MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Environmental Statement

Volume 1, Chapter 1: Introduction

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Glossary

Term	Meaning
400 kV grid connection cables	Cables that will connect the proposed onshore substations to the existing National Grid Penwortham substation.
400 kV grid connection cable corridor	The corridor within which the 400 kV grid connection cables will be located.
Applicants	Morgan Offshore Wind Limited (Morgan OWL) and Morecambe Offshore Windfarm Ltd (Morecambe OWL).
Development Consent Order	An order made under the Planning Act 2008, as amended, granting development consent.
Environmental Statement	The document presenting the results of the Environmental Impact Assessment process.
Generation Assets	The generation assets associated with the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm include the offshore wind turbines, inter-array cables, offshore substation platforms and platform link (interconnector) cables to connect offshore substations.
Intertidal area	The area between Mean High Water Springs and Mean Low Water Springs.
Landfall	The area in which the offshore export cables make landfall (come on shore) and the transitional area between the offshore cabling and the onshore cabling. This term applies to the entire landfall area at Lytham St. Annes between Mean Low Water Springs and the transition joint bays inclusive of all construction works, including the offshore and onshore cable routes, intertidal working area and landfall compound(s).
Marine licence	The Marine and Coastal Access Act 2009 requires a marine licence to be obtained for licensable marine activities. Section 149A of the Planning Act 2008 allows an applicant for to apply for 'deemed marine licences' in English waters as part of the development consent process.
Mean High Water Springs	The height of mean high water during spring tides in a year.
Mean Low Water Springs	The height of mean low water during spring tides in a year.
Morecambe Offshore Windfarm: Generation Assets	The offshore generation assets and associated activities for the Morecambe Offshore Windfarm.
Morecambe Offshore Windfarm: Transmission Assets	The offshore export cables, landfall and onshore infrastructure required to connect the Morecambe Offshore Windfarm to the National Grid.
Morecambe OWL	Morecambe Offshore Windfarm Ltd is a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd.
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	The offshore and onshore infrastructure connecting the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm to the national grid. This includes the offshore export cables, landfall site, onshore export cables, onshore substations, 400 kV grid connection cables and associated grid connection infrastructure such as circuit breaker compounds. Also referred to in this report as the Transmission Assets, for ease of reading.

Term	Meaning
Morgan Offshore Wind Project: Generation Assets	The offshore generation assets and associated activities for the Morgan Offshore Wind Project.
Morgan Offshore Wind Project: Transmission Assets	The offshore export cables, landfall and onshore infrastructure required to connect the Morgan Offshore Wind Project to the National Grid.
Morgan OWL	Morgan Offshore Wind Limited is a joint venture between bp Alternative Energy Investments Ltd and Energie Baden-Württemberg AG (EnBW).
National Grid Penwortham substation	The existing National Grid substation at Penwortham, Lancashire.
Non-statutory consultee	Organisations that an applicant may choose to consult in relation to a project who are not designated in law but are likely to have an interest in the project.
Offshore export cables	The cables which would bring electricity from the Generation Assets to the landfall.
Offshore export cable corridor	The corridor within which the offshore export cables will be located.
Offshore Wind Leasing Round 4	The Crown Estate auction process which allocated developers preferred bidder status on areas of the seabed within Welsh and English waters and ends when the Agreements for Lease are signed.
Onshore export cables	The cables which would bring electricity from landfall to the onshore substations.
Onshore export cable corridor	The corridor within which the onshore export cables will be located.
Planning Inspectorate	The agency responsible for operating the planning process for applications for development consent under the Planning Act 2008.
Preliminary Environmental Information Report	A report that provides preliminary environmental information in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. This is information that enables consultees to understand the likely significant environmental effects of a project and which helps to inform consultation responses.
Statutory consultee	Organisations that are required to be consulted by an applicant pursuant to section 42 of the Planning Act 2008 in relation to an application for development consent. Not all consultees will be statutory consultees (see non-statutory consultee definition).
Substation	Part of an electrical transmission and distribution system. Substations transform voltage from high to low, or the reverse by means of electrical transformers.
The Secretary of State for Energy Security and Net Zero	The decision maker with regards to the application for development consent for the Transmission Assets.
Transmission Assets	See Morgan and Morecambe Offshore Wind Farms: Transmission Assets (above).
Transmission Assets Order Limits	The area within which all components of the Transmission Assets will be located, including areas required on a temporary basis during construction and/or decommissioning.

