Beatrice Offshore Windfarm Limited (BOWL) is the joint venture partnership formed between SSE Renewables (75%) and Repsol (25%) (formerly SeaEnergy Renewables). In February 2009 we were awarded an exclusivity agreement by the Crown Estate to develop the Beatrice Offshore Wind Farm in Scottish Territorial Waters.

We have submitted to the Scottish Government, an application for consent to develop an offshore wind farm in the Outer Moray Firth.

The application was submitted to Marine Scotland, the Scottish Government directorate that will process the application, who confirmed on 24 April 2012 that the application has been formally accepted following an initial assessment. The proposal will now be thoroughly scrutinised before a final decision is taken by Scottish Ministers. A decision is expected in around nine months.

• The Beatrice Offshore Wind Farm site is located in the Outer Moray Firth on the north-western point of the Smith Bank.

• It is approximately 13.5km from the Caithness coastline.

• The site is approximately 11km north-east of the world’s first deep water wind farm development - the two-turbine (10MW) Beatrice Demonstrator Project. The Beatrice Demonstrator turbines are owned by SSE and Tailsman and have been operational since 2007.

• Building on the success of the Beatrice Demonstrator Project, we are proposing to develop an offshore wind farm which will generate up to 1,000MW of renewable energy, enough to power over 796,000 homes.

We have held a number of public information exhibitions relating to our proposal. The most recent of these were held in November 2011 in Wick, Helmsdale, Inverness and Buckie. We would like to thank everyone who took the time to come along.
WHAT ARE WE PROPOSING TO DEVELOP?

The proposed wind farm will have a maximum of 142 to 277 turbines, depending on turbine size.

The offshore components of wind farm will include:
- Turbines (tower, nacelle, blades and hub)
- Turbine sub-structure and foundations
- Up to 3 offshore electricity substations
- Approximately 65 km of subsea electricity cable connecting the turbines to the substations
- Up to 3 meteorological masts
- Wave measuring equipment

In order that the electricity generated can reach the centres of demand the wind farm will need to be connected to the national electricity grid. We have a grid connection agreement from National Grid which allows us to connect into the existing electricity network at Blackhillock, near Keith, Moray.

GRID CONNECTION

The onshore electricity transmission connection will include:
- Approximately 20km of onshore underground cable
- A new electricity substation nearby the existing substation at Blackhillock

The Onshore Transmission Works are not included in the application made to Marine Scotland. These will be dealt with under a separate planning application which will be made to the Moray Council later this year.

WIND FARM DESIGN

A final site layout has not yet been developed. Should we receive consent, it will allow for flexibility to define the layout of the wind farm once detailed design has been undertaken. This is a recognised approach to offshore wind farm design.

An Environmental Impact Assessment (EIA) has been carried out and has been submitted as part of our application. The EIA has considered a number of scenarios and indicative layouts to ensure that every possible significant impact has been assessed. The final layout will have a generating capacity of up to 1,000 MW. In order to achieve this maximum capacity a number of turbine scenarios have been considered, including up to 277 turbines of 3.6 MW capacity, or up to 142 turbines of 7 MW capacity.
WIND TURBINE DESIGN

- The smaller design of wind turbine would have a maximum tip height of 140.6m; a rotor diameter of 107.2m; and a hub height of 87m.
- The larger design of wind turbine would have a maximum tip height of 198.4m; a rotor diameter of 165m; and a hub height of 115.9m.

The turbines will have three blades attached to the hub, which in turn is attached to the nacelle. From time to time engineers will need access to the turbines and this will be by boat or by helicopter. The turbines will be able to be turned on and off from a control room onshore.

FOUNDATIONS AND SUBSTRUCTURES

The foundations are the engineered elements used to secure the substructure and the turbine to the seabed. The substructure is the component which links the turbine tower to the foundation.

For the Beatrice Offshore Wind Farm, engineering appraisals have concluded that, given the water depths, seabed characteristics and wind resource at the site, a number of different types of foundation should be considered - these include: pin pile; suction pile; gravity base; and conical gravity base.

Suitable substructure designs for the Beatrice Offshore Wind Farm are: tubular jacket or monotower.

At this stage a final decision is yet to be made on which is most suitable for the site.

The diagram above shows the different types of foundations and substructures being considered.

PROJECT PROGRAMME

The project programme illustration below shows the main activities that we have undertaken so far in the development of the project. It also indicates the expected timetable following the submission of the offshore application.

One activity that runs continuously throughout this programme is consultation. Consultation with decision makers, regulators, key consultees, communities and other interested parties has, and will continue to be undertaken throughout the entire project programme.
ENVIRONMENTAL STATEMENT

Our application is the culmination of several years of collating data, and consultation with a range of authorities, communities and organisations, the details of which are included in the Environmental Statement which has been submitted with our application.

Copies of the application and the accompanying Environmental Statement are available to be viewed, free of charge, during normal office hours at the following locations:

- The Highland Council Planning Office
  Glenurquhart Road
  Inverness
  IV3 5NX
- Caithness Planning Office
  Market Square
  Wick
  KW1 4AB
- Brora Library and Cultural Centre
  Gower Street
  Brora
  KW6 6PD
- Helmsdale Library and Service Point
  Dunrobin Street
  Helmsdale
  KW8 6JX
- Moray Council Planning Office
  High Street
  Elgin
  IV30 1BX
- Buckie Library
  Cluny Place
  Buckie
  AB56 1HB

Representations on the applications and/or Environmental Statement should be made by email to The Scottish Government, Marine Scotland Licensing Operations Team mailbox at beatrice@scotland.gsi.gov.uk or by post to The Scottish Government, Marine Scotland Licensing Operations Team, Marine Laboratory, PO Box 101, 375 Victoria Road, Aberdeen, AB11 9DB identifying the proposals and specifying the grounds for representation, not later than 8 June 2012.

Representations should be dated and should clearly state the name (in block capitals) and full return email or postal address of those making representations. All representations to the Scottish Government will be copied in full to Moray and Highland Councils.

For further information about how to view the Environmental Statement please visit www.sse.com/beatrice or contact the BOWL Communications Manager:

Morven Smith, Inveralmond House, 200 Dunkeld Road, Perth, PH1 3AQ
Email: morven.smith@sse.com  Telephone: 01738 516650