

# **Morecambe Offshore Windfarm: Generation Assets**

### **Environmental Statement**

Volume 5
Chapter 1 Introduction

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Figure 1.1 Morecambe Offshore Windfarm location

Figure 1.2 Morecambe Offshore Windfarm location with other proposed and operational offshore windfarms



# **Glossary of Acronyms**

AfL	Agreement for Lease
DCO	Development Consent Order
EIA	Environmental Impact Assessment
EnBW	Energie Baden-Württemberg AG
EPP	Evidence Plan Process
ES	Environmental Statement
ESO	Electricity System Operator
ETG	Expert Topic Group
HNDR	Holistic Network Design Review
HRA	Habitats Regulations Assessment
MCAA	Marine and Coastal Access Act
MCZA	Marine Conservation Zone Assessment
ММО	Marine Management Organisation
NSIP	Nationally Significant Infrastructure Project
NTS	Non-Technical Summary
OSP	Offshore substation platform
OTNR	Offshore Transmission Network Review
OWL	Offshore Wind Limited
PEIR	Preliminary Environmental Information Report
RSPB	Royal Society for the Protection of Birds
SoCC	Statement of Community Consultation
SoCG	Statement of Common Ground
UK	United Kingdom
WTG	Wind turbine generator

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# **Glossary of Unit Terms**

CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent
GW	Gigawatt
km	Kilometre
km²	square kilometre
kV	Kilovolt
MW	Megawatt

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## **Glossary of Terminology**

Agreement for Lease (AfL)	Agreements under which seabed rights are awarded following the completion of The Crown Estate tender process.
Applicant	Morecambe Offshore Windfarm Ltd
Evidence Plan Process (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 (PINS) as part of the Development Consent Order (DCO) 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 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.
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).
Inter-array cables	Cables which link the WTGs to each other and the OSP(s).
Landfall	Where the offshore export cables would come ashore.
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, 400 kilovolts (kV) cables and associated grid connection infrastructure such as circuit breaker infrastructure.  Also referred to in this chapter as the Transmission Assets, for ease of reading.
Net Zero	A target of completely negating the amount of greenhouse gases produced by human activity, to be achieved by reducing emissions and implementing methods of absorbing carbon dioxide from the atmosphere
Offshore export cables	The cables which bring electricity from the OSP(s) to the landfall.

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<sup>&</sup>lt;sup>1</sup> At the time of writing the Environmental Statement (ES), a decision had been taken that the OSP(s) would remain solely within the Generation Assets application and would not be included within the Development Consent Order (DCO) 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 substation platform(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.
Platform link cable	An electrical cable which links one or more OSP(s).
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 and the Royal Society for the Protection of Birds (RSPB).
Wind turbine generator (WTG)	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.

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# The future of renewable energy

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## 1 Introduction

### 1.1 Purpose of this document

- 1.1 This document is the Environmental Statement (ES) for the Morecambe Offshore Windfarm Generation Assets (the Project).
- 1.2 The purpose of the ES is to provide the decision-makers, stakeholders and all other interested parties the environmental information required to develop an informed view of any likely significant effects resulting from the Project, as required by The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations 2017). This ES describes the baseline environment, EIA methodology, potential environmental effects, and proposed mitigation measures. It also sets out the pre-application consultation undertaken.
- 1.3 This ES has been informed by a Scoping Opinion provided by the Planning Inspectorate on the 2<sup>nd</sup> August 2022 (PINS, 2022) in response to an EIA Scoping Report, submitted by the Applicant on 23<sup>rd</sup> June 2022.
- 1.4 This ES also builds upon and updates the information provided within the Preliminary Environmental Information Report (PEIR) (Morecambe Offshore Windfarm Ltd, 2023) undertaken for the Project. The PEIR was made available for consultation from the 19th April to the 4th June 2023 under Sections 42, 47 and 48 of the Planning Act 2008 and Regulation 13 of the EIA Regulations 2017. Feedback from consultation on the PEIR has been taken into consideration and, where relevant, used to inform the design of the Project and the scope of the impact assessment presented in this ES. Details of the consultation process for the Project is provided in the Consultation Report (Document Reference 4.1) submitted as part of the Development Consent Order (DCO) Application.
- 1.5 This ES is submitted as part of an application for a DCO, as required under Section 37 of the Planning Act 2008 and Regulation 14 of the EIA Regulations 2017. Further detail on the legislative context for the Project is provided in **Chapter 3 Policy and Legislation** (Document Reference 5.1.3).
- The Project relates only to the Generation Assets of the Morecambe Offshore Windfarm (including wind turbine generators (WTGs), inter-array cables, offshore substation platform(s) (OSP(s)), and possible platform link cables to connect OSP(s)). A full description of the Project is provided in **Chapter 5 Project Description** (Document Reference 5.1.5).
- 1.7 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 (another proposed windfarm to be located in the Irish Sea) would be sought, as explained in **Paragraph 1.9**.