Acronyms

Acronym	Meaning
DESNZ	The Department for Energy Security and Net Zero
DCO	Development Consent Order
EIA	Environmental Impact Assessment
EnBW	Energie Baden-Württemberg AG
EPP	Evidence Plan process
ES	Environmental Statement
EWG	Expert Working Group
HNDR	Holistic Network Design Review
IEMA	Institute for Environmental Management and Assessment
NGESO	National Grid Electricity System Operator
NSIP	Nationally Significant Infrastructure Project
NTS	Non-technical summary
OTNR	Offshore Transmission Network Review
PEIR	Preliminary Environmental Information Report
SoCC	Statement of Community Consultation
UK	United Kingdom

Units

Unit	Description
GW	Gigawatt
kV	Kilovolt
MW	Megawatt

1 Introduction

1.1 Background

1.1.1.1 This Environmental Statement (ES) presents the findings of the Environmental Impact Assessment (EIA) process for the Morgan and Morecambe Offshore Wind Farms: Transmission Assets (referred to hereafter as 'the Transmission Assets'). This chapter introduces the Transmission Assets, the Applicants, the EIA process and the purpose and structure of the ES.

1.2 Overview of the Transmission Assets

1.2.1 The Morgan and Morecambe offshore wind farms

1.2.1.1 The UK's ambition is to lead the world in combatting climate change, reducing reliance on fossil fuels and embracing a future where renewable energy powers homes and businesses. At the centre of this drive is a commitment to reducing UK greenhouse gas emissions and reaching net zero by 2050. The UK government has an ambition to generate 50 gigawatts (GW) of clean, renewable energy from offshore wind by 2030. Figures released by the Department for Energy Security and Net Zero (DESNZ) show that the UK currently has approximately 15 GW of installed offshore wind capacity in the UK up to the end of 2023 (DESNZ, 2024). As such, there is still some way to go to meet the 2030 target (as set out in further detail in the Planning Statement accompanying the application – document reference J28).

1.2.1.2 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. The Morgan Offshore Wind Project is a proposed offshore wind farm in the east Irish Sea.

1.2.1.3 Morecambe Offshore Windfarm Ltd (Morecambe OWL), a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) (Cobra) and Flotation Energy Ltd, is developing the Morecambe Offshore Windfarm, also located in the east Irish Sea.

1.2.1.4 Both offshore wind farms will have a capacity of over 100 megawatts (MW) and are located wholly in English waters. They are therefore Nationally Significant Infrastructure Projects (NSIPs) under the Planning Act 2008, as amended (referred to here as 'the Planning Act 2008').

1.2.1.5 Both the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm have been awarded licences during The Crown Estate's Offshore Wind Leasing Round 4 process. Both offshore wind farms have a critical role to play in helping the UK to achieve its net zero ambitions and to reach offshore wind generation goals. Further details of the relevant planning policy context are provided in Volume 1, Chapter 2: Policy and legislation context of this ES.

1.2.2 The Transmission Assets

1.2.2.1 Both the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm were scoped into the 'Pathways to 2030' workstream under the Offshore Transmission Network Review (OTNR). The OTNR aims to consider, simplify, and wherever possible facilitate a collaborative approach to offshore wind projects connecting to the National Grid.

1.2.2.2 Under the OTNR, the National Grid Electricity System Operator (NGESO) is responsible for assessing options to improve the coordination of offshore wind generation connections and transmission networks and has undertaken a Holistic Network Design Review (HNDR). In July 2022, the UK Government published the 'Pathway to 2030 Holistic Network Design' documents, which set out the approach to connecting 50 GW of offshore wind to the National Grid (NGESO, 2022). A key output of the HNDR process was the recommendation that the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm should work collaboratively in connecting the two offshore wind farms to the National Grid electricity transmission network at Penwortham in Lancashire.

1.2.2.3 Morgan OWL and Morecambe OWL (the Applicants), being in agreement with the output from the HNDR, are jointly seeking a single consent for their electrically separate transmission assets comprising aligned offshore export cable corridors to landfall and aligned onshore export cable corridors to separate onshore substations (and associated infrastructure), and onward connection to the National Grid at Penwortham, Lancashire.

Key elements of the Transmission Assets

1.2.2.4 The design philosophy for the Transmission Assets is for the Morgan Offshore Wind Project: Generation Assets and the Morecambe Offshore Windfarm: Generation Assets (referred to as 'the Generation Assets') to be electrically independent. Therefore, each offshore wind farm will have its own separate set of transmission assets (e.g., cable and substation infrastructure). However, the location of the infrastructure will be aligned (where practicable), for example within aligned offshore and onshore cable corridors to minimise impacts to environment and the community.

1.2.2.5 The key components of the Transmission Assets include the following.

- Offshore elements:
  - offshore export cables: these export cables will bring the electricity generated by the Generation Assets to the landfall for onward transmission.
- Landfall:
  - landfall site: this is where the offshore export cables are jointed to the onshore export cables via the transition joint bays. This term applies to the entire area between Mean Low Water Springs and the transition joint bays.
- Onshore elements:

- onshore export cables: these export cables will be jointed to the offshore export cables via the transition joint bays at the landfall site, and will bring the electricity generated by the Generation Assets to the onshore substations;
- onshore substations: the two electrically separate onshore substations will contain the components for transforming the power supplied via the onshore export cables up to 400 kV;
- 400 kV grid connection cables: these export cables will bring the electricity generated by the Generation Assets from the two electrically separate onshore substations to the existing National Grid substation at Penwortham;
- environmental mitigation areas: temporary and/or permanent areas, including accesses identified to provide environmental mitigation only; and
- biodiversity benefit areas: temporary and/or permanent areas, including accesses identified to provide biodiversity benefit only.

1.2.2.6 All of the above elements will be located within the Transmission Assets Order Limits, as shown on Figure 1.1 (see Volume 1, Figures). Further details of the Transmission Assets are provided in Volume 1, Chapter 3: Project description of this ES. Details of the site selection process for the Transmission Assets are presented in Volume 1, Chapter 4: Site selection and consideration of alternatives of this ES.

1.3 The consenting process

1.3.1 The Planning Act 2008

1.3.1.1 As set out in **section 1.2.1**, the Generation Assets fall within the definition of an NSIP, as they exceed the threshold for an offshore generating station with a capacity of more than 100 MW, set under the Planning Act 2008. They both therefore require applications for development consent to be made to the Planning Inspectorate. These applications were made in April and May 2024 for Morgan and Morecambe respectively.

1.3.1.2 Following a request from the Applicants, on 4 October 2022 the Secretary of State issued a direction under section 35 of the Planning Act 2008 that the Transmission Assets should be treated as a 'development for which development consent is required'.

1.3.1.3 Applications for development consent under the Planning Act 2008 are submitted to and examined by the Planning Inspectorate and determined by the relevant Secretary of State. At the time of writing, this is the Secretary of State for Energy Security and Net Zero.

1.3.1.4 This ES accompanies an application for a single Development Consent Order (DCO) that would give consent to two electrically separate sets of transmission works.

1.3.1.5 In addition to development consent, marine licences are required before carrying out any licensable marine activity under the Marine and Coastal

Access Act 2009. Marine licences can be deemed under the DCO for licensable activities in English waters.

1.3.1.6 Further details of the relevant planning policy context, including the approach to consenting, are provided in Volume 1, Chapter 2: Policy and legislation context of this ES.

1.3.2 EIA and the purpose of the ES

1.3.2.1 EIA is the process of identifying and assessing the significant effects likely to arise from a project. This requires consideration of the likely changes to the baseline environment, where these arise as a consequence of a project, through comparison with the existing and projected future baseline conditions.

1.3.2.2 For the Transmission Assets, the legislative requirements for EIA are set by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, as amended (referred to in this report as the 2017 EIA Regulations), which set out the requirements for EIA under the Planning Act 2008.

1.3.2.3 This ES presents the findings of the EIA process in accordance with the 2017 EIA Regulations and accompanies the application for development consent under Section 37(3) of the Planning Act 2008.

1.3.2.4 This ES provides details of the Transmission Assets, together with an overview of the alternatives considered. For each environmental topic, details of the approach to assessment, the existing and likely future environmental conditions and the likely significant effects arising from the Transmission Assets are set out. Details of the measures proposed to avoid, prevent, reduce or offset significant adverse effects (known as mitigation measures or Commitments) are also provided.

Consultation

1.3.2.5 On 28 October 2022, the Applicants submitted a Scoping Report to the Secretary of State and received a formal Scoping Opinion in relation to the scope of the EIA process. Following this, a Statement of Community Consultation (SoCC) was prepared setting out the proposed approach to consultation and engagement, in consultation with local authorities. The SoCC was published in October 2023 and all consultation for the Transmission Assets has been undertaken in accordance with the approach set out in this document.

1.3.2.6 The Applicants published a Preliminary Environmental Information Report (PEIR) in October 2023 which formed the basis of statutory consultation under the Planning Act 2008. Statutory consultation ran between 12 October and 23 November 2023. Feedback provided from consultation with the community, statutory consultation bodies and other interested parties has helped refine the design of the Transmission Assets and inform development of the ES.

1.3.2.7 As the project design was refined, and the boundary reduced, additional targeted statutory consultation took place from November 2023, with specific land interests and a small number of additional stakeholders.

1.3.2.8 A key element of the consultation process has included the development of an Evidence Plan process (EPP) and engagement with the EPP Steering Group and associated Expert Working Groups (EWGs). The EPP has aimed to enable agreement between the Applicants and relevant stakeholders for key elements of the EIA process, through a regular programme of engagement.

1.3.2.9 Engagement with stakeholders has continued throughout the EIA process so that stakeholders could continue to be engaged up until the point of documents being finalised for application.

1.3.2.10 A Consultation Report has been produced to demonstrate how the Applicants have complied with Sections 42, 47, 48 and 49 of the Planning Act 2008 and with relevant best practice documents and guidance published by the Planning Inspectorate. Further details regarding the consultation process can be found in Volume 1, Chapter 5: Environmental assessment methodology of this ES and in the Consultation Report (document reference E1).

1.3.3 The Applicants and the EIA team

The Applicants

1.3.3.1 As set out in **section 1.1**, the Applicants are Morgan OWL and Morecambe OWL. Both Applicants are joint ventures made up of leading energy companies, bp and EnBW, and Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) and Flotation Energy Ltd, respectively.

1.3.3.2 EnBW is one of the largest energy supply companies in Germany and supplies electricity, gas, water and energy solutions and energy industry services to around 5.5 million customers with a workforce of more than 27,000 employees. EnBW aims to strengthen its position as a sustainable and innovative infrastructure partner for customers, citizens and local authorities to an even greater extent. The repositioning of EnBW with a focus on renewable energies and smart infrastructure solutions is a key component of its strategy. With a focus on renewable energy and smart infrastructure solutions, EnBW's objective is for half of the electricity it supplies to be from renewable sources by the end of 2025. This is already having a noticeable effect on the reduction of CO_2 emissions, which EnBW aims to halve by 2030 and to be climate neutral by 2035. EnBW has been involved in the operation of hydro power plants in the Black Forest for more than 100 years and has a large and continuously growing number of onshore wind farms and solar photovoltaics in Germany, France and Sweden. In addition, EnBW developed, constructed and operates four offshore wind farms in Germany (EnBW Baltic 1, Baltic 2, Hohe See and Albatros) with a total installed capacity of 945 MW, commissioned between 2011 and 2020. A further 960 MW offshore wind farm, He Dreiht, is currently under construction in Germany.

1.3.3.3 bp is an international company that delivers energy products and services to our customers around the world. bp's strategy is to transition to become an integrated energy company across low carbon energy, resilient hydrocarbons, and mobility and convenience. bp is working to help deliver a

better, more balanced, energy system that is secure and affordable as well as increasingly lower carbon.

1.3.3.4 bp is investing in offshore wind to establish a global position in the sector and build our portfolio to help serve the world's energy needs. This is part of bp's transformation to an integrated energy company and helping to play our part in providing secure, affordable and lower carbon energy.

1.3.3.5 In the UK, bp and partner EnBW are leading the development of the Morgan and Mona offshore wind projects in the Irish Sea and the Morven offshore wind project in the North Sea. These projects have a combined potential generating capacity of 5.9 GW, sufficient to power the equivalent of around 6 million UK households. In early 2023, bp was successful in its bid to develop its first floating offshore wind demonstration project offshore Aberdeenshire.

1.3.3.6 In Germany, bp is progressing our plans to develop two projects, Oceanbeat East and Oceanbeat West, with a combined potential generating capacity of 4 GW. In Asia, bp has formed a strategic partnership with Marubeni to explore offshore wind opportunities in Japan. bp also established a joint venture with Norway's Deep Wind Offshore, which saw bp acquire a 55% stake in the company's early-stage offshore wind portfolio of projects around the Korean Peninsula.

1.3.3.7 Zero-E Offshore Wind S.L.U. (Spain) is a Cobra group company, where Cobra is a world leader in the development, construction and management of industrial infrastructure and energy projects, with 80 years of experience. Cobra is a worldwide reference with the capacity and determination to develop, create and operate industrial and energy infrastructures that require a high level of service, based on excellence in integration, technological innovation and financial strength.

1.3.3.8 Its unrivalled knowledge and understanding of floating offshore wind developments is a significant advantage in delivering a high quality and efficient project, coupled with its commitment to environmental stewardship. Cobra's experience as a major player in offshore wind is based on a 50 MW project in operation and over 11.2 GW under development.

1.3.3.9 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 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.

1.3.3.10 Whilst Flotation Energy develops projects independently, it also recognises the strategic value of partnership and collaboration to deliver proven, cost-effective solutions.

EIA team

1.3.3.11 The team responsible for the production of this ES has been led by the Applicants, supported by lead EIA consultant RPS. RPS is a registrant of the Institute of Environmental Management and Assessment (IEMA) Quality

Mark. Details of the EIA team are provided in **Table 1.1**. A statement setting out the relevant expertise of each of the topic authors is provided in Volume 1, Annex 1.1: Statement of expertise of the ES.

1.3.3.12 This ES has been prepared with input from Royal Haskoning DHV. Royal Haskoning DHV are acting as advising consultants for the Applicants.

1.4 Structure of the ES

1.4.1.1 Although there is no statutory provision as to the form of an ES, it must contain the information specified in Regulation 14(2) and Schedule 4 of the 2017 EIA Regulations. For the avoidance of doubt, the specified information within Regulation 14(2) and Schedule 4 is set out in Volume 1, Chapter 5: Environmental assessment methodology of the ES.

1.4.1.2 The ES is divided into four volumes:

- Volume 1: Introduction;
- Volume 2: Effects on the offshore environment;
- Volume 3: Effects on the onshore environment; and
- Volume 4: Effects on the onshore and offshore environment.

1.4.1.3 Each volume is supported by figures and technical annexes. **Table 1.1** provides details of the structure of the ES.

Table 1.1: ES chapters and authors for the Transmission Assets

Chapter number	Chapter	Document reference	Author
Volume 1 – Introduction			
1	Introduction	F1.1	RPS
2	Policy and legislation context	F1.2	RPS
3	Project description	F1.3	RPS, Morgan OWL, Morecambe OWL
4	Site selection and consideration of alternatives	F1.4	Morgan OWL, Morecambe OWL
5	Environmental assessment methodology	F1.5	RPS
Volume 2 – Effects on the offshore environment			
1	Physical processes	F2.1	RPS
2	Benthic subtidal and intertidal ecology	F2.2	RPS
3	Fish and shellfish ecology	F2.3	RPS
4	Marine mammals	F2.4	RPS
5	Offshore ornithology	F2.5	RPS and Niras
6	Commercial fisheries	F2.6	RPS and MarineSpace
7	Shipping and navigation	F2.7	RPS and NASH Maritime
8	Marine archaeology	F2.8	RPS

Chapter number	Chapter	Document reference	Author
9	Other sea users	F2.9	RPS
Volume 3 – Effects on the onshore environment			
1	Geology, hydrogeology and ground conditions	F3.1	RPS
2	Hydrology and flood risk	F3.2	RPS
3	Onshore ecology and nature conservation	F3.3	RPS
4	Onshore and intertidal ornithology	F3.4	RPS
5	Historic environment	F3.5	RPS
6	Land use and recreation	F3.6	RPS
7	Traffic and transport	F3.7	RPS
8	Noise and vibration	F3.8	RPS
9	Air quality	F3.9	RPS
10	Landscape and visual resources	F3.10	RPS
11	Aviation and radar	F3.11	RPS and Osprey
Volume 4 – Effects on the onshore and offshore environment			
1	Climate change	F4.1	RPS
2	Socio-economics	F4.2	RPS and Hardisty Jones Associates
3	Inter-relationships	F4.3	RPS

1.4.1.4 Details of the supporting annexes are set out in **Table 1.2**.

Table 1.2: ES annexes and authors for the Transmission Assets

Annex number	Annex	Document reference	Author
Volume 1 – Introduction			
1.1	Statement of expertise	F1.1.1	RPS
3.1	Offshore crossing schedule	F1.3.1	Morgan OWL, Morecambe OWL
3.2	Onshore crossing schedule	F1.3.2	Morgan OWL, Morecambe OWL
3.3	Sulphur hexafluoride report	F1.3.3	Morgan OWL, Morecambe OWL
3.4	Electro-magnetic fields (EMF) compliance statement	F1.3.4	Morgan OWL, Morecambe OWL
4.1	Selection and refinement of cable landfall	F1.4.1	Morgan OWL, Morecambe OWL
4.2	Selection of grid connection and refinement of offshore infrastructure	F1.4.2	Morgan OWL, Morecambe OWL

Annex number	Annex	Document reference	Author
4.3	Selection and refinement of onshore infrastructure	F1.4.3	Morgan OWL, Morecambe OWL
5.1	Human health	F1.5.1	RPS
5.2	Underwater sound technical report	F1.5.2	RPS
5.3	Commitments register	F1.5.3	RPS, Morgan OWL, Morecambe OWL
5.4	Transboundary screening	F1.5.4	RPS
5.5	Cumulative screening matrix and location plan	F1.5.5	RPS
Volume 2 – Effects on the offshore environment			
1.1	Physical processes associated modelling studies	F2.1.1	RPS
2.1	Benthic subtidal and intertidal ecology technical report	F2.2.1	RPS
2.2	Water Framework Directive coastal waters assessment	F2.2.2	RPS
3.1	Fish and shellfish ecology technical report	F2.3.1	RPS
4.1	Marine mammals technical report	F2.4.1	RPS
6.1	Commercial fisheries technical report	F2.6.1	RPS and MarineSpace
7.1	Navigation risk assessment	F2.7.1	RPS and NASH Maritime
8.1	Marine archaeology technical report	F2.8.1	RPS
Volume 3 – Effects on the onshore environment			
1.1	Phase 1 geo-environmental preliminary risk assessment	F3.1.1	RPS
2.1	Water Framework Directive surface and groundwater assessment	F3.2.1	RPS
2.2	Surface water abstraction licences, discharge consents and pollution incidents	F3.2.2	RPS
2.3	Flood risk assessment	F3.2.3	RPS
3.1	Onshore ecology desk study technical report	F3.3.1	RPS
3.2	Onshore ecology and nature conservation survey methodologies technical report	F3.3.2	RPS
3.3	Phase 1 habitat, national vegetation classification and hedgerow survey technical report	F3.3.3	RPS
3.4	River morphology survey technical report	F3.3.4	RPS
3.5	Aquatic invertebrate survey technical report	F3.3.5	RPS
3.6	Terrestrial invertebrate survey technical report	F3.3.6	RPS
3.7	Fish and eel survey technical report	F3.3.7	RPS

Annex number	Annex	Document reference	Author
3.8	Great crested newt and reptile survey technical report	F3.3.8	RPS
3.9	Water vole survey technical report	F3.3.9	RPS
3.10	Bat activity survey technical report	F3.3.10	RPS
3.11	Bat roost survey technical report	F3.3.11	RPS
3.12	Otter survey technical report	F3.3.12	RPS
3.13	Badger survey technical report	F3.3.13	RPS
3.14	Invasive non-native species technical report	F3.3.14	RPS
3.15	White-clawed crayfish technical report	F3.3.15	RPS
4.1	Breeding birds technical report	F3.4.1	RPS
4.2	Wintering and migratory birds technical report	F3.4.2	RPS
4.3	Intertidal birds technical report	F3.4.3	RPS
4.4	Onshore and intertidal ornithology survey methodologies	F3.4.4	RPS
5.1	Historic environment desk based assessment	F3.5.1	RPS
5.2	Onshore archaeological geophysical survey report	F3.5.2	RPS and Magnitude Surveys Ltd
5.3	Intertidal archaeological survey report	F3.5.3	RPS and Oxford Archaeology
5.4	Geoarchaeological desk based assessment report	F3.5.4	RPS and Oxford Archaeology
5.5	Settings assessment	F3.5.5	RPS
5.6	Interim trial trenching report	F3.5.6	RPS and Oxford Archaeology
6.1	Published agricultural land classification and soils data	F3.6.1	RPS
6.2	Agricultural land classification survey results	F3.6.2	RPS
6.3	Published recreational resources plan technical report	F3.6.3	RPS
7.1	Alternative methodology for baseline traffic flows	F3.7.1	RPS
7.2	Traffic survey data	F3.7.2	RPS
7.3	Description of network links and sensitivity	F3.7.3	RPS
7.4	Base traffic flows	F3.7.4	RPS
7.5	Construction trip generation assumptions	F3.7.5	RPS
7.6	Traffic flows with construction traffic	F3.7.6	RPS
8.1	Baseline sound survey	F3.8.1	RPS

Annex number	Annex	Document reference	Author
8.2	Construction noise and vibration	F3.8.2	RPS
8.3	Operational noise	F3.8.3	RPS
9.1	Air quality impacts on ecologically designated sites	F3.901	RPS
10.1	Landscape and visual resources planning policy context	F3.10.1	RPS
10.2	Landscape character baseline technical report	F3.10.2	RPS
10.3	Visual baseline technical report	F3.10.3	RPS
10.4	Landscape and visual impact assessment methodology	F3.10.4	RPS
10.5	Tree survey and arboricultural impact assessment	F3.10.5	RPS
Volume 4 – Effects on the onshore and offshore environment			
1.1	Greenhouse gas assessment	F4.1.1	RPS
1.2	Climate change risk assessment	F4.1.2	RPS
2.1	Socio-economics technical report	F4.2.1	RPS and Hardisty Jones Associates

1.4.1.5 A non-technical summary (NTS), which summarises the key baseline data and findings of the ES in non-technical language, is available separately (document reference F1).

1.5 Additional assessments

1.5.1.1 In addition to the Planning Act 2008 and the 2017 EIA Regulations, other environmental legislation also requires specific assessments to be undertaken. The approach to addressing this legislation within this ES is set out below.

1.5.1.2 The effects of the Transmission Assets on designated sites have been assessed, taking into account the requirements of the Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017. A report setting out the findings of the assessment process has been prepared following the method set out in the Planning Inspectorate Advice Note Ten: Habitats Regulations Assessment Relevant to Nationally Significant Infrastructure Projects (Planning Inspectorate, 2022). The results of the Habitats Regulations Assessment are set out in the Information to Support Appropriate Assessment report (document reference E2.1, E2.2, E2.3).

1.5.1.3 The effects of the Transmission Assets on Marine Conservation Zones have been assessed through a Marine Conservation Zone Assessment. The findings are set out in the Stage 1 Marine Conservation Zone Assessment (document reference E4).

1.5.1.4 The effects of the Transmission Assets in relation to The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 and the effects on environmental objectives for surface and groundwater bodies are considered within Volume 2, Annex 2.2: Water Framework Directive coastal waters assessment and Volume 3, Annex 2.1: Water Framework Directive surface water and groundwater assessment of this ES.

1.5.1.5 Additional information available is set out in the Application Guide (document reference A4).

1.5.1.6 This ES can be viewed on the Transmission Assets website:

- https://www.morecambeandmorgan.com/

1.5.1.7 Additional copies are available on request from:

- info@morecambeandmorgan.com

1.5.1.8 A charge will be made for paper copies.

1.6 References

Department for Energy Security and Net Zero (DESNZ) (2024) Digest of UK Energy Statistics (DUKES): renewable sources of energy chapter 6.2: Capacity of, generation from renewable sources and share of total generation. Available at: https://www.gov.uk/government/statistics/renewable-sources-of-energy-chapter-6-digest-of-united-kingdom-energy-statistics-dukes# Accessed September 2024.

NGESO (2022) The Pathway to 2030 Holistic Network Design.

Planning Inspectorate (2022) Advice Note Ten: Habitats Regulations Assessment Relevant to Nationally Significant Infrastructure Projects, version 9.