

Preliminary Information Memorandum

Barrow Offshore Transmission Assets

July 2009



RBC Capital Markets®

SUMMARY

In April 2009, Ofgem distributed a teaser document, "UK Offshore Transmission – Investment Opportunity", to investors outlining the opportunity to acquire offshore electricity transmission assets in Great Britain ("**GB**") under a new regulatory regime governing the ownership and operation of offshore electricity transmission. This regime has been developed jointly by the UK Government, through the Department of Energy and Climate Change ("**DECC**") and the GB energy regulator, the Office of Gas and Electricity Markets ("**Ofgem**").

This document is a summary of information provided by the developer and outlines specifically the opportunity for investors to acquire the transmission assets and to become the licensed Offshore Transmission Owner ("**OFTO**") of the Barrow offshore wind farm (the "**Barrow Wind Farm**"). The Barrow Wind Farm comprises 30 Vestas 3MW wind turbine generators.

The transmission assets for the Barrow Wind Farm (referred to in this document as the "**Barrow Transmission Assets**") are owned by Barrow Offshore Wind Limited ("**BOW**"), which in turn is a 50/50 joint venture between subsidiaries of DONG Energy A/S ("**DONG Energy**") and Centrica Plc ("**Centrica**").

The Barrow Wind Farm was completed in June 2006, with the first power being transmitted in March in that year. The Barrow Transmission Assets will be transferred to the OFTO identified as the successful bidder through the tender process via a sale and purchase agreement.

The preliminary transfer value assessed by Ofgem on the basis of information provided to date (the "**Assessed Transfer Value**") of the Barrow Transmission Assets is £36.5 million. This Assessed Transfer Value includes the offshore substation platform ("**OSP**"). The Assessed Transfer Value is subject to adjustment, as described in the document entitled "Generic Preliminary Information Memorandum" and as further described below.

THE INVESTMENT OPPORTUNITY

1. Transmission Assets Overview

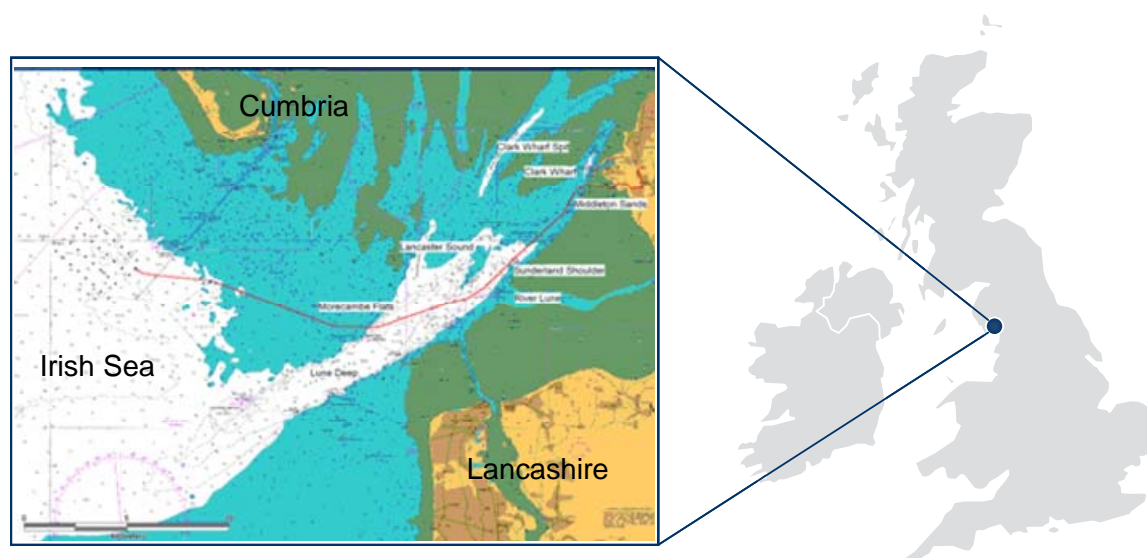
Location

The Barrow Wind Farm is located in the East Irish Sea, approximately 7 km south west of Walney Island, and near to Barrow-in-Furness, off the Cumbria coast in the northwest of England. The offshore connection point is on the OSP approximately 8.5km from the coast as illustrated in Figure 1 below. The turbine layout of the Barrow Wind Farm is represented by the red dots, and the route of the cable by the redline from the wind farm to Heysham.

