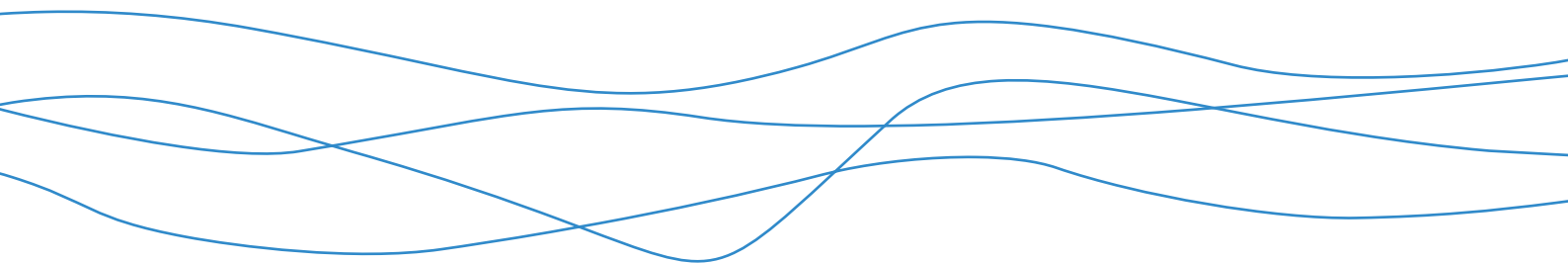




Bowdun Offshore Wind Farm, Offshore EIA Report

Volume 3, Technical Appendix 4.5:
Transboundary Impacts – Screening

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Contents

1	Introduction.....	1
1.2	Background	1
2	Consultation	6
3	Screening of Transboundary Impacts	8
3.2	Physical and Biological Environment.....	8
3.3	Human Environment.....	10
4	Conclusions	12
	References	15

List of Tables

Table 2.1: Distances of EEA States from the Proposed Development.....	6
Table 2.2: Summary of Key Transboundary Issues Raised During Consultation	7
Table 4.1: A Summary of the Transboundary Effects of Each Topic Outlined Within Individual Chapters	12

List of Figures

Figure 1.1: Location of the Proposed Development in Relation to Jurisdictions of Other EEA.....	2
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Glossary

Defined Term	Definition
Aarhus Convention	Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters
Applicant (the)	Bowdun Offshore Wind Farm Limited (BOWFL).
Array Area	The Array Area is the area in which the Offshore Generation Assets will be located.
Bowdun Offshore Wind Farm Limited (BOWFL)	A Special Purpose Vehicle (SPV) (legal entity) for the purpose of developing the Project. BOWFL are the Applicant for the Offshore Application.
Effect	Term used to express the consequence of an impact (i.e. the result of change or changes on specific environmental resources or receptors). The significance of an effect is determined by correlating the magnitude of the impact with the importance, or sensitivity of the receptor or resource in accordance with defined significance criteria.
Environmental Impact Assessment (EIA)	Process for the assessment of likely significant environmental effects of a project on the physical, biological and human environment during construction, Operation and Maintenance (O&M) and decommissioning.
Environmental Impact Assessment Regulations (EIA Regulations)	Terminology used in this Offshore EIA Report to refer to three sets of regulations: • The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017; • The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017; and • The Marine Works (Environmental Impact Assessment) Regulations 2007
European Economic Area (EEA)	The European Economic Area consists of the Member States of the European Union (EU) and three countries of the European Free Trade Association - Iceland, Liechtenstein and Norway; excluding Switzerland.
Exclusive Economic Zone (EEZ)	An area from the outer limit of the territorial sea up to 200 nm from the coastal baseline, over which a sovereign state has rights regarding marine resources.
Export Cable Corridor	The area seaward of Mean High Water Springs (MHWS) which connects the Array Area with the Landfall within which the Offshore Export Cables will be installed.
Impact	A change caused by an action that occurs during a project's lifetime.
Inter-Array Cables (IAC)	Cables which link the Wind Turbines to each other and with the Offshore Substation Platforms (OSPs).
Interconnector Cables	Cables which will connect individual OSPs to each other to provide redundancy against cable failure elsewhere.
Offshore Environmental Impact Assessment (EIA) Report (hereafter, 'Offshore EIA Report')	Document prepared to report the findings of the EIA for the Proposed Development and produced in accordance with the EIA Regulations. The Offshore EIA Report is submitted to support the Offshore Application for the Proposed Development, and to comply with EIA Regulations.
Offshore Export Cables	Subsea cables used to transmit electricity generated offshore by the Wind Turbines from the OSPs to shore. The Transition Joint Bay (TJB) is the location where the Offshore Export Cables terminate, and the onshore cabling begins.

