

MachairWind Offshore Windfarm

Chapter 1 Introduction



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GLOSSARY OF ACRONYMS

Term	Definition
CES	Crown Estate Scotland
ECC	Export Cable Corridor
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
ESO	Electricity System Operator
GW	Gigawatt
HND	Holistic Network Design
HRA	Habitats Regulations Appraisal
HVDC	High Voltage Direct Current
IAC	Inter-Array Cable
MD	Marine Directorate
MD-LOT	Marine Directorate – Licensing Operations Team
MHWS	Mean High Water Springs
MW	Megawatt
OAA	Option Agreement Area
OSP	Offshore Substation Platform
OnTDA	Onshore Transmission Development Area
PDE	Project Design Envelope
POA	Plan Option Area
PVA	Population Viability Analysis
RIAA	Report to Inform Appropriate Assessment
SMP	Sectoral Marine Plan
SPR	ScottishPower Renewables
UK	United Kingdom
WDA	Windfarm Development Area
WTG	Wind Turbine Generator



GLOSSARY OF TERMS

Term	Definition
Cable protection	Protective measure to minimise the effects of scour and hazards along the offshore cables (e.g. to prevent cable exposure or snagging of vessel anchors or fishing gear), as well as for protecting these cables at infrastructure crossing points.
Combined Assessment	A whole-Project assessment considering interactions between the Windfarm Development Area, Offshore Export Cable Corridor and Onshore Transmission Development Area (i.e. considering impact interactions and additive effects to determine if any effects would be materially elevated from those assessed for the Windfarm Development Area-alone assessment). Due to long delays in securing confirmation of the Project's grid connection location, the level of detail available for the Offshore Export Cable Corridor and Onshore Transmission Development Area is limited and therefore the assessment is commensurate with the level of detail available at the time of carrying out the assessment. When it is time to progress the Offshore Export Cable Corridor and Onshore Transmission Development Area consent applications, their respective scoping and Environmental Impact Assessment Report / Environmental Report will take account of all likely effects predicted within the WDA EIA and present updated combined assessments using the latest available information covering all aspects of the Project.
Cumulative Effects Assessment	Assessment of likely significant effects resulting from the incremental change caused by other past, present and reasonably foreseeable projects / activities together with the Project. This is separate to combined effects arising between the Project's separate Development Areas.
Development Area	Application boundary for consenting purposes which, for the Project, consists of a Windfarm Development Area, Offshore Export Cable Corridor, and Onshore Transmission Development Area. Separate consent and marine licence applications will be submitted for each Development Area where applicable.
Environmental Impact Assessment (EIA)	The process of evaluating the likely significant environmental effects of a proposed development over and above the existing circumstances (or 'baseline').
Environmental Impact Assessment (EIA) Regulations	A collective term referring to The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 and The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017.
Habitats Regulations	A collective term used to describe the Conservation of Habitats and Species Regulations 2017 and The Conservation (Natural Habitats, &c.) Regulations 1994.
Holistic Network Design (HND) process	An integrated approach for connecting 23 GW of offshore wind (including from ScotWind projects) to Great Britain providing a recommended offshore and onshore design for a 2030 electricity network, that facilitates the Government's ambition for 50 GW of offshore wind by 2030. The recommended design in the HND has equally considered four objectives to make sure the most appropriate approach is taken forwards, including: cost to consumer, deliverability and operability, impact on environment; and impact on local communities.
Inter-array cables (IACs)	Armoured cable containing electrical and fibre optic cores which link the wind turbine generators to each other and to the offshore substation platform(s).
MachairWind Offshore Windfarm	An offshore windfarm capable of exporting around 2 GW of renewable energy to the National Electricity Transmission System. MachairWind Offshore Windfarm comprises three Development Areas: The WDA – located on the west coast of Scotland to the northwest of Islay and west of Colonsay;

Term	Definition
	- The Offshore Export Cable Corridor – a preliminary boundary extending from the WDA to mean high water springs at a landfall location near Girvan, South Ayrshire; and - The Onshore Transmission Development Area – a preliminary boundary which extends landward from mean low water springs and includes the land required for the landfall of the offshore export cable(s) and their route up to but not including the proposed high voltage direct current switching station which will be developed and constructed by Transmission Owner, ScottishPower Transmission. Separate consent and licence applications will be submitted for each Development Area.
Mean High Water Springs (MHWS)	The average, over a year, of the heights of two successive high waters during those periods of 24 hours (once every fortnight) when the range of the tide is greatest.
Mean Low Water Springs (MLWS)	The average, over a year, of the heights of two successive low waters during those periods of 24 hours (once every fortnight) when the range of the tide is greatest.
Offshore cables	The collective term for all offshore cables i.e. IACs, offshore substation platform link cables, offshore export cable(s) and associated fibre optic cables.
Offshore ECC infrastructure	The offshore transmission infrastructure located within the boundary of the Offshore Export Cable Corridor, namely the offshore export cable(s).
Offshore export cable	Armoured cable containing electrical cores between the offshore substation platform(s) and landfall. Offshore export cable(s) will include bundled fibre optic cables. The offshore export cable(s) are subject to Marine Licence applications under the Marine (Scotland) Act 2010. The portion of the offshore export cable(s) located within the WDA is assessed as part of this MachairWind WDA EIA and a marine licence application to construct, alter or improve this portion has been submitted alongside the WDA application. A separate marine licence application will be submitted for the portion of the offshore export cable(s) from the WDA boundary to mean high water Mean High Water Springs.
Offshore Export Cable Corridor (ECC)	The preliminary boundary extending from the WDA to mean high water springs near Girvan, South Ayrshire and within which the offshore export cable(s) will be located. A separate marine licence application will be submitted for the offshore export cable(s) located within the Offshore ECC.
Offshore Substation Platform (OSP)	An offshore platform with a fixed foundation located within the WDA which houses electrical equipment such as transformers, switchgear, protection and control systems, and enables the windfarm's renewable electricity to be collected via inter-array cables and exported to the National Electricity Transmission System via offshore export cable(s).
Offshore Substation Platform (OSP) link cables	Electrical cables which link OSPs (if more than one OSP is required). These cables will include fibre optic cores or bundled fibre optic cables. OSP link cables will be wholly located within the WDA.
Onshore Transmission Development Area (OnTDA)	The preliminary boundary which extends landward from mean low water springs and includes the land required for the landfall of the offshore export cable(s) and their route up to but not including the proposed high voltage direct current switching station which will be developed and constructed by Transmission Owner, ScottishPower Transmission. This Transmission Owner is responsible for consenting the high voltage direct current switching station. Onward connections to the National Electricity Transmission System will be consented by National Grid Electricity Transmission and ScottishPower Transmission. Where relevant, these are considered as part of cumulative effects assessment in the EIA.
OnTDA infrastructure	The onshore transmission infrastructure, for which the Applicant is responsible, that is located primarily within the OnTDA, up to mean low water springs, and includes but is not

