



MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Environmental Statement

Volume 1, Annex 5.4: Transboundary screening



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Prepared by:

RPS

Prepared for:

**Morgan Offshore Wind Limited,
Morecambe Offshore Windfarm Ltd**

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Glossary

| Term | Meaning |
|---|---|
| 400 kV grid connection cable corridor | The corridor within which the 400 kV grid connection cables will be located. |
| Applicain | 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. |
| Effect | The term used to express the consequence of an impact. The significance of effect is determined by correlating magnitude of the impact with the importance, or sensitivity, of the receptor or resource in accordance with defined significance criteria. |
| EIA Scoping Report | A report setting out the proposed scope of the Environmental Impact Assessment process. The Transmission Assets Scoping Report was submitted to The Planning Inspectorate (on behalf of the Secretary of State) for the Morgan and Morecambe Offshore Windfarms: Transmission Assets in October 2022. |
| 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. |
| Impact | Change that is caused by an action/proposed development, e.g., land clearing (action) during construction which results in habitat loss (impact). |
| Intertidal Infrastructure Area | The temporary and permanent areas 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). |
| Morecambe Offshore Windfarm: Generation Assets | The offshore generation assets and associated activities for the Morecambe Offshore Windfarm. |
| Morecambe OWL | Morecambe Offshore Windfarm Ltd is a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) (Cobra) 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 OWL | Morgan Offshore Wind Limited is a joint venture between bp Alternative Energy investments Ltd. and Energie Baden-Württemberg AG (EnBW). |
| Natura 2000 site | Designated nature conservation sites within a European Union country. This includes Sites of Community Importance, Special Areas of Conservation and Special Protection Areas. |
| Offshore export cables | The cables which would bring electricity from the Generation Assets to the landfall. |
| Offshore Order Limits | The area within which all components of the Transmission Assets seaward of Mean Low Water Springs will be located, including areas required on a temporary basis during construction and/or decommissioning. |
| Onshore export cables | The cables which would bring electricity from the landfall to the onshore substations. |
| Onshore Order Limits | The area within which all components of the Transmission Assets landward of Mean High Water Springs will be located, including areas required on a temporary basis during construction and/or decommissioning (such as construction compounds). |
| Onshore substations | The onshore substations will include a substation for the Morgan Offshore Wind Project: Transmission Assets and a substation for the Morecambe Offshore Windfarm: Transmission Assets. These will each comprise a compound containing the electrical components for transforming the power supplied from the generation assets to 400 kV and to adjust the power quality and power factor, as required to meet the UK Grid Code for supply to the National Grid. |
| 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. |
| Study area | This is an area which is defined for each environmental topic which includes the Transmission Assets Order Limits as well as potential spatial and temporal considerations of the impacts on relevant receptors. The study area for each topic is intended to cover the area within which an impact can be reasonably expected. |
| 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. |
| Transboundary effects | Effects from a project within one state that affect the environment of another state(s). |
| Transmission Assets | See Morgan and Morecambe Offshore Wind Farms: Transmission Assets (above). |

| Term | Meaning |
|----------------------------------|---|
| 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 (such as construction compounds). |

Acronyms

| Acronym | Meaning |
|---------|--|
| BEIS | The former Department for Business, Energy & Industrial Strategy |
| DCO | Development Consent Order |
| EEA | European Economic Area |
| EIA | Environmental Impact Assessment |
| ES | Environmental Statement |
| EU | European Union |
| GHG | Greenhouse Gas |
| HRA | Habitats Regulations Assessment |
| ISAA | Information to Support Appropriate Assessment |
| MMEA | Manx Marine Environmental Assessment |
| MNR | Marine Nature Reserve/Manx Marine Nature Reserve |
| PEIR | Preliminary Environmental Information Report |
| UK | United Kingdom |
| SSC | Suspended Sediment Concentration |
| TSC | Territorial Sea Committee |
| UXO | Unexploded Ordnance |

Units

| Unit | Description |
|-----------------|-------------------|
| km | Kilometre |
| km ² | Square kilometres |

1 Transboundary screening

1.1 Introduction

1.1.1.1 This document forms Volume 1, Annex 5.4: Transboundary screening of the Environmental Statement (ES) prepared for the Morgan and Morecambe Offshore Wind Farms: Transmission Assets (hereafter referred to as the Transmission Assets). The ES presents the findings of the Environmental Impact Assessment (EIA) process for the Transmission Assets.

1.1.1.2 Transboundary impacts relate to those impacts that may arise from an activity within one state that affect the environment or other interests of another state. This document provides the screening assessment of the potential for transboundary impacts to occur on the environment or interests of other states as a result of the Transmission Assets. The screening assessment is based on the likely spatial scale of impacts arising from the Transmission Assets and the economic interests of other states in the vicinity.

1.1.1.3 This annex presents the outcome of the transboundary screening process and sets out the topics where an assessment of transboundary effects has been undertaken. These assessments are set out in the respective technical chapters. This document provides an update to the transboundary screening report that was published within the Preliminary Environmental Information Report (PEIR).

1.2 Legislation and guidance

1.2.1 Legislative context

1.2.1.1 The need to consider transboundary impacts (and the resulting effects) has been embodied by The United Nations Economic Commission for Europe Convention on Environmental Impact Assessment in a Transboundary Context, adopted in 1991 in the Finnish city of Espoo and commonly referred to as the 'Espoo Convention'. The Convention requires that assessments are extended across borders between Parties to the Convention when a planned activity may cause significant adverse transboundary effects.

1.2.1.2 The Espoo Convention has been ratified by the United Kingdom (UK) (on behalf of the United Kingdom of Great Britain and Northern Ireland, the Bailiwick of Jersey, the Bailiwick of Guernsey, the Isle of Man and Gibraltar) and the European Union (EU). It is aimed at preventing, mitigating and monitoring environmental damage by ensuring that explicit consideration is given to transboundary environmental factors before a final decision is made as to whether to approve a project. The Espoo Convention requires that the Party of origin notifies affected Parties about activities listed in Appendix I of the Convention and likely to cause a significant adverse transboundary effect.

1.2.1.3 The Isle of Man as a Crown Dependency of the UK is not a European Economic Area ('EEA') state under Regulation 32 of the Infrastructure

Planning (EIA) 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 and apply to EEA states. As such, the Isle of Man is not considered to be a transboundary consultee for the Transmission Assets and does not need to be subject to a transboundary assessment. This position is further supported by the Planning Inspectorate's Advice Note 12 (The Planning Inspectorate, 2020). Potential impacts upon environmental receptors within the Isle of Man are being considered by the Applicants and addressed in the EIA process, where applicable. They are reported in the respective chapters of the ES.

- 1.2.1.4 The Espoo Convention was implemented by EU Directive 2011/92/EU, as amended by Directive 2014/52/EU, on the assessment of the effects of certain public and private projects on the environment (the EIA Directive). Following the UK's departure from the EU, the UK has no direct obligations under the EIA Directive, however, the requirements established under the EIA Directive (as transposed into UK law) continue to apply.
- 1.2.1.5 The EIA Directive is transposed into UK law by the 2017 EIA Regulations. Regulation 32 of the 2017 EIA Regulations sets out a prescribed process of consultation and notification in relation to transboundary effects.
- 1.2.1.6 As set out in Volume 1, Chapter 1: Introduction of the ES, the Secretary of State for the Department for Business, Energy and Industrial Strategy (BEIS) (the department which preceded the Department for Energy Security and Net Zero) has directed that the Transmission Assets are to be treated as development for which development consent is required under the Planning Act 2008, as amended. 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 the ES.

