

# MORGAN OFFSHORE WIND PROJECT

## Preliminary Environmental Information Report

Volume 5, annex 5.2: Transboundary impacts screening



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FINAL

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Image of an offshore wind farm

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## Glossary

Term	Meaning
Cetacean	The order Cetacea includes whales, dolphins and porpoises, collectively known as cetaceans.
Crown Dependency	Self-governing possessions of the British Crown.
European Sites	What were previously known as 'Natura' sites, including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).
The Planning Inspectorate	An executive agency of the UK Government with responsibility for making decisions and providing recommendations and advice on a range of land use planning-related issues.
Transboundary impacts	Impacts that may arise from an activity within one state that affect the environment or other interests of another state.

## Acronyms

Acronym	Description
EEA	European Environment Agency
EEZ	UK Exclusive Economic Zone
EIA	Environmental Impact Assessment
EMF	Electromagnetic field
EnBW	Energie Baden-Württemberg
EU	European Union
DCO	Development Consent Order
GHG	Green House Gas
HRA	Habitats Regulations Assessment
ISAA	Information to Support the Appropriate Assessment
LSE	Likely Significant Effect
MMO	Marine Management Organisation
MU	Management Unit
NSIP	Nationally Significant Infrastructure Project
OSP	Offshore Substation Platform
PEIR	Preliminary Environmental Impact Report
PSR	Primary Surveillance Radar
SAC	Special Area of Conservation
SAR	Search and Rescue

Acronym	Description
SCOS	Special Committee on Seals
SPA	Special Protection Area
SSC	Suspended Sediment Concentrations
UNECE	The United Nations Economic Commission for Europe
UXO	Unexploded Ordnance

## Units

Unit	Description
km	Kilometres
km <sup>2</sup>	Kilometres squared

# 1 TRANSBOUNDARY IMPACTS SCREENING

## 1.1 Introduction

1.1.1.1 Morgan Offshore Wind Limited (the Applicant), a joint venture of bp Alternative Energy Investments Ltd. (hereafter referred to as bp) and Energie Baden-Württemberg AG (hereafter referred to as EnBW) is developing the Morgan Offshore Wind Project: Generation Assets (hereafter Morgan Generation 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 report 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 Morgan Generation Assets. The screening assessment is based on what is currently known of the likely spatial scale of potential impacts arising from the Morgan Generation Assets and the economic interests of other states in the vicinity.

1.1.1.3 This report is intended to provide information to The Planning Inspectorate such that the Secretary of State can evaluate the likelihood of such significant impacts occurring and the need, if any, for transboundary consultation with other states (i.e. transboundary consultees) during the pre-application period. The screening of transboundary impacts will be revisited during the Morgan Generation Assets pre-application period during the Environmental Impact Assessment (EIA) process to ensure that any significant transboundary impacts are fully considered within the Environmental Statement submitted alongside the application for Development Consent.

1.1.1.4 It should be noted that the Isle of Man is a Crown Dependency of the UK and is therefore, not considered to be a transboundary consultee for the Morgan Generation Assets. As such, potential impacts upon environmental receptors within the Isle of Man are not considered to be transboundary and are fully considered in the Preliminary Environmental Information Report (PEIR) (see volume 2, chapters 6 to 19).

## 1.2 Legislative context

1.2.1.1 The need to consider potential transboundary impacts has been embodied by The United Nations Economic Commission for Europe (UNECE) Convention on Environmental Impact Assessment in a Transboundary Context, adopted in 1991 in the Finnish city of Espoo and is 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 impacts. The Convention 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 (which includes 'major installations for the harnessing of wind power for energy production (wind farms)') and likely to cause a significant adverse transboundary impact.

1.2.1.2 Regulation 32 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (the 2017 EIA Regulations) and regulations 18 to 20

of the Marine Works (Environmental Impact Assessment) Regulations 2007 (the 2007 EIA Regulations) set out a prescribed process of consultation and notification where the Secretary of State is of the view that a development is likely to have significant transboundary environmental effects.

## 1.3 Guidance

1.3.1.1 The Planning Inspectorate's Advice Note Twelve (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.

1.3.1.2 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 effects on the environment in other states
- Submit the transboundary screening matrix along with the scoping request, if a Scoping Opinion is sought by the developer (a transboundary impacts screening matrix was submitted with the Morgan Generation Assets Scoping report (Morgan Offshore Wind Ltd, 2022)).