Term	Definition
	limited to: landfall(s), onshore export cable(s), transition joint bays, telecom/SCADA infrastructure including vehicular access, joint bays, link boxes and temporary construction compounds. The OnTDA infrastructure will be subject to a planning application under the Town and Country Planning (Scotland) Act 1997.
Option Agreement Area (OAA)	The seabed area awarded to ScottishPower Renewables in January 2022 through the ScotWind leasing round.
Scottish Marine Area	The area of Scotland's territorial sea limit (up to 12 nautical miles from baseline) as defined in the Marine (Scotland) Act 2010.
Scour protection	Protective measures to avoid sediment being eroded away from the base of the wind turbine generator foundations as a result of the flow of water.
ScotWind	A Crown Estate Scotland seabed leasing round which enabled developers to propose offshore wind projects and apply for seabed rights to plan and build windfarms in Scottish waters.
The Applicant	The legal entity submitting consent applications for the MachairWind Offshore Windfarm, namely Machairwind Limited.
The Project	MachairWind Offshore Windfarm including all its Development Areas and associated infrastructure.
Windfarm Development Area (WDA)	The application boundary within the OAA where consent will be sought for the proposed WDA infrastructure. The WDA infrastructure is subject to Section 36 consent and marine licence applications (generation and transmission) which are being applied for separately from the Offshore ECC infrastructure and OnTDA infrastructure.
WDA infrastructure	The offshore generation and transmission infrastructure located within the WDA including but not limited to: WTGs, WTG fixed foundations (and associated scour protection), OSP(s), OSP fixed foundations (and associated scour protection), IACs, OSP link and offshore export cable(s) and their associated external cable protection (insofar as these are located within the WDA) and fibre optic cables.
Wind Turbine Generator (WTG)	A wind turbine generator which converts wind energy into electrical energy. Each wind turbine generator is a complex system composed of a high number of components. Typically, the main components include the rotor assembly (composed of three blades and a hub); the nacelle (containing a generator, shaft and gearbox, power electronic converter and transformer); and the tower (containing lifting equipment and switchgear).



1. INTRODUCTION

1.1. PURPOSE OF THIS DOCUMENT

1. This MachairWind Windfarm Development Area (WDA) Environmental Impact Assessment (EIA) Report (EIAR) has been prepared to support the applications for consent under Section 36 of the Electricity Act 1989 and marine licences required for the WDA infrastructure, in line with the following Environmental Impact Assessment Regulations:
 - The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017; and
 - The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017.
2. Further information on the EIA Regulations is provided in **Chapter 2 Policy and Legislative Context** of this EIAR.
3. This MachairWind WDA EIAR:
 - Provides stakeholders with information on the WDA infrastructure and associated activities;
 - Provides a description of the site selection process and reasonable alternatives considered for the design of the WDA;
 - Presents a detailed overview of the existing environmental baseline;
 - Recognises and outlines limitations in the data used to characterise the existing environment;
 - Describes the methodology used to assess likely significant environmental effects arising from impacts associated with the WDA infrastructure;
 - Informs stakeholders of any likely significant effects expected to result from the construction, operation and maintenance (O&M) and decommissioning of the WDA infrastructure; and
 - Proposes and considers mitigation measures to avoid, prevent and reduce adverse effects to environmental receptors.
4. A non-technical summary is submitted with the MachairWind WDA EIAR, which presents an overview of the findings of this MachairWind WDA EIAR in non-technical language.