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- 1.8 Both the Morecambe 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.
- 1.9 The Transmission Assets, which would enable export of electricity from both the Morecambe Offshore Windfarm and the Morgan Offshore Wind Project to the National Grid connection point, would be subject to consent under a separate DCO application. The Transmission Assets comprise individual OSP(s)<sup>2</sup> for both the Morecambe Offshore Windfarm and the Morgan Offshore Wind Project, shared offshore export cable corridors, their landfall arrangements, shared onshore export cable corridors to new onshore substation(s), and onward connection to the National Grid electricity transmission network at Penwortham, Lancashire. An offshore booster station may also be required along the offshore export cable route for the Morgan Offshore Wind Project.
- 1.10 More details of the mechanisms of the separate consenting process for Transmission Assets, and infrastructure involved, are provided in **Plate 1.1** and **Section 1.6**.

<sup>&</sup>lt;sup>2</sup> At the time of writing the ES, a decision had been taken that the OSP(s) would remain solely within the Generation Assets application and would not be included within the DCO Application for the Transmission Assets. This decision post-dated the 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.



MHWS = Mean high water springs

#### Connection point into the national electricity transmission system as determined by government-led Offshore Transmission Network Review (OTNR) and supporting Holistic Network Design Review (HNDR). Wind Turbine Generators (WTG) The wind turbines convert wind energy to electricity. Key components include rotor blades, gearboxes (in some cases), transformers, power electronics and control equipment. **Onshore Project Substation** Offshore turbine models are An onshore project substation is required to continuously evolving and improving, transform the power generated offshore before feeding therefore the exact wind turbine model it into the national electricity transmission system. will be selected from the range of models available that sit within the design envelope. Offshore Substation Platform(s) Substations will convert the power to higher voltages in order to transmit the power more efficiently (reduced electrical losses) to shore. Platform link cables may be installed connecting the offshore substations to each other. MHWS Transmission Assets Generation Assets **Onshore Export Cables** Buried cables that connect the landfall to the onshore **Foundations** project substation. The wind turbines and offshore substation platform(s) will be fixed Landfall to the seabed with foundation The location at which the structures. The foundation structures offshore export cables will are either anchored down into the come ashore and route to a seabed by means of piling or suction transition bay where they buckets or gravity base foundations will connect to the onshore which sit on the seabed anchored export cables. by gravity only. These are typically fabricated from steel or concrete. A limited number of foundation designs are under consideration. Offshore Export Cables In order to protect the seabed Buried cables connecting the offshore around foundation structures and substation platform(s) to the landfall. cables from scour, scour protection (rocks or other materials) may be placed on the seabed to provide protection Inter-array Cables from current and wave action. Inter-array cables will connect the wind turbines to offshore substation platform(s). Cables will be buried to the maximum practicable extent.

**Grid Connection Point** 

Plate 1.1 Components of Morecambe Offshore Windfarm (generation and transmission). Generation Assets are in blue (included in this ES) and Transmission Assets are in green.