1.3.1.3 This transboundary screening report provides information about the Morgan Generation Assets which will be the subject of the DCO application. It sets out information relating to the potential impacts of the Morgan Generation Assets and the interests of the other states in the vicinity, in order to assist The Planning Inspectorate in forming a view on the likelihood of significant transboundary impacts arising from the Morgan Generation Assets. The information contained within the Annex to Advice Note Twelve (The Planning Inspectorate, 2020) (including the criteria and considerations that will be taken into account by The Planning Inspectorate during screening), have also been used in the preparation of this transboundary screening report.



Figure 1.1 Location of the proposed Morgan Generation Assets and relevant transboundary jurisdictional boundaries.

## 1.4 Consultation

- 1.4.1.1 The Applicant produced an EIA Scoping Report (Morgan Offshore Wind Ltd, 2022) for the Morgan Generation Assets, which was submitted to The Planning Inspectorate and consulted on in accordance with the Planning Act 2008 plus all relevant guidance and regulations, which includes the EIA Regulations as described in section 1.2.
- 1.4.1.2 A summary of the key issues raised during consultation activities undertaken to date, that are specific to this transboundary impacts screening report, is presented in Table 1.1 below.

**Table 1.1: Summary of key consultation topics raised during consultation activities undertaken for the Morgan Generation Assets relevant to transboundary impacts.**

Date	Consultee and type of response	Topics	Response to issue raised and/or where considered in this annex
August 2022	The Planning Inspectorate – Scoping Opinion	The Inspectorate notes the information provided and agrees that significant transboundary effects to other sea users in the context of this aspect chapter are unlikely and can be scoped out of the ES.	Transboundary effects relating to other sea users are scoped out and have not been incorporated into this assessment. Please see section 5.4: Other sea users of the Morgan Generation Assets Scoping Report (Morgan Offshore Wind Ltd, 2022).
		The Inspectorate notes the information provided and agrees that significant onshore transboundary effects to seascape, landscape and visual resources are unlikely and can be scoped out of the ES.	Transboundary effects relating to seascape, landscape and visual resources are scoped out and have not been incorporated into this assessment. Please see section 9.1: Seascape, landscape and visual resources of the Morgan Generation Assets Scoping Report (Morgan Offshore Wind Ltd, 2022).
		The Inspectorate notes the information provided and agrees that significant onshore transboundary effects to are unlikely and can be scoped out of the ES.	Transboundary effects relating to onshore receptors are scoped out and have not been incorporated into this assessment. Please see section 7: Onshore biological environment and section 8: Onshore human environment of the Morgan Generation Assets Scoping Report (Morgan Offshore Wind Ltd, 2022).
		The Inspectorate notes the information provided and agrees that significant onshore transboundary effects to aviation and radar are unlikely and can be scoped out of the ES.	Transboundary effects relating to aviation and radar are scoped out and have not been incorporated into this assessment. Please see section 9.2: Aviation and Radar of the Morgan Generation Assets Scoping Report (Morgan Offshore Wind Ltd, 2022).
		The Inspectorate notes the information provided and agrees that significant onshore transboundary effects from noise and vibration are unlikely and can be scoped out of the ES.	Transboundary effects relating to noise and vibration are scoped out and have not been incorporated into this assessment. Please see section 8.4: Noise and vibration of the Morgan Generation Assets Scoping Report (Morgan Offshore Wind Ltd, 2022).
August 2022	The Marine Management Organisation	Potential transboundary impacts to fisheries and fish ecology during the construction, operation decommissioning phases have been described in Annex A of the Morgan Generation Assets Scoping Report (Morgan Offshore Wind Ltd, 2022). The potential transboundary impacts to be scoped into the EIA process include underwater noise, loss of fish habitat, disturbance to habitat due to increased sediment concentrations (SSCs) and associated sediment deposition. The MMO agrees that these impacts are appropriate, and that suitable consideration has been given regarding the scale of study area.	Potential transboundary impacts on fish and shellfish have been included within section 1.6.1 and volume 2, chapter 8: Fish and shellfish ecology of the PEIR.
August 2022	Natural England – Scoping Opinion	Marine mammal management units <sup>1</sup> should be used to screen in transboundary sites.	Marine mammal management units have been considered within section 1.6.1 and volume 2, chapter 9: Marine mammals of the PEIR.