The Barrow Transmission Assets connect to the onshore distribution network at the substation at Heysham, Cumbria. The onshore distribution licensee is Electricity North West Ltd. ("ENW").

The Barrow Transmission Assets are located inside UK territorial waters.

Figure 1: Location of the Barrow Wind Farm and Transmission Assets



Source: Centrica and DONG Energy

Timeline

The Barrow Transmission Assets were permanently energised in February 2006 with the first power being transmitted in March of that year. The Barrow Wind Farm reached full commercial operation in June 2006.

Transmission Network Design

Table 1 summarises the key transmission network design features of the Barrow Transmission Assets:

Table 1: Barrow Network Design Features

Key Features	
Expected minimum designated service life	20 years
Capacity rating	90MVA

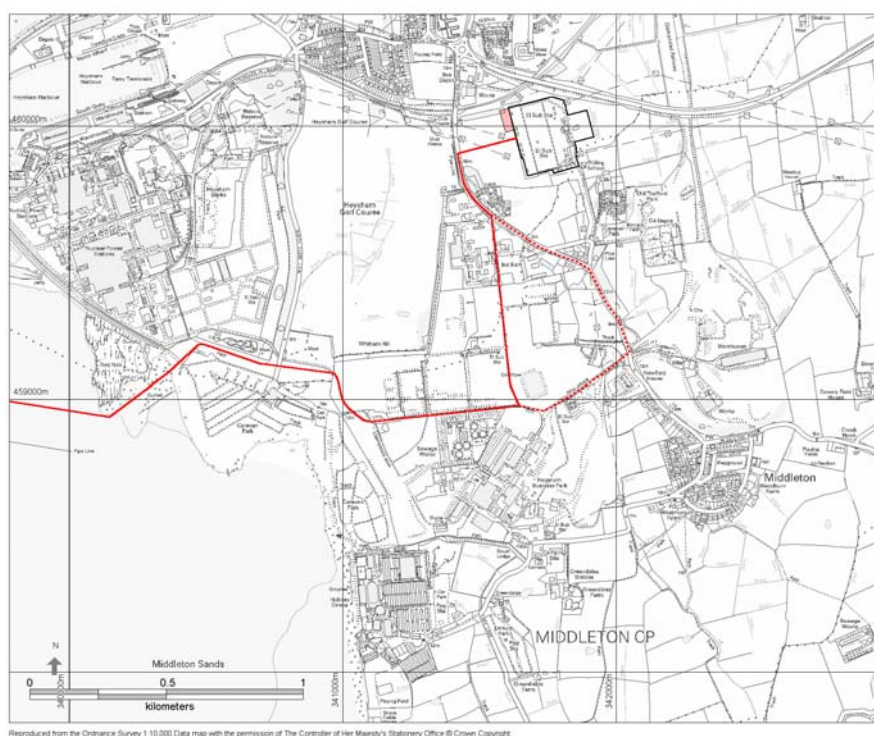
Onshore, the export capacity is defined as 99.9MVA, with a corresponding import capacity of 1 MVA and a 90MW connection agreement has been in place with ENW (formerly United Utilities) since 31 August 2005.

Centrica and DONG Energy estimate that the export rights required at the proposed offshore connection point will be 90 MW.

Description of Transmission Assets

Figure 2 shows the route for the onshore cable.

Figure 2: Route of Barrow Transmission Cable (Onshore)



Source: Warwick Energy EIS

Note: The above figure illustrates the planned options rather than the final laid route

Details of the assets that BOW currently propose to transfer to the OFTO and which were used by Ofgem to derive the Assessed Transfer Value of the Barrow Transmission Assets are set out in Table 2 below.

