

MORAY WEST

OFFSHORE WINDFARM

Onshore Transmission Infrastructure Environmental Impact Assessment (EIA)

Moray Offshore Windfarm (West) Limited

Chapter 1 Introduction



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Acronyms	
Acronym	Expanded Term
AC	Aberdeenshire Council
CEng	Chartered Engineer
CEnv	Chartered Environmentalist
CIfA	Chartered Institute for Archaeologists
CIEEM	Chartered Institute of Ecology and Environmental Management
CIHT	Chartered Institute of Highways and Transportation
CIWEM	Chartered Institution of Water and Environmental Management
CSci	Chartered Scientist
EDPR	EDP Renovaveis
EIA	Environmental Impact Assessment
GIS	Geographical information systems
GW	Gigawatt
HRA	Habitats Regulations Appraisal
IEMA	Institute of Environmental Management and Assessment
IoA	Institute of Acoustics
LDP	Local Development Plan
MC	Moray Council
MLWS	Mean Low Water Springs
Moray Offshore	Moray Offshore Renewable Power Limited
Moray West	Moray Offshore Windfarm (West) Limited
MW	Megawatt
NETS	National Electricity Transmission System
NPF3	National Planning Framework 3
PAB	Planning Application Boundary
PPP	Planning Permission in Principle
OFTI	Moray West Offshore Transmission Infrastructure
OFTO	Offshore Transmission Owner
OnTI	Moray West Onshore Transmission Infrastructure
RTPI	Royal Town Planning Institute
SPP	Scottish Planning Policy
The EIA Regulations	The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017, as amended

1 Introduction

1.1 Background

- 1.1.1.1 Moray Offshore Windfarm (West) Limited (Moray West) is promoting the development of the Moray West Offshore Wind Farm. The wind farm will be located in the outer Moray Firth (see Figure 1.1.1), approximately 22.5 km from the Caithness coastline and 31.5 km from the Moray coastline at its nearest points. It will comprise an offshore array of wind turbine generators, connected to one another by subsea inter-array cables, which will in turn connect the wind turbine generators to the Moray West Offshore Transmission Infrastructure (OfTI). The OfTI will comprise one or two offshore substation platforms (joined by an interconnector cable if two are required) and offshore export cable circuits that will carry the power generated by the Moray West Offshore Wind Farm ashore at a location along the Aberdeenshire coastline.
- 1.1.1.2 Buried onshore cable circuits will then transmit the power inland to a new onshore substation, where it will be transformed before being fed into the National Electricity Transmission System (NETS) at the existing Blackhillock substation approximately 1.5 km south of Keith in Moray. All transmission infrastructure associated with the Moray West Offshore Wind Farm landward of Mean Low Water Spring (MLWS) comprises the Moray West Onshore Transmission Infrastructure (OnTI). The planning application boundary (PAB) for the OnTI is shown on Figure 1.1.2, while the PAB itself is shown in more detail on Figure 1.1.3.

1.1.2 *The Purpose of this Environmental Impact Assessment Report*

- 1.1.2.1 Moray West is seeking Planning Permission in Principle (PPP) for the OnTI under the Town and Country Planning (Scotland) Act 1997 (as amended). The PAB for the OnTI is located in both the Aberdeenshire Council (AC) and the Moray Council (MC) areas (see Figure 1.1.2). Two separate planning applications have therefore been submitted, one to each Council regarding those elements of the OnTI that will be located in their respective administrative areas.
- 1.1.2.2 Part 2, Section 6 of The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017, as amended (the EIA Regulations) refers to 'EIA development', this being any development type for which a planning application must be, or has been accompanied by an Environmental Impact Assessment (EIA) Report. An EIA Report contains specific information on a development's potential environmental effects as identified through a formal EIA. The EIA Report presents such information in respect of the OnTI, describing its potential environmental effects during the construction, operation and decommissioning phases.
- 1.1.2.3 It is a requirement of the EIA Regulations that proposed EIA developments be considered in their entirety. Although two separate planning applications have been submitted for the OnTI, both are supported by the EIA Report. It should be noted that a further application for a Section 36 consent under the Electricity Act 1989, and Marine Licences under the Marine (Scotland) Act 2010 and Marine and Coastal Access Act 2009, has been submitted to Scottish Ministers for the Moray West Offshore Wind Farm and OfTI. This application is supported by an additional EIA Report prepared to meet the requirements of 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 (as amended). Chapter 14: Whole Project Assessment of this EIA Report considers the potentially significant environmental effects of the Moray West Offshore Wind Farm, the OfTI and the OnTI together (as does Chapter 18: Whole Project Assessment of the Offshore EIA Report).