1.2.2 Guidance

- 1.2.2.1 The Planning Inspectorate's Advice Note 12 (The Planning Inspectorate, 2020) sets out the procedures for consultation in association with an application for a Development Consent Order (DCO), where such development may have significant transboundary impacts. The note sets out the roles of the Planning Inspectorate, other states and developers.
- 1.2.2.2 Applicants have no formal role under the Regulation 32 process, as the duties prescribed by Regulation 32 in notifying and consulting with other states on potential transboundary impacts are the responsibility of the Secretary of State. However, applicants are advised to:
- consider, when preparing documents for consultation and application, that the Planning Inspectorate may notify the relevant state of their particular project;
 - carry out preparatory work to complete a transboundary screening matrix to assist the Secretary of State in determining the potential for likely significant impacts on the environment in other states; and
 - submit the transboundary screening matrix along with the scoping request, if a Scoping Opinion is sought by the developer.

1.2.2.3 This transboundary screening annex is provided in response to this advice. It provides information about the Transmission Assets, which is the subject of the application for development consent. It also sets out information relating to the potential impacts of the Transmission Assets and the interests of other relevant states, to assist the Planning Inspectorate in forming a view on the likelihood of significant transboundary effects arising from the Transmission Assets. The information contained within the Annex to Advice Note 12, which sets out the criteria and relevant considerations that will be taken into account by the Planning Inspectorate during screening, have also been used in the preparation of this annex.

1.3 Consultation

- 1.3.1.1 On 28 October 2022, the Applicants submitted an EIA Scoping Report to the Secretary of State, which described the scope and methodology for the technical studies being undertaken to provide an assessment of any likely significant effects for the construction, operation and maintenance and decommissioning phases of the Transmission Assets. It also described those topics or sub-topics which are proposed to be scoped out of the EIA process and provided justification as to why the Transmission Assets would not have the potential to give rise to significant environmental effects in these areas.
- 1.3.1.2 Following consultation with the appropriate statutory bodies, the Planning Inspectorate (on behalf of the Secretary of State) provided a Scoping Opinion on 8 December 2022.
- 1.3.1.3 The Applicants published the PEIR in October 2023 to form 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. Relevant EU member states were notified by the Planning Inspectorate (on behalf of the Secretary of State) in accordance with Regulation 32 of the 2017 EIA Regulations. These states were the Republic of Ireland and Belgium.
- 1.3.1.4 Key comments raised during the consultation process specific to transboundary impacts are listed in **Table 1.1**, together with details of how relevant matters have been addressed within the ES.

Table 1.1: Summary of key consultation topics raised during consultation activities undertaken for the Transmission Assets relevant to transboundary impacts

| Date | Consultee and type of response | Topics | How and where considered in this annex? |
|-----------------|--------------------------------|--|---|
| 8 December 2022 | Isle of Man Government | <p><i>Territorial Sea Committee (TSC) would request that appropriate consideration is given to the species and habitats which are protected and designated under the Wildlife Act 1990, and ensure that there are no detrimental impacts on these features as part of this proposed project. In addition, the same would be requested in respect of the marine protected sites and the manner in which these are designated and managed, including any transboundary impacts arising from the project.</i></p> | <p>This transboundary screening identifies potential transboundary impacts to protected species and habitats in offshore transboundary impacts (section 1.4.2).</p> <p>As set out in section 1.2.1.3, the Isle of Man is a Crown Dependency of the UK and is not therefore considered to be a transboundary consultee for the Transmission Assets.</p> <p>Potential impacts upon environmental receptors within the Isle of Man are fully addressed in the EIA process and reported in the following ES chapters:</p> <ul style="list-style-type: none"> • Volume 2, Chapter 1: Physical processes of the ES; • Volume 2, Chapter 2: Benthic subtidal and intertidal ecology of the ES; • Volume 2, Chapter 3: Fish and shellfish ecology of the ES; • Volume 2, Chapter 4: Marine mammals of the ES; • Volume 2, Chapter 7: Shipping and navigation of the ES; and • Volume 2, Chapter 9: Other sea users of the ES. |
| 8 December 2022 | Isle of Man Government | <p><i>The TSC would like to draw the applicants' attention to the Manx Marine Environmental Assessment (MMEA) which provides a useful overview of the islands marine environment and should be taken into account as part of both the transboundary and possibly the also the cumulative impacts assessment as part of this application. More detail will be provided below in respect of specific areas of the MMEA that should be reviewed.</i></p> | <p>As set out in section 1.2.1.3, the Isle of Man is a Crown Dependency of the UK and is not therefore considered to be a transboundary consultee for the Transmission Assets.</p> <p>The MMEA has been considered within the relevant offshore topic chapters, including:</p> <ul style="list-style-type: none"> • Volume 2, Chapter 1: Physical processes of the ES; • Volume 2, Chapter 2: Benthic subtidal and intertidal ecology of the ES; • Volume 2, Chapter 3: Fish and shellfish ecology of the ES; |

| Date | Consultee and type of response | Topics | How and where considered in this annex? |
|-----------------|--------------------------------|--|--|
| | | | <ul style="list-style-type: none"> Volume 2, Chapter 4: Marine mammals of the ES; Volume 2, Chapter 7: Shipping and navigation of the ES; and Volume 2, Chapter 9: Other sea users of the ES. |
| 8 December 2022 | Isle of Man Government | <p><i>With respect to Table 4.10 (Relevant protected fish and shellfish species) and acknowledging the jurisdictional boundaries of the developments site, but also the migratory nature of some species; it may be relevant to note that several of these species are also protected under the Isle of Man Wildlife Act 1990. The relevance in this section is for the developer to determine, or perhaps comprehensively consider under transboundary effects and which Section 4.2.10 appears to indicate that it will be?</i></p> | <p>As set out in section 1.2.1.3, the Isle of Man is a Crown Dependency of the UK and is not therefore considered to be a transboundary consultee for the Transmission Assets.</p> <p>Potential transboundary impacts on fish and shellfish ecology have been considered within section 1.4.2 and within Volume 2, Chapter 3: Fish and shellfish ecology of the ES.</p> |
| 8 December 2022 | Isle of Man Government | <p><u>Protected Species – Transboundary impacts</u></p> <p><i>The TSC would like to confirm the Isle of Man's relevance for consideration of protected species within this issue.</i></p> <ul style="list-style-type: none"> <i>Manx Marine Nature Reserves (MNRs); as acknowledged in Table 4.14 and related Figures, several Manx MNRs specifically include cetaceans in their designation features, including presumed feeding grounds for Cardigan Bay bottlenose dolphin, regionally- important populations of Risso's dolphin and wide-ranging populations of grey seal.</i> <i>The statutorily-designated Manx MNRs are included on the Oslo and Paris Conventions, Joint Nature Conservation Committee, Protected Planet (United Nations Environment</i> | <p>As set out in section 1.2.1.3, the Isle of Man is a Crown Dependency of the UK and is not therefore considered to be a transboundary consultee for the Transmission Assets.</p> <p>Potential transboundary impacts on marine mammals (including short-beaked common dolphin <i>Delphinus delphis</i>, Risso's dolphin <i>Grampus griseu</i>, minke whale <i>Balaenoptera acutorostrata</i> and grey seal <i>Halichoerus grypus</i>) are considered within section 1.4.2.9. The marine mammal species likely to be present in the Transmission Assets marine mammal study area are outlined in Volume 2, Chapter 4: Marine mammals of the ES.</p> <p>Manx Marine Nature Reserves have been considered within the baseline for the following topic chapters:</p> <ul style="list-style-type: none"> Volume 2, Chapter 3: Fish and shellfish ecology of the ES; and Volume 2, Chapter 4: Marine mammals of the ES. |

