</p> <p>I am not opposing green energy, but the infrastructure in the proposed plans is not acceptable when there are more sensitive and responsible alternatives which have been ignored.</p> <p>Large employers will have difficulties attracting people to work in the area, workers already in the area will have major disruptions getting to work, emergency services will be affected, businesses will be affected, and people's mental health will be affected. BP is bullying through these decisions, seemingly with the backing of decision-makers already in the bag. This process is a sham, and I oppose the development for all the above reasons, including BP's obnoxious approach, assuming it can do whatever it wants with the Fylde's communities and landscape.</p> <p>It's a definite no from me!</p>	

### 5.3 Andrew Ashworth (RR-003)

*Table 5.3 The Applicant's comments on Andrew Ashworth's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-003-01	As a farmer myself my worries are that you will absolutely decimate family farms in the area. Farms that have been farmed for generations, farms that need to be farmed for generations to come. The land will never be the same again once these cables have been layed through it. It will also have an enormous impact on the wildlife in this area. The more logical route is either up the river Ribble or take the power to Heysham. The impact it will have on the Fylde will be devastating, for both farmers and the general public. It worries me! Andrew.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

### 5.4 Angela Esslinger (RR-004)

*Table 5.4 The Applicant's comments on Angela Esslinger's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-004-01	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 <ol style="list-style-type: none"> <li>1. Stannah,</li> <li>2. Heysham or</li> <li>3. up the Ribble.</li> </ol>	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

ID	RR	Applicant's Response
	<p>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.</p> <p>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.</p> <p>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>	

## 5.5 Anne Mason (RR-005)

*Table 5.5 The Applicant's comments on Anne Mason's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-005-01	<p>I have written a lengthy letter about the horrendous effects this uninvited project will have on my land which forms part of the cable corridor. Our farm is my home and my business and the construction of the cable route will have a permanent impact on my income as well as a permanent impact on my 3rd generation farming business.</p> <p>Compensation will not adequately compensate us for a project which is uninvited and unwelcome not properly compensate us for future losses such as planning for housing. I refer to my original letter with multiple points which can be forwarded to yourselves. We have tried to work with this unwelcome project during the planning stages to facilitate various surveys after having being sadly and illegally served</p>	<p>The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.</p>



ID	RR	Applicant's Response
	with a section 172 notice . We are reasonable people who understand the need for national infrastructure to secure 'Green energy' but are concerned that due diligence has not been done and that the 'preferred route' has been adopted without following the statutory Consultaion process.	

## 5.6 Belinda Wright (RR-010)

*Table 5.6 The Applicant's comments on Belinda Wright's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-010-01	A shorter route is available. There is no need to rip up 27 km of countryside when shorter routes are available.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.7 Bernadette Gill (RR-011)

*Table 5.7 The Applicant's comments on Bernadette Gill's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-011-01	I moved to a village surrounded by agricultural land. I feel devastated that this will be immensely destroyed by having 2 huge Amazon size sub stations. The infrastructure does not support this, fracking has been in the area for years and disrupted the roads and fields which flood every time there is a rainfall. The birds that migrate here in their	An Outline Skills and Employment Plan (APP-155) has been provided with the Application, however it should be noted that this relates to the entirely offshore construction works for the Morecambe Offshore Windfarm Generation Assets Project ('the

ID	RR	Applicant's Response
	<p>thousands will suffer along the river ribble. People are trying to promote and gentrify St Annes and Lytham, but this project whilst may bring in work, it is not to local people, they will be contractors travelling through. This will be catastrophic to the travel industry. I do not feel safe living near substations, there is not enough evidence to suggest that it is safe. there are so many area in the country that are not habited, please look at the destruction of peoples lives over money. Berndette Gill</p>	<p>Project'). The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for Project. Please refer to the response in RR-001-01.</p>

## 5.8 Bev Duckworth (RR-012)

*Table 5.8 The Applicant's comments on Bev Duckworth's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-012-01	<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 RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.</p>