#### 1.2 Background

- 1.11 The Morecambe Offshore Windfarm is a proposed offshore windfarm located in the Eastern Irish Sea, which when fully operational, would have an anticipated nominal capacity of 480 megawatts (MW) and would have the potential to generate renewable power for over 500,000 homes in the UK.
- 1.12 The Project was one of six projects selected by The Crown Estate in its Offshore Wind Leasing Round 4 in 2021. The Agreement for Lease (AfL) for the Project was received in 2023.
- 1.13 The AfL comprises an area of up to 125km² and reflects the windfarm site assessed in the Project PEIR. Following design development, surveys, assessments and consultation on the PEIR, the proposed windfarm site development area has been reduced to approximately 87km². The site selection process and refinement of the windfarm site is described in Chapter 4 Site Selection and Assessment of Alternatives (Document Reference 5.1.4).
- 1.14 The windfarm site (encompassing all Project infrastructure) is located approximately 30km off the Lancashire coast as shown in **Figure 1.1**. The location of the windfarm site in relation to existing operational and other proposed offshore windfarms is given in **Figure 1.2** which also includes the location of Transmission Assets (provided for context).

#### 1.3 The Applicant and the Project team

- 1.15 The Applicant is Morecambe Offshore Windfarm Ltd, a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company), and Flotation Energy Ltd. (Flotation Energy).
- 1.16 With 80 years of experience, Cobra is a historically significant Group in the development of industrial infrastructure and service provision, and one of the key players in the renewable energy sector in Spain and Latin America. The Group possesses the capacity and determination to develop, build, and operate industrial and energy infrastructures that demand a high level of service, grounded in excellence in integration, technological innovation, and financial robustness. Their unrivalled knowledge and understanding of floating offshore wind developments is a significant advantage in delivering a high quality and efficient project, coupled with their commitment to environmental stewardship. Their experience as a major player in offshore wind is based on a 50MW project in operation and over 11.2GW under development.
- 1.17 Flotation Energy, headquartered in Edinburgh, Scotland, sits at the heart of the energy transition. It's determined to support the big switch to sustainable, clean and affordable energy through the application of innovative offshore

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wind technology. An ambitious offshore wind developer, Flotation Energy has a 13GW portfolio that covers both fixed and floating developments globally, with projects in the UK, Ireland, Taiwan, Japan and Australia. Whilst Flotation Energy develops projects independently, it also recognises the strategic value of partnership and collaboration to deliver proven, cost-effective solutions.

- 1.18 An experienced EIA consultant has been assigned to undertake the environmental assessment work for the Project. Royal HaskoningDHV is one of the leading EIA consultancies working in the UK offshore wind sector, successfully providing environmental, development and consenting support on over 14GW of renewable energy projects across 26 UK offshore windfarms, including seven DCO projects. Royal HaskoningDHV holds the EIA quality mark from the Institute of Environmental Management and Assessment. Royal HaskoningDHV has a range of EIA technical expert teams who provide specialist input to the EIA process. In addition, a small number of the technical assessments and associated ES chapters have been undertaken by specialist consultancies outside Royal HaskoningDHV.
- 1.19 Specialist input for sections of this ES has been provided by the following:
  - Subacoustech (Appendix 11.1 Underwater Noise Assessment (Document Reference 5.2.11.1))
  - HiDef Aerial Surveying Limited (Appendix 12.2 Aerial Survey Two Year Report March 2021 to February 2023 (Document Reference 5.2.12.2))
  - Nima Consultants Ltd. (Chapter 13 Commercial Fisheries (Document Reference 5.1.13) and Appendix 13.1 Commercial Fisheries
     Technical Report (Document Reference 5.2.13.1))
  - Nash Maritime Ltd (Appendix 14.1 Navigation Risk Assessment (Document Reference 5.2.14.1) and Appendix 14.2 Cumulative Regional Navigation Risk Assessment (Document Reference 5.2.14.2))
  - MSDS Marine (archaeological assessment) (Chapter 15 Marine Archaeology and Cultural Heritage (Document Reference 5.1.15))
  - Cyrrus Limited (Chapter 16 Civil and Military Aviation and Radar (Document Reference 5.1.16), Appendix 16.1 Airspace Analysis and Radar Modelling (Document Reference 5.2.16.1) and Appendix 16.2 Blackpool Instrument Flight Procedure Safeguarding Report (Document Reference 5.2.16.2))
  - Osprey Consulting Services (Appendix 16.3 Other Instrument Flight Procedure Assessments (Document Reference 5.2.16.3))