| Date | Consultee and type of response | Topics | How and where considered in this annex? |
|-------------------|---|---|---|
| | | <p><i>World Conservation Monitoring Centre) mapping tools.</i></p> <ul style="list-style-type: none"> As noted above, the Committee recommends contacting the Manx Wildlife Trust (seals) and Manx Whale and Dolphin Watch (cetaceans) for further input on this question, and access to local data sources. | <p>Data obtained from the Manx Wildlife Trust and Manx Whale and Dolphin Watch is considered within the baseline for the following documents:</p> <ul style="list-style-type: none"> Volume 2, Chapter 4: Marine mammals of the ES; and Volume 2, Annex 4.1: Marine mammals technical report of the ES. |
| 8 December 2022 | Isle of Man Government | <p><u>Ornithology - Transboundary impacts</u></p> <p><i>The TSC welcomes the scoping in of transboundary impacts on ornithology. Despite being outside UK territorial waters, Manx bird populations may be utilising this area, which lies within the foraging ranges of many seabird species.</i></p> | <p>As set out in section 1.2.1.3, the Isle of Man is a Crown Dependency of the UK and is not therefore considered to be a transboundary consultee for the Transmission Assets.</p> <p>Potential transboundary impacts on offshore ornithology are considered within section 1.4.2.13. The ornithological species likely to be present in the Transmission Assets offshore ornithology study area are outlined in Volume 2, Chapter 5: Offshore ornithology of the ES.</p> |
| 29 September 2023 | Belgium Government | <p><i>Hereby Belgium confirms its intention to participate in the EIA procedure under Regulation 32 in relation to this Proposed Development.</i></p> | <p>This annex provides a screening of potential transboundary impacts on Belgium. Table 1.2 and Figure 1.1 set out the location of the Transmission Assets in relation to Belgium.</p> |
| 1 November 2023 | Republic of Ireland (Minister for Housing, Local Government and Heritage) | <p><i>I wish to confirm, on behalf of the Minister for Housing, Local Government and Heritage, that Ireland accepts your invitation to participate in the transboundary EIA consultation procedure in relation to the proposed development.</i></p> | <p>This annex provides a screening of potential transboundary impacts on the Republic of Ireland. Table 1.2 and Figure 1.1 set out the location of the Transmission Assets in relation to the Republic of Ireland.</p> |
| 23 November 2023 | Isle of Man Government | <p><u>6.12 Transboundary effects [of Volume 2, Chapter 6: Commercial fisheries of the PEIR]</u></p> <p><i>Noting in the Glossary, definition of: 'Transboundary Effects: Effects from a project within one state that affect the environment of another state(s).'</i></p> | <p>As set out in section 1.2.1.3, the Isle of Man is a Crown Dependency of the UK and is not therefore considered to be a transboundary consultee for the Transmission Assets.</p> <p>Potential impacts upon environmental receptors within the Isle of Man are fully addressed in the EIA process and reported in the following ES chapters:</p> |

| Date | Consultee and type of response | Topics | How and where considered in this annex? |
|------------------|--------------------------------|--|---|
| | | <p><i>-This section appears to refer to Belgian and Irish vessels only. The Isle of Man is not part of the UK, being a separate jurisdiction and with a defined territorial sea, which is subject to potential impacts from this proposed development.</i></p> <p><i>-The TSC seeks specific confirmation that the Isle of Man, as another state, has been appropriately considered in the context of Transboundary effects.</i></p> | <ul style="list-style-type: none"> • Volume 2, Chapter 1: Physical processes of the ES; • Volume 2, Chapter 2: Benthic subtidal and intertidal ecology of the ES; • Volume 2, Chapter 3: Fish and shellfish ecology of the ES; • Volume 2, Chapter 4: Marine mammals of the ES; • Volume 2, Chapter 7: Shipping and navigation of the ES; and • Volume 2, Chapter 9: Other sea users of the ES. <p>The assessments set out in Volume 2, Chapter 7: Shipping and navigation and Volume 2, Chapter 9: Other sea users of the ES consider the impact of the Transmission Assets on Isle of Man vessels.</p> |
| 23 November 2023 | Isle of Man Government | <p><u>Data sources</u></p> <p><i>The TSC would draw the applicant's attention to the Manx Marine Environmental Assessment (MMEA) which provides a useful overview of the Island's marine environment and should be taken into account as part of both the transboundary and possibly also the cumulative impacts assessment as part of this application. More detail will be provided below in respect of specific areas of the MMEA that should be reviewed.</i></p> <p><i>In addition to this broad statement, the TSC has provided specific comments, over subsequent pages, in relation to the individual chapters of the PEIR, and collated on behalf of various contributors within the responsible Departments of the Isle of Man Government.</i></p> | <p>As set out in section 1.2.1.3, the Isle of Man is a Crown Dependency of the UK and is not therefore considered to be a transboundary consultee for the Transmission Assets.</p> <p>The MMEA has been considered within the relevant offshore topic chapters, including:</p> <ul style="list-style-type: none"> • Volume 2, Chapter 1: Physical processes of the ES; • Volume 2, Chapter 2: Benthic subtidal and intertidal ecology of the ES; • Volume 2, Chapter 3: Fish and shellfish ecology of the ES; • Volume 2, Chapter 4: Marine mammals of the ES; • Volume 2, Chapter 7: Shipping and navigation of the ES; and • Volume 2, Chapter 9: Other sea users of the ES. |
| 23 November 2023 | Isle of Man Government | <p><u>Table 3.11 [of Volume 2, Chapter 3: Fish and shellfish ecology of the PEIR]</u></p> <p><i>Suggest consideration of herring as a Regional (sensitivity/value), rather than a National. Herring</i></p> | <p>As set out in section 1.2.1.3, the Isle of Man is a Crown Dependency of the UK and is not therefore considered to be a transboundary consultee for the Transmission Assets.</p> |

| Date | Consultee and type of response | Topics | How and where considered in this annex? |
|------------------|--------------------------------|--|--|
| | | <p><i>quota is allocated regionally, fished by several jurisdictions (including the Isle of Man from 2023) and life cycle stages are transboundary around the transmission assets, and with multi-jurisdictional legislation and management applicable.</i></p> <p><i>European eel similarly a regional species (potentially international), but not national. Significant transboundary relevance, including migration.</i></p> | <p>Potential transboundary impacts on fish and shellfish ecology are considered within section 1.4.2.4. The value of important ecological features (IEFs) including herring and European eel have been reviewed in line with this comment and are presented in Volume 2, Chapter 3: Fish and shellfish ecology of the ES.</p> |
| 23 November 2023 | Isle of Man Government | <p><u>3.12 Transboundary Effects [of Volume 2, Chapter 3: Fish and shellfish ecology of the PEIR]</u></p> <p><i>Noted: ‘3.12.1.1 A screening of transboundary impacts has been carried out and has identified that there was no potential for significant transboundary effects with regard to fish and shellfish ecology from the Transmission Assets upon the interests of other states.’</i></p> <p><i>Monitoring</i></p> <p><i>However, noting Tables 3.35 and 3.36, and see also comment on Future Monitoring (above), how can confirmation of no transboundary effects be achieved if no monitoring is undertaken?</i></p> | <p>As set out in section 1.2.1.3, the Isle of Man is a Crown Dependency of the UK and is not therefore considered to be a transboundary consultee for the Transmission Assets.</p> <p>Potential transboundary impacts on fish and shellfish ecology are considered within section 1.4.2.4 and within Volume 2, Chapter 3: Fish and shellfish ecology of the ES.</p> <p>Mitigation protocols for marine mammals, as set out in Volume 2, Chapter 4: Marine mammals of the ES are expected to similarly benefit some fish species. As such, it is considered that a separate protocol is not required. Where appropriate, monitoring has been recommended within Volume 2, Chapter 3: Fish and shellfish ecology of the ES where appropriate, based on the outcomes of the assessment.</p> |
| 23 November 2023 | Northwest Wildlife Trust | <p><u>Transboundary</u></p> <p><i>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</i></p> | <p>Potential impacts upon environmental receptors within the UK and the Isle of Man territorial waters are fully addressed and reported in the relevant respective ES chapters.</p> <p>This transboundary screening identifies potential transboundary impacts in other states to protected species and habitats in section 1.4.2.</p> |