1.1.3 Development Definitions

1.1.3.1 The following definitions have been used throughout this EIA Report to describe the specific components and areas relating to the Development:

- **Moray Firth Zone** - Zone 1 of the UK offshore wind Round 3 area held under a Zone Development Agreement by Moray Offshore Renewable Power Limited. This comprises the Moray East Site and the Moray West Site.
- **Moray West** - Moray Offshore Windfarm (West) Limited.
- **Moray West Site** - The area of the Moray Firth Zone in which the Moray West Offshore Wind Farm will be located, previously known as the Western Development Area (WDA).
- **Moray West Offshore Wind Farm** - The wind farm to be developed in the Moray West Site.
- **Moray West Offshore Transmission Infrastructure (OfTI)** - The Offshore Transmission Infrastructure associated with the Moray West Offshore Wind Farm.
- **Moray West OfTI Site** - The area within which the OfTI will be located. It includes part of the Moray West Site, within which the Offshore Substation Platform(s) and a portion of the export cables will be located, and the Moray West Offshore Export Cable Corridor within which the remainder of the export cables will be located.
- **Offshore Export Cable Corridor** - Part of the Moray West OfTI Site, within which the majority of the offshore export cable circuits will be located. This corridor is completely outwith the Moray West Site.
- **The Development** - The Moray West Offshore Wind Farm and the associated Moray West OfTI.
- **Onshore Landfall Area** - The section of Aberdeenshire Coast located in the vicinity of Redhythe Point within which the export cable(s) will be brought ashore and connected to the Moray West Onshore Transmission Infrastructure (OnTI).
- **Moray West Onshore Transmission Infrastructure (OnTI)** - The Onshore Transmission Infrastructure associated with the Moray West Offshore Wind Farm.
- **The Project** - The Development (Moray West Offshore Wind Farm and Moray West OfTI) and the Moray West OnTI.
- **Moray East** - Moray Offshore Windfarm (East) Limited, formerly known as Moray Offshore Renewables Limited (MORL).
- **Moray East Site** - The area of the Moray Firth Zone in which the Moray East Offshore Wind Farm and parts of the Moray East TI will be located, previously known as the Eastern Development Area (EDA).
- **Moray East Offshore Wind Farm** - The wind farm to be developed in the Moray East Site.
- **Moray East Transmission Infrastructure (TI)** - Offshore and onshore electricity transmission infrastructure associated with the Moray East Offshore Wind Farm.

1.2 The Developer

1.2.1 *Moray Offshore Windfarm (West) Limited*

1.2.1.1 Moray West is owned 100 % by Moray Offshore Renewable Power Limited (Moray Offshore). Moray Offshore holds the Zone Development Agreement under which it has exclusive rights to investigate and develop offshore wind farms in the Moray Firth Zone. EDP Renewables UK Limited in turn owns 100 % of Moray Offshore, and itself is 100% owned by EDP Renovaveis (EDPR).

1.2.1.2 EDPR is a leading global renewable energy company, headquartered in Madrid, operating in markets around the globe and is continuously expanding its business to new regions making the commitment to lead in each market as well as create value for its stakeholders and shareholders. As of 2017, EDPR managed a global portfolio of 10.8 gigawatts (GW) spread over 11 countries. This includes 2.4 GW in Spain, 1.3 GW in Portugal and 1.6 GW across the rest of Europe which accounts for 49 % total GW, a further 47 % across North America including 5.1 GW in US and the remaining 4 % distributed across Canada (30 MW), Mexico (0.2 GW) and Brazil (0.2 GW).

1.2.2 *The UK Offshore Transmission Regulatory Regime*

1.2.2.1 Moray West will develop, consent, finance, construct, operate and maintain the Moray West Offshore Wind Farm. Moray West will also develop, consent, finance and construct the OfTI and OnTI, although it will not operate or maintain either asset as it is not permissible for the owner of a wind farm to retain operational control of any transmission infrastructure. However, it is permissible for a wind farm owner to construct and install transmission infrastructure assets which are then transferred to an Offshore Transmission Owner (OFTO) prior to operation.