1.2. PROJECT BACKGROUND

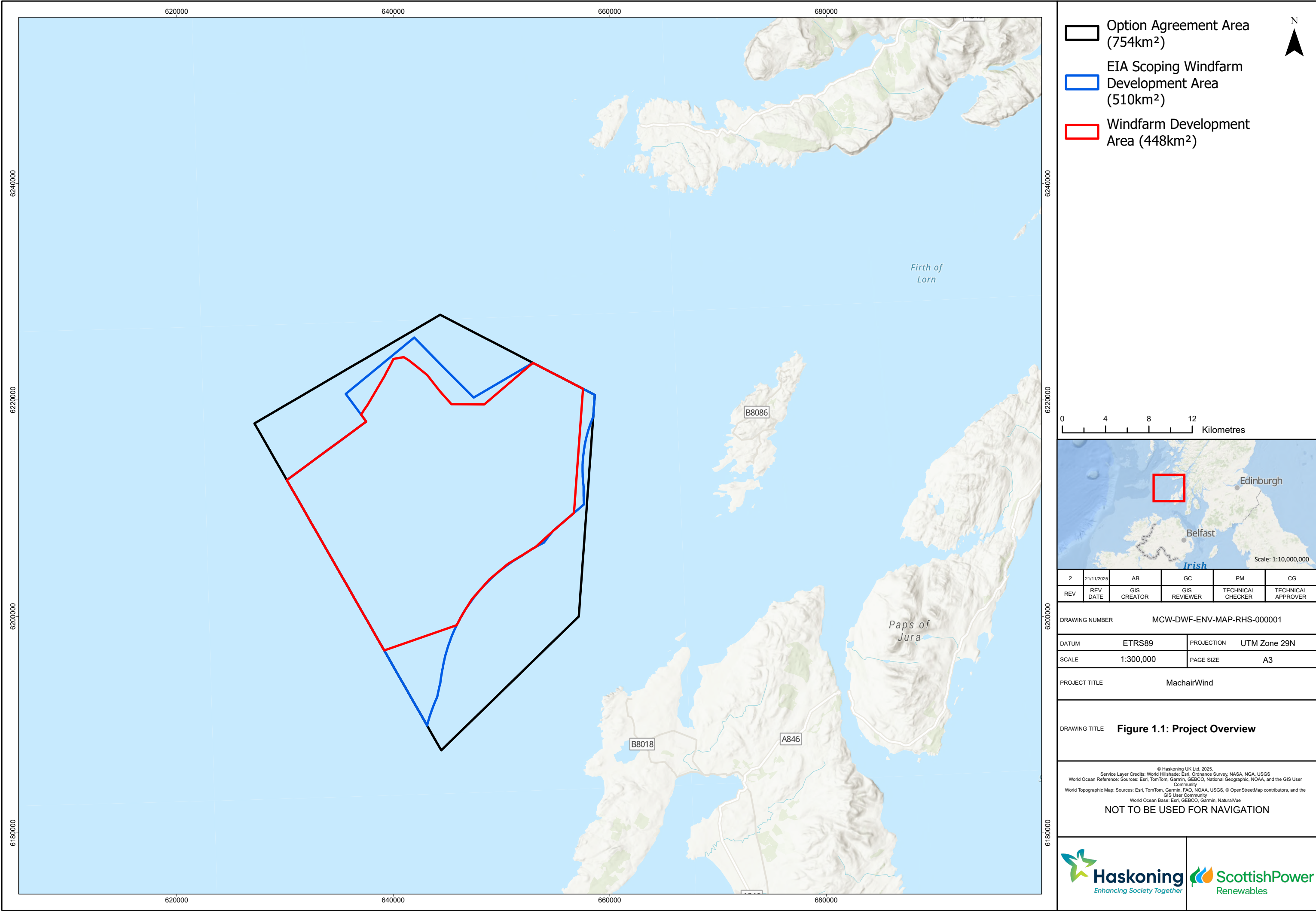
5. In April 2022, as part of the ScotWind leasing round, MachairWind Ltd ('The Applicant') entered into an Option to Lease Agreement with Crown Estate Scotland (CES) for the entire W1 Plan Option Area (POA). W1 is one of 15 POAs that the Scottish Government identified in its Sectoral Marine Plan (SMP) for Offshore Wind Energy (Scottish Government, 2020) following comprehensive review and consultation. W1, herein referred to as the Option Agreement Area (OAA), is located off the west coast of Scotland, northwest of Islay and west of Colonsay.
6. To support the identification of the developable area within the OAA, the Applicant undertook a preliminary geophysical and environmental site investigation survey campaign in 2023. Analysis of this survey data, other datasets and stakeholder feedback, enabled the identification of a refined and optimised development area referred to as the WDA. The OAA, the 510 km² EIA Scoping WDA boundary (also see **Appendix 1 WDA Scoping Report**) and the 448 km² WDA boundary being taken forward for the application for consent are presented in **Figure 1.1**.
7. The MachairWind Offshore Windfarm Project ('the Project') grid connection location was confirmed, following delays, in August 2025 to be in the vicinity of Girvan, South Ayrshire. The proposed design stems from the Holistic Network Design (HND) review completed by the National Grid Electricity System Operator (now National ESO) in 2022 (National Grid ESO, 2022) which was subsequently updated in the ESO's Beyond 2030 (National Grid ESO, 2024). It features a High Voltage Direct Current (HVDC) connection from the Project to a switching station near Girvan. It is intended that the



switching station will be constructed by the Transmission Owner, SPT, and will serve as an HVDC hub, linking to the grid via two HVDC interconnectors: one north to Kilmarnock South (also constructed by SPT) and one south to Wales (constructed by National Grid Electricity Transmission), via the proposed Western Link 2 project. Western Link 2 is a new HVDC subsea electrical link that will connect Ayrshire in Scotland with the transmission network in Wales. It will play a key role in the fight against climate change, and the UK's transition to Net Zero. It supports a more flexible and interconnected grid, which is essential for balancing variable renewable generation and maintaining energy security.

8. When operational, the WDA is anticipated to have a capacity of around 2 Gigawatts (GW) generated by up to 144 Wind Turbine Generators (WTGs). This will have the potential to generate renewable electricity for up to two million UK homes, contributing to Scotland and the UK's transition to Net Zero and the UK's energy security in line with Government policy.'
9. The WDA is located within the Scottish Marine Area and covers an area of 448 km². The WDA infrastructure includes but is not limited to:
 - WTGs;
 - WTG fixed foundations (and associated scour protection);
 - Offshore Substation Platforms (OSPs);
 - OSP fixed foundations (and associated scour protection); and
 - Inter-Array Cables (IAC), OSP link cables and offshore export cable(s) (insofar as these are located in the WDA application boundary) and their associated external cable protection.
10. Further details on the WDA infrastructure are provided in **Section 1.3**.
11. This EIAR accompanies applications for Section 36 consent (under the Electricity Act 1989) and marine licences under the Marine (Scotland) Act 2010 to Scottish Ministers, via Marine Directorate – Licensing Operations Team (MD-LOT).
12. This EIAR covers the WDA only. The Applicant will submit a separate Marine Licence application for the Offshore Export Cable Corridor (ECC) infrastructure following further refinement and EIA scoping of the Offshore ECC. Similarly, a separate planning application for the Onshore Transmission Development Area under the Town and Country Planning (Scotland) Act 1997 will be submitted once the arrangements for the onshore infrastructure and connection to the National Electricity Transmission System have been defined. See **Section 1.4** for further details on the consenting approach.
13. The Project will contribute towards meeting Scottish and UK renewable energy targets and has the potential to supply enough renewable electricity to power up to two million homes and avoid the production of millions of tonnes of carbon dioxide each year from the equivalent generation of electricity from fossil fuels. The continued development of offshore wind within Scotland is therefore critical to ensuring that Scotland and the UK can meet their binding energy and climate change targets.
14. This WDA EIAR has been prepared by Haskoning on behalf of the Applicant in accordance with the relevant EIA Regulations. This chapter provides an overview of the WDA, summarises the consenting approach, and outlines the content of the WDA EIAR.