| Date | Consultee and type of response | Topics | How and where considered in this annex? |
|------------------|--------------------------------|---|--|
| | | <p><i>marine environment from building offshore infrastructure on such a large scale could have significant impacts on the marine environment if not managed correctly.</i></p> | |
| 23 November 2023 | Northwest Wildlife Trust | <p><u>[2].5 Ornithology [of Volume 2, Chapter 5: Offshore ornithology of the PEIR]</u></p> <p><i>Please note due to time restraints, we have not assessed the offshore ornithology section and echo all of the Royal Society for the Protection of Birds (RSPB) comments. However, we do expect that seasonality is taken into consideration during construction in order to minimise impact to birds. We expect that all impacts will be minimised through the project design and best use of available technology. Given the number of offshore wind farms being developed in the Irish Sea, we expect a full cumulative impact assessment to be undertaken, including consideration of transboundary impacts. Concerns are raised over the possible disturbance, displacement and barrier effects on sensitive receptors, particular black-legged kittiwake and northern gannet.</i></p> | <p>Potential transboundary impacts on offshore ornithology are considered within section 1.4.2.13. The ornithological species likely to be present in the Transmission Assets offshore ornithology study area are outlined in Volume 2, Chapter 5: Offshore ornithology of the ES.</p> <p>Volume 2, Chapter 5: Offshore ornithology of the ES addresses the rest of this comment in more detail, including with regard to impacts to black-legged kittiwake <i>Rissa tridactyla</i> and northern gannet <i>Morus bassanus</i>, mitigation measures and a cumulative effects assessment.</p> |

1.4 Screening of transboundary impacts

1.4.1 Introduction

- 1.4.1.1 A series of screening matrices for potential transboundary impacts associated with the Transmission Assets are presented for the offshore physical and biological environment (**Table 1.3**), offshore human environment (**Table 1.4**), onshore environment (**Table 1.5**) and offshore and onshore combined topics (**Table 1.6**). The screening matrices have been based upon an understanding of the potential impacts arising from the Transmission Assets (on the basis of the project description presented in Volume 1, Chapter 3: Project description of the ES) and follow the suggested format set out by the Planning Inspectorate Advice Note 12: Transboundary Impacts and Process (The Planning Inspectorate, 2020).
- 1.4.1.2 The screening matrices consider all potential transboundary impacts that may occur from all phases of the Transmission Assets (i.e., construction, operation and maintenance, and decommissioning phases). The matrices also address the predicted spatial and temporal scale of potential transboundary impacts for those interests that are assessed within the ES.
- 1.4.1.3 Potential impacts upon European sites within other European states (as well as those in the UK) are considered separately within the screening process for the Habitats Regulation Assessment.
- 1.4.1.4 The nearest applicable state to the Transmission Assets is Ireland. The distance between the Transmission Assets Order Limits and the jurisdictional boundary of the nearest other states is presented in **Table 1.2** and shown on **Figure 1.1**. All other states have been scoped out of the transboundary screening process, owing to their distance from the Transmission Assets Order Limits (greater than 450 km).

Table 1.2: Summary of approximate distance to the nearest applicable states

| State | Approximate distance from the Transmission Assets Order Limits to nearest jurisdictional boundary (km) |
|-------------|--|
| Ireland | 77 |
| Netherlands | 367 |
| France | 401 |
| Belgium | 413 |

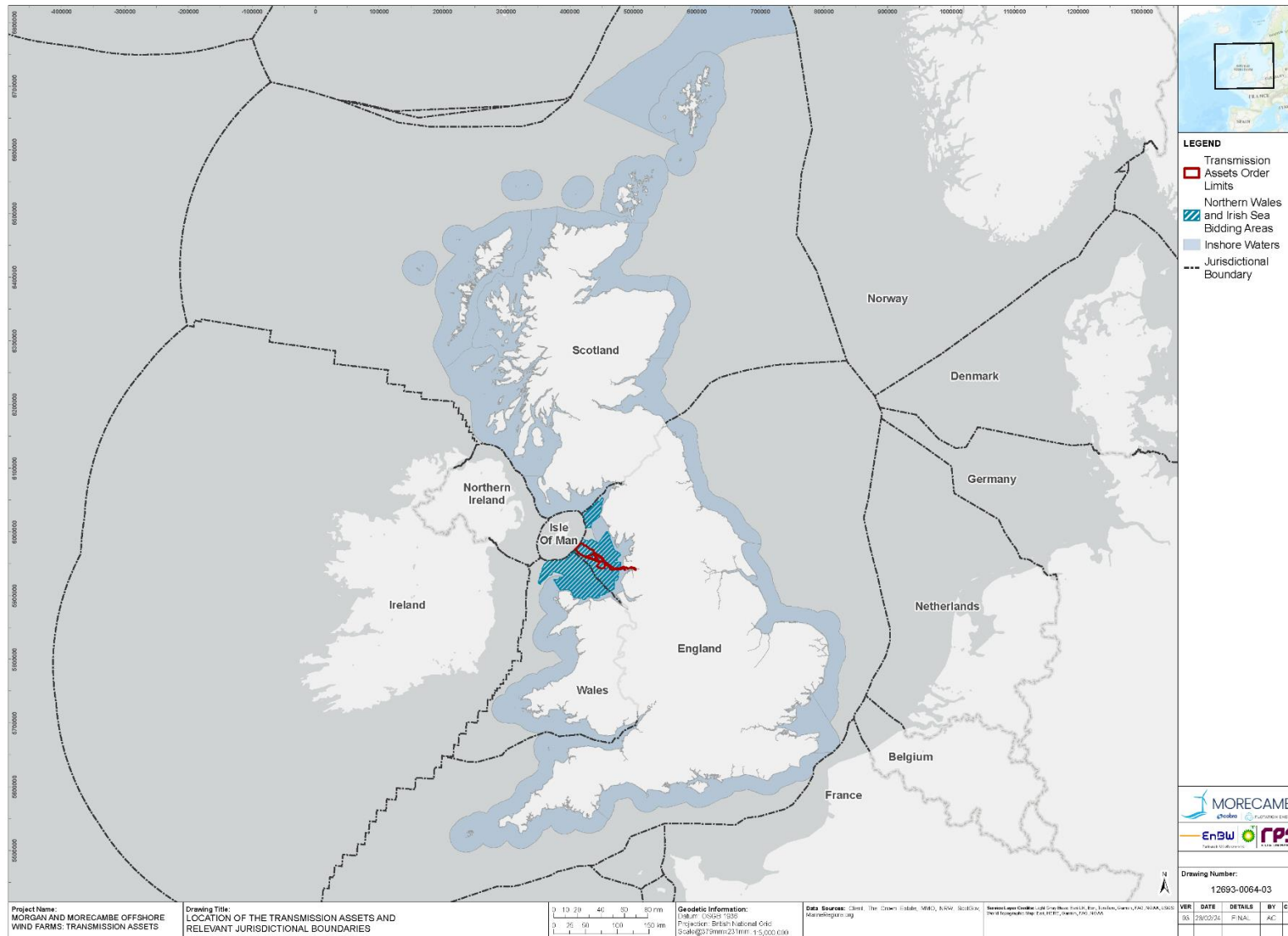


Figure 1.1: Location of the Transmission Assets and relevant jurisdictional boundaries

1.4.2 Offshore transboundary impacts

Physical and biological environment

1.4.2.1 A screening matrix has been completed for potential transboundary impacts for the offshore physical and biological environment and is presented in **Table 1.3**. The conclusions of the transboundary screening for each offshore physical and biological environment topic are presented in the following sections. Where transboundary impacts have been screened into the EIA process, the assessment is presented in the relevant ES topic chapter.