## 5.9 Christine Ashworth (RR-017)

*Table 5.9 The Applicant's comments on Christine Ashworth's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-017-01	Extremely concerned about the impact of tons of concrete being pumped in to an area that is naturally supposed to flood , the destruction of the natural habitat for wildlife and migratory birds , also no time scale has been as to how long the project will take or start and finish. The destruction of many local viable farms who produce our milk, food , also our green belt being destroyed forever. Many other issues but due to the late findings out about this, not had time to compile more.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.10 D and PA Pilkington (RR-019)

*Table 5.10 The Applicant's comments on D and PA Pilkington's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-019-01	The project will cross the land we farm, interrupting livestock farming, on grade 1 agricultural land, disrupting forage production and slurry management we are very concerned about disruption to land drainage as the fylde and s already low lying and after a very wet 12 months we know the land is prone to prolonged flooding Disruption to established pastures and biodiversity The pipeline is being run by 2 projects with no mention of shared facilities or timelines working together. Disruption to fylde roads, extra lorries and extra 1000 lorry loads of stone jfor the access roads using narrow lanes, small villages 2 substations planned near schools and no indication of what they look like! Or how much buzzing they will cause What legacy are we leaving the next generation allowing the fylde to be severed , when with	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

ID	RR	Applicant's Response
	modern technology could allow pipelines up the river ribble could be explored.	

## 5.11 Debra Wilson (RR-020)

*Table 5.11 The Applicant's comments on Debra Wilson's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-020-01	The proposed route is the most disruptive potential route. It will have an adverse effect on the environment and people living in the area. Other less disruptive routes are possible but are not being considered.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.12 Denise Annette King (RR-022)

*Table 5.12 The Applicant's comments on Denise Annette King's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-022-01	The proposed wind farm is a hazard for ferries to the Isle of Man. These are of vital importance to the people on the island being a primary source of provisions for everyday existence. The ferries may not be able to operate due to unfavourable weather conditions as they may run the risk of collision with the wind farm. The statement that cables will connect at Penwortham assume BPs preferred route will be taken, through the Fylde. This DCO should be edited to not state that the cables will be connected there. That is a separate application	Consultation with ferry route operators and other key stakeholders has been extensive throughout the development of the Project as presented within Chapter 14 Shipping and Navigation (APP-051) of the Environmental Statement, the Navigation Risk Assessment (NRA) (APP-073), and Cumulative

ID	RR	Applicant's Response
	<p>which is heavily contested. The cables should be brought inshore to Heysham power station which should be upgraded appropriately to receive the power there. The proposal to take the cables across the Fylde with its accompanying problems and building 2 enormous sub stations next to schools and homes is insulting and should not be allowed.</p>	<p>Regional Navigational Risk Assessment (CRNRA) (APP-074).</p> <p>A detailed CRNRA has also been undertaken on behalf of all Round 4 offshore windfarm projects in the Irish sea. The CRNRA brought together significant analysis, consultation, navigation simulations and the findings from hazard workshops to determine the cumulative risks associated with the Round 4 Projects. Key stakeholders participated in the hazard workshop and had the opportunity to input into the hazard scoring process. Where hazards were relevant to the Project, the NRA (APP-073) and CRNRA (APP-074) both concluded that following the changes to the Project's boundaries (undertaken between the Preliminary Environmental Information Report (PEIR) stage and Environmental Statement (ES) stage), all navigation hazards were reduced to acceptable levels.</p> <p>Consideration of the potential cumulative effects with the Round 4 projects, including adverse weather, is also presented in the CRNRA and reflected in Section 14.8 of Chapter 14 Shipping and Navigation (APP-051) and Section 10 of the NRA (APP-073). The ferry companies and other key stakeholders have provided input to this process through attendance at navigation simulations and a hazard workshop. These changes are reflected in the NRA (APP-073) and Chapter 14 Shipping and Navigation (APP-051) submitted as part of the Development Consent Order (DCO) Application.</p>