Defined Term	Definition
Offshore Generation Assets	The infrastructure of the Proposed Development required to generate electricity comprising of the Wind Turbines, Wind Turbine foundations and associated infrastructure e.g. IACs.
Offshore Infrastructure	All of the Offshore Infrastructure associated with the Proposed Development that is located seaward of MHWS, comprising the Offshore Generation Assets and the Offshore Transmission Assets.
Offshore Scoping Report	The report that presents the findings of the EIA scoping process undertaken for the Proposed Development with the purpose of obtaining a Scoping Opinion. The Offshore Scoping Report defines what is intended to be assessed and reported as part of the EIA.
Offshore Substation Platform(s) (OSPs)	OSPs comprise the support structure, topside and electrical components used for collecting and/or converting electricity generated by the Wind Turbines for transmission by the Offshore Export Cables.
Offshore Transmission Assets	The infrastructure of the Proposed Development required to transmit the generated electricity comprising of the OSPs, Offshore Export Cables and associated infrastructure up to MHWS.
Onshore Transmission Assets	The transmission infrastructure associated with the Project above MLWS which is subject to the Planning Permission in Principle (PPP) Application submitted to Aberdeenshire Council (REF: APP/2025/1952).
Operation and Maintenance (O&M)	The phase of the Proposed Development following completion of construction. This phase of development includes routine inspections, repairs and replacement of infrastructure and equipment (including Interconnector Cables and IACs), Scour Protection replenishment or replacement, major component replacement, painting and/or other coating works, removal of marine growth, and replacement of access ladders.
Party	A State becomes a party to a Convention and Optional Protocol by signing and ratifying either instrument or by acceding to them.
Project (the)	An overarching term for the Bowdun Offshore Wind Farm (Bowdun OWF) comprising the offshore and onshore infrastructure required to generate and transmit electricity from the Array Area to the onshore Grid Connection Point (GCP). The Project includes the Offshore Generation Assets, the Offshore Transmission Assets and the Onshore Transmission Assets.
Proposed Development	Term used to define the Offshore Infrastructure associated with the Project seaward of MHWS for which consent is being sought. Further details of the parameters are included in Volume 1, Chapter 3: Project Description.
Study Area	For each environmental topic, the baseline environment will be characterised, and the potential environmental impacts will be described within a topic-specific study area. Specific study areas are defined for each topic and are based on the maximum spatial extent across which potential impacts of the Project may be experienced by the relevant receptors (i.e. Zone of Influence).
Thistle Wind Partners (TWP)	Company established for the development of the Project.
Wind Turbines	Structures comprising of a tubular tower, rotor blades, and a nacelle which houses the Wind Turbine generator.

Acronyms

Acronym	Definition
BOWFL	Bowdun Offshore Wind Farm Limited
EEA	Exclusive Economic Area
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EU	European Union
GHG	Greenhouse Gas
IAC	Inter-Array Cable
MD-LOT	Marine Directorate – Licensing Operations Team
O&M	Operation and Maintenance
OSPs	Offshore Substation Platforms
PINS	Planning Inspectorate
UNECE	United Nations Economic Commission for Europe
UK	United Kingdom