Physical processes

1.4.2.2 The offshore components of the Transmission Assets and the physical processes study area are located within UK and Isle of Man territorial waters. Any impacts on physical processes (i.e., potential changes to the wave regime, tidal regime and sediment transport due to the presence of infrastructure, and potential changes in suspended sediment concentrations due to construction, operation and maintenance, and decommissioning activities) are likely to be confined to within one spring tidal excursion of the Offshore Order Limits and the Intertidal Infrastructure Area, which defines the study area. The study area extends approximately 10 km from the Offshore Order Limits and Intertidal Infrastructure Area, therefore, no transboundary impacts with regards to physical processes are anticipated and no significant effects would arise. Therefore, potential transboundary impacts and transboundary effects upon physical processes are screened out of the EIA process.

Benthic subtidal and intertidal ecology

1.4.2.3 It is considered that there is no pathway by which direct or indirect impacts arising from the Transmission Assets could result in impacts on the benthic subtidal or intertidal ecology of another state. The extent of any predicted impacts upon benthic subtidal and intertidal ecological receptors is likely to be limited to the footprint of the offshore elements of the Transmission Assets (for temporary and long-term habitat loss and colonisation or removal of hard substrates) and within one spring tidal excursion of the Offshore Order Limits and the Intertidal Infrastructure Area (for changes in suspended sediment concentrations and associated deposition and changes in physical processes). Therefore, potential transboundary impacts upon benthic subtidal and intertidal ecology are not anticipated and no significant effects would arise. Therefore, potential transboundary impacts and transboundary effects on benthic subtidal and intertidal ecology are screened out of the EIA process.

Fish and shellfish ecology

- 1.4.2.4 There is some potential for transboundary impacts on fish and shellfish ecology due to construction, operation and maintenance and decommissioning of the offshore elements of the Transmission Assets as a result of:
- underwater sound from unexploded ordnance (UXO) clearance and geophysical surveys impacting fish and shellfish receptors;
 - underwater sound from all other activities (e.g. vessel movements); and
 - increased suspended sediment concentration (SSC) and associated sediment deposition due to sandwave clearance, and cable installation and burial.
- 1.4.2.5 The majority of impacts on fish and shellfish IEF receptors will be restricted to the within the Offshore Order Limits, Intertidal Infrastructure Area and the immediate surrounding areas (i.e., within 5 km). Exceptions to this are impacts from underwater sound and the impacts of increased SSC and associated sediment deposition, which have the potential to extend beyond the Offshore Order Limits, Intertidal Infrastructure Area and the immediate surrounding areas.
- 1.4.2.6 Potential impacts of underwater sound on fish and shellfish receptors from UXO clearance, geophysical surveys and all other activities are not predicted to extend beyond UK and Isle of Man waters.
- 1.4.2.7 The identified tidal excursion of approximately 20 km means that any increased SSC is likely to settle out before crossing any international boundaries. As a result this potential impact is unlikely to have any significant transboundary effect.
- 1.4.2.8 Based on the above assessment, no significant transboundary effects on fish and shellfish IEFs are predicted as a result of the Transmission Assets and transboundary effects are screened out of the EIA process. Potential impacts (and resulting effects) upon fish that are a qualifying feature of European sites and that occur within the fish and shellfish ecology study area are considered within the Information to Support Appropriate Assessment (ISAA) part 2 (document reference E2.2A, E2.2B, and E2.2C) where there is a clear impact/receptor pathway on these sites and features.

Marine mammals

- 1.4.2.9 There is potential for transboundary impacts upon marine mammals due to the mobile nature of these species as a result of:
- injury and disturbance from underwater sound generation from UXO detonation;
 - injury and disturbance to marine mammals from vessel use and other (non-piling) sound-producing activities; and
 - injury and disturbance from underwater sound generated from pre-construction survey activities.

- 1.4.2.10 UXO clearance could lead to large ranges over which elevations in underwater sound occur where there is high order detonation of the largest charge size. Although there would be potential localised impacts from UXO clearance, at a transboundary level these are not significant in EIA terms based on professional judgement.
- 1.4.2.11 Geophysical surveys, vessel use and other sound producing activities could also lead to large disturbance ranges (i.e., up to tens of kilometres). For animals disturbed, there is likely to be a proportional response (i.e., not all animals will be disturbed to the same extent). Therefore, although there would be effects from geophysical and geotechnical surveys, at a transboundary level these are not significant in EIA terms based on professional judgement.
- 1.4.2.12 For all other impacts, including injury to marine mammals due to collision with vessels and effects on marine mammals due to changes in prey availability, the effects are predicted to be very localised and are therefore considered unlikely to result in significant transboundary effects and transboundary effects on marine mammals are screened out of the EIA process. Potential impacts upon European Sites with marine mammals as a qualifying feature are assessed within the ISAA part 2 (document reference E2.2A, E2.2B, and E2.2C).

Offshore ornithology

- 1.4.2.13 Due to the wide foraging and migratory ranges of typical bird species in the Irish Sea, there could be potential for transboundary impacts upon offshore ornithology. In addition, a number of bird species that have been recorded in the vicinity of the Offshore Order Limits include those that are listed as qualifying features of European sites in other states. The bird species likely to be present in the Transmission Assets offshore ornithology study area are outlined in Volume 2, Chapter 5: Offshore ornithology of the ES and include true pelagic seabirds (e.g., kittiwake, guillemot and gannet), other species that spend part of their annual life cycle at sea (e.g., divers and gulls) as well as non-seabird migrants (e.g., wildfowl, waders and passerines).
- 1.4.2.14 Following assessment within Volume 2, Chapter 5: Offshore ornithology of the ES, minor effects have been identified during all stages of the Transmission Assets. Taking this into account, together with the lack of sea surface piercing infrastructure proposed and the limited geographical and temporal scope of such effects, this screening has identified that there is no potential for significant transboundary effects with regard to offshore ornithology from the Transmission Assets upon the interests of other states. As such, transboundary effects on offshore ornithology are screened out of the EIA process. Potential impacts upon European Sites with birds as a qualifying feature are assessed within the ISAA part 3 (document reference E2.3A, E2.3B, and E2.3C).

Table 1.3: Offshore transboundary screening 3atrix for the Transmission Assets - offshore physical and biological environment

| Screening criteria | Physical processes | Benthic subtidal and intertidal ecology | Fish and shellfish ecology | Marine mammals | Offshore ornithology |
|--|--|--|---|---|---|
| Characteristics of the development | For a detailed description, see Volume 1, Chapter 3: Project description of the ES. The offshore components of the Transmission Assets comprise offshore export cables. | | | | |
| Location of development (including existing use) and geographical area | The Transmission Assets Order Limits is approximately 624.3 km ² in area. The offshore elements of the Transmission Assets extend from the Morgan Offshore Wind Project: Generation Assets and the Morecambe Offshore Windfarm: Generation Assets to the coast of Lancashire. | | | | |
| Environmental importance | No transboundary impacts are predicted (see section 1.4.2). See Volume 2, Chapter 1: Physical processes of the ES. | No transboundary impacts are predicted (see section 1.4.2). See Volume 2, Chapter 2: Benthic subtidal and intertidal ecology of the ES. | No transboundary impacts are predicted (see section 1.4.2). See Volume 2, Chapter 3: Fish and shellfish ecology of the ES. | No transboundary impacts are predicted (see section 1.4.2). See Volume 2, Chapter 4: Marine mammals of the ES. | No transboundary impacts are predicted (see section 1.4.2). See Volume 2, Chapter 5: Offshore ornithology of the ES. |
| Potential impacts and carrier | | | | | |
| Extent | | | | | |
| Magnitude | | | | | |
| Probability | | | | | |
| Duration | | | | | |
| Frequency | | | | | |
| Reversibility | | | | | |
| Cumulative impacts | | | | | |
| Conclusion – potential for significant effects | No likely significant transboundary effects. | No likely significant transboundary effects. | No likely significant transboundary effects. | No likely significant transboundary effects. | No likely significant transboundary effects. |

Offshore human environment

1.4.2.15 A transboundary screening matrix has been completed for potential offshore transboundary impacts for the offshore human environment and is presented in **Table 1.4**. The conclusions of the transboundary screening for each offshore human environment topic are presented in the following sections.