-  Option Agreement Area (754km²)
-  EIA Scoping Windfarm Development Area (510km²)
-  Windfarm Development Area (448km²)



0 4 8 12 Kilometres



2	21/11/2025	AB	GC	PM	CG
REV	REV DATE	GIS CREATOR	GIS REVIEWER	TECHNICAL CHECKER	TECHNICAL APPROVER

DRAWING NUMBER MCW-DWF-ENV-MAP-RHS-000001

DATUM	ETRS89	PROJECTION	UTM Zone 29N
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SCALE	1:300,000	PAGE SIZE	A3
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PROJECT TITLE MachairWind

DRAWING TITLE **Figure 1.1: Project Overview**

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Service Layer Credits: World Hillshade: Esri, Ordnance Survey, NASA, NGA, USGS
World Ocean Reference: Sources: Esri, TomTom, Garmin, GEBCO, National Geographic, NOAA, and the GIS User Community
World Topographic Map: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
World Ocean Base: Esri, GEBCO, Garmin, NaturalVue

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1.3. MACHAIRWIND WINDFARM DEVELOPMENT AREA

15. The location of the WDA is shown in **Figure 1.1**. The WDA infrastructure includes:
 - Up to 144 WTGs on fixed foundations;
 - Up to two OSPs;
 - IACs;
 - OSP link cables;
 - Offshore export cable(s) (insofar as they are located in the WDA application boundary);
 - If required, scour protection for foundation structures supporting the WTGs and OSPs; and
 - If required, external cable protection for IAC, OSP link and offshore export cable(s) (insofar as the latter are located in the WDA application boundary).
16. The WDA will have a seabed lease for up to 60 years, and the infrastructure will have an indicative operational life of 35 years, with first power expected in the early to mid-2030s.
17. Further details of the infrastructure in the WDA are provided in **Chapter 3 Project Description**. A Project Design Envelope (PDE) approach has been adopted for this MachairWind WDA EIAR and is further described in **Chapter 5 EIA Methodology**. This approach is implemented in accordance with current good practice, as described in Marine Scotland (2018) and related guidance outlined by the Marine Directorate (MD) and the Energy Consents Unit (Scottish Government, 2022). The design envelope outlines the options and flexibility required for the delivery of the Project along with the range of potential design and activity parameters upon which the subsequent impact assessment chapters are based. The detailed design of the Project will be developed and refined within the consented project design envelope prior to construction, with the final design lying within the maximum extent of the consent (where provided).

1.4. CONSENTING APPROACH

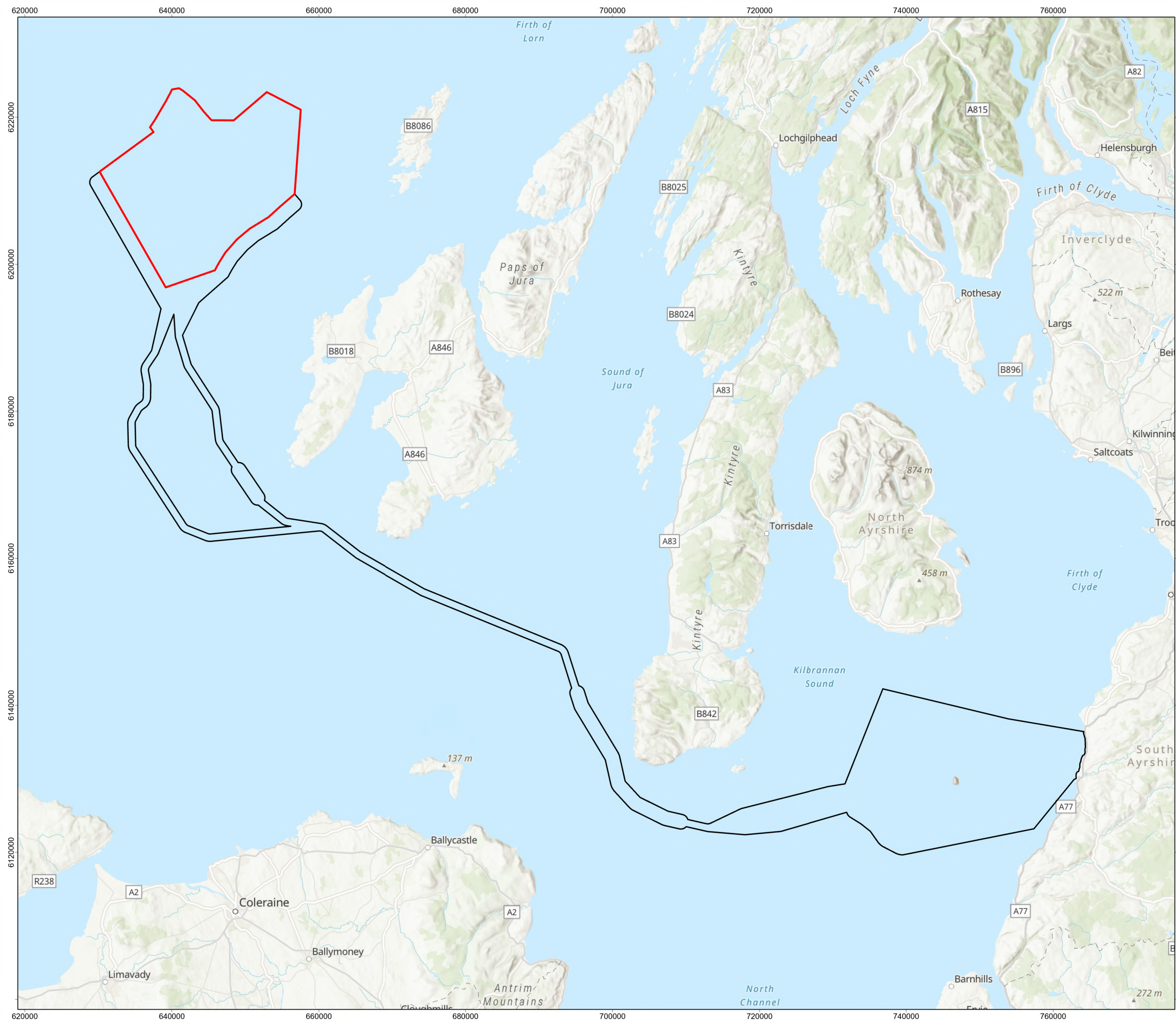
18. For consenting purposes, the Project has been split into the following three Development Areas for which separate consents and/or licences will be sought (**Table 1.1**) by the Applicant for the respective infrastructure:
 - The WDA for the installation and operation of the WDA infrastructure (noting this includes the portion of the offshore export cable(s) located therein);
 - The Offshore ECC, for the installation and operation of the Offshore ECC infrastructure; and
 - The Onshore Transmission Development Area (OnTDA), for the installation and operation of the OnTDA infrastructure.
19. The Applicant is seeking the following consents from Scottish Ministers for the WDA:
 - Section 36 consent under the Electricity Act 1989; and
 - Two Marine Licences under the Marine (Scotland) Act 2010.
20. Combined effects between the WDA, the Offshore ECC and the OnTDA are considered within this MachairWind WDA EIAR to ensure a whole project assessment is undertaken in a manner that is meaningful and proportionate and commensurate with the level of detail available at the time of undertaking the assessment. To inform the combined assessment, a set of assumptions were developed which includes a preliminary boundary for the Offshore ECC and OnTDA, anticipated project components and associated construction methods and timelines. Within the upcoming Offshore ECC and OnTDA consenting applications, their respective scoping and EIARs will take account of all likely effects predicted within the WDA EIA and present updated combined assessments using the latest available information covering all aspects of the Project. Cumulative effects will also be assessed for the Project alongside other projects and plans in the wider area. Further details on the methodology for the EIA is discussed in **Chapter 5 EIA Methodology**.