<sup>1</sup> Management units (MUs) for marine mammals in UK waters, which provide an indication of the spatial scales at which impacts of plans and projects alone, cumulatively and in combination, need to be assessed for the key cetacean species in UK waters, with consistency across the UK. For cetaceans, these management units are defined by the Inter-Agency Marine Mammal Working Group. For seal species (grey and harbour seals), the Special Committee on Seals (SCOS) provided advice on seal Mus.



## 1.5 Screening of transboundary impacts

- 1.5.1.1 A series of screening matrices for potential transboundary impacts associated with the Morgan Generation Assets are presented for the offshore physical and biological environment (Table 1.3) and offshore human environment (Table 1.4). These screening matrices have been based upon an initial understanding of the potential impacts arising from the Morgan Generation Assets (on the basis of the project description presented in volume 1, chapter 3: Project description of the PEIR and follow the suggested format set out by The Planning Inspectorate (2020).
- 1.5.1.2 The screening matrices consider all potential transboundary impacts that may occur from all phases of the Morgan Generation Assets (i.e. construction, operation and maintenance, and decommissioning). The matrices also address the predicted spatial and temporal scale of potential transboundary impacts for those interests that are assessed within this PEIR.
- 1.5.1.3 Potential impacts upon European Sites within other European Environment Agency (EEA) states (as well as those in the UK) are considered separately within the screening process for the Habitats Regulation Assessment (HRA).
- 1.5.1.4 The distance of the Morgan Generation Assets from the jurisdictional boundary of applicable states is presented in Table 1.2.

**Table 1.2: Summary of distance from the Morgan Generation Assets to the nearest applicable states.**

State	Approximate Distance from the Morgan Array Area to applicable state border (km)
Ireland	124
Belgium	534.20

## 1.6 Offshore transboundary impacts

### 1.6.1 Physical and biological environment

- 1.6.1.1 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 PEIR topic chapter.

#### Physical processes

- 1.6.1.2 The Morgan Generation Assets are located entirely within the UK Exclusive Economic Zone (EEZ). Any potential impacts on physical processes are likely to be confined to within one tidal excursion of the Morgan Generation Assets (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 (SSC) related to construction and maintenance activities).

- 1.6.1.3 No transboundary impacts upon physical processes are anticipated. It is proposed that transboundary impacts upon physical processes are screened out of the EIA process.

#### Benthic subtidal and intertidal ecology

- 1.6.1.4 It is considered that there is no pathway by which direct or indirect impacts arising from the Morgan Generation Assets would have the potential to significantly affect 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 Morgan Generation Assets (for temporary and long-term habitat loss and colonisation or removal of hard substrates) and within one tidal excursion of the Morgan Generation Assets (for changes in SSCs and associated deposition and changes in physical processes).
- 1.6.1.5 No potential transboundary impacts upon benthic subtidal and intertidal ecology are anticipated. It is proposed that transboundary impacts on benthic subtidal and intertidal ecology are screened out of the EIA process.

#### Fish and shellfish ecology

- 1.6.1.6 There is potential for transboundary impacts upon fish and shellfish ecology due to construction, operation and maintenance and decommissioning phases of the Morgan Generation Assets.
- 1.6.1.7 These include the potential for direct impacts due to underwater noise from piling operations and indirect impacts caused by loss of fish and shellfish habitat or disturbance to habitat due to increased SSCs and associated sediment deposition from the installation and decommissioning of foundations and cables.
- 1.6.1.8 These activities have the potential to directly affect Annex II migratory fish species that are listed as features of European Sites in other states, or species that are of commercial importance for fishing fleets of other states. Indirect impacts may include loss of or disturbance to fish spawning and nursery habitats in the Irish Sea that are important for migratory fish species either designated as Annex II species or of commercial importance to other states. The fish and shellfish receptors likely to be present within the Morgan Generation Assets fish and shellfish study area are outlined in full in volume 2, chapter 8: Fish and shellfish ecology of the PEIR and include a number of commercially important species as well as diadromous species likely to be found in the area. Volume 2, chapter 8: Fish and shellfish ecology of the PEIR also identifies the spawning and nursery grounds located within and around the Morgan Generation Assets.
- 1.6.1.9 An assessment of the potential impacts related to construction, particularly as a result of underwater noise from piling, is presented in volume 2, chapter 8: Fish and shellfish ecology of the PEIR (including both a Morgan Generation Assets assessment and a cumulative assessment). The majority of potential impacts related to construction are considered likely to be short term and temporary. The operations and maintenance phase is considered less likely to result in likely significant effects, due to potential impacts being limited spatially (i.e. within the boundaries of the Morgan Generation Assets). Although the potential impacts associated with long term habitat loss are, by nature, longer term impacts which may be reversible depending on the decommissioning strategy.