Commercial fisheries

1.4.2.16 The commercial fisheries likely to be operating in the commercial fisheries study area are outlined in Volume 2, Chapter 6: Commercial fisheries of the ES and include fleets from other states, including the Republic of Ireland and Belgium. Due to the highly mobile nature of both commercial fish species and fishing fleets, there is the potential for transboundary impacts upon commercial fisheries to arise from the following two sources:

- displacement of fishing vessels; and
- potential impacts on commercially important fish and shellfish resources.

1.4.2.17 Potential impacts on both UK and foreign commercial fishing fleets have been considered as part of the impact assessment. It is predicted that there will be no likely significant effects on Irish and Belgian vessels which operate within the study area. Greater probability exists for potential impacts to occur during the construction phase, due to the presence of temporary exclusion zones around construction vessels, particularly export cable installation vessels.

1.4.2.18 As set out within **section 1.4.2.4**, potential impacts on commercially important fish and shellfish resources will be restricted to the Offshore Order Limits, Intertidal Infrastructure Area and immediate surrounding areas (i.e. within 5 km), with the exception of underwater noise and the impacts of increased SSC and associated sediment deposition. Potential impacts of underwater noise on fish and shellfish receptors, and therefore commercial fisheries receptors, are not predicted to extend beyond UK and Isle of Man territorial waters. The identified tidal excursion of approximately 20 km means that any increased SSC is likely to settle out before crossing any international boundaries. As such this potential impact is unlikely to have any significant transboundary effect on fish and shellfish stocks and therefore commercial fisheries receptors. Therefore, the potential transboundary effects on commercially important fish and shellfish stocks are concluded to be not significant in EIA terms and transboundary effects on commercial fisheries are screened out of the EIA process.

Shipping and navigation

- 1.4.2.19 The Transmission Assets are situated in the east Irish Sea where a number of shipping routes presently operate. The shipping and navigation baseline for the Transmission Assets is outlined in Volume 2, Chapter 7: Shipping and navigation of the ES.
- 1.4.2.20 A screening of transboundary impacts has been carried out and any potential for significant transboundary effects with regard to shipping and navigation from the Transmission Assets upon the interests of other states has been assessed as part of the ES. Each individual vessel may be internationally owned or operating between ports in different states. These impacts have been captured and assessed within the shipping and navigation chapter, via the impact on recognised sea lanes essential to international navigation and impact to commercial operators including strategic routes and lifeline ferries. The potential transboundary impact on shipping and navigation is concluded to not give rise to significant effects in EIA terms, as there is no surface piercing infrastructure, and any safety zones for construction and operation and maintenance activities are temporary and localised in nature. Transboundary effects on shipping and navigation are screened out of the EIA process.

Marine archaeology

- 1.4.2.21 The marine archaeology baseline for the Transmission Assets is outlined in Volume 2, Chapter 8: Marine archaeology of the ES.
- 1.4.2.22 The extent of any predicted impacts upon marine archaeology receptors is likely to be limited in extent to the footprint of the Offshore Order Limits. As the archaeology study area (Offshore Order Limits with an additional 2 km buffer which allows the site-specific data to be put into a wider context) is located entirely within UK and Isle of Man territorial waters, there is considered to be no pathway for transboundary impacts.
- 1.4.2.23 Therefore, no potential for transboundary impacts upon marine archaeology is anticipated and therefore no likely significant effects would arise. Therefore, potential transboundary impacts and effects on marine archaeology are screened out of the EIA process.

Other sea users

- 1.4.2.24 The other sea users baseline for the Transmission Assets is outlined in Volume 2, Chapter 9: Other sea users of the ES.
- 1.4.2.25 Potential transboundary impacts associated with the Transmission Assets identified for other sea user receptors include displacement of recreational sailing and motor cruising activities between the UK and Ireland and potential impacts to existing cables between the UK, Ireland (ESAT2, Havingsten 1.1 and Rockabill cables) and the United States (Hibernia Atlantic Seg. A cable). The extent of any potential impacts on recreational activities is likely to be localised and short term, as individual vessels may be displaced along their routes due to

construction, operation and maintenance or decommissioning activities occurring at any one location. Potential impacts on recreational activities are also likely to be infrequent, due to the likely lower levels of offshore cruising and racing between the UK and Ireland. The extent of any potential impacts on existing cables is also likely to be localised, short term and infrequent, associated with any construction, operation and maintenance or decommissioning activities which may overlap or cross the existing cables. Any such activities would be subject to standard cable crossing agreements and cable proximity agreements.

- 1.4.2.26 Therefore, it is considered that there is no potential for significant transboundary effects upon other users receptors and therefore transboundary impacts and effects upon other sea users are screened out of the EIA process.

Table 1.4: Offshore transboundary screening matrix for the Transmission Assets - offshore human environment

| Screening criteria | Commercial fisheries | Shipping and navigation | Marine archaeology | Other sea users |
|--|---|--|---|--|
| Characteristics of the development | For a detailed description, see Volume 1, Chapter 3: Project description of the ES. The offshore components of the Transmission Assets comprise offshore export cables. | | | |
| Location of development (including existing use) and geographical area | The Transmission Assets Order Limits is approximately 624.3 km ² in area. The offshore elements of the Transmission Assets extend from the Morgan Offshore Wind Project and the Morecambe Offshore Wind Farm Generation Assets to the coast of Lancashire. | | | |
| Environmental importance | No transboundary impacts are predicted (see section 1.4.2). See Volume 2, Chapter 6: Commercial fisheries of the ES. | No transboundary impacts are predicted (see section 1.4.2). See Volume 2, Chapter 7: Shipping and navigation of the ES. | No transboundary impacts are predicted (see section 1.4.2). See Volume 2, Chapter 8: Marine archaeology of the ES. | No transboundary impacts are predicted (see section 1.4.2). See Volume 2, Chapter 9: Other sea users of the ES. |
| Potential impacts and carrier | | | | |
| Extent | | | | |
| Magnitude | | | | |
| Probability | | | | |
| Duration | | | | |
| Frequency | | | | |
| Reversibility | | | | |
| Cumulative impacts | | | | |
| Conclusion – potential for significant effects | No likely significant transboundary effects. | No likely significant transboundary effects. | No likely significant transboundary effects. | No likely significant transboundary effects. |

1.4.3 Onshore transboundary impacts

1.4.3.1 A transboundary screening matrix has been completed for onshore transboundary impacts and is presented in **Table 1.5**. The conclusions of the transboundary screening for each onshore topic are presented, together with additional justification, in the following sections.

Geology and ground conditions

1.4.3.2 The geology and ground conditions baseline for the Transmission Assets is set out in Volume 3, Chapter 1: Geology and ground conditions of the ES.

1.4.3.3 Potential impacts on geology and ground conditions arising from the construction, operation and maintenance and decommissioning of the Transmission Assets will be confined to a localised area affected by the footprint of the Onshore Infrastructure Area. These potential impacts would occur within the Onshore Order Limits. There is no pathway by which direct or indirect impacts arising from the Transmission Assets could result in significant effects on the geology or ground conditions of another state. Potential transboundary impacts and transboundary effects on geology and ground conditions have therefore been screened out of the EIA process.