ID	RR	Applicant's Response
		<p>As identified in Chapter 14 Shipping and Navigation (APP-051), the Morecambe Offshore Windfarm Generation Assets Project ('the Project') has low contribution to effects on ferry routes to the Isle of Man (IoM).</p> <p>The Applicant advises that the draft DCO for the Project does not reference any cable connection at Penwortham since the works would be entirely offshore. The Applicant notes the points raised regarding the export cable connection and onshore route in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Project. Please refer to the response in RR-001-01.</p>

### 5.13 Diana Freeman (RR-023)

*Table 5.13 The Applicant's comments on Diana Freeman's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-023-01	<p>This proposal will impact local residents. The size of the proposed substation The use of green belt These are rural communities Disruption Light pollution Noise</p>	<p>The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.</p>

## 5.14 E Ruth Hardman (RR-024)

*Table 5.14 The Applicant's comments on E Ruth Hardman's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-024-01	They have been less than honest in telling us why they wish to construct in the Newton area. This is a village. House prices will fall etc. The noise and the timescale if they get planning permission. They need to go to Penwortham.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.15 George Rawlinson (RR-026)

*Table 5.15 The Applicant's comments on George Rawlinson's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-026-01	Scheme directly cause environmental and financial problems for my property.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.16 Harry Fenton (RR-028)

*Table 5.16 The Applicant's comments on Harry Fenton's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-028-01	The route of the wind farm corridor would damage hundreds of acres of countryside and cause significant local disruption which is why I believe the route should be reconsidered or scrapped altogether.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.17 Helen Jones (RR-029)

*Table 5.17 The Applicant's comments on Helen Jones's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-029-01	Disruption to all aspects of travel, community, farming and wildlife for an extended period of time.	<p>The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.</p> <p>Potential impacts of the Project on wildlife have been considered in Environmental Statement (ES) Chapter 9 Benthic Ecology (APP-046), Chapter 10 Fish and Shellfish Ecology (APP-047), Chapter 11 Marine Mammals (APP-048) and Chapter 12 Offshore Ornithology (APP-049). Potential impacts of</p>



ID	RR	Applicant's Response
		the Project on travel have been considered in Chapter 22 Traffic and Transport (APP-059).

## 5.18 Jade Hislop (RR-034)

*Table 5.18 The Applicant's comments on Jade Hislop's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-034-01	I understand the need for wind farms but the infrastructure to facilitate it should cause less disruption. There are other routes to build the infrastructure without causing so much air pollution, disruption, traffic and potentially compulsory land purchases to the area I live in. Considered green belt, villages voted Lancashires best kept village 15 times. Directly affecting schools such as Carr Hill and AKS. Is this route a cheaper route to the company building the off shore wind farm? Would it not be better to spend more now planning a less disruptive route but not ruin such a beautiful part of the UK.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.19 Jan Chilton (RR-035)

*Table 5.19 The Applicant's comments on Jan Chilton's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-035-01	I believe this project will put many areas of the Fylde at increased risk of flooding! It will cause havoc on the roads and should not be allowed to destroy businesses and farm land. The route should be changed to protect the Fyldes fast disappearing green field areas.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.20 Janette McCormick (RR-036)

*Table 5.20 The Applicant's comments on Janette McCormick's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-036-01	The Morecambe off-shore windfarm scheme makes landfall at Blackpool, with an anticipated connection to the National Grid in Penwortham. It has resulted in a Morecambe and Morgan on-shore transmission asset project (expected submission later in 2024) for a 25km long and 120 m wide cable corridor across the Fylde. In addition, there will be two 2 enormous substations built on arable land, in an area of separation, close to established communities, including schools. The 5 year+ construction period and then on-going operational matters will cause significant disruption to Fylde residents, communities, farming, businesses, tourism, the transport network and the environment.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.21 Jayne Margaret Stackhouse (RR-037)