1.6.1.10 It is proposed that potential transboundary impacts on fish and shellfish ecology and their nature conservation interests are screened into the EIA process. A transboundary assessment has been completed and is included in volume 2, chapter 8: Fish and shellfish ecology of the PEIR. Potential impacts upon European Sites with fish as a qualifying feature are assessed within the Information to Support the Appropriate Assessment (ISAA).

**Marine mammals**

1.6.1.11 There is potential for transboundary impacts upon marine mammals due to the mobile nature of marine mammal species. The marine mammal species likely to be present in the Morgan marine mammal study area are outlined in volume 2, chapter 9: Marine mammals of the PEIR. Key species include harbour porpoise, bottlenose dolphin, short-beaked common dolphin, Risso's dolphin, minke whale and grey seal.

1.6.1.12 Direct impacts may occur due to underwater noise generated during construction and decommissioning, including noise associated with construction and vessel activity. Pile driving during the installation of foundations and pre-construction clearance of Unexploded Ordnance (UXO) are key potential impacts linked to elevated underwater noise. Potential indirect effects to marine mammal receptors from changes in prey availability could occur as a result of factors such as habitat loss, underwater noise, increased SSCs and associated sediment deposition and other potential impacts scoped in for fish and shellfish receptors. The operational and maintenance phase is considered less likely to result in significant effects although the potential effects associated with the operational noise of turbines and Electromagnetic Fields (EMF) are, by nature, longer term and reversible depending on the decommissioning strategy.

1.6.1.13 An assessment of the potential impacts to marine mammals occurring during construction, particularly as a result of underwater noise from piling, is presented in volume 2, chapter 9: Marine mammals of the PEIR (including both a Morgan Generation Assets assessment and a cumulative assessment). However, the majority of potential likely significant effects related to construction are considered likely to be short term and temporary.

1.6.1.14 It is proposed that potential transboundary impacts to marine mammals and their nature conservation interests are screened into the EIA process. A transboundary assessment has been completed and is included in volume 2, chapter 9: Marine mammals of the PEIR. Potential impacts to European Sites with marine mammals as a qualifying feature will be assessed within the draft HRA.

**Offshore ornithology**

1.6.1.15 There is potential for transboundary impacts to ornithological receptors due to the wide foraging and migratory ranges of typical bird species in the Irish Sea. In addition, a number of bird species that have been recorded in the vicinity of the Morgan Generation Assets include those that are listed as qualifying features of European Sites in other states. The bird species likely to be present in the Morgan Array Area are outlined in volume 2, chapter 10: Offshore ornithology of the PEIR 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).

1.6.1.16 The key potential direct impacts for ornithological receptors are likely to arise during the operational and maintenance phase as a result of collision risk with rotating wind turbine blades which may result in direct mortality of individuals, and barrier to movement caused by the physical presence of structures which may prevent clear transit of birds between foraging and breeding sites, or on migration. Potential direct impacts to ornithological receptors may, however, also occur due to temporary habitat loss/disturbance across all phases of the Morgan Generation Assets and permanent habitat loss during the operational and maintenance phase. Potential indirect impacts may cause disturbance to prey (fish) species from important bird feeding areas or changes to prey availability due to changes to physical processes and habitat as a result of the presence of operational infrastructure.

1.6.1.17 It is likely that there will be impacts to ornithological receptors occurring during the operational and maintenance phase, particularly as a result of disturbance and displacement and collision risk. Unlike the majority of potential impacts during construction, which are considered likely to be short term and temporary, potential impacts during the operational and maintenance phase are likely to be long term, continuous and of varying spatial extent depending on the species. Although it is likely that they will be reversible following the decommissioning of the Morgan Generation Assets.