Table 2: Asset summary

Asset	Description
OSP	The OSP's purpose is to house the necessary equipment for connection and switching of the wind turbine arrays. Main equipment proposed to be transferred includes a 60/90/120MVA 132/33kV transformer, 132kV GIS switchgear and 33kV busbar.
Subsea cable	<p>The subsea cable connects the OSP to the shore where it is joined to the onshore cable in a jointing chamber. The subsea cable connection consists of one 145kV XLPE submarine cable, 26.6km in length from the offshore transmission joint.</p> <p>The continuous current rating of the subsea cable is calculated for 3m burial depth at 18°C ambient temperature, 0.7km/W, 560A. 1 x 3 x 300mm² copper, XLPE, 145kV, individual lead alloy and PE sheaths over power cores, integrate fibre cable, single layer galvanised steel armouring under outer propylene yarn/bitumen serving. The outer diameter is 185mm.</p>
Onshore cables	<p>The onshore cable links the subsea connection to the onshore substation. The onshore connection consists of trefoil of three single 400mm² copper XLPE cable, approximately 3.5km in length.</p> <p>A trefoil of three single 400mm² XLPE cable with corrugated aluminium sheath and PE oversheath rated at 600A. The outer diameter is 95mm for a single cable. It is mainly laid in in-road verges at a depth of 1.1m below the road surface.</p>
Onshore substation	The onshore substation houses the necessary high voltage switchgear for connecting the onshore cable to the transmission or distribution network. The main equipment proposed to be transferred includes a 24MVA shunt reactor, 132kV arrestors, busbars but no 132kV switchgear
Spares	The Barrow Transmission Assets include a cable repair kit comprising two straight joints and a 50m length of cable, stored on a drum at the O&M facility in Barrow-in-Furness.

Table 3 below sets out the current offshore and onshore boundary points proposed by the developer. These have been used for the purposes of calculating the Assessed Transfer Value.

Table 3: Proposed boundary points offshore and onshore

Boundary Point	Location
Offshore	Located at the transformer cable sealing end of the 33kV cables connected to the 132/33kV transformer.
Onshore	Located at the 132kV cable sealing ends.

Redundancy

There is no electrical redundancy available on the Barrow Transmission Assets as there is one offshore transformer and a single subsea cable connecting the OSP to the land.

Contractual arrangements

The original suppliers and contractors, Vestas and KBR, were contracted to operate and maintain the Barrow Wind Farm for a 5 year period following the sale of the wind farm to Centrica and DONG Energy. This contract is due to expire on the 31 December 2011, with an option to extend for a further 5 year period.

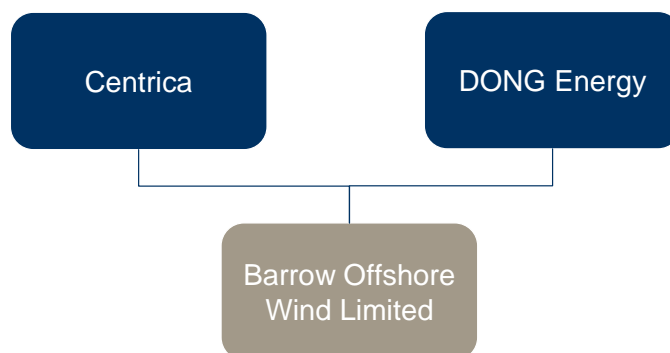
Consents and property rights

The Barrow Transmission Assets were completed in February 2006 and therefore all of the necessary offshore consents and licences and onshore land agreements and property rights are in place.

Ownership structure

An overview of the ownership structure of the Barrow Wind Farm and Barrow Transmission Assets is set out in Figure 3 below:

Figure 3: Ownership Structure



2. Preliminary view of Assessed Transfer Value

Ofgem, with input from its external advisers, has undertaken an exercise to determine the Assessed Transfer Value for the Barrow Transmission Assets summarised in Table 2 above, assuming the boundary points summarised in Table 3. The Assessed Transfer Value is intended to allow BOW to recover its economic and efficient costs of developing the Barrow Transmission Assets and, as such, may be subject to adjustment based on new or more detailed information becoming available to Ofgem.

For the purpose of commencing the tender process, Ofgem has established an Assessed Transfer Value of £36.5 million for the Barrow Transmission Assets.

CONTACT DETAILS

The information in this document is provided for information purposes only. It is designed to provide prospective OFTOs, lenders and advisers with certain high-level information related to the Barrow Transmission Assets, to support the launch of the initial, pre-qualification phase of the first tender process.

All enquiries or communications, including requests for additional information, should be sent to tendercoordinator@ofgem.gov.uk

DISCLAIMER

The information contained in this report has been compiled by RBC Capital Markets ("RBC CM") from sources believed to be reliable, but no representation or warranty, express or implied, is made by Royal Bank of Canada, RBC CM, its affiliates or any other person (which expression shall include the Gas and Electricity Markets Authority and Ofgem, the Office of Gas and Electricity Markets, Barrow Offshore Wind Ltd, DONG Energy A/S or any of its affiliates and Centrica plc or any of its affiliates) as to its accuracy, completeness or correctness and investors/bidders will be expected to rely on their own due diligence. RBC Capital Markets is a business name used by subsidiaries of the Royal Bank of Canada including RBC Dominion Securities Inc., RBC Dominion Securities Corp., RBC Dain Rauscher Inc., Royal Bank of Canada Europe Limited and Royal Bank of Canada – Sydney Branch. All opinions and estimates contained in this report constitute RBC CM's judgement as of the date of this report, are subject to change without notice and are provided in good faith but without legal responsibility. This report is not an offer to sell or a solicitation of an offer to buy any securities. RBC CM and its affiliates may have an investment banking or other relationship with some or all of the issuers mentioned herein and may trade in any of the securities mentioned herein either for their own account or the accounts of their customers. Accordingly, the entities constituting RBC CM or their affiliates may at any time have a long or short position in any such security or option thereon. Every province in Canada, state in the U.S., and most countries throughout the world have their own laws regulating the types of securities and other investment products which may be offered to their residents, as well as the process for doing so. As a result, the securities discussed in this report may not be eligible for sale in some jurisdictions. This report is not, and under no circumstances should be construed as, a solicitation to act as securities broker or dealer in any jurisdiction by any person or company that is not legally permitted to carry on the business of a securities broker or dealer in that jurisdiction. This material is prepared for general circulation to clients and does not have regard to the particular circumstances or needs of any specific person who may read it. To the full extent permitted by law neither RBC CM or any of its affiliates, nor any other person, accepts any liability whatsoever for any direct or consequential loss arising from any use of this report or the information contained herein. No matter contained in this document may be reproduced or copied by any means without the prior consent of RBC CM. The entities comprising RBC Capital Markets are wholly owned subsidiaries of the Royal Bank of Canada and are members of the RBC Financial Group. Additional information is available on request.

To US Residents: This publication has been approved by RBC Dominion Securities Corp. ("RBCDS Corp.") and RBC Dain Rauscher Inc. ("RBC DRI"), both of which are U.S. registered broker-dealers, which accept responsibility for this report and its dissemination in the United States. Any U.S. recipient of this report that is not a registered broker-dealer or a bank acting in a broker or dealer capacity and that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report, should contact and place orders with RBCDS Corp. or RBC DRI.

To Canadian Residents: This publication has been approved by RBC Dominion Securities Inc. Any Canadian recipient of this report that is not a Designated Institution in Ontario, an Accredited Investor in British Columbia or Alberta or a Sophisticated Purchaser in Quebec (or similar permitted purchaser in any other province) and that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report should contact and place orders with RBC Dominion Securities Inc., which, without in any way limiting the foregoing, accepts responsibility for this report and its dissemination in Canada.

To U.K. Residents: This publication has been approved by Royal Bank of Canada Europe Limited ("RBCCEL") which is regulated by Financial Services Authority ("FSA"), in connection with its distribution in the United Kingdom. This material is not for distribution in the United Kingdom to private customers, as defined under the rules of the FSA. RBCCEL accepts responsibility for this report and its dissemination in the United Kingdom.

To Persons receiving this advice in Australia: This material has been distributed in Australia by Royal Bank of Canada -Sydney Branch (ABN 86 076 940 880). This material has been prepared for general circulation and does not take into account the objectives, financial situation or needs of any recipient. Accordingly, any recipient should, before acting on this material, consider the appropriateness of this material having regard to their objectives, financial situation and needs. If this material relates to the acquisition or possible acquisition of a particular financial product, a recipient in Australia should obtain any relevant disclosure document prepared in respect of that product and consider that document before making any decision about whether to acquire the product.