- Anatec Limited (Appendix 17.1 Helicopter Access Study (Document Reference 5.2.17.1))
- Manchester Advanced Radar Services Ltd (Appendix 17.2 Radar Early Warning System Technical Report (Document Reference 5.2.17.2))
- Optimised Environments Ltd. (Chapter 18 Seascape, Landscape and Visual Impact Assessment (SLVIA) (Document Reference 5.1.18), Appendix 18.1 SLVIA Methodology (Document Reference 5.2.18.1), Appendix 18.2 SLVIA Preliminary Assessment (Document Reference 5.2.18.2) and Appendix 18.3 SLVIA Viewpoint Assessment (Document Reference 5.2.18.3))
- RPS (Chapter 19 Human Health (Document Reference 5.1.19))
- BiGGAR Economics (Chapter 20 Socio-economics, Tourism and Recreation (Document Reference 5.1.20) and Appendix 20.1
   Offshore Windfarm Economic Impact Assessment Methodology (Document Reference 5.2.20.1))

#### 1.4 Purpose of the Project

- 1.20 Climate change, as a result of greenhouse gas emissions, is a global issue associated with impacts on weather, ecosystems, food production and society, as well as human health and welfare. The Morecambe Offshore Windfarm would make a significant contribution to the achievement of both the national renewable energy targets and to the UK's contribution to global efforts to reduce the effects of climate change. The Climate Change Act 2008 (2050 Target Amendment) Order 2019 sets a UK target for at least a 100% reduction of greenhouse gas emissions (compared to 1990 levels) by 2050. This ambitious Net Zero target will only be met by the crucial contribution from the offshore wind industry.
- 1.21 The Project has a design life of approximately 35 years and would have an anticipated nominal export capacity of up to 480MW, enough to power over 500,000 UK homes. This would therefore contribute to reaching national targets on carbon dioxide (CO<sub>2</sub>) reduction to Net Zero greenhouse gas emissions by 2050 and renewable energy production growth. As described in **Chapter 2 Need for the Project** (Document Reference 5.1.2), this would save the equivalent of approximately 36 million tonnes<sup>3</sup> of carbon dioxide equivalent (CO<sub>2</sub>e) from non-renewable sources.

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<sup>&</sup>lt;sup>3</sup> Carbon saving calculations are detailed in **Chapter 21 Climate Change** (Document Reference 5.1.21).



#### 1.22 The objectives of the Project are:

- Decarbonisation: Generate around 480MW of low carbon electricity from an offshore windfarm, in support of the Net-Zero by 2050 target and UK Government ambition to deliver 50GW of offshore wind by 2030
- Security of supply: Provide significant electricity generation capacity within the UK to support commitments for offshore wind generation and security of supply
- Affordability: Maximise generation capacity at low cost to the consumer from viable developable seabed within the constraints of available sites and grid infrastructure
- Coordination: Coordinate and coexist with other activities, developers and operators to use previously developed seabed to deliver the Project and its skills, employment and investment benefits in the Local Economic Area
- 1.23 The Planning Development Consent and Need Statement (Document Reference 4.8) and the Project's Design Statement (Document Reference 4.3) further detail the need for the Project, its objectives as well as the design process and compliance with national policy.