Table of Units

Units	Definition
km	Kilometre
km²	Square kilometre
nm	Nautical mile

1 Introduction

- 1.1.1 This Transboundary Impacts Screening Technical Report presents description and assessment of the potential transboundary impacts associated with the offshore elements of the Bowdun Offshore Wind Farm (OWF) (hereafter referred to as the 'Proposed Development'). The Proposed Development covers the Option to Lease Agreement (OLA) that is located in the E3 Plan Option Area (POA), detailed in the Sectoral Marine Plan (SMP) for Offshore Wind Energy (Scottish Government, 2020), and the Export Cable Corridor. The Array Area, located 38 km offshore at its closest point, is an area of 187 km² and will comprises the Wind Turbines (fixed foundation), Inter-Array Cables (IACs), Offshore Substation Platforms (OSPs), Interconnector Cables and any necessary scour/cable protection. The Export Cable Corridor consists of up to three Offshore Export Cables which make Landfall at Benholm, Aberdeenshire.
- 1.1.2 This report supports the Environmental Impacts Assessment (EIA) Report for the Proposed Development's consent application. It provides a concise overview and evaluation of potential transboundary impacts from the Proposed Development during construction, Operation and Maintenance (O&M), and decommissioning phases. This technical report aims to provide Scottish Ministers with the required information to inform their evaluation of the likelihood of significant transboundary effects associated with the Proposed Development and the potential requirement for consultation with European Economic Area (EEA) states.

1.2 Background

- 1.2.1 Potential transboundary impacts are those impacts which may arise as a result of the Proposed Development having the potential to significantly affect the environment of an EEA state(s). The location of the Proposed Development in relation to the Exclusive Economic Zones (EEZ) of EEA states and the United Kingdom (UK) is shown in Figure 1.1.