*Table 5.21 The Applicant's comments on Jayne Margaret Stackhouse's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-037-01	The proposed route for the pipeline trenches goes through the centre of our dairy farm, therefore massively affecting our business for many years to come. The proposed pipelines go through our silage and grazing fields so will affect our ability to feed our livestock and we are on a grazing milk contract and they will have limited fields to graze on, so we would lose our contract at worst and at best, we will lose our grazing free range supplement. The farm would not be sustainable due to the massive impact on feed and access to our fields.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.22 Jillian Lesley Schofield (RR-038)

*Table 5.22 The Applicant's comments on Jillian Lesley Schofield's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-038-01	Don't ruin our countryside with the cables and the substations. Go along the river.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.23 John Calland (RR-039)

*Table 5.23 The Applicant's comments on John Calland's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-039-01	Detrimental to the Green Belt and local community. I walk regularly in this beautiful region and the wildlife and walkways will be destroyed with obtrusive, noisy sub stations. The project consultation has been poorly communicated as the size and the scale of the sub stations was not clarified it is in the wrong place and needs to be relocated.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.24 Johnathon Tickle (RR-040)

*Table 5.24 The Applicant's comments on Johnathon Tickle's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-040-01	Environmental impact. Loss of farm land. The fact that it cannot be pulled up the River Ribble is a lie. Permanent visual impact on green belt. The fact that the experts at public consultation were incapable of answering question raised by the public.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.25 Julie Young (RR-041)

*Table 5.25 The Applicant's comments on Julie Young's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-041-01	The proposed site for the sub station is close to a residential area which separates Newton from Kirkham. The impact on the village of Newton will be considerable both visually and noise. The village is somewhere that people have chosen to live because of the close proximity of the rural environment which enhances their health and well being. The variety of wildlife that can be seen is wonderful. The impact on the wildlife and the village would be extremely detrimental.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.26 Karen Elizabeth Leeming (RR-042)

*Table 5.26 The Applicant's comments on Karen Elizabeth Leeming's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-042-01	My point against this application is that the statement that cables will connect at Penwortham assumes this preferred route will be taken. This Penwortham connection should surely come under the separate DCO, not yet lodged, relating to the onshore assets.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.27 Kathryn Fare (RR-043)

*Table 5.27 The Applicant's comments on Kathryn Fare's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-043-01	I have particular concern about the disruption to the local farmers and wild life on the Fylde Coast.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.28 Kevin Deveney (RR-044)

*Table 5.28 The Applicant's comments on Kevin Deveney's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-044-01	I object to the damage this project will do to the environment, the community and the disruption to transport for many years in construction and thereafter the size and continuous presence and noise. It will have a catastrophic effect on land and people's lives for many years.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.29 Kevin Otter (RR-045)

*Table 5.29 The Applicant's comments on Kevin Otter's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-045-01	An horrendous plan impacting massively on a rural area, creating unnecessary disruptions with no true value at the end. Need to rethink the plans and the scale and s one of the environmental damage going to be caused.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

### 5.30 Louise Scupham (RR-046)

Table 5.30 The Applicant's comments on Louise Scupham's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-046-01	<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.</p> <p>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;</p> <p>1. The consultation process has been inadequate, incomplete, and flawed.</p> <ul style="list-style-type: none"> <li>▪ 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.</li> </ul>	<p>The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.</p>

ID	RR	Applicant's Response
	<ul style="list-style-type: none"> <li>▪ The RAG assessment has a bias favouring zone 1, with inconsistent, subjective and factually incorrect survey ratings and no consideration to human factors.</li> <li>▪ The project has not informed the appropriate number of residences of the project and given the chance for them to respond.</li> <li>▪ 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.</li> <li>▪ Project representatives have given conflicting and incomplete information to residents and deliberately misled our former MP.</li> <li>▪ Project representatives have not satisfactorily answered the concerns and questions of local residents.</li> </ul> <p>2. The location of substations on Lower Lane is unacceptable. Other sites must be found.</p> <ul style="list-style-type: none"> <li>▪ 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.</li> <li>▪ Morecambe and Morgan have made this decision purely on a cost basis and pushed aside environmental factors, the local community and our health, sensitivity for agriculture and wildlife, Fylde council strategy, noise pollution and other critical factors.</li> <li>▪ 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.</li> <li>▪ Regardless of levels of landscaping these substations will be visually appalling. Structures of 20 metres in height are</li> </ul>	