#### 1.5 Consent and EIA process

- 1.24 The overall objective of the EIA process is to identify potentially significant adverse effects resulting from a project, allowing them to be avoided or minimised, where possible, as well as identifying any potential beneficial effects.
- 1.25 The Project has a planned capacity of over 100MW and therefore is considered a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008, as amended. The EIA Directive (as explained in **Chapter 3 Policy and Legislation**) is transposed into English law for NSIPs by the EIA Regulations 2017. Under the EIA Regulations 2017, an EIA must be undertaken in support of an application for development consent of an NSIP. This is explained in further detail in **Chapter 3 Policy and Legislation**.
- 1.26 This ES identifies the potential significant environmental effects of the Project, and any necessary mitigation measures, and is submitted to support the application for a DCO. The assessment methodology that has been applied to the development of the ES is explained in further detail in **Chapter 6 EIA Methodology** (Document Reference 5.1.6).

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#### 1.6 Cooperation with Morgan Offshore Wind Limited

- 1.27 Morgan Offshore Wind Limited (Morgan OWL), a joint venture between bp Alternative Energy Investments Ltd. (bp) and Energie Baden-Württemberg AG (EnBW), is developing the Morgan Offshore Wind Project, located in the Eastern Irish Sea, which is the subject of a separate DCO application. As noted in **Paragraph 1.9**, the Transmission Assets, which would enable export of electricity from both the Morecambe Offshore Windfarm and the Morgan Offshore Wind Project to the National Grid connection point, would be subject to consent under a separate DCO application.
- 1.28 In relation to the Transmission Assets, a direction was sought from the Secretary of State under section 35 of the Planning Act 2008 to confirm that they should be treated as development for which development consent is required under the Planning Act 2008. A direction was duly made on 4<sup>th</sup> October 2022 and a single development consent for the Transmission Assets for both windfarms is therefore being pursued. The Transmission Assets DCO application will seek authorisation for two coordinated, but electrically separate, sets of transmission works (for example, where each offshore windfarm would have its own transmission cables and substation infrastructure). Accordingly, the Applicant is working with Morgan OWL to jointly apply for this separate DCO for the Transmission Assets.

#### 1.7 The ES structure

- 1.29 The ES assesses the Project as described in **Chapter 5 Project Description**.
- 1.30 The ES comprises the following (outlined in detail in **Table 1.1**):
  - ES chapters
  - Appendices
  - Figures
- 1.31 In addition to the above, a separate stand-alone Non-Technical Summary (NTS) is also available, which summarises the key baseline data and findings of the ES using non-technical language.
- 1.32 A Report to Inform Appropriate Assessment (RIAA) as part of the Habitat Regulation Assessment (HRA) process and a Marine Conservation Zone Assessment (MCZA) required under the Marine and Coastal Access Act (MCAA) (2009) is also provided alongside the ES (Report to Inform Appropriate Assessment (Document Reference 4.9) and Marine Conservation Zone Assessment Report (Document Reference 4.13)).

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Table 1.1 Structure of the ES

Section	Chapter	Document Reference
Introductory chapters	Chapter 1 Introduction	5.1.1
	Chapter 2 Need for the Project	5.1.2
	Chapter 3 Policy and Legislation	5.1.3
	Chapter 4 Site Selection and Assessment of Alternatives	5.1.4
	Chapter 5 Project Description	5.1.5
	Chapter 6 EIA Methodology	5.1.6
Technical chapters	Chapter 7 Marine Geology, Oceanography and Physical Processes	5.1.7
	Chapter 8 Marine Sediment and Water Quality	5.1.8
	Chapter 9 Benthic Ecology	5.1.9
	Chapter 10 Fish and Shellfish Ecology	5.1.10
	Chapter 11 Marine Mammals	5.1.11
	Chapter 12 Offshore Ornithology	5.1.12
	Chapter 13 Commercial Fisheries	5.1.13
	Chapter 14 Shipping and Navigation	5.1.14
	Chapter 15 Marine Archaeology and Cultural Heritage	5.1.15
	Chapter 16 Civil and Military Aviation and Radar	5.1.16
	Chapter 17 Infrastructure and Other Users	5.1.17
	Chapter 18 SLVIA	5.1.18
	Chapter 19 Human Health	5.1.19