1.6.1.18 It is proposed that potential transboundary impacts related to offshore ornithology and their nature conservation interests are screened into the EIA process. A transboundary assessment has been completed and is included in volume 2, chapter 10: Offshore ornithology of the PEIR. Potential impacts upon European Sites with birds as a qualifying feature have been assessed within the draft HRA.

**Table 1.3: Transboundary screening matrix for the Morgan Generation 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 PEIR. Key components of the Morgan Generation Assets include: wind turbines, foundations, scour protection, inter-array cables, interconnector cables and offshore substation platforms (OSPs). The Morgan Generation Assets will include all associated offshore infrastructure (including up to 107 wind turbines and four OSPs).				
Location of development (including existing use) and geographical area	The Morgan Array Area is approximately 322km <sup>2</sup> in area and is located approximately 22km (12nm) from the Isle of Man coastline, 36km (19nm) from the northwest coast of England and 77.3km from the Irish EEZ (i.e. the median line between UK and Irish waters).				
Environmental importance	No significant transboundary impacts are predicted (see volume 2, chapter 6: Physical processes of the PEIR). Screened out.	No significant transboundary impacts are predicted (see volume 2, chapter 7: Benthic subtidal and intertidal ecology of the PEIR). Screened out.	Potential transboundary impact (see volume 2, chapter 8: Fish and shellfish ecology of the PEIR).	Potential transboundary impact (see volume 2, chapter 9 Marine mammals of the PEIR).	Potential transboundary impact (see volume 2, chapter 10 Offshore ornithology of the PEIR).
Potential impacts and carrier					
Extent					
Magnitude					
Probability					
Duration					
Frequency					
Reversibility					
Cumulative impacts					

## 1.6.2 Human environment

1.6.2.1 A transboundary screening matrix has been completed for potential 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

1.6.2.2 The commercial fisheries likely to be operating in the Morgan Generation Assets commercial fisheries study area are outlined in volume 2, chapter 11: Commercial fisheries of the PEIR and include fleets from other states, including 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 two sources:

- Potential impacts on commercial fishing fleets as a result of loss or restricted access to fishing grounds from the Morgan Generation Assets on commercially important fish and shellfish resources
- Potential impacts on commercial fishing fleets as a result of constraints on commercial fishing activities operating in the vicinity of the Morgan Generation Assets. These impacts may include loss or restricted access to fishing grounds and potential displacement of fishing activity into other areas.

1.6.2.3 An assessment of the potential impacts related to the operational and maintenance phase is presented in volume 2, chapter 11: Commercial fisheries of the PEIR (including both a Morgan Generation Assets assessment and a cumulative assessment). It is likely that any impacts from the final installed design would be reversible after decommissioning, as it is anticipated that all structures above the seabed will be completely removed, and fishing activity would be able to resume once decommissioning is completed. The construction phase is considered less likely to result in likely significant effects although any impacts associated with the presence of infrastructure will progressively increase as the development is progressed.

1.6.2.4 It is proposed that transboundary impacts to commercial fisheries are screened into the EIA process.

### Shipping and navigation

1.6.2.5 The Morgan Generation Assets are situated in the east Irish Sea where a number of shipping routes presently operate. The shipping and navigation baseline for the Morgan Generation Assets is outlined in volume 2, chapter 12: Shipping and navigation of the PEIR.

1.6.2.6 There is potential for transboundary impacts on shipping routes which transit to/from other states, including Ireland. An assessment of the potential impacts occurring during the operational and maintenance phase is presented in volume 2, chapter 12: Shipping and navigation of the PEIR (including both a Morgan Generation Assets assessment and a cumulative assessment). Although such potential impacts are anticipated to be long term, it is likely that they would be reversible after decommissioning, as it is anticipated that all structures above the seabed will be completely removed. The construction phase is considered less likely to result in likely significant effects although the impacts associated with the interference caused by the

presence of infrastructure on shipping and navigation will progressively increase as the Morgan Generation Assets is progressed.

1.6.2.7 It is proposed that potential transboundary impacts on shipping and navigation are screened into the EIA process. A transboundary assessment has been completed and is included in volume 2, chapter 12: Shipping and navigation of the PEIR.

### Marine archaeology

1.6.2.8 The marine archaeology baseline for the Morgan Generation Assets is outlined in volume 2, chapter 13: Marine archaeology of the PEIR.