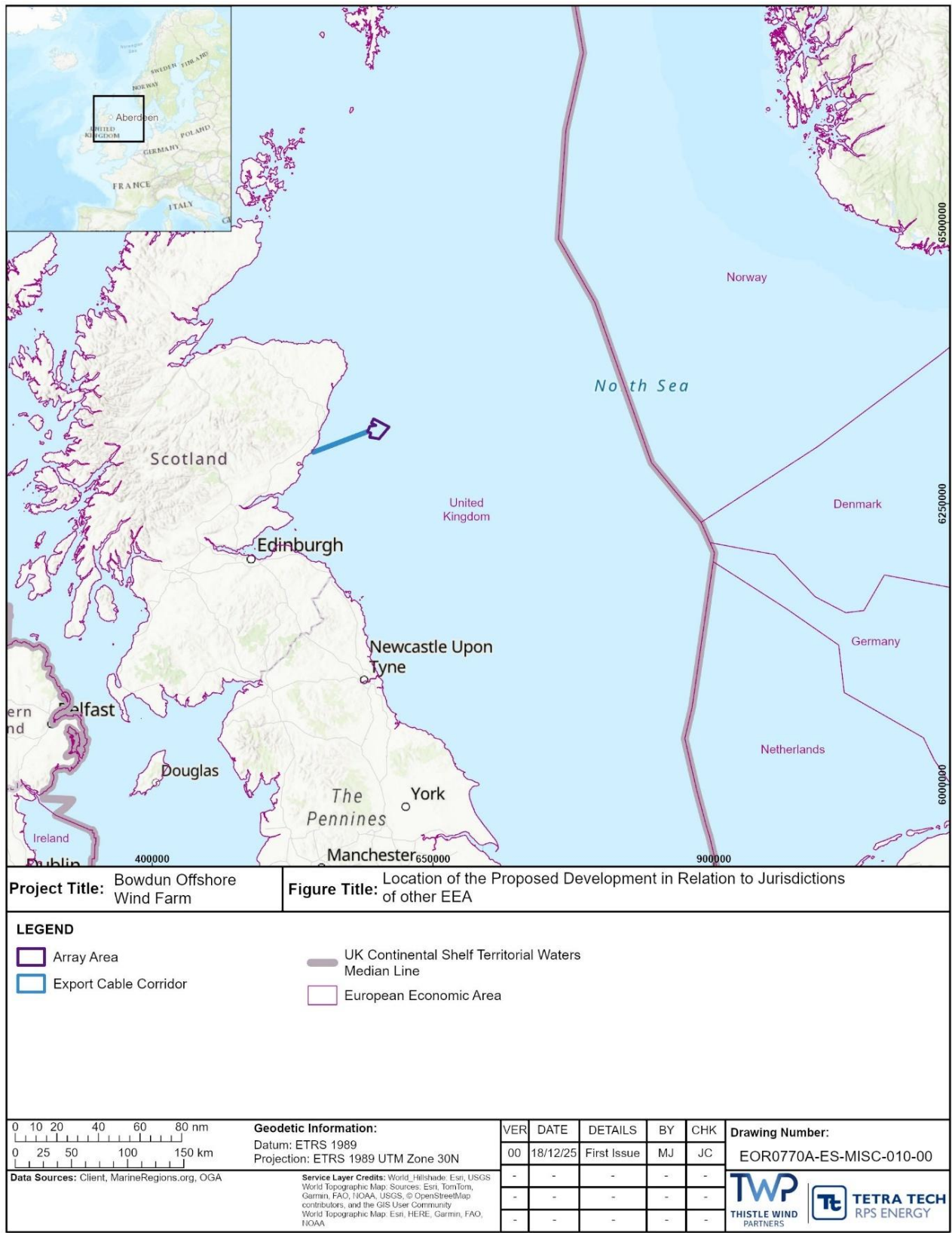


Figure 1.1: Location of the Proposed Development in Relation to Jurisdictions of Other EEA

- 1.2.2 The Applicant (Bowdun Offshore Wind Farm Limited (BOWFL)) completed a transboundary screening assessment as part of the Bowdun Offshore Scoping Report (BOWFL, 2024), to identify and assess the likely significant transboundary effects arising from the construction, O&M and decommissioning phases of the Proposed Development.
- 1.2.3 The likely spatial extent of potential impacts has been taken into account in this technical report and the outcomes of this transboundary screening are presented in Section 3. Section 3 also presents the topics for which there are no potential transboundary impacts identified via this process.
- 1.2.4 As per the Marine Scotland Consenting and Licensing Guidance for Offshore Wind, Wave and Tidal Energy Applications (Scottish Government, 2018 (now superseded by the Marine Licensing and Consenting: Offshore Renewable Energy Projects Guidance (Scottish Government, 2025)) and Advice Note Twelve: Transboundary Impacts (Planning Inspectorate (PINS), 2024), transboundary impacts in relation to offshore renewable energy projects in Scotland will relate primarily to projects that may affect mobile species, and projects which are located close to national boundaries or to areas administered by other relevant authorities.
- 1.2.5 The Project Description for the Proposed Development is described in Volume 1, Chapter 3: Project Description, and a summary is presented as follows:
- the Array Area is located 38 km off the Aberdeenshire coast at its closest point from land, and covers an area of 187 km²;
 - up to 67 Wind Turbines;
 - a network of up to 167 km of IACs, and up to 36 km of Interconnector Cables;
 - up to three OSPs with fixed foundations and supporting infrastructure;
 - up to three Offshore Export Cables totalling approximately 210 km in length; and
 - an expected construction duration of five years with a 2031 start date, with Wind Turbine commissioning commencing in 2035, and completion in Q1 2036.

Legislative and Policy Context

- 1.2.6 Assessment of transboundary impacts is presented in the United Nations Economic Commission for Europe (UNECE) Convention on EIA in a transboundary context (the ‘Espoo Convention’) (as amended) which aims to promote “*environmentally sound and sustainable development*”, while enhancing “*international co-operation in assessing environmental impact in particular in a transboundary context*” (UNECE, 2017), of which the UK is a party.
- 1.2.7 Where there could be potential for an activity occurring in one qualifying country to have the potential for significant effect in another qualifying country, EIAs are required to consider potential impacts across national borders as per the Espoo Convention. The Convention on Access to Information, Public Participation in decision-Making and Access to Justice in Environmental Matters (the ‘Aarhus Convention’) and its Protocol, of which the UK is a party, gives

individuals the right to access information, public participation in decision-making and access to justice in environmental matters.

