



The first jacket arrives on site with Beatrice Alpha in the background

World's Deepest Offshore Wind Turbines Given Green Light by DTI

On 4 July 2006, the UK Department of Trade and Industry (DTI) gave its approval for the development of the Beatrice Wind Farm Demonstrator Project.

The announcement represented the green light for this joint venture between Talisman Energy (UK) Limited and Scottish and Southern Energy (SSE), which will see two of the largest turbines in the world installed to test the technical and economic feasibility of deepwater wind farms in water depths of about 45 metres.

Following the announcement, *Dr. Jim Buckee*, President and Chief Executive Officer of Talisman Energy Inc., parent company of Talisman Energy (UK) Limited, commented:

"We are delighted that the Demonstrator Project has received development consent. We are now in the final stages of fabrication and assembly and plan to install the turbines within the next few months. During the next few years the results of this project will influence the development of wind turbine technology around the world."

DTI approval also marked a major milestone in an extensive period of public consultation. Talisman would like to thank everyone who participated in this process. We will continue to provide progress updates as we head towards first power and beyond.



A MESSAGE FROM NICK WALKER Vice President, Talisman Energy (UK) Limited

As we commence installation of the two turbines in the Moray Firth, it is a good time to look both back and ahead.

Looking back we can see how the Beatrice Wind Farm Demonstrator Project has grown in significance. We first became interested in offshore wind in 2001 following a review of our redevelopment of the Beatrice field. The review looked for ways to reduce operating costs, increase production and recoverable reserves, and extend the life of Beatrice.

We recognised that the existing infrastructure offered a unique opportunity to test the feasibility of deepwater wind farms while optimising the value of our facilities.

Since then we have invested significant resources in developing the engineering design and meeting or surpassing our regulatory commitments. In particular, our Environmental Statement was a major undertaking, and I would like to thank everyone who contributed to the consultation process.

Looking forward, during the five-year period of the project, we will collect performance data, look for ways to reduce operating costs, and develop operating procedures. If the project is successful, we will consider the construction of a full-scale offshore wind farm. A commercial venture could generate upwards of one gigawatt of electricity or 20