1.6.2.9 The extent of any potential impacts upon marine archaeology receptors are likely to be limited to the Morgan Array Area. It is considered that there would be no pathway for impacts beyond the Morgan Generation Assets marine archaeology study area. As the extent of that study area is entirely within UK waters, it is considered that there would be no transboundary impacts.

1.6.2.10 No transboundary impacts upon marine archaeology are anticipated. It is proposed that transboundary impacts upon marine archaeology are screened out of the EIA process.

### Other sea users

1.6.2.11 The baseline for other sea users for the Morgan Generation Assets is outlined in volume 2, chapter 14: Other sea users of the PEIR.

1.6.2.12 Potential transboundary impacts associated with the Morgan Offshore Wind Project generation assets identified for other sea users receptors include the potential displacement of recreational sailing and motor cruising activities between the UK and Ireland. 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, 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. An assessment of the impacts occurring during operation is presented in volume 2, chapter 14: Other sea users of the PEIR (including both a Morgan Generation Assets assessment and a cumulative assessment).

1.6.2.13 No other potential transboundary impacts upon other sea users are anticipated. It is proposed that transboundary impacts upon other sea users are screened out of the EIA process.

**Table 1.4: Transboundary screening matrix for the Morgan Generation Assets – offshore human environment.**

Screening criteria	Commercial fisheries	Shipping and navigation	Marine archaeology	Other sea users
Characteristics of the development	<p>For a detailed description, see volume 1, chapter 3: Project description of the PEIR.</p> <p>Key components of the Morgan Generation Assets include: wind turbines, foundations, scour protection, inter-array cables, interconnector cables and offshore substation platforms (OSPs).</p> <p>The Morgan Generation Assets will include all associated offshore infrastructure (including up to 107 wind turbines and four OSPs).</p>			
Location of development (including existing use) and geographical area	<p>The Morgan Array Area is approximately 322km<sup>2</sup> in area and is located approximately 22km (12nm) from the Isle of Man coastline, 36km (19nm) from the northwest coast of England, 77.3km from the Irish EEZ (i.e. the median line between UK and Irish waters) and 534km from the coast of Belgium (when measured from Mean High Water Springs (MHWS)).</p>			
Environmental importance	<p>Potential transboundary impact (see volume 2, chapter 11: Commercial fisheries of the PEIR).</p>	<p>Potential transboundary impact (see volume 2, chapter 12: Shipping and navigation of the PEIR).</p>	<p>No significant transboundary impacts are predicted (see volume 2, chapter 13: Marine archaeology of the PEIR). Screened out.</p>	<p>No significant transboundary impacts are predicted (see volume 2, chapter 14: Other sea users of the PEIR). Screened out.</p>
Potential impacts and carrier				
Extent				
Magnitude				
Probability				
Duration				
Frequency				
Reversibility				
Cumulative impacts				

## 1.7 Offshore and onshore combined topics transboundary impacts

1.7.1.1 A transboundary screening matrix has been completed for those topics falling under the offshore and onshore combined topics and this is presented in Table 1.5. The conclusions of the transboundary screening for each combined topic are presented in the following sections.

### 1.7.1 Seascape, landscape and visual resources

1.7.1.1 The seascape, landscape and visual resources baseline for the Morgan Generation Assets study area is outlined in volume 2, chapter 15: Seascape, landscape and visual resources of the PEIR.

1.7.1.2 The extent of potential impacts to seascape, landscape and visual resources receptors arising from the Morgan Generation Assets is considered to be focused on receptors based in the UK and the Isle of Man, with any potential impacts at the UK/Ireland boundary considered to be transient and negligible.

1.7.1.3 Transboundary impacts upon seascape, landscape and visual resources are not anticipated and it is proposed that they are screened out of the EIA process.

### 1.7.2 Socio-economics and community

1.7.2.1 The socio-economics baseline for the Morgan Generation Assets is outlined in volume 2, chapter 18: Socio-economics and community of the PEIR.

1.7.2.2 It is considered that potential transboundary impacts upon socioeconomic and community receptors due to the construction, operation and maintenance and decommissioning of the Morgan Generation Assets are not likely. The initial short list of ports under consideration to support the construction, operation and maintenance and decommissioning of the Morgan Generation Assets identified in volume 2, chapter 18: Socio-economics and community of the PEIR, are located within the UK. The development and operation of the Morgan Generation Assets will also promote opportunities for local procurement, skills development and recruitment.