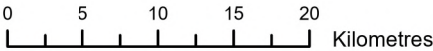
Table 1.1 Consenting approach with details of the location of each Development Area, the key respective infrastructure and the associated consents / licences that are being sought as part of each Development Area application

Development Area	Location	Key Infrastructure	Consent / Licence
WDA	Within the OAA (Figure 1.1)	• WTGs, associated fixed foundations and scour protection; • OSPs, associated fixed foundations and scour protection; • IACs; • OSP link cables; • Offshore export cable(s) (insofar as these are located within the WDA application boundary and with consent being sought for up to a total length of 200 km for up to four offshore export cable(s)); and • Associated external cable protection for the above offshore cables.	• Section 36 • Marine Licence Application (Generation) (WTGs, IACs, OSP link cables)* • Marine Licence Application (Transmission) (OSP and OSP link cables, WDA offshore export cable(s))*
Offshore ECC	A preliminary Offshore ECC has been defined and is shown in Figure 1.2 . [†] This extends from the WDA to Mean High Water Springs.	• Offshore export cable(s) including any associated external cable protection.	• Marine Licence Application (Transmission) (offshore export cable(s))
OnTDA	A preliminary OnTDA has been defined (Figure 1.3) which extends landward of Mean Low Water Springs. [†]	• Landfall(s); • Onshore export cable(s) including associated onshore infrastructure; and • Temporary construction compound(s).	• Town & Country Planning (Scotland) Act 1997 Application
* As described in the Application for Section 36 Consent Cover Letter, the Applicant is recommending that a condition is included within each of these licences which secures installation of OSP link cables under only one of these marine licences. At this stage, it is not clear whether the OSP link cables will form part of the generation or transmission assets and therefore this approach is intended to avoid the potential requirement for a marine licence variation following detailed design and prior to transfer of ownership of transmission assets to the Offshore Transmission Owner. [†] This informs the assessment of the whole-Project effects termed the 'combined assessment' (see Chapter 5 EIA Methodology for further details).			