ID	RR	Applicant's Response
	<p>unacceptable for an area where residents have a view of the Bowland hills.</p> <ul style="list-style-type: none"> <li>▪ 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.</li> <li>▪ Construction poses danger to the lives of children at local schools.</li> <li>▪ The 3-6 year construction period near to major roads serving Blackpool and Preston will cause prolonged and widespread disruption.</li> <li>▪ Impermeable constructions in land that holds water WILL increase the flood risks in the wider community as water is displaced, regardless of drainage.</li> </ul> <p>3. Concerns surrounding access to the construction sites.</p> <ul style="list-style-type: none"> <li>▪ Must not use any point on Lower Lane to access construction sites, the road is unsuitable.</li> <li>▪ Must not have plant traffic any route close to a school or nursery school.</li> <li>▪ 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.</li> </ul>	

### 5.31 Mark Thompson (RR-049)

*Table 5.31 The Applicant's comments on Mark Thompson's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-049-01	Constant noise pollution, Impact on local wildlife,	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

### 5.32 Martin Berry (RR-050)

*Table 5.32 The Applicant's comments on Martin Berry's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-050-01	Why is this to be built so close to schools and built up areas? It will also impact local wildlife and local communities. Why can't the cables go along the river instead of over land and go direct to Penwortham or the docks where buildings could be built with no impact to houses communities and wildlife?	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

### 5.33 Michael Robert Gornell (RR-051)

Table 5.33 The Applicant's comments on Michael Robert Gornell's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-051-01	<p>I have a number of concerns over the proposed development as summarised below:</p> <p><b>Cable trenches</b></p> <p>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.</p> <p><b>Substations</b></p> <p>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</p>	<p>The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.</p>

ID	RR	Applicant's Response
	<p>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.</p> <p><b>Loss of Greenbelt land and Best and Most Valuable agricultural land</b></p> <p>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 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. 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.</p> <p><b>Transport</b></p> <p>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</p>	

ID	RR	Applicant's Response
	<p>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?</p> <p><b>Consultation</b></p> <p>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.</p> <p><b>Noise</b></p> <p>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</p>	

ID	RR	Applicant's Response
	<p>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 control and enforcement process be if any of these emissions are found to exceed authorised limits?</p> <p><b>Land Drainage</b></p> <p>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> <p>Thank you</p>	

### 5.34 Michelle Fare (RR-052)

*Table 5.34 The Applicant's comments on Michelle Fare's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-052-01	<p>I have many issues regarding the proposed development of the Morecambe offshore windfarm development:</p> <p><b>Complete disregard for the impact on our livelihoods</b></p> <p>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 [REDACTED] 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</p>	<p>The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.</p>

ID	RR	Applicant's Response
	<p>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.</p> <p>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.</p> <p><b>Flawed consultation</b></p> <p>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 deceitful. We had our first</p>	

ID	RR	Applicant's Response
	<p>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.</p> <p><b>Destruction of numerous farm businesses</b></p> <p>Our farming business is very closely linked to our neighbour, [REDACTED], 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.</p> <p><b>Access to the site and dangerous traffic operations</b></p> <p>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</p>	



ID	RR	Applicant's Response
	<p>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.</p> <p><b>Negative effects on human and animal health</b></p> <p>The proposed substation site is located very close to 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</p>	

ID	RR	Applicant's Response
	<p>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.</p> <p><b>Impact on food security</b></p> <p>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 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.</p>	

ID	RR	Applicant's Response
	<p><b>Impact on wildlife</b></p> <p>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>	