Hydrology and flood risk

1.4.3.4 The hydrology and flood risk baseline for the Transmission Assets is set out in Volume 3, Chapter 2: Hydrology and flood risk of the ES.

1.4.3.5 Potential impacts on hydrology and flood risk arising from the construction, operation and maintenance and decommissioning of the Transmission Assets will be confined to a localised area affected by the footprint of the Onshore Infrastructure Area. These potential impacts would occur within the Onshore Order Limits and/or its immediate surrounding area. There is no pathway by which direct or indirect impacts arising from the Transmission Assets could result in significant effects on the hydrology and flood risk of another state. Potential transboundary impacts and transboundary effects on hydrology and flood risk have therefore been screened out of the EIA process.

Onshore ecology and nature conservation

1.4.3.6 The onshore ecology baseline for the Transmission Assets is set out in Volume 3, Chapter 3: Onshore ecology and nature conservation of the ES.

1.4.3.7 Potential impacts on onshore ecology and nature conservation arising from the construction, operation and maintenance and decommissioning of the Transmission Assets will be confined to a localised area around the footprint of the Onshore Infrastructure Area and/or its immediate surrounding area. These potential impacts would

occur within or nearby the Onshore Order Limits. There is no pathway by which direct or indirect impacts arising from the Transmission Assets could result in significant effects on the onshore ecology and nature conservation of another state. Potential transboundary impacts and transboundary effects on onshore ecology and nature conservation have therefore been screened out of the EIA process.

Onshore and intertidal ornithology

- 1.4.3.8 The onshore and intertidal ornithology baseline for the Transmission Assets is set out in Volume 3, Chapter 4: Onshore and intertidal ornithology of the ES.
- 1.4.3.9 Estuarine Special Protection Areas and Ramsar sites in close proximity to the Onshore Order Limits and Intertidal Infrastructure Area may include a number of migratory species of bird as qualifying interest features. These species are migratory and will occur as qualifying interests in their own right, or as important assemblage features, in numerous European sites in other states. Therefore, there is potential for transboundary impacts. However, guidelines relating to transboundary impacts make it clear that proximity is an important factor and that potential transboundary impacts are primarily concerned with offshore wind energy developments where effects on highly mobile seabird species could be associated with protected sites in other states (Department for Energy and Climate Change, 2015). This implies that the qualifying feature potentially affected should originate from the protected site in the other state, rather than the idea that the qualifying feature potentially affected might also spend some of its time at a protected site in another state.
- 1.4.3.10 The onshore and intertidal elements of the Transmission Assets, as defined in Volume 1, Chapter 3: Project description of the ES, have the potential to affect the qualifying features of estuarine or terrestrial European sites and the National Site Network through short-term disturbance during construction, operation and maintenance and decommissioning activities. Due to the large distance between the Onshore Order Limits and Intertidal Infrastructure Area, and Natura 2000 sites located outside the UK, it is not considered feasible that migratory birds directly associated with Natura 2000 sites in other states would be disturbed or suffer from loss of foraging or resting opportunities in any way that would be likely to result in significant effects on those Natura 2000 sites.
- 1.4.3.11 Therefore, potential transboundary impacts and transboundary effects on onshore and intertidal ornithology have been screened out of the EIA process.

Historic environment

- 1.4.3.12 The historic environment baseline for the Transmission Assets is set out in Volume 3, Chapter 5: Historic environment of the ES.
- 1.4.3.13 Potential impacts on the onshore historic environment arising from the construction, operation and maintenance and decommissioning of the Transmission Assets will be confined to a localised area within the footprint of the onshore and intertidal elements of the Transmission Assets. These potential impacts would occur within the Onshore Order Limits, Intertidal Infrastructure Area and/or its immediate surrounding area. There is no pathway by which direct or indirect impacts arising from the Transmission Assets could result in significant effects on the onshore historic environment of another state. Therefore, potential transboundary effects on the onshore historic environment have been screened out of the EIA process.

Land use and recreation

- 1.4.3.14 The land use and recreation baseline for the Transmission Assets is set out in Volume 3, Chapter 6: Land use and recreation of the ES.
- 1.4.3.15 Potential impacts on land use and recreation arising from the construction, operation and maintenance and decommissioning of the Transmission Assets will be confined to a localised area within the footprint of the onshore and intertidal elements of the Transmission Assets. These potential impacts would occur within the Onshore Order Limits and Intertidal Infrastructure Area. There is no pathway by which direct or indirect impacts arising from the Transmission Assets could result in significant effects on the land use and recreation of another state. Therefore, potential transboundary impacts and transboundary effects on land use and recreation have been screened out of the EIA process.

Traffic and transport

- 1.4.3.16 The traffic and transport baseline for the Transmission Assets is set out in Volume 3, Chapter 7: Traffic and transport of the ES.
- 1.4.3.17 Potential impacts on traffic and transport arising from the construction, operation and maintenance and decommissioning of the Transmission Assets will be confined to a localised area of the UK highway infrastructure. There is no pathway by which potential direct or indirect impacts arising from the Transmission Assets could result in significant effects on traffic and transport in another state. Therefore, potential transboundary impacts and transboundary effects on traffic and transport have been screened out of the EIA process.

Noise and vibration

- 1.4.3.18 The noise and vibration baseline for the Transmission Assets is set out in Volume 3, Chapter 8: Noise and vibration of the ES.
- 1.4.3.19 Potential noise and vibration impacts arising from the construction, operation and maintenance and decommissioning of the Transmission Assets will be confined to a localised area in the vicinity of the Onshore Order Limits and Intertidal Infrastructure Area. There is no pathway by which potential direct or indirect impacts arising from the Transmission Assets could result in significant effects in another state. Therefore, potential transboundary impacts and transboundary effects on noise and vibration have been screened out of the EIA process.

Air quality

- 1.4.3.20 The air quality baseline for the Transmission Assets is set out in Volume 3, Chapter 9: Air quality of the ES.
- 1.4.3.21 Potential transboundary impacts to air quality arising from the construction, operation and maintenance and decommissioning of the Transmission Assets are anticipated to be minor and localised in extent and will be confined to the duration of the construction phase only. There is no pathway by which potential direct or indirect impacts arising from the Transmission Assets could result in significant effects in another state. Therefore, potential transboundary impacts and transboundary effects on air quality have been screened out of the EIA process.

Landscape and visual resources

- 1.4.3.22 The landscape and visual resources baseline for the landscape and visual resources study area is outlined in Volume 3, Chapter 10: landscape and visual resources of the ES.
- 1.4.3.23 The extent of potential impacts to landscape and visual resources receptors arising from the Transmission Assets is considered to be focused on receptors based in the UK and the Isle of Man, with no likely potential impacts at the UK/Ireland boundary (Ireland is approximately 77 km from the Onshore Order Limits and Intertidal Infrastructure Area, and as such the Transmission Assets will not be visible from Ireland, or any other EU country).
- 1.4.3.24 Potential impacts on landscape and visual resources arising from the construction, operation and maintenance and decommissioning of the Transmission Assets will be confined to a localised area in the vicinity of the Onshore Order Limits and Intertidal Infrastructure Area. There is no pathway by which potential direct or indirect impacts arising from the Transmission Assets could result in significant effects on the landscape and visual resources of another state.
- 1.4.3.25 As such, significant transboundary effects upon landscape and visual resources are not anticipated. Therefore, potential transboundary

impacts and transboundary effects on landscape and visual resources have been screened out of the EIA process.