- 1.2.8 These conventions are implemented via the European Union (EU) Directive 85/337/EEC (as amended) (the EIA Directive) in EU states. This Directive was transposed into UK and Scottish law through The Marine Works (EIA) (Scotland) Regulations 2017 (0 nm to 12 nm), The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) (12 nm to 200 nm) and The Electricity Works (EIA) (Scotland) Regulations 2017 (collectively referred to as the 'EIA Regulations' hereafter).
- 1.2.9 The Marine Licensing and Consenting: Offshore Renewable Energy Projects Guidance (Scottish Government, 2025) states that transboundary impacts relating to offshore renewable energy projects in Scotland are those which could have an impact on mobile species and are close to national boundary or area governed by another relevant authority.
- 1.2.10 This guidance states that "*MS-LOT (now Marine Directorate – Licensing and Operations Team (MD-LOT)) would expect to see consideration of potential transboundary and cross border effects throughout the EIA from the Scoping phase*" (Scottish Government, 2018). This chapter has been prepared to satisfy the requirements of this guidance in relation to the Proposed Development.
- 1.2.11 In addition to this, the UK PINS Advice Note 12: Transboundary Impacts (PINS, 2024) details the procedures for consultation for developments which may have significant transboundary impacts. Based on Advice Note 12, developers are advised:
- to undertake preparatory work to complete a transboundary screening matrix which will assist the competent authority in the determination of potential for likely significant effects on the environment in other states;
 - to submit the transboundary screening matrix at the EIA scoping stage; and
 - that when preparing documents for consultation and application, the competent authority may notify the relevant EEA state(s) to their particular project.
- 1.2.12 Advice Note 12 has been prepared by the UK PINS so it is therefore not directly applicable under Scottish consenting regimes, however it has been used to inform this transboundary screening appendix.
- 1.2.13 Further details of legislation and policy can be found in Volume 1, Chapter 2: Policy and Legislation.

Environmental Impact Assessment

1.2.14 Under the EIA Regulations, if a project is likely to have significant effects on the environment of an EEA state (i.e. a ‘transboundary impact’), the applicant must provide sufficient information to enable Scottish Ministers to make a determination under Regulation 30(2) of the Marine Works (EIA) (Scotland) Regulations 2017 and Regulation 18(1) of the Marine Works (EIA) Regulations 2007. The following information is required to be shared with EEA states:

- a description of the project, alongside any available information on its possible significant effects on the environment in an EEA state; and
- information on the nature of the decision which may be taken.

1.2.15 The Electricity Works (EIA) (Scotland) Regulations 2017 have similar provisions regarding transboundary consultation¹.

Habitats Regulations Appraisal

1.2.16 The Habitats Regulations (as amended) state that a Habitats Regulations Appraisal (HRA) must be carried out on all plans and projects which could potentially impact upon sites designated for supporting habitats or species of international importance (listed on the Annexes of the Habitats Directive and Birds Directive) and hereafter specified for protection within schedules to the Habitats Regulations (as amended).

1.2.17 Within EU member states, these designated sites are known as Natura 2000 sites. The term ‘European site’ has been used within this technical report to refer to the above sites protected in EU member states, Scotland and the rest of the UK. Within the UK, these designated sites are part of the National Site Network.

1.2.18 The Habitats Directive has been transposed into UK law for Scottish offshore waters through the Conservation of Offshore Marine Habitats and Species Regulations 2017 (which apply to Marine Licences and Section 36 applications within the Scottish Offshore Region).

1.2.19 Where Scottish Ministers, as the competent authority, are required to undertake an appropriate assessment of a project in relation to European site interest associated with a projects’ potential in-combination effect, including transboundary and cross border effects, the Applicant shall provide the HRA for the project (provided in the Offshore HRA, Report to Inform Appropriate Assessment (RIAA) (TWP-BOW-RPS-ENV-RPT-00013)). This will include the required information in relation to transboundary impacts to assist the Scottish Ministers.

¹ Regulation 29

2 Consultation

- 2.1.1 Where a development has the potential to have transboundary effects, an EEA state must be consulted on the transboundary assessment of said development by the Scottish Ministers once the EEA state has confirmed that they wish to participate in consultation on the project. It is proposed that the following EEA states should be consulted on whether they intend to participate, with the distance from the Proposed Development to the EEA states' maritime jurisdiction boundary presented in Table 2.1.

Table 2.1: Distances of EEA States from the Proposed Development

EEA State	Distance
Denmark	290 km
Germany	304 km
The Netherlands	312 km
Norway	210 km

- 2.1.2 The participation of these EEA states is recommended based on the potential for transboundary impacts on shipping and navigation (particularly regarding transits to/from other countries and effects on shipping routes to/from EEA state ports) as discussed in Section 3 below. Potential for cross-border impacts in English territorial waters out to the UK EEZ is also considered.
- 2.1.3 Table 2.2 summarises any key issues raised during consultation for the Proposed Development in relation to transboundary impacts, including those raised in the Scoping Opinion, and how they have been addressed in the Offshore EIA Report.