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Section	Chapter	Document Reference
	Chapter 20 Socio-economics, Tourism and Recreation	5.1.20
	Chapter 21 Climate Change	5.1.21
	Chapter 22 Traffic and Transport	5.1.22
Summary chapter	Chapter 23 Summary: Generation and Transmission Assets Assessment	5.1.23
Appendices	Appendix 6.1 CEA Project Long List	5.2.6.1
	Appendix 7.1 Offshore Geophysical Survey	5.2.7.1
	Appendix 9.1 Benthic Characterisation Survey	5.2.9.1
	Appendix 9.2 Marine Evidence-based Sensitivity Assessment	5.2.9.2
	Appendix 11.1 Underwater Noise Assessment	5.2.11.1
	Appendix 11.2 Marine Mammal Information and Survey Data	5.2.11.2
	Appendix 11.3 Marine Mammal Unexploded Ordnance Assessment	5.2.11.3
	Appendix 11.4 Marine Mammal CEA Project Screening	5.2.11.4
	Appendix 11.5 Marine Mammals Consultation Responses	5.2.11.5
	Appendix 12.1 Offshore Ornithology Technical Report	5.2.12.1
	Appendix 12.2 Aerial Survey Two Year Report March 2021 to February 2023	5.2.12.2
	Appendix 13.1 Commercial Fisheries Technical Report	5.2.13.1
	Appendix 14.1 Navigation Risk Assessment	5.2.14.1
	Appendix 14.2 Cumulative Regional Navigation Risk Assessment	5.2.14.2
	Appendix 15.1 Archaeological Assessment of Geophysical and Hydrographic Data	5.2.15.1
	Appendix 15.2 Seismic Data Review	5.2.15.2

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Section	Chapter	Document Reference
	Appendix 15.3 Settings Assessment	5.2.15.3
	Appendix 16.1 Airspace Analysis and Radar Modelling	5.2.16.1
	Appendix 16.2 Blackpool Instrument Flight Procedure Safeguarding Report	5.2.16.2
	Appendix 16.3 Other Instrument Flight Procedure Assessments	5.2.16.3
	Appendix 17.1 Helicopter Access Study	5.2.17.1
	Appendix 17.2 Radar Early Warning System Technical Report	5.2.17.2
	Appendix 18.1 SLVIA Methodology	5.2.18.1
	Appendix 18.2 SLVIA Preliminary Assessment	5.2.18.2
	Appendix 18.3 SLVIA Viewpoint Assessment	5.2.18.3
	Appendix 20.1 Offshore Windfarm Economic Impact Assessment Methodology	5.2.20.1
	Appendix 21.1 Greenhouse Gas Assessment Methodology	5.2.21.1
Figures	Chapter 1 Introduction Figures	5.3.1
	Chapter 4 Site Selection and Assessment of Alternatives Figures	5.3.4
	Chapter 5 Project Description Figures	5.3.5
	Chapter 7 Marine Geology, Oceanography and Physical Processes Figures	5.3.7
	Chapter 8 Marine Sediment and Water Quality Figures	5.3.8
	Chapter 9 Benthic Ecology Figures	5.3.9
	Chapter 10 Fish and Shellfish Ecology Figures	5.3.10
	Chapter 11 Marine Mammals Figures	5.3.11
	Chapter 12 Offshore Ornithology Figures	5.3.12

