



MORAY EAST

OFFSHORE WIND FARM



Moray Offshore Windfarm (East) Limited

Supply Chain Plan

Annex 1 – Project Plan



Table of Contents

1	Introduction	3
1.1	The Moray East Project & EDPR	3
1.2	EDP Group.....	3
1.3	The Moray East Project.....	4
2	Project Maturity.....	6
3	Procurement and Contracting Strategy.....	9
3.1	EPCI Contractor Procurement Process	12
3.2	Engagement with wider Supply Chain.....	14
4	Financial Commitments.....	17
4.1	Financial Close	17

List of Figures

Figure 1: Corporate Structure.....	3
Figure 2: Moray East Development	5
Figure 3: MORL East Project Phases	6
Figure 4: Phase 1 – Key Project Consents Milestones	7
Figure 5: Phase 2 – Project Definition/CfD Award Milestones.....	7
Figure 6: Phase 3 Final Investment Decision Milestones	8
Figure 7: Phase 4 First Export Milestones	9
Figure 8: MORL Procurement Process.....	12
Figure 9: Package Structure Breakdown.....	12
Figure 10: Multi-Stage tender process and timeline. FEED = Front End Engineering Design.....	14

List of Tables

Table 1: Guiding principles for the contracting strategy	10
Table 2: Key work packages considered of strategic importance for Moray East. OEM = Original Equipment Manufacturer.....	15

Glossary

AfL	Agreement for Lease
CfD	Contract for Difference
EDA	Eastern Development Area
EDPR	EDP Renewables
EDPR-UK	EDP Renewables UK
EDP	Energias de Portugal
EPCI	Engineer, Procure, Construct and Installation
FC	Financial Close
FID	Financial Investment Decision
FBC	Financially Binding Commitment
HV	High Voltage
IFA	Independent Financial Advisor
MV	Medium Voltage
MDD	Milestone Delivery Date
MORL	Moray Offshore Renewables Limited
Moray East	Moray Offshore Windfarm (East) Limited
OSP	Offshore Substation Platform
OFTO	Offshore Transmission Owner
O&M	Operations and Maintenance
OEM	Original Equipment Manufacturer
PQQ	Pre-Qualification Questionnaire
PBA	Preferred Bidder Agreement
QHSE	Quality, Health, Safety and Environment
RFI	Request for Information
RFP	Request for Proposal
SME	Small to Medium Size Enterprise
TCE	The Crown Estate
WDA	Western Development Area
WTG	Wind Turbine Generator
ZDA	Zone Development Agreement

1 Introduction

1.1 The Moray East Project & EDPR

In January 2010, Moray Offshore Renewables Limited (MORL), a company wholly owned by EDP Renewables UK (EDPR-UK), was awarded a Zone Development Agreement (ZDA) by The Crown Estate (TCE) to develop Zone 1 of the nine UK offshore wind Round 3 zones.

MORL initially developed the Eastern part of the site. In Q4 2016 EDPR brought the Western area into development leading to a corporate restructuring in late 2016. On 30 November 2016 a new parent company was incorporated to be the direct parent of MORL – Moray Offshore Renewable Power Limited with the ZDA being novated to this new parent company. On 21 December 2016 MORL changed its name to Moray Offshore Windfarm (East) Limited (known as Moray East).

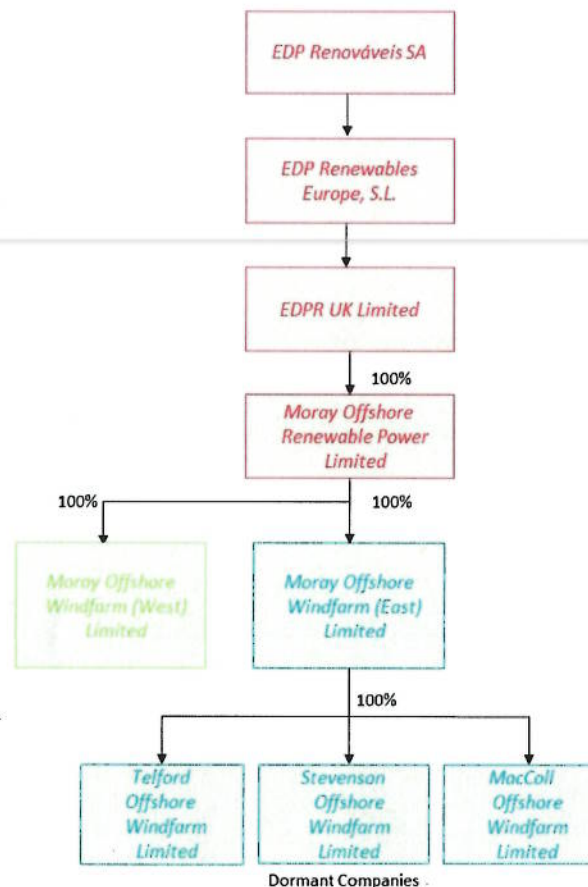


Figure 1: Corporate Structure

1.2 EDP Group

EDP Renewables (EDPR) is a leading, global renewable energy company devoted to value creation, innovation and sustainability. It is currently the world's fourth largest generator of renewable energy from wind developments. It operates in markets around the globe and are continuously expanding its business to new regions, making the commitment to lead in each market as well as create value for our stakeholders and shareholders.