Table 2.2: Summary of Key Transboundary Issues Raised During Consultation

Date	Consultee and type of consultation	Topic	Stakeholder Comment Received	Applicant’s response to issue raised and, if applicable, where considered in this chapter	
25/11/2024	MD-LOT Scoping Opinion	Physical Processes	“The Scottish Ministers, in line with the NatureScot representation, agree that transboundary impacts can be scoped out from further consideration within the EIA Report.”	The Applicant notes this response.	
		Benthic Ecology			
		Fish and Shellfish		No specific comments were provided in the Scoping Opinion regarding these topics and transboundary impacts.	The approach to the assessment of Offshore Ornithology and Offshore bats is outlined in Section 3.2.
		Marine Mammals			
		Marine Archaeology			The approach to the assessment of Shipping and Navigation and Commercial Fisheries is outlined in Section 3.3.
		Cultural Heritage			
		Commercial Fisheries	“With regards to transboundary impacts, considered in Section 12.11 of the Scoping Report, the Scottish Ministers, in line with the NatureScot EIA response, support the approach proposed by the Developer”.		
		Shipping and Navigation			
		Aviation and Radar			
		Infrastructure and Other Users			
		Socio-Economics, Tourism and Recreation			
		Climate Change			
		Seascape, Landscape and Visual Impact			
		Offshore Ornithology			

3 Screening of Transboundary Impacts

- 3.1.1 Transboundary impacts which have the potential to arise due to the Proposed Development are assessed and presented in this section, covering physical and biological environment and human environment.
- 3.1.2 This assessment has considered the distance of the Proposed Development from EEA states for which there may be potential for transboundary impacts. Figure 1.1 also shows the nearest EEA states in the vicinity of the Proposed Development.
- 3.1.3 Potential cross-border impacts with England have also been considered. Although Scotland and England have different regulatory systems, impacts on English receptors are considered cross-border rather than transboundary.

3.2 Physical and Biological Environment

- 3.2.1 The Applicant has carried out a transboundary screening assessment for all potential physical and biological receptors. The conclusion of the assessment for each topic is presented within the following sections. Where it has been proposed that receptor groups be screened out of the Offshore EIA Report, these have not been considered within this transboundary screening assessment on the basis that no significant effects to the environment are predicted and, therefore, no significant effects will occur to an EEA state.
- 3.2.2 Transboundary impacts for the following topics have been screened out during the Scoping stage, in agreement with MD-LOT. These topics include:
- physical processes;
 - benthic ecology;
 - fish and shellfish; and
 - marine mammals.

Offshore Ornithology

- 3.2.3 In response to the EIA Scoping Report (BOWFL, 2024) regarding the transboundary impacts scoped into the Proposed Development, “*the Scottish Ministers, in line with the NatureScot EIA response, support the approach proposed by the Developer*”. This approach is outlined below:
- “*There is the potential for different species or groups of seabirds to move across a variety of international and national boundaries depending on seasons, therefore transboundary impacts will be screened into the EIA. Published information on seabird foraging behaviour (i.e. Woodward et al., 2019) will be used to determine transboundary connectivity during the breeding season. As much of the work associated with the construction, O&M and decommissioning of Proposed Development is localised and temporary, the associated impacts are in turn also expected to be localised and temporary. The impacts assessed are the same ones considered from the Proposed Development alone (Table 12.4).*” (BOWFL, 2024).

3.2.4 Impacts outlined within the Scoping Report are as follows:

- collision risk mortality due to collision with rotor blades (O&M);
- distributional responses, displacement and barrier effects from offshore infrastructure (all phases);
- disturbance to birds from vessel movements (all phases);
- disturbance to prey species and their habitats (all phases);
- temporary habitat loss and/or habitat disturbance (construction and decommissioning);
- attraction to light (all phases); and
- entanglement.

3.2.5 These have been taken forward for assessment within the Offshore EIA Report (Volume 2, Chapter 11: Offshore Ornithology).

Offshore Bats

3.2.6 Offshore Bats were not considered at the scoping stage and no transboundary screening was undertaken, as this was later requested for inclusion within the Scoping Opinion (MD-LOT, 2024). An assessment of the potential transboundary impacts on offshore bats associated with the Proposed Development has therefore been considered.