- Windfarm Development Area
- Offshore Export Cable Corridor



1	18/02/2026	AB	GC	PM	CG
REV	DATE	GIS CREATOR	GIS REVIEWER	TECHNICAL CHECKER	TECHNICAL APPROVER

DRAWING NUMBER MCW-DWF-ENV-MAP-RHS-000190

DATUM	ETRS89	PROJECTION	UTM Zone 29N
SCALE	1:500,000	PAGE SIZE	A3

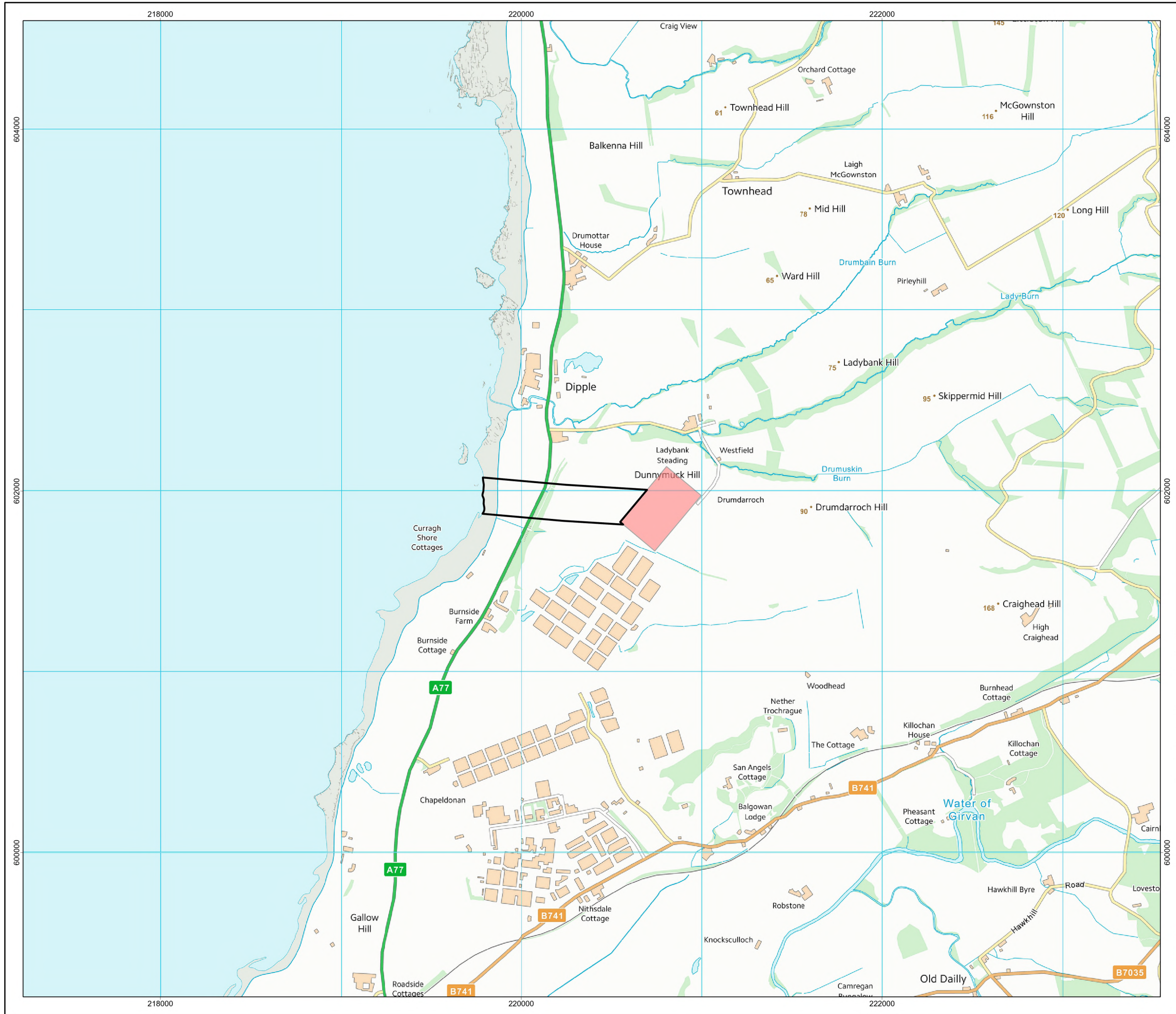
PROJECT TITLE MachairWind

Figure 1.2: Offshore Export Cable Corridor – the preliminary boundary extending from the WDA to mean high water springs near Girvan, South Ayrshire and within which the offshore export cable(s) will be located

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Service Layer Credits: World Hillshade: Esri, CGIAR, N Robinson, NCEAS, USGS
World Ocean Reference: Sources: Esri, TomTom, Garmin, GEBCO, National Geographic, NOAA, and the GIS User Community
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World Ocean Base: Esri, GEBCO, Garmin, NaturalVue

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Onshore Transmission Development Area

Grangestone Switching Station (Transmission Owner responsible for consenting)

N

0

1,000

Metres

1	18/02/2026	AB	GC	PM	CG
REV	REV DATE	GIS CREATOR	GIS REVIEWER	TECHNICAL CHECKER	TECHNICAL APPROVER

DRAWING NUMBER

MCW-DWF-ENV-MAP-RHS-000191

DATUM	OSGB 1936	PROJECTION	British National Grid
SCALE	1:20,000	PAGE SIZE	A3

PROJECT TITLE

MachairWind

Figure 1.3: Onshore Transmission Development Area

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Renewables

1.5. SCOPE

21. The scope of the MachairWind WDA EIAR is informed by the Scoping Opinion (**Appendix 2**) and subsequent stakeholder engagement.
22. This MachairWind WDA EIAR covers the following topics:
 - **Chapter 7 Marine Physical Environment;**
 - **Chapter 8 Benthic Ecology;**
 - **Chapter 9 Fish (Including Basking Shark) and Shellfish;**
 - **Chapter 10 Marine Mammals and Leatherback Turtle;**
 - **Chapter 11 Offshore Ornithology;**
 - **Chapter 12 Commercial Fisheries;**
 - **Chapter 13 Shipping and Navigation;**
 - **Chapter 14 Offshore Archaeology and Cultural Heritage;**
 - **Chapter 15 Military and Civil Aviation;**
 - **Chapter 16 Seascape, Landscape and Visual Impact Assessment;**
 - **Chapter 17 Infrastructure and Other Marine Users;**
 - **Chapter 18 Socio-economics;**
 - **Chapter 19 Greenhouse Gases Assessment;**
 - **Chapter 20 Climate Change Risk Assessment;**
 - **Chapter 21 Major Accidents and Disasters;** and
 - **Chapter 22 Inter-Related Effects and Ecosystem Assessment.**
23. Throughout the EIA process, the Applicant has undertaken thorough consultation with statutory and non-statutory stakeholders and actively engaged with the public at consultation events. Details of the extensive consultation undertaken for the WDA is set out in **Chapter 6 Consultation and Stakeholder Engagement** and the **Pre-Application Consultation Report**. Consultation relevant to each technical chapter is set out in the respective chapters.

