



Beatrice

Wind Farm Demonstrator Project

Talisman Energy (UK) and its co-venturer Scottish and Southern Energy are seeking consent to build and operate a wind farm adjacent to the Beatrice field in the Moray Firth.

The demonstrator project would comprise two wind turbine generating units (WTGs) of 5MW capacity located on the seabed about 1.6km and 2.3km from the Beatrice Alpha complex, linked to the Beatrice AP platform by a subsea cable.

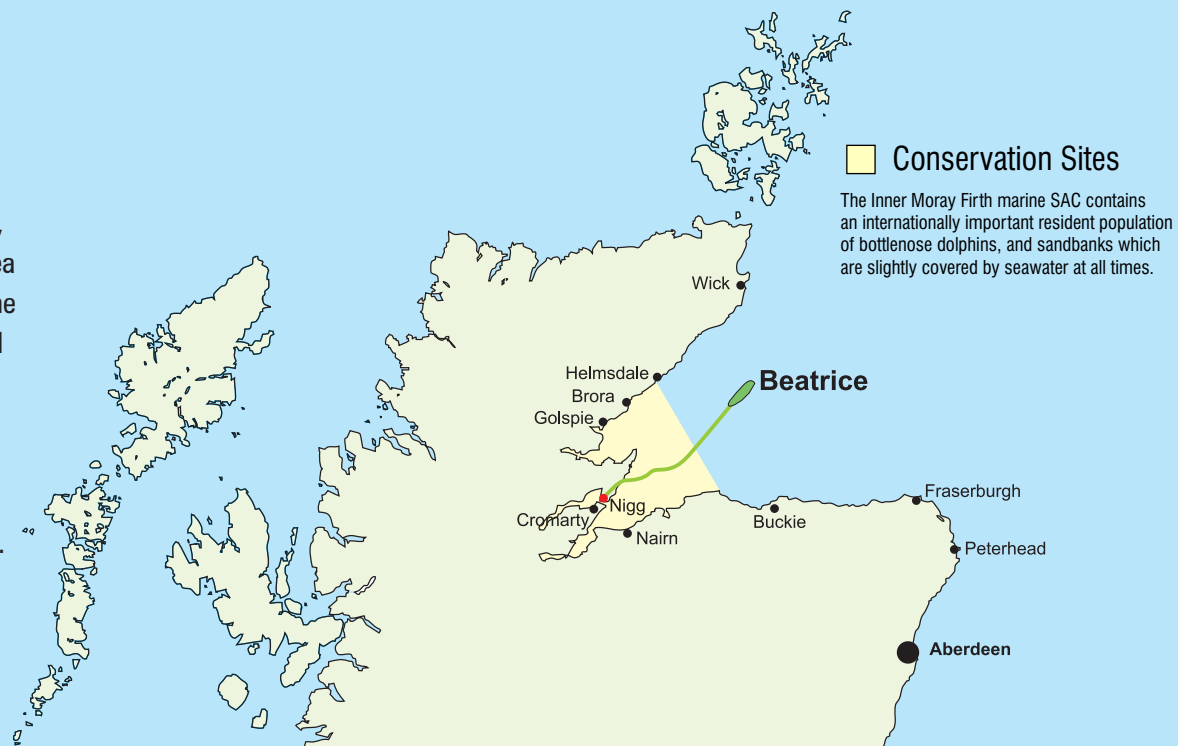
Lasting for approximately five years, the demonstrator project would be used to examine the feasibility and benefits of creating a commercial deepwater wind farm at this site.

This leaflet provides an overview of some of the key issues – and sources of further information. Talisman has produced a full Scoping Report which describes the potential environmental, socio-economic, and visual impacts that might be caused by the proposed project. (To download this report visit www.beatricewind.co.uk)

The proposal will also be subject to a full Environmental Impact Assessment (EIA) supported by a formal Environmental Assessment (EA) prepared under the Offshore Petroleum Production and Pipelines (Assessment of Environmental Effects) Regulations 1999. If the demonstrator project proves successful and the decision is made to proceed with the creation of a commercial wind farm, a second comprehensive EIA, including consultation, would be undertaken for that development.