3.2.7 Consideration has been given to the potential for migratory connectivity of bats within the Offshore Bats Study Area between Denmark and the UK. Records from biological recording centers indicate particularly high detections in north-eastern Scotland, with frequent observations in Aberdeenshire. Danish datasets show widespread records with seasonal peaks, consistent with established trans-North Sea migration between the Baltic region and the UK. Consultation with NatureScot and offshore evidence, including detections on oil and gas installations, ferries over 100 km from land and Danish OWFs up to 80 km offshore, confirms the species' ability to cross large marine areas and its potential to pass through the Proposed Development during spring and autumn migrations.

3.2.8 Recent studies support the conclusion that the Proposed Development poses no significant transboundary risk to offshore bats. Evidence from Ahlén and Bach (2009), Šuba (2014), and Troxell *et al.* (2019) consistently shows that *Nathusius' pipistrelle* typically flies at low altitudes when migrating over water, averaging between 7.8 m and 11.5 m. These flight heights are considerably below the minimum rotor height of 33.12 m above Lowest Astronomical Tide (LAT) for the Proposed Development, indicating a minor risk of collision.

3.2.9 Furthermore, the current understanding of bat migration routes remains limited, and there is insufficient data to determine whether these routes intersect with the Proposed Development.

3.2.10 Based on current evidence and consultation with NatureScot, no significant transboundary effects are anticipated as a result of the Proposed Development.

3.3 Human Environment

3.3.1 The Applicant has carried out a transboundary screening for all potential human environment receptors. The conclusion of the assessment undertaken for each receptor group is presented within the following sections. Where it has been proposed that receptor groups be screened out of the Offshore EIA Report, these have not been considered within this transboundary screening assessment on the basis that no significant effects to the environment are predicted, and therefore, no significant effects will occur to an EEA state.

3.3.2 Transboundary impacts for the following topics have been screened out during the scoping stage. These topics include:

- aviation and radar;
- infrastructure and other sea users;
- major accidents and disasters;
- socio-economics, tourism and recreation;
- marine archaeology;
- seascape, landscape visual impact assessment;
- cultural heritage; and
- climate change.

Shipping and Navigation

3.3.3 As stated in the EIA Scoping Report “*Given the nature of shipping and navigation, all activities and operations can have a transboundary element...Therefore all potential impacts identified in Table 14.2 have also been considered here as potential transboundary impacts*”. These impacts include:

- impact of cable systems and interactions with vessels at risk of snagging (all phases)*;
- deviation of commercial vessels (all phases);
- increased collision risk (all phases);
- increased contact/allision risk (all phases);
- increased grounding risk (all phases);
- impact to Search and Rescue (SAR) capability (all phases);
- interference with radar, communications and positioning systems (all phases);
- reduction in Under Keel Clearance due to subsurface Offshore Infrastructure (all phases);
- towage operations (all phases)*;
- breakout or loss of station of a floating Wind Turbine (all phases)*;
- impact on port/harbours and nearshore operations (all phases); and

- impact on small vessel activity (fishing/recreation) (all phases).

*These impacts no longer relevant as floating foundations have been removed from the Project Design Envelope.

- 3.3.4 These transboundary impacts are as outlined in the EIA Scoping Report, no comment was raised by stakeholders within the EIA Scoping Opinion on whether there is agreement on the scope in or out of these impacts, therefore they have been taken forward for assessment within the Offshore EIA Report (Volume 2, Chapter 14: Shipping and Navigation).

Commercial Fisheries

- 3.3.5 The screening identified that there was the potential for transboundary effects to occur in relation to commercial fisheries. The potential transboundary impacts screened into the assessment for commercial fisheries are:

- effects on commercial fishing fleets from all EEA countries as a result of constraints on foreign commercial fishing activities operating in and around the Proposed Development, including pelagic trawling. These effects may include reduction in access to fishing grounds and potential displacement of fishing effort from the Proposed Development to alternative fishing grounds in EEA states.

- 3.3.6 Effects on commercial fishing fleets could occur over a range of 100s of kilometres from the Proposed Development (affecting fleets from other states that operate in the vicinity of the Proposed Development) and could therefore interact with the following EEA states: the Netherlands, Germany, France, Denmark and Norway.