### 5.35 Michelle Fox (RR-053)

*Table 5.35 The Applicant's comments on Michelle Fox's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-053-01	<p>This is an unnecessary destruction of the countryside which is likely to have a huge negative impact on local people's lives. When there are better alternatives available. The net zero case is seriously flawed when the huge cost in energy and resources to complete this project is taken into account.</p>	<p>The Applicant notes the points raised in this RR. Further information regarding climate change and socio-economics can be found in Chapter 21 Climate Change (APP-058) and Chapter 201 Socio-economics, Tourism and Recreation (APP-057) of the Environmental Statement (ES) and their associated Figures.</p>

ID	RR	Applicant's Response
		The issues raised regarding onshore impacts of the development relate to matters outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

### 5.36 Mike Schofield (RR-054)

*Table 5.36 The Applicant's comments on Mike Schofield's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-054-01	<p>Morecambe &amp; Morgan windfarms - comments on proposed windfarm substations Commentator: Mike Schofield Address: [REDACTED] Email: [REDACTED]@btinternet.com</p> <p>I write as a resident of the small village ([REDACTED]) 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, [REDACTED] 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>	An Outline Skills and Employment Plan (APP-155) has been provided with the Application, however it should be noted that this relates to the entirely offshore construction works for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). The Applicant notes the additional points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Project. Please refer to the response in RR-001-01.

ID	RR	Applicant's Response
	<p><b>2.</b> 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><b>3.</b> 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><b>4.</b> 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><b>5.</b> 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 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><b>6.</b> 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</p>	

ID	RR	Applicant's Response
	<p>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><b>7.</b> 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><b>8.</b> 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><b>9.</b> 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 &amp; Bottle pub which is the only viable way out</p>	

ID	RR	Applicant's Response
	<p>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><b>10.</b> 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><b>11.</b> 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><b>12.</b> 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</p>	

ID	RR	Applicant's Response
	<p>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><b>13.</b> 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 unviable, with resulting financial implications for both the land users and the people they employ.</p> <p><b>14.</b> 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><b>15.</b> 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>	



### 5.37 Mrs Alwyn Clayton (RR-058)

*Table 5.37 The Applicant's comments on Mrs Alwyn Clayton's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-058-01	Farming land disruptions to schools greenbelt land additional disruption to traffic	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

### 5.38 Nigel Cook (RR-064)

*Table 5.38 The Applicant's comments on Nigel Cook's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-064-01	<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.</p> <p>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</p>	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

ID	RR	Applicant's Response
	<p>onshore substations will mean a change from a rural/agricultural landscape into an industrial one.</p> <p>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.</p> <p>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.</p> <p>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)?</p> <p>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>	

### 5.39 Olivia Henderson (RR-066)

Table 5.39 The Applicant's comments on Olivia Henderson's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-066-01	<p>The Morecambe and Morgan Windfarm project proposal for two new offshore wind farms (Morgan &amp; 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.</p> <p><b>Impact on Newton with Scales</b></p> <p>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><b>Substations.</b></p>	<p>The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.</p>

ID	RR	Applicant's Response
	<p>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.</p> <p><b>Loss of Greenbelt land and Best and Most Valuable agricultural land.</b></p> <p>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 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>	

ID	RR	Applicant's Response
	<p><b>Transport.</b> 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?</p> <p><b>Consultation.</b> 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.</p> <p><b>Noise</b> 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</p>	

ID	RR	Applicant's Response
	<p>will the enforcement process be if any of these emissions are found to exceed authorised limits?</p> <p><b>Land Drainage</b> 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>	

## 5.40 Peter Collins (RR-068)

*Table 5.40 The Applicant's comments on Peter Collins' Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-068-01	<p>This project will have a devastating impact on the Fylde both in the short and long term. The size and length of the cable trenches and the long construction period will cause ongoing disruption to traffic flows and the local economy and make some businesses unviable. The two sub stations for the two windfarms have huge footprints and will be visually and audibly intrusive for years to come on land that has been designated open countryside. No evidence has been offered to show what industrial sites have been considered or why they may have been rejected or what mitigation might be necessary to make them viable. The consultation to date has been flawed for this and other reasons.</p>	<p>The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.</p>