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Section	Chapter	Document Reference
	Chapter 13 Commercial Fisheries Figures	5.3.13
	Chapter 14 Shipping and Navigation Figures	5.3.14
	Chapter 15 Marine Archaeology and Cultural Heritage Figures	5.3.15
	Appendix 15.3 Generation Assets Setting Assessment_Cultural Heritage Viewpoint 1	5.3.15.1
	Appendix 15.3 Generation Assets Setting Assessment_Cultural Heritage Viewpoint 2	5.3.15.2
	Appendix 15.3 Generation Assets Setting Assessment_Cultural Heritage Viewpoint 3	5.3.15.3
	Appendix 15.3 Generation Assets Setting Assessment_Cultural Heritage Viewpoint 4	5.3.15.4
	Chapter 16 Civil and Military Aviation and Radar Figures	5.3.16
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	Chapter 18 SLVIA Figures	5.3.18
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	Chapter 20 Socio-economics, Tourism and Recreation Figures	5.3.20
	Chapter 23 Summary: Generation and Transmission Assets Assessment Figures	5.3.23

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#### 1.8 Consultation

- 1.33 As discussed in **Section 1.1**, feedback from pre-application consultation has been taken into consideration to inform the final design of the Project and the scope of this ES. The consultation responses, and the Applicant's regard to them, is set out in the Consultation Report that accompanies the DCO Application.
- 1.34 Information in the public domain has largely been shared via www.morecambeoffshorewind.com. Since November 2022, a consultation tab has been added that opens directly into www.morecambeandmorgan.com. This website provides information relating to the Project and the Transmission Assets, in addition to the Morgan Offshore Wind Project Generation Assets.
- 1.35 Early consultation with local communities and consultees was a key part of the pre-application consultation process for the Project, so that feedback on potential social and environmental impacts, opportunities and potential mitigation measures could be considered in advance of an application being made.
- 1.36 An initial round of (non-statutory) consultation on the Project ran for six weeks, from 2<sup>nd</sup> November to 13<sup>th</sup> December 2022 which was aligned with the publication of the Scoping Report.
- 1.37 Prior to formal (statutory) consultation as required under Sections 42, 47 and 48 of the Planning Act 2008, a draft Statement of Community Consultation (SoCC) was developed in consultation with relevant authorities closest to the Project, and those that may interact with the Project.
- 1.38 Formal statutory consultation on the Project thereafter ran for 49 days, from 19<sup>th</sup> April to 4<sup>th</sup> June 2023, including publication of the PEIR (as well as the draft RIAA and MCZA). The Applicant publicised the final SoCC, which set out plans to consult local communities on the Project (which was subsequently followed).
- 1.39 Consultation with technical stakeholders has been facilitated through targeted consultation with relevant parties and through an Evidence Plan Process (EPP). As part of the EPP, Expert Topic Groups (ETGs) were established, with a number of regular ETG meetings held throughout the preapplication process to agree the technical information required as part of the DCO Application (this is set out in the Consultation Report (Document Reference 4.1)). The Applicant is developing Statement of Common Ground (SoCG) with stakeholders, facilitated in part through consultation as part of the EPP. Technical consultation is described in each technical chapter (chapters 7-22) and further in **Chapter 6 EIA Methodology**.

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1.40 Full details of pre-application consultation for the Project are provided in the Consultation Report.

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#### 1.9 References

Morecambe Offshore Windfarm Ltd (2022). Morecambe Offshore Windfarm (Generation Assets) Scoping Report. Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010121/EN010121-000028-MORC%20-%20Scoping%20Report%20(Generation%20Assets).pdf. (Accessed August 2023)

Morecambe Offshore Windfarm Ltd (2023). Morecambe Offshore Windfarm (Generation Assets) Preliminary Environmental Information Report. Available at: https://morecambeandmorgan.com/morecambe/en/consultationhub/#peir. (Accessed July 2023)

Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Ltd (2022). Morgan and Morecambe Offshore Wind Farms: Transmission Assets Environmental Impact Assessment Scoping Report.

Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Ltd (2023). Morgan and Morecambe Offshore Wind Farms: Transmission Assets Preliminary Environmental Information Report.

National Grid ESO (2022). Pathway to 2030. A holistic network design to support offshore wind development for net zero.

PINS (2022). Scoping Opinion: Proposed Morecambe Offshore Windfarm (Case Reference: EN010121). Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010121/EN010121-000052-MORC%20-%20Scoping%20Opinion%20.pdf. (Accessed August 2023)