- 3.3.7 Effects on these foreign commercial fishing fleets from EEA states, in terms of reduction in access to fishing grounds and displacement into alternative grounds including other EEAs, have therefore been intrinsically considered throughout the commercial fisheries EIA process (Volume 2, Chapter 13: Commercial Fisheries) and are consistent to those presented in the impact assessment.

4 Conclusions

4.1.1 This transboundary screening has been carried out considering both the location of the Proposed Development and the Project Description (Volume 1, Chapter 3: Project Description). There is the potential for transboundary impacts associated with the Proposed Development activities and Offshore Infrastructure for the following topics:

- offshore ornithology;
- commercial fisheries; and
- shipping and navigation.

4.1.2 A summary of the potential transboundary effects of the Proposed Development is presented in Table 4.1.

Table 4.1: A Summary of the Transboundary Effects of Each Topic Outlined Within Individual Chapters

Chapter	Summary of Transboundary Effects
Physical and Biological Environment	
Physical Processes	A screening of transboundary effects has been carried out within the Scoping Report, which identified that there were no likely significant transboundary effects.
Benthic Ecology	
Fish and Shellfish Ecology	
Marine Mammals	
Offshore Ornithology	A screening of transboundary effects has been carried out, and any potential for significant transboundary effects regarding offshore ornithology from the Proposed Development upon the interests of EEA states has been addressed as part of this Offshore EIA Report (Volume 2, Chapter 11: Offshore Ornithology). These effects include: • collision risk mortality due collision with rotor blades; and • distributional responses, displacement and barrier effects from Offshore Infrastructure.
Offshore Bats	A screening of transboundary effects has been carried out, which identified that there were no likely significant transboundary effects.
Human Environment	
Commercial Fisheries	A screening of transboundary effects has been carried out, and any potential for significant transboundary effects regarding commercial fisheries from the Proposed Development upon the interests of EEA states has been addressed as part of this Offshore EIA Report (Volume 2, Chapter 13: Commercial Fisheries). These effects include: • reduction in access to, or exclusion from established fishing grounds from within the Array Area; • reduction in access to, or exclusion from established fishing grounds from within the Export Cable Corridor; • displacement leading to gear conflict and increased fishing pressure on adjacent grounds; • disturbance of commercially important fish and shellfish resources leading to displacement or disruption of fishing activity; • increased vessel traffic associated with the Proposed Development within fishing grounds leading to interference with fishing activity;

Chapter	Summary of Transboundary Effects
	• additional steaming to alternative fishing grounds for vessels that would otherwise fish within the Proposed Development; and • increased snagging risk, which could result in loss or damage to fishing gear.
Shipping and Navigation	A screening of transboundary effects has been carried out, and any potential for significant transboundary effects regarding shipping and navigation from the Proposed Development upon the interests of EEA states has been addressed as part of this Offshore EIA Report (Volume 2, Chapter 14: Shipping and Navigation). These effects include: • deviation of commercial vessels (all phases); • increased collision risk (all phases); • increased contact/allision risk (all phases); • increased grounding risk (all phases); • impact to SAR capability (all phases); • interference with radar, communications and positioning systems (all phases); • reduction in Under Keel Clearance due to Offshore Infrastructure (all phases); • impact on port/harbours and nearshore operations (all phases); and • impact on small vessel activity (fishing/recreation) (all phases).
Aviation and Radar	A screening of transboundary effects was carried out within the Scoping Report, which identified that there were no likely significant transboundary effects.
Infrastructure and Other Users	
Major Accidents and Disasters	As it has been concluded that the Proposed Development will not reasonably lead to any major accidents and/or disasters after consideration of the Embedded Mitigation adopted, no assessment of transboundary effects has been undertaken.
Socio-economics, Tourism and Recreation	A screening of transboundary effects has been carried out within the Scoping Report, which identified that there were no likely significant transboundary effects.
Marine Archaeology	A screening of transboundary effects has been carried out, which identified that there were no likely significant transboundary effects.
Seascape, Landscape Visual Impact Assessment	
Cultural Heritage	
Climate Change	All developments emit Greenhouse Gases, ((GHGs) including manufacturing of materials in other territories) 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 have been taken into account when considering the impact of the Proposed Development 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.

4.1.3 It is proposed that the following EEA states should be consulted on whether they intend to participate:

- Denmark;
- Germany;
- The Netherlands; and
- Norway.

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