1.2.2.2 Moray West has chosen a process known as the OFTO ‘generator build’ option which involves the generator constructing the transmission infrastructure before transferring all relevant agreements, rights and consents to the OFTO prior to operation. The other option is an ‘OFTO–build’ strategy where agreements, rights and consents will be transferred to the OFTO prior to construction of the transmission assets. At present, it is Moray West’s intention to proceed by way of the ‘generator build’ option.

1.3 Overview of the Moray West Onshore Transmission Infrastructure

1.3.1.1 A full description of the OnTI is provided in Chapter 2: The Proposed Development. The purpose of the OnTI will be to supply power generated by the Moray West Offshore Wind Farm to the NETS onshore; the power will be transmitted as a high voltage alternating current (HVAC). To enable this, the following infrastructure is proposed:

- Offshore export cable circuits – These will transmit power beneath the seabed from the site of the Moray West Offshore Wind Farm ashore to transition joint bays at a location along the Aberdeenshire coastline. The EIA only considers the offshore export cables between Mean Low Water Springs (MLWS) and the transition joint bays;
- Transition joint bays – These will be buried structures acting as the interface between the offshore export cables and onshore cable circuits;
- Onshore cable circuits – These will transmit power underground between the transition joint bays and the proposed onshore substation;
- Onshore substation – This is required to transform the power before feeding it into the NETS at the transmission interface point (the existing Blackhillock substation approximately 1.5 km south of Keith, Moray); and
- Onshore cable circuits – Further interconnecting underground cable circuits will link the proposed onshore substation and the existing Blackhillock substation.

1.4 The EIA Team and Structure of this EIA Report

1.4.1.1 The team responsible for the production of the EIA Report has been led by Moray West and lead EIA consultant GoBe Consultants Ltd, assisted by Wood Environment & Infrastructure Solutions UK Limited. Other specialist, independent and suitably qualified consultants have supported the EIA, including consultation with relevant stakeholders and preparation of the technical assessment chapters of the EIA Report. In line with the requirements of the EIA Regulations, Table 1.4.1 provides a brief summary of the relevant expertise and experience of the EIA team.

Table 1.4.1: Onshore EIA Report Technical Team Profiles	
Consultant	Relevant Expertise and Experience
GoBe Consultants Ltd (GoBe)	GoBe is an environmental and planning consultancy with a focus on providing EIA, Habitat Regulations Appraisal (HRA) and consenting services to the offshore wind farm industry. With offshore wind and transmission asset involvement since Round 1, GoBe has been involved in the EIA and consenting of approximately 19 GW to date. GoBe staff are Chartered Environmentalists (CEnv), Institute of Environmental Management and Assessment (IEMA) or Chartered Institute of Ecology and Environmental Management (CIEEM) members (or working towards membership). GoBe is EIA Quality Mark accredited by the IEMA.
Wood Environment & Infrastructure Solutions UK (Wood)	Wood is a multidisciplinary engineering, consultancy and project management company with extensive experience in transmission assets, having delivered EIA and specialist environmental services to a wide range of UK regulators and private developers. Wood has a tested and sound approach across the key environmental disciplines in carrying out and completing comprehensive EIAs; this is Quality Mark accredited in the UK by IEMA. Wood staff that have contributed to the EIA Report include Chartered Engineers (CEng) and Chartered Scientists (CSci), as well as members of the Institute of Acoustics (IoA), Chartered Institute for Archaeologists (CifA), CIEEM, IEMA, Chartered Institute of Highways and Transportation (CIHT), Chartered Institution of Water and Environmental Management (CIWEM) and Royal Town Planning Institute (RTPI).
Optimised Environments	Optimised Environments has a strong team of landscape architects with over 15 years' experience in undertaking landscape and visual impact assessments. Optimised Environments has provided EIA support on over 50 onshore and offshore wind farm projects including provision of geographical information systems (GIS) services, visualisations, stakeholder consultations and EIA chapter production.
Regeneris Consulting	Regeneris Consulting is an independent economics consultancy and possesses strong experience in analysing the economic impacts of the UK offshore wind sector. Regeneris Consulting has produced socio-economic assessments for eight UK offshore wind farms over the last five years, as well as completing numerous other economic impact reports for offshore wind farms and transmission assets outside of the planning process.