Environmental setting and the Habitats Directive

The Beatrice Field lies approximately 22km off the northeast coast of Scotland, and is situated about 24km outside the boundary of the Moray Firth Special Area of Conservation (SAC). The main qualifying interest of the Moray Firth SAC is the resident population of Bottlenose dolphins, thought to number between 120 and 170 individuals. In addition to the SAC, the adjacent coasts of Morayshire and Caithness contain numerous sites of ecological or conservation interest, particularly for their nesting seabirds and seals. Offshore, the Smith Bank, on which Beatrice is located, is a site for commercial fishing and includes spawning grounds for several commercially-fished species of fish and shellfish.



Conservation Sites

The Inner Moray Firth marine SAC contains an internationally important resident population of bottlenose dolphins, and sandbanks which are slightly covered by seawater at all times.



POTENTIAL IMPACTS AND THEIR MITIGATION

Initial stakeholder consultation and the results of the scoping exercise identified the following main impacts for the demonstrator project:

UNDERWATER NOISE FROM PILING

If the WTGs were fixed to the seabed by driven piles, the noise from short-term piling operations may disturb marine mammals and fish in the area around the sites. The use of marine mammal observers, and the application of a "soft-start" to piling operations may be used to reduce possible effects. Other mitigation measures will be described and reviewed in the EA.

NOISE FROM OPERATIONS OF WTG UNIT

Because of the remote location offshore no noise is expected on land. The operation of the WTGs will create some noise and vibration that will be transmitted into the water column.

Studies being undertaken by the University of Aberdeen will improve our understanding of the noise and it's effects on marine mammals.

EFFECTS ON SEABED COMMUNITIES

The two WTGs will cover a very small area of the existing seabed and associated seabed communities. No rare or threatened species or communities will be affected. Installing the WTGs on the steel frames rather than concrete bases is one way this impact may be minimised, others will be reviewed in the EA.

EFFECTS ON BIRDS AT SEA

The presence of the WTGs may affect the movements of birds and the use that they may make of the area, including their feeding activities. There is also a small chance that the WTGs could present a collision hazard for some species, under certain conditions. Studies being undertaken by the University of Aberdeen on bird distribution will help assess the risks.

ELECTROMAGNETIC EFFECTS ON FISH

Electromagnetic fields around the cable linking the WTGs to Beatrice AP may affect some species of fish, such as sharks and rays. The 33KV cable lengths will be relatively short (about 2.8km in total) so any possible effects on fish are likely to be small and localised and will be investigated fully in the EA and appropriate mitigation defined.

INTERACTION WITH COMMERCIAL FISHING AND SHIPPING

The presence of two new structures close to the Beatrice platform may interfere with commercial fishing operations and shipping. It is not yet known if the area around each WTG will be accessible for fishing once the turbines are in place, and consultation with fishing organisations is continuing. The new structures will be marked on charts and shipping will be notified through the Admiralty's "Notices to Mariners".

VISUAL AND LANDSCAPE IMPACT

Despite their offshore location, parts of the WTG structures will be visible from various locations on the Moray Firth coast. The WTGs will also be seen by vessels in the Moray Firth. Careful choice of colours and reflectivity of surfaces may help mitigate visual impacts.



Research studies under way

As a result of initial stakeholder consultation, Talisman has identified that noise effects on marine mammals, and effects on birds at sea, are important potential effects of the demonstrator project. To provide more detailed information on these issues, Talisman has initiated a series of surveys and research programmes with the University of Aberdeen and other organisations. These include:

- Assessment of noise effects through a research programme which will (a) assess activity of marine mammals in the area around the WTGs, and (b) measure the actual noise levels that are created by the operations.
- Gathering new survey data of Bottlenose dolphin distribution in the offshore Moray Firth.
- Assessment of the potential effects of the WTGs on birds. Talisman have started a year-long survey to obtain detailed data on the presence of birds around the specific WTG sites and are in the process of commissioning dedicated radar studies of birds around the WTGs.

Future programme

A full EIA will be undertaken to assess and quantify in detail all the potential impacts from the demonstrator project. The resulting EA will include the results from the consultation programme, and will reflect the issues, concerns and mitigation measures raised by stakeholders. It is planned that the EA will be completed by the end of 2005, and will support the formal application for consent to the DTI.

Consultation

Talisman will conduct a comprehensive consultation exercise in 2005, during which all interested parties will have an opportunity to learn about the demonstrator project and to voice their concerns and give their comments about the proposed project.

The Scoping report will inform the consultation exercise and copies can be obtained by writing to The Environment Manager, Talisman Energy (UK) Limited, Talisman House, 163 Holburn Street, Aberdeen AB10 6BZ, or downloaded in PDF format from www.beatricewind.co.uk

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