## 5.41 Phil Lewis (RR-069)

Table 5.41 The Applicant's comments on Phil Lewis' Relevant Representation (RR)

ID	RR	Applicant's Response
RR-069-01	I am against this project due to the negative impact it would have on me and my family and my neighbours it is outrageous that this company can do this to our countryside.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.42 Philip James Morgan (RR-070)

Table 5.42 The Applicant's comments on Philip James Morgan's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-070-01	<p>Below are my comments about the transmission assets.</p> <p><b>Consultation</b></p> <p>However the generation assets, which define the end point at Penwortham, are linked, and if agreed would potentially fix the end point at Penwortham, denying me and others the opportunity to propose alternative end points and routes. 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</p>	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

ID	RR	Applicant's Response
	<p>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 and was overly complex, putting off many people from responding, and for those who did persevere the on-line version was liable to failure.</p> <p>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.</p> <p><b>Site selection</b></p> <p><u>Our concerns about the route and its impact</u></p> <p>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.</p>	



ID	RR	Applicant's Response
	<p>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.</p> <p>The proposed substation sites are conveniently on the edge of the 8km search zone. 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.</p>	

ID	RR	Applicant's Response
	<p><b>Other concerns</b></p> <p>The impact on the local environment and economy will 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>	

### 5.43 Phillip Malcolm Hingley (RR-071)

*Table 5.43 The Applicant's comments on Phillip Malcolm Hingley's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-071-01	<p>Main issues are to the environment across the Fylde countryside, the impact on local businesses and the amount of disruption caused to the infrastructure across the Fylde. Finally other more suitable options are viable but have not been looked at as much detail, it is just a case of the proposed option is the cheapest option from which Morgan and Morecambe will make the most profit, and result in maximum disruption, loss of earnings to the community and impact on rural businesses on the fylde coast!</p> <p>The alternative option of running the cabling along the Ribble Estuary and river, has not been looked at / investigated to the same degree as the currently proposed option and the only argument that Morgan and Morecambe have offered is that it will be opposed by Natural England</p>	<p>The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.</p>

ID	RR	Applicant's Response
	<p>due to the impact of habitats and nesting of certain species of birds etc. One of the reasons that Morgan and Morecambe gave for using the proposed cabling route is that there is no impact to the environment and what impact it does have will recover within a number of years, however, why does this not hold true for running the cabling along side the River Ribble? From a disruption point of view, all the roads in to and out of towns and villages for example Warton, Freckleton, Wrea Green, Moss Side, Westby etc will be impacted due to a significant increase in HGV activity. These roads are all B roads with the exception of Freckleton and are not in a suitable condition to take such an increase in activity, infact most of the roads are suffering significant subsidence at present. This will result in road closures for prolonged periods of time. As I said several business, mainly farming and other countryside business will either have a significant reduction in income for the duration of the project (3 years) and in some cases already committed to closure eg Wrea Green Equitation Centre).</p> <p>Remember the remit here is to produce green energy which we are all in favour of, however this should not be produced at all costs the remit is to produce green energy but not necessarily as cheaply as possible and passing the ultimate cost to us the local inhabitants!</p>	

## 5.44 Robert Marsden Rigby (RR-072)

*Table 5.44 The Applicant's comments on Robert Marsden Rigby's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-072-01	The plan to dig up the countryside right through the fylde is shocking. I know there have been alot of ecological reports done but I don't think anyone knows about the wildlife as much as the residents that live in the area more needs to be done to protect the bats, frogs, deer's, barn owls, hedgehogs, all the wintering birds and many more great animals. The country lanes are not built for the extra traffic that will be needed to carry out the works this will also spoil the use of the lanes for horse riding, walking and cycling. But as i said more importantly its the wildlife.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.45 Sandra Eileen Throup (RR-074)