EDPR has developed wind farms since 1996 and was first listed publicly in June 2008. EDPR's global presence is managed by two regional platforms which oversee the development, construction and operation of assets in their geographic areas. EDPR Europe, headquartered in Madrid, manages assets located in the European Union, and other Regions renewable energy assets of the EDP Group and EDPR North America, headquartered in Houston, manages assets in the United States and Canada.

EDPR is committed to operational excellence through high-quality assets and attractive markets and technologies, and has achieved its global presence thanks to its focus on efficiency, cost reduction and innovation. With the award of Zone 1 in 2010 EDPR decided to locate its global headquarters for its offshore business in the UK. Since that time EDPR has expanded its offshore wind business, including fixed offshore developments in France and Poland and commercial-scale floating projects to Portugal and France.

Energias de Portugal, S.A. ("EDP"), a vertically-integrated utility company, headquartered in Lisbon, Portugal, is the majority shareholder of EDPR. EDP Group is Portugal's largest industrial group and one of Europe's primary energy companies. Currently, it is the Iberian Peninsula's third largest energy operator with business interests in generation, distribution and supply of electricity and gas in Portugal and Spain. Additional to its leadership position in the Iberian Peninsula, EDP Group also holds a significant position in the Brazilian electricity sector.

1.3 The Moray East Project

As shown in Figure 2, Zone 1 is located 12nm from the coast on the Smith Bank in the Moray Firth and covers an area of 522.15km². Two development areas within the Zone were identified: the Eastern Development Area (EDA) and the Western Development Area (WDA). In March 2014, Moray East was the first Round 3 developer to achieve consent, with a consented capacity of 1,116MW. A grid connection agreement for New Deer being signed in July 2014. Consents for the transmission infrastructure were granted in September 2014. The Moray East Project (referred to as the Project) is comprised of the EDA consented offshore wind farms together with the associated transmission infrastructure. Moray East will have a construction window of 2019-2022 if awarded a Contract for Difference (CfD) in 2017, with first generation expected around Q2 2021.

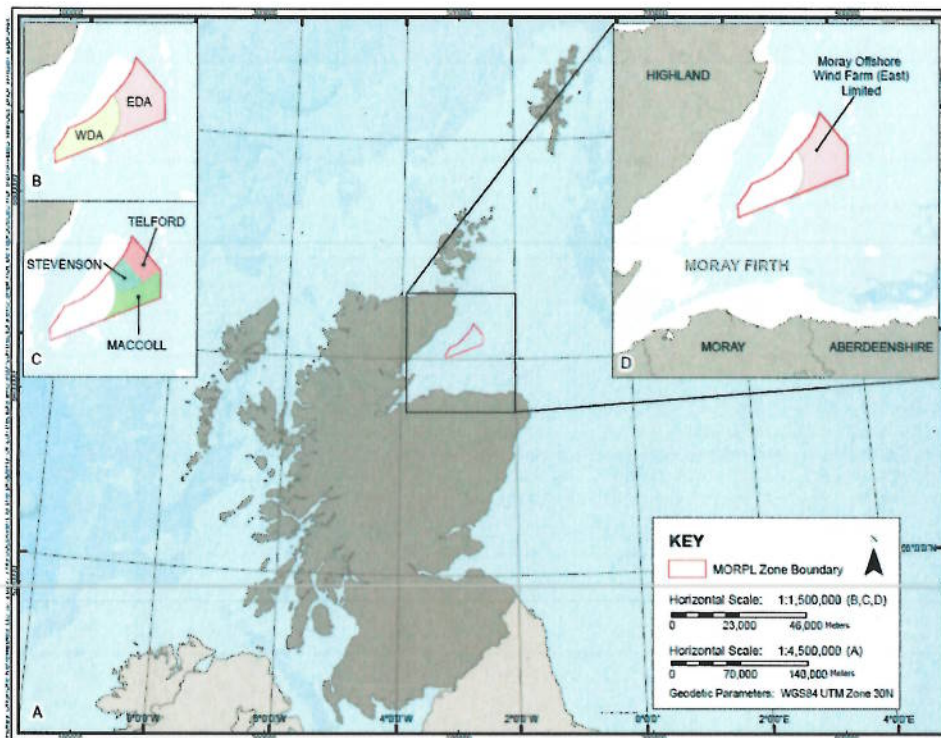


Figure 2: Moray East Development

To date, Moray East has incurred direct costs of [REDACTED] to reach Key Project Consents and develop the Project to the extent of being able to submit a robust CfD bid in 2017.