1.6. THE APPLICANT

24. The Applicant is a wholly owned subsidiary of ScottishPower Renewables (SPR), a leading renewables developer and operator of both offshore and onshore wind assets throughout the UK. SPR is part of the Iberdrola Group, one of the world's largest utilities and leading wind energy producer. SPR is responsible for progressing Iberdrola's renewable energy projects in the UK, including managing the development, construction, and operation of offshore windfarms.
25. Iberdrola Group is a global energy company and world leader in wind energy production, with an installed renewable power capacity of over 57 GW, of which 37% is onshore wind and 3% is offshore wind.
26. SPR has been actively developing renewable projects in the UK for over 30 years and currently has over 40 operational windfarm sites generating more than 3 GW of renewable energy. SPR's offshore wind portfolio includes the 714 Megawatt (MW) East Anglia ONE project which supported approximately 3,500 jobs at the peak of construction and now supports 100 long term skilled jobs in the operational phase. SPR has created a pathway of development in the East Anglia region with a pipeline of three further projects, consisting of East Anglia ONE North, East Anglia TWO and East Anglia THREE, known collectively as the East Anglia Hub.
27. SPR is one of the largest onshore wind operators in the UK, with over 2 GW of operational capacity across 38 sites and a UK onshore wind pipeline of 3.6 GW. Five of SPR's operational onshore projects are located within Argyll and Bute, namely Clachan Flats, Cruach Mhor and Beinn an Tuirc 1, 2 and 3.



28. MachairWind Offshore Windfarm builds on SPR's long-standing presence and positive track record as a responsible onshore wind developer and good neighbour across Argyll and Bute where it has been working with, and investing in, people, communities, and businesses for more than 20 years to realise the benefits of renewable energy.

1.7. CONSULTANT TEAM

29. Haskoning has been appointed by the Applicant as the Lead EIA and Habitats Regulations Appraisal (HRA) consultant for the whole Project and will be providing EIA, HRA, and consenting services to support the Project as it progresses through the development phase. The Haskoning team is supported in production of the Scoping Reports, HRA Screening Reports, EIARs and Reports to Inform Appropriate Assessment by several technical specialists as outlined in **Plate 1.1**.
30. Haskoning is registered with the Institute of Sustainability and Environmental Professionals EIA Quality Mark scheme. The scheme allows companies that lead the coordination of EIAs to make a commitment to excellence in their EIA activities and have this commitment independently reviewed to ensure quality. Further, Haskoning has been significantly involved in the consenting of over 18 GW of offshore wind projects across the UK.





Plate 1.1 Consultant Team Organogram

1.8. STRUCTURE OF THE ENVIRONMENTAL IMPACT ASSESSMENT REPORT

31. **Table 1.2** outlines this WDA EIAR's structure and the technical specialists responsible for each chapter or supporting appendix.

Table 1.2 Application documents and structure

Application Document	Responsible Author
Non-Technical Summary	Haskoning
Volume 1 Introductory Chapters	
Chapter 1 Introduction	Haskoning
Chapter 2 Policy and Legislative Context	Haskoning
Chapter 3 Project Description	Haskoning
Chapter 4 Site Selection and Alternatives	Haskoning
Chapter 5 EIA Methodology	Haskoning
Chapter 6 Consultation and Stakeholder Engagement	The Applicant
Volume 2 Technical Chapters	
Chapter 7 Marine Physical Environment	Haskoning
Chapter 8 Benthic Ecology	Haskoning
Chapter 9 Fish (including Basking Shark) and Shellfish	Haskoning
Chapter 10 Marine Mammals and Leatherback Turtle	Haskoning
Chapter 11 Offshore Ornithology	MacArthur Green part of SLR
Chapter 12 Commercial Fisheries	Nima Consultants
Chapter 13 Shipping and Navigation	Anatec
Chapter 14 Offshore Archaeology and Cultural Heritage	Haskoning
Chapter 15 Military and Civil Aviation	Cyrrus
Chapter 16 Seascape, Landscape and Visual Impact	Land Use Consultants
Chapter 17 Infrastructure and Other Marine Users	Haskoning
Chapter 18 Socio-economics	BiGGAR Economics
Chapter 19 Greenhouse Gases Assessment	Haskoning
Chapter 20 Climate Change Risk Assessment	Haskoning
Chapter 21 Major Accidents and Disasters	Haskoning
Chapter 22 Inter-related Effects and Ecosystem Assessment	Haskoning



Application Document	Responsible Author
Volume 3a Technical Appendices Standalone	
Appendix 1 WDA Scoping Report	Haskoning
Appendix 2 WDA Scoping Opinion	Haskoning
Appendix 3 WDA Scoping Validation Report	Haskoning
Appendix 4 Gap Analysis	Haskoning
Appendix 5 WDA Mitigation and Commitments Register	Haskoning
Appendix 6 Outline Environmental Management Plan	Haskoning
Appendix 7 Marine Pollution Contingency Plan	Haskoning
Appendix 8 Invasive Non-Native Species Mitigation Plan	Haskoning
Appendix 9 Draft Marine Mammal Mitigation Protocol	Haskoning
Appendix 10 Fisheries Mitigation, Monitoring and Communication Plan	Nima
Appendix 11 Offshore Written Scheme of Investigation and Protocol for Archaeological Discoveries	Haskoning
Appendix 12 Outline Lighting and Marking Plan	Haskoning
Appendix 13 Outline Vessel Management Plan and Navigational Safety Plan	Anatec
Appendix 14 Carbon Management Plan	Haskoning
Appendix 15 Design Strategy Document	The Applicant
Volume 3b Technical Appendices – Introductory Chapters	
Appendix 1.1 Competent Experts	Haskoning
Appendix 5.1 Cumulative Projects Long and Short Lists	Haskoning
Volume 3c Technical Appendices – Technical Chapters	
Appendix 7.1 Marine Physical Environment Numerical Modelling	Haskoning
Appendix 7.2 Marine Physical Environment - Stratification Analysis	Haskoning
Appendix 7.3 Phase 1 Geophysical and Habitat Interpretative Report	Fugro
Appendix 8.1 2025 Habitat Assessment Report	Sulmara and Benthic Solutions Ltd
Appendix 8.2 Benthic Characterisation Report	Fugro
Appendix 8.3 Geophysical and Habitat Interpretative Report	Fugro