1.7.2.3 Transboundary impacts upon socio economics and community are not anticipated and it is proposed that they are screened out of the EIA process.

### 1.7.3 Aviation and Radar

1.7.3.1 The aviation and radar baseline for the Morgan Generation Assets is outlined in volume 2, chapter 16: Aviation and radar of the PEIR.

1.7.3.2 Potential impacts on aviation and radar include potential interference with Primary Surveillance Radar (PSR), 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 (SAR) operations. All potential receptors identified are located in the UK and the Isle of Man and therefore no transboundary effects are predicted.

1.7.3.3 Transboundary impacts upon aviation and radar are not anticipated and it is proposed that they are screened out of the EIA process.

## 1.7.4 Climate change

1.7.4.1 The climate change baseline for the Morgan Generation Assets is outlined in volume 2, chapter 17: Climate change of the PEIR.

1.7.4.2 Potential transboundary impacts associated with the Morgan Generation Assets have been identified in volume 2, chapter 17: Climate change of the PEIR, whilst noting that over the lifetime of the Morgan Offshore Wind Project, potential transboundary impacts are likely to be beneficial. All development processes which emit Green House Gases (GHGs) have the potential to impact the atmospheric mass of GHGs as a receptor and may have a transboundary impact on climate change. Transboundary effects due to other specific international development projects are taken into account when evaluating the impact of the Morgan Generation Assets by defining the atmospheric mass of GHGs as a high sensitivity receptor.

1.7.4.3 It is proposed that transboundary impacts on climate change are screened into the EIA process.

## 1.8 Conclusions

1.8.1.1 On the basis of the current information available and presented within the PEIR it is not possible to conclude there will be no likely significant effects on the following topics at this stage, and they have therefore been screened into the EIA process:

- Fish and shellfish ecology
- Marine mammals
- Offshore ornithology
- Commercial fisheries
- Shipping and navigation; and
- Climate change.

**Table 1.5: Transboundary screening matrix for the Morgan Generation Assets - offshore and onshore combined topics.**

Screening criteria	Seascape, landscape and visual resources	Socio-economics and community	Aviation and radar	Climate change
Characteristics of the development	For a detailed description, see volume 1, chapter 3: Project description of the PEIR. Key components of the Morgan Generation Assets include: wind turbines, foundations, scour protection, inter-array cables, interconnector cables and offshore substation platforms (OSPs). The Morgan Generation Assets will include all associated offshore infrastructure (including up to 107 wind turbines and four OSPs).			
Location of development (including existing use) and geographical area	The Morgan Array Area is approximately 322km <sup>2</sup> in area and is located approximately 22km (12nm) from the Isle of Man coastline, 36km (19nm) from the northwest coast of England and 77.3km from the Irish EEZ (i.e. the median line between UK and Irish waters).			
Environmental importance	No significant transboundary impacts are predicted (see volume 2, chapter 15, Seascape, landscape and visual resources of the PEIR). Screened out.	No significant transboundary impacts are predicted (see volume 2, chapter 16, Socio-economics and community of the PEIR). Screened out.	No significant transboundary impacts are predicted (see volume 2, chapter 17, Aviation and radar of the PEIR). Screened out.	Potential transboundary impact (see volume 2, chapter 18, Climate change of the PEIR).
Potential impacts and carrier				
Extent				
Magnitude				
Probability				
Duration				
Frequency				
Reversibility				
Cumulative impacts				

## 1.9 References

The Planning Inspectorate (2015) Advice Note Twelve: Transboundary Impacts. Available at: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-twelve-transboundary-impacts-and-process/> Accessed February 2023.

The Planning Inspectorate (2016) Advice Note Ten: Habitats Regulations Assessment Relevant to Nationally Significant Infrastructure Projects. Available at: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-ten/> Accessed February 2023.

The Planning Inspectorate (2022) Scoping Opinion: Proposed Morgan Offshore Wind Project. Available at: [https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010136/EN010136-000057-EN010136\\_Morgan%20OWF%20Scoping%20Opinion.pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010136/EN010136-000057-EN010136_Morgan%20OWF%20Scoping%20Opinion.pdf). Accessed October 2022.

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