Aviation and radar

- 1.4.3.26 The aviation and radar baseline for the Transmission Assets is outlined in Volume 3, Chapter 11: Aviation and radar of the ES.
- 1.4.3.27 Potential transboundary impacts due to the construction, operation, maintenance and decommissioning of the Transmission Assets upon aviation and radar include interference with primary surveillance radar, creation of physical obstacles to low flying aircraft, obstruction and disruption to helicopter access/egress to/from oil and gas platforms, and obstruction to Search and Rescue operations. All potential receptors identified are located in the UK and the Isle of Man territorial waters and therefore, no transboundary impacts are predicted.
- 1.4.3.28 Therefore, no significant transboundary effects upon aviation and radar are anticipated. Therefore, potential transboundary impacts and transboundary effects upon aviation and radar have been screened out of the EIA process.

Table 1.5: Onshore transboundary screening matrix for the Transmission Assets

| Screening criteria | Geology, hydrogeology and ground conditions | Hydrology and flood risk | Onshore ecology and nature conservation | Onshore and intertidal ornithology | Historic environment | Land use and recreation | Traffic and transport | Noise and vibration | Air quality | Landscape and visual resources | Aviation and radar |
|--|--|--|--|--|--|---|---|---|---|---|---|
| Characteristics of the development | For a detailed description, see Volume 1, Chapter 3: Project description of the ES. Key onshore components of the Transmission Assets include: onshore export cables, onshore substations and 400 kV grid connection cables. | | | | | | | | | | |
| Location of development (including existing use) and geographical area | The Transmission Assets Order Limits is approximately 624.3 km ² in area. Within the onshore Transmission Assets Order Limits, the onshore elements of the Transmission Assets will connect the Morecambe Offshore Windfarm and Morgan Offshore Wind Project to the existing National Grid substation at Penwortham. The onshore elements of the Transmission Assets are located within the local authority areas of Fylde Council, Blackpool Council, South Ribble Borough Council, Preston City Council and Lancashire County Council. | | | | | | | | | | |
| Environmental importance | No transboundary impacts are predicted. | No transboundary impacts are predicted. | No transboundary impacts are predicted. | No transboundary impacts are predicted. | No transboundary impacts are predicted. | No transboundary impacts are predicted. | No transboundary impacts are predicted. | No transboundary impacts are predicted. | No transboundary impacts are predicted. | No transboundary impacts are predicted. | No transboundary impacts are predicted. |
| Potential impacts and carrier | See Volume 3, Chapter 1: Geology, hydrogeology and ground conditions of the ES. | See Volume 3, Chapter 2: Hydrology and flood risk of the ES. | See Volume 3, Chapter 3: Onshore ecology and nature conservation, of the ES. | See Volume 3, Chapter 4: Onshore and intertidal ornithology of the ES. | See Volume 3, Chapter 5: Historic environment of the ES. | See Volume 3, Chapter 6: Land use and recreation of the ES. | See Volume 3, Chapter 7: Traffic and transport of the ES. | See Volume 3, Chapter 8: Noise and vibration of the ES. | See Volume 3, Chapter 9: Air quality of the ES. | See Volume 3, Chapter 10: Landscape and visual resources of the ES. | See Volume 3, Chapter 11: Aviation and radar of the ES. |
| Extent | | | | | | | | | | | |
| Magnitude | | | | | | | | | | | |
| Probability | | | | | | | | | | | |
| Duration | | | | | | | | | | | |
| Frequency | | | | | | | | | | | |
| Reversibility | | | | | | | | | | | |
| Cumulative impacts | | | | | | | | | | | |
| Conclusion – potential for significant effects | No likely significant transboundary effects. | No likely significant transboundary effects. | No likely significant transboundary effects. | No likely significant transboundary effects. | No likely significant transboundary effects. | No likely significant transboundary effects. | No likely significant transboundary effects. | No likely significant transboundary effects. | No likely significant transboundary effects. | No likely significant transboundary effects. | |

1.4.4 Offshore and onshore combined topics transboundary impacts

1.4.4.1 A transboundary screening matrix has been completed for those topics falling under the offshore and onshore combined topics and this is presented in **Table 1.6**. The conclusions of the transboundary screening for each combined topic are presented in the following sections.

Climate change

1.4.4.2 The climate change baseline and transboundary effects assessment for the Transmission Assets is outlined in Volume 4, Chapter 1: Climate change of the ES.

1.4.4.3 All developments which emit Greenhouse Gases (GHG) have the potential to impact the atmospheric mass of GHGs as a receptor, and so may have a transboundary impact on climate change. Consequently, transboundary effects due to other specific international development projects are not individually identified but are taken into account when considering the impact of the Transmission Assets by defining the atmospheric mass of GHGs as a high sensitivity receptor. Each country has its own policy and targets concerning carbon and climate change which are intended to limit GHG emissions to acceptable levels within that country's defined budget and international commitments.

1.4.4.4 Therefore, for the reasons set out in **paragraph 1.4.4.3** there is potential for significant transboundary effects on climate change.

Socio-economics

1.4.4.5 The socio-economics baseline for the Transmission Assets is outlined in Volume 4, Chapter 2: Socio-economics of the ES.

1.4.4.6 Potential transboundary socio-economics impacts upon other states may arise through the purchase of project components, equipment and the sourcing of labour from companies based outside the UK. The sourcing of materials and labour from other states is assumed to provide beneficial effects to the economies of said states, and so the consideration of measures envisaged to reduce or eliminate such effects is not relevant in the context of potential transboundary impacts.

1.4.4.7 Therefore, likely significant transboundary effects upon socio-economics are not anticipated and they are screened out of the EIA process.

Table 1.6: Offshore and onshore combined topics transboundary screening matrix for the Transmission Assets

| Screening criteria | Climate change | Socio-economics |
|--|--|--|
| Characteristics of the development | For a detailed description, see Volume 1, Chapter 3: Project description of the ES. Key offshore and onshore components of the Transmission Assets include: offshore export cables, onshore export cables, onshore substations and 400 kV grid connection cables. | |
| Location of development (including existing use) and geographical area | The Transmission Assets Order Limits is approximately 624.3 km ² in area. The offshore elements of the Transmission Assets extend from the Morgan Offshore Wind Project and the Morecambe Offshore Wind Farm to the coast of Lancashire. The onshore elements of the Transmission Assets will connect the Morecambe Offshore Windfarm and Morgan Offshore Wind Project to the existing National Grid substation at Penwortham. The onshore elements of the Transmission Assets are located within the local authority areas of Fylde Council, Blackpool Council, South Ribble Borough Council, Preston City Council and Lancashire County Council. | |
| Potential impacts and carrier | Potential beneficial transboundary impacts (see section 1.4.4). See Volume 4, Chapter 1: Climate change of the ES. | No transboundary impacts are predicted (see section 1.4.4). See Volume 4, Chapter 2: Socio-economics of the ES. |
| Extent | | |
| Magnitude | | |
| Probability | | |
| Duration | | |
| Frequency | | |
| Reversibility | | |
| Cumulative impacts | | |
| Conclusion – potential for significant effects | Potential transboundary impacts and effects. | No likely significant transboundary effects. |

1.5 Conclusions

- 1.5.1.1 On the basis of the information available presented within the ES, only climate change had the potential for likely significant transboundary effects. These effects are assessed in Volume 4, Chapter 1: Climate change of the ES.
- 1.5.1.2 There is no potential for any other likely significant transboundary effects.

1.6 References

Department of Energy and Climate Change (DECC) (2015) Guidelines on the assessment of transboundary impacts of energy developments on Natura 2000 sites outside the UK. Department of Energy and Climate Change, London.

The Planning Inspectorate (2020) Advice Note 12: Transboundary Impacts and Process: <https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-twelve-transboundary-impacts-and-process>. Accessed 2 July 2024.