Application Document	Responsible Author
Appendix 9.1 Fish (including Basking Shark) and Shellfish Baseline Technical Report	Haskoning
Appendix 10.1 Underwater Noise Modelling Report	Subacoustech Environmental
Appendix 10.2 Marine Mammal and Leatherback Turtle Baseline	Haskoning
Appendix 10.3 Analysis of Hebridean Whale & Dolphin Trust Visual and Passive Acoustic Survey Data off Western Scotland	Scottish Association for Marine Science / Hebridean Whale and Dolphin Trust
Appendix 10.4 Interim Population Consequences of Disturbance (IPCoD) Modelling Technical Report	Haskoning
Appendix 10.5 Cumulative Effects Assessment (CEA) Screening	Haskoning
Appendix 11.1 Overview of Offshore Ornithology EIA and HRA Documents	MacArthur Green part of SLR
Appendix 11.2 Baseline Site Characterisation	MacArthur Green part of SLR
Appendix 11.3 Collision Risk Modelling	MacArthur Green part of SLR
Appendix 11.4 Displacement	MacArthur Green part of SLR
Appendix 11.5 Cumulative and In-Combination Mortality Calculations (EIA and HRA)	MacArthur Green part of SLR
Appendix 11.6 Apportioning for HRA	MacArthur Green part of SLR
Appendix 11.7 Population Viability Analysis	MacArthur Green part of SLR
Appendix 12.1 Commercial Fisheries Technical Report	Nima
Appendix 13.1 Navigational Risk Assessment	Anatec
Appendix 14.1 Archaeological Assessment of Geophysical and Hydrographic Data	Haskoning
Appendix 14.2 Palaeolandscape Assessment	Haskoning
Appendix 14.3 Settings Assessment	Haskoning
Appendix 15.1 Airspace Analysis and Radar Modelling	Cyrrus
Appendix 15.2 Dubh Artach Lighthouse Technical Note	Cyrrus
Appendix 16.1 SLVIA and Visualisation Methodology	LUC
Appendix 16.2 Assessment of Effects on Special Landscape Qualities	LUC
Appendix 16.3 Coastal Character Baseline and Assessment	LUC



Application Document	Responsible Author
Appendix 16.4 SLVIA Visualisations	LUC
Appendix 18.1 Socio-Economics Technical Report	Biggar Economics
Appendix 19.1 Greenhouse Gas Assessment Methodology	Haskoning
Appendix 19.2 Blue Carbon Assessment	Haskoning
Appendix 20.1 Climate Projection Data	Haskoning
Appendix 20.2 Climate Change Vulnerability Assessment	Haskoning
Other Application Documents	
Pre-Application Consultation (PAC) Report	Haskoning
PAC Appendices	Haskoning
Report to Inform Appropriate Assessment (RIAA) Part 1 Upfront Sections	Haskoning
Report to Inform Appropriate Assessment (RIAA) Part 2 Marine Mammals	Haskoning
Report to Inform Appropriate Assessment (RIAA) Part 3 Ornithology	MacArthur Green - part of SLR
Windfarm Development Area Habitats Regulations Appraisal Screening Report	Haskoning / MacArthur Green - part of SLR
Without Prejudice Derogation Case	Haskoning
Report to Inform Marine Protected Area Assessment	Haskoning
Planning Statement	Haskoning
Nature Positive Plan	The Applicant
Socio-economic Action Plan	BiGGAR Economics

1.9. OPPORTUNITY TO COMMENT

32. Submission of the consent applications will be advertised in line with legislative requirements and the MachairWind WDA EIAR is publicly available.
33. Following submission there will be an opportunity for stakeholders to make formal representations to MD-LOT. If you wish to comment on the MachairWind WDA EIA or make representations to MD-LOT, you must do so within the representation period specified in the relevant public notice. Please email Marine Directorate at MD.MarineLicensing@gov.scot or write to:

Marine Directorate - Licensing Operations Team
Scottish Government
375 Victoria Road
Aberdeen
AB11 9DB



34. The MachairWind WDA EIAR and supporting documents are available electronically via the Document Library on the project website: <https://www.scottishpowerrenewables.com/offshore/machairwind/document-library>. Alternatively, you can view the EIAR on the Scottish Government's marine licensing portal or, free of charge, in local venues at the following locations:
- Islay Service Point, Jamieson Street, Bowmore, Isle of Islay, PA43 7HP;
 - Jura Service Point, Craighouse, Isle of Jura, PA60 7XG;
 - Colonsay Service Point, Scalasaig, Isle of Colonsay, PA61 7YW;
 - Island Castaways, The Square, Bunessan, Isle of Mull, PA67 6DG; and
 - Iona Village Hall, Isle of Iona, PA76 6SJ.
35. Copies of the EIAR may also be obtained from MachairWind Limited email: machairwind@scottishpower.com at a charge of £1,000 hard copy and £15 on CD/USB stick (including post and packaging). Copies of a short non-technical summary are available free of charge.



REFERENCES

National Grid ESO (2022). Pathway to 2030: Holistic Network Design. National Grid Electricity System Operator (ESO) Report published in July 2022. Available at: <https://www.nationalgrideso.com/document/262681/download>. [Accessed 21 September 2024]

National Grid ESO (2024). Beyond 2030: A National Blueprint for a Decarbonised Electricity System in Great Britain. ESO Report published in March 2024. Available at: <https://www.nationalgrideso.com/document/315516/download>. [Accessed 21 September 2024]

Scottish Government (2020). 'Sectoral marine plan for offshore wind energy'. Available at: <https://www.gov.scot/publications/sectoral-marine-plan-offshore-wind-energy/>. [Accessed 21 September 2024]

Scottish Government (2022). Guidance for applicants on using the design envelope for applications under section 36 of the Electricity Act 1989. Available at: <https://www.gov.scot/publications/guidance-applicants-using-design-envelope-applications-under-section-36-electricity-act-1989/> [Accessed: 21 September 2024].