EDPR's total investment in the UK market, in which the Moray East and the WDA are its only two projects, is presently in excess of [REDACTED]

Moray East had been developed sufficiently to submit a robust bid into the first CfD auction in 2015 and has since incurred costs of [REDACTED] in order to continue the development of the Project to ensure it is prepared to make a bid for a CfD in 2017 and meet all of the financial requirements (namely the Milestone Delivery Date (MDD) requirements) which will come with signing a CfD contract in 2017.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The following sections of this Project Plan establish the current maturity of Moray East, including financial commitments made and honoured to date, project milestones and the procurement approach.

2 Project Maturity

Moray East will be delivered over a lifecycle comprised of six discrete phases and has implemented a governance process in order to control and drive development of the Project. These phases, take the Project from concept to construction and then operation and decommissioning. These are illustrated in Figure 3.

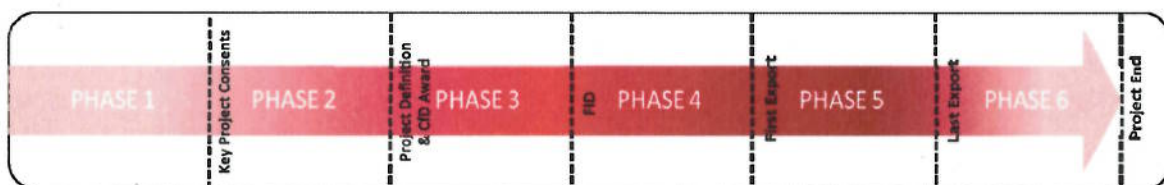


Figure 3: MORL East Project Phases

At the end of each phase the Moray East Board of Directors must give approval to progress to the next phase of the Project.

The key objectives and timescales of the phases are shown in the following figures:

Figure 4: Phase 1 – Key Project Consents Milestones

All Phase 1 objectives have been completed, the majority of these were contractual milestones defined by the ZDA).

Figure 5: Phase 2 – Project Definition/CfD Award Milestones



Figure 6: Phase 3 Final Investment Decision Milestones

Upon award of a CfD contract the Project will progress immediately to Phase 3 which will culminate in FID and FC, which are anticipated to be completed mid-2018 in order to coincide with the MDD requirements of the CfD contract.

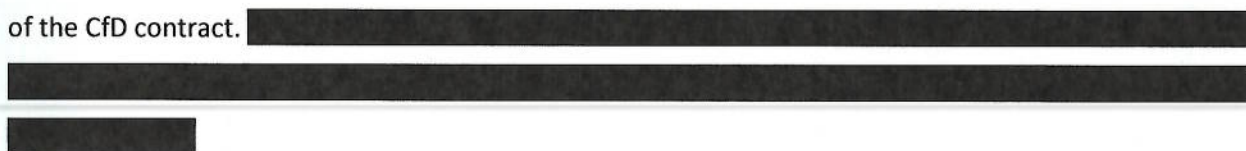


Figure 7: Phase 4 First Export Milestones



3 Procurement and Contracting Strategy

The procurement and contracting processes are key to ensuring that the delivery of the Project is cost-effective and provides best value for money.

Firstly, the contracting strategy used by Moray East has been based on guiding principles which identify key project risks, and then uses the procurement process to control the risks by assigning risk to parties who are best placed to manage them. The contracting strategy also seeks to ensure that the responsibility for innovation is placed with the party who is best positioned to add value, whether that is Moray East or a key contractor.

The key guiding principles for the contracting strategy are described in Table 1.

Principle	Implementation
Competition shall be retained in the tender process for as long as is feasible to secure best value	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>
	<p>[Redacted]</p>
Early Supplier Involvement for most complex design challenges	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>
Flexibility in number of contracts to be awarded shall be retained for as long as possible.	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>
Close engagement with all tiers of the supply chain	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>

Table 1: Guiding principles for the contracting strategy

Moray East drives competition through a multi-stage procurement process. Initial tendering stages have identified preferred EPCI Contractors for the main elements of the wind farm, and once identified, Moray East has worked in collaboration with the selected EPCI Contractor to foster competition in lower tiers of the supply chain and to deliver innovation and skills.

The multi-stage process is described below and shown in Figure 7:



Figure 8: MORL Procurement Process

3.1 EPCI Contractor Procurement Process

[REDACTED]

[REDACTED]

[REDACTED]

to ensure that the principles of open competition, innovation and skills are being delivered throughout the supply chain. [REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
		[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
		[REDACTED]
		[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
		[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
		[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
		[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

These subcontracts are considered of strategic importance for the following reasons:

- Value of works
- Opportunities for cost reduction
- Project critical path impact
- Risk allocation decision-making
- Opportunities for local suppliers
- Relevance to skills development.

[REDACTED]

- [REDACTED]

[REDACTED]

As a demonstration of the Project's engagement with the Tier 2 supply chain, please refer to the Letters of Support provided by prospective suppliers [REDACTED]

In addition, to the works to be conducted under the EPCI contracting strategy, the Project engaged with the wider supply chain for the development phase and is also currently tendering smaller work packages that are to be directly contracted during the construction phase. This includes site investigation work, marine coordination, environmental consultancy, engineering design consultancy and maintenance services for current assets (e.g. offshore met mast).