1.4.1.2 The EIA Report is divided into four volumes, as set out in Table 1.4.2.

Table 1.4.2: Structure of the EIA Report		
Chapter No.	Chapter Title	Author
Volume 1: Non-Technical Summary		
	Non-Technical Summary	Wood Environment & Infrastructure Solutions UK Limited, GoBe Consultants Ltd, Optimised Environments, Regeneris Consulting
Volume 2: EIA Report		
1	Introduction	Wood Environment & Infrastructure Solutions UK Limited, GoBe Consultants Ltd
2	The Proposed Development	Wood Environment & Infrastructure Solutions UK Limited, GoBe Consultants Ltd
3	The Environmental Impact Assessment Process	Wood Environment & Infrastructure Solutions UK Limited, GoBe Consultants Ltd
4	Planning Policy Context	Wood Environment & Infrastructure Solutions UK Limited
5	Hydrology, Hydrogeology and Geology	Wood Environment & Infrastructure Solutions UK Limited
6	Ecology and Nature Conservation	Wood Environment & Infrastructure Solutions UK Limited, GoBe Consultants Ltd
7	Landscape and Visual Impact Assessment	Optimised Environments
8	The Historic Environment	Wood Environment & Infrastructure Solutions UK Limited
9	Traffic and Transport	Wood Environment & Infrastructure Solutions UK Limited
10	Noise and Vibration	Wood Environment & Infrastructure Solutions UK Limited
11	Air Quality	Wood Environment & Infrastructure Solutions UK Limited
12	Socio-economics, Tourism and Recreation	Regeneris Consulting
13	Land Use	GoBe Consultants Ltd
14	Whole Project Assessment	GoBe Consultants Ltd
15	Summary of the Environmental Impact Assessment	Wood Environment & Infrastructure Solutions UK Limited, GoBe Consultants Ltd
Volume 3: EIA Report Figures		
Volume 4: EIA Technical Appendices		
3.1	Scoping Opinion and Scoping Responses	
5.1	Phase 1 Geo Environmental Desk Study	Wood Environment & Infrastructure Solutions UK Limited

Table 1.4.2: Structure of the EIA Report		
Chapter No.	Chapter Title	Author
5.2	Groundwater Dependent Terrestrial Ecosystem Assessment	Wood Environment & Infrastructure Solutions UK Limited
5.3	Detailed Hydrological and Hydrogeological Information	Wood Environment & Infrastructure Solutions UK Limited
6.1	Baseline Ecology Report	Wood Environment & Infrastructure Solutions UK Limited
6.1a	Confidential Ecology Report	Wood Environment & Infrastructure Solutions UK Limited
6.2	Ornithology Report	Wood Environment & Infrastructure Solutions UK Limited
6.3	Intertidal Ecology Survey Report	Precision Marine Survey Limited
6.4	Scoping Potential Receptors	Wood Environment & Infrastructure Solutions UK Limited
7.1	Landscape and Visual Impact Assessment Methodology	Optimised Environments
8.1	Historic Environment Gazetteer	Wood Environment & Infrastructure Solutions UK Limited
8.2	Historic Environment Assessment	Wood Environment & Infrastructure Solutions UK Limited
9.1	Transport Assessment	Wood Environment & Infrastructure Solutions UK Limited
9.2	Preliminary Construction Traffic Management Plan	Wood Environment & Infrastructure Solutions UK Limited
9.3	Abnormal Load Traffic Route Assessment Report	Wood Environment & Infrastructure Solutions UK Limited
10.1	Noise Baseline Report	Wood Environment & Infrastructure Solutions UK Limited
10.2	Noise Methodology	Wood Environment & Infrastructure Solutions UK Limited
12.1	Results of Research into Recreation Assets	Regeneris Consulting
12.2	Socio-economic Methodology	Regeneris Consulting

1.4.1.3 The EIA Report is accompanied by certain additional documents required to support the necessary consent applications, with these detailed in Table 1.4.3.

Table 1.4.3: Supporting Documents	
Document	Author
Pre-Application Consultation Report	Pagoda Public Relations
Planning Statement	Jones Lang LaSalle

1.5 Opportunity to Comment

1.5.1.1 In accordance with legislative requirements and industry best practice, submission of the planning applications will be advertised and the EIA Report will be publicly available. Stakeholder engagement will continue following submission and there will be an opportunity to make formal representations to both AC and MC.

1.5.1.2 The EIA Report and supporting documents are available for inspection, free of charge, via the Project website (<http://www.morayoffshore.com/moray-west/the-project/>). Hard copies of the EIA Report will also be made available for public viewing at the following locations:

- AC, Banff and Buchan Area Office, Town House, 34 Low Street, Banff, AB45 1AY; and
- MC, Elgin Council Offices, High Street, Elgin, IV30 1BX.

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