

be appraised during the course of the design development and EIA process. Various construction phases will be required and a typical programme would involve the following elements.

- Seabed preparation work if required.
- Substations and subsea cables installed.
- Construction vessels moved into position to begin foundation works.
- Key turbine components assembled onshore and transported to site and erected.
- Testing and commissioning undertaken.

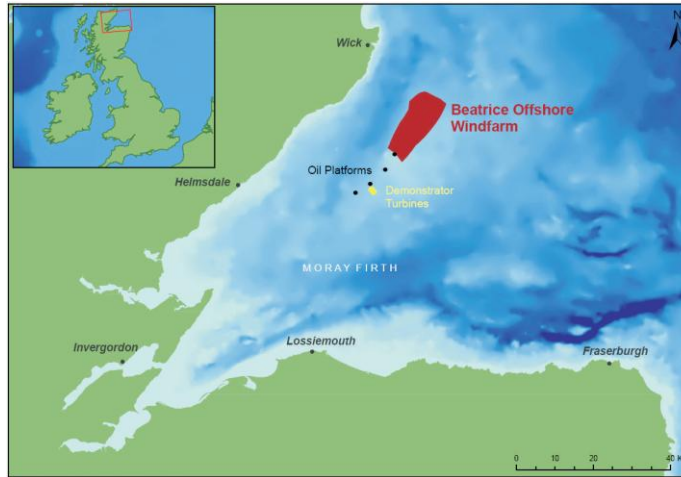
During construction there will be a number of specialist vessels undertaking construction operations. These are likely to include a large construction vessel which may also be assisted by a number of specialist support vessels.



Typical construction vessel used to erect turbines

Operation of the Wind Farm

The wind farm would be available for operation 24 hours a day, 365 days a year. An ongoing programme of operation and maintenance activities would be developed and rolled out to support its operation. We anticipate that this operation and maintenance programme will result in the creation of a local service base.



Site Location and surrounding features

Get in touch

Whether formal or informal, your views and opinions about the proposed offshore wind farm, even at this early stage, are welcome and valued. If you have any comments, queries or views about the proposals please feel free to contact BOWL at the address below.

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Digital copies of the Environmental Scoping Report are available from the project website at: www.sse-beatrice.com



INFORMATION LEAFLET

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

SSE Renewables is responsible for the development of Scottish and Southern Energy's (SSE) renewable energy projects across Europe. It is the UK's leading generator of renewable energy with over 2,300 Megawatts (MW) of renewable electricity projects consented.

SeaEnergy Renewables Limited (SERL) developed and delivered the world's first deep water wind farm development - the Beatrice demonstrator project (10MW) owned by Talisman Energy and SSE and located in the Outer Moray Firth.

Where is it?

The Beatrice Offshore Wind Farm site is located as follows.

- On the north-western most point of the Smith Bank in the Outer Moray Firth.
- Approximately 13.5km from the Caithness coastline.
- This site is approximately 19km long and 9km wide.

There are a number of features located nearby.

- The existing Beatrice demonstrator turbines 11km to the south west.
- The existing Jacky oil platform is located just outside the site to the south west.
- The proposed Moray Firth Round 3 offshore wind farm zone is located directly to the east.



What is it we propose?

If we use the same turbines as the existing 5MW demonstrator turbines the Beatrice site could accommodate approximately 184, giving a generating capacity of 920MW. Key statistics of these turbines include the following.

- A hub height of approximately 88m above sea level.
- A blade tip height of approximately 150m.

What are the key components?

The wind farm will comprise the following.

- Turbines (tower, nacelle, rotors and hub).
- Turbine sub-structure and foundations.
- Electricity cables at the site.
- Offshore electricity substations.
- Cable connection to a mainland substation.
- Maintenance and operational facilities on the mainland.



Why are we doing this?

UK renewable energy policy centres around two key factors.

- Reduction of CO₂ emissions to tackle climate change.
- Security of energy supply.

There are a number of government targets set to try and achieve this.

- UK Government target of generating 15% of energy from renewable sources by 2015 and 20% by 2020.
- The Scottish Government's Climate Change Act commits Scotland to cut carbon emissions by 42% from 1990 levels by 2020 and by at least 80% by 2050.

The move to a low carbon economy and an increased reliance on renewable energy will also make a significant contribution to the security of fuel supplies by reducing dependency on oil and gas.

Offshore Wind Development

There are a number of Scottish Government and UK Government policies and statements which promote the development of offshore wind in the Moray Firth. In the 2006 Scottish Government report 'Matching Renewable Electricity Generation and Demand' the Outer Moray Firth was identified as a region able to accommodate offshore wind development.

What is the BOWL timetable?

Key activities that we have undertaken so far, and our anticipated timetables going forward, are shown below.

| Activity | Timescale |
|--|--------------------------------|
| Exclusivity agreement received from The Crown Estate | February 2009 |
| Agree on approach and scope of Environmental Impact Assessment (EIA) with the Government and consultees. | Summer 2010 |
| Environmental Scoping Report submitted to Marine Scotland | March 2010 |
| Undertake baseline surveys and Environmental Impact Assessment | Ongoing until Autumn 2011 |
| Public exhibitions | Summer 2010 |
| Submit completed application and Environmental Statement for Statutory Consent and Licenses | Autumn / Winter 2011 |
| Consent potentially granted | Anticipated Autumn/Winter 2012 |
| Construction commencing | Anticipated 2014/2015 |
| Fully operational | Anticipated 2017/2018 |

Who are we consulting?

We are committed to consulting with all interested parties. We have already consulted with many statutory and non-statutory groups and organisations. The public is another key consultee.

We are keen to listen to the views of all these groups and individuals and welcome any feedback. Keeping stakeholders informed of our plans as they develop, and receiving comments as part of this consultation process, is another key aim. We plan to hold a further series of public exhibitions next year around the time we submit our application(s) for consent, which we expect to do in Autumn/Winter 2011.

What are we doing?

There are certain consents that must be obtained for any offshore wind generating site in Scottish waters. It should be noted that, since the Beatrice Offshore Windfarm Limited's (BOWL) applications for development are not anticipated to be submitted until 2011, it is likely that the applications will pass through a new consenting framework. The new consenting framework is currently in preparation.

Environmental Impact Assessment (EIA)

To support the application an EIA is required under the European Commission EIA Directive. BOWL will employ a variety of specialist consultants to assess the final proposals from an environmental perspective. The topic areas that will be considered in the EIA are listed below. Some of these may warrant more detailed assessment and modelling than others.

Physical Environment

| | |
|-----------------------|---------------------|
| Coastal Process | Seabed Geology |
| Air Quality | Noise and Vibration |
| Traffic and Transport | |

Biological Environment

| | |
|--------------------|----------------|
| Seabed Marine Life | Plankton |
| Fish Ecology | Marine Mammals |
| Ornithology | |

Human Environment

| | |
|--|-----------------------------------|
| Landscape, Seascape and Visual | Archaeology and Cultural Heritage |
| Aviation and Military Operations | Shipping and Navigation |
| Commercial Fisheries | Salmon and Sea Trout |
| Oil and Gas Operations | Socio – Economics |
| Pipelines and Cables / Seabed Infrastructure | |

Construction and Operation Overview

The construction timetable is likely to run for approximately three years. Access to the offshore construction area will be required all year round, and during the main construction phases we expect that 24 hour working will be required. There are a number of construction techniques that could be employed to install the wind farm components and these will