*Table 5.45 The Applicant's comments on Sandra Eileen Throup's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-074-01	The proposed project & planning there of does not appear to have considered the local environmental impact & disruption caused by the current proposed route of the cable connection. Alternative less destructive & disruptive routes are possible when considering the route and don't appear to have been taken into account or explored by Morgan & Morecombe.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.46 Sandra Schofield (RR-075)

Table 5.46 The Applicant's comments on Sandra Schofield's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-075-01	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 [REDACTED] -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	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.47 Stephen Christopher Throup (RR-079)

Table 5.47 The Applicant's comments on Stephen Christopher Throup's Relevant Representation (RR)

ID	RR	Applicant's Response
RR-079-01	I am concerned that a critical infrastructure project is not considering the local environmental impact in a consistent manner.	The Applicant notes the points raised in this RR. The environmental impacts of the Project have been considered in accordance with Environmental Impact Assessment (EIA) Regulations as set out in Environmental Statement (ES) Chapter 6 EIA Methodology (APP-043), as is standard for offshore wind infrastructure projects. EIAs are set out from Chapters 7 to 23 of the ES.

## 5.48 Stephen Heath (RR-080)

*Table 5.48 The Applicant's comments on Stephen Heath's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-080-01	Lack of meaningful engagement with the community to understand the scale, duration, impact on travel and disturbance to local communities, with no long term benefits for the community of Fylde There is no published route from Fylde to Penwortham. No evidence as to how other routes have been considered. Sound levels during construction and when operational are very close to safe levels which if they increase on construction will be difficult to mitigate particularly in Lower Lane area of Fylde. The cable route crosses grade A farmland which will be degraded for many years post construction Crossing of all roads running between A583 and A584 will affect travel to work, travel to school, tourism, public transport, rail links to Blackpool and Preston. There will be alot of disruption over the 7 year period with no economic or social benefits to the area indeed the economy of the area some suggest it will be many years before the area of Fylde recovers. There are alternative routes up the estuary which will avoid destroying communities and farms, or the Brown field options of Stalmine or Heysham should be explored.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.49 The Tottoh Family (RR-082)

*Table 5.49 The Applicant's comments on The Tottoh Family's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-082-01	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	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project

ID	RR	Applicant's Response
	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 Morecambe site. This will adversely affect existing farms and businesses and the local people's ability to move around freely.	('the Project'). Please refer to the response in RR-001-01.

## 5.50 Tony Rooncroft (RR-085)

*Table 5.50 The Applicant's comments on Tony Rooncroft's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-085-01	The main issues and impact are on the local area. From the plans you will effectively cut off the Fylde coast from the rest of the UK as the disruption will make it near impossible to get in or out. There are massive implications to yearly tourism as this work will put off a lot of people from visiting at all. The proposed work is set to take years where frankly moving the cables under the estuary will be faster and less disruptive. They cannot say it can't be done because frankly if they can build a tunnel to France they can make a labelling route under the estuary in a similar manner. The current proposals ruin the dunes, ruin good farmland, ruin the road network, cause nothing but disruption and damage to land that will effectively take at least 10years to fully recover. That's before I mention the mature trees that will be felled in places causing more environmental strain. Please remember examine the proposals. This is really not a good idea going through with the proposed plan	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.51 Vincent Draper (RR-087)

*Table 5.51 The Applicant's comments on Vincent Draper's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-087-01	The proposed cable route will cause immense damage to the local environment and disruption to the Fylde community. Other routes are available e.g. along the Ribble river course or to bring the cables ashore at Heysham, both of which will have less social and environmental impact.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.

## 5.52 Wendy Hunt (RR-090)

*Table 5.52 The Applicant's comments on Wendy Hunt's Relevant Representation (RR)*

ID	RR	Applicant's Response
RR-090-01	The substations that are being built will be close to my home and will reduce the price of my property.	The Applicant notes the points raised in this RR but considers these matters to be outside of the scope of this Application, which seeks development consent for the Morecambe Offshore Windfarm Generation Assets Project ('the Project'). Please refer to the response in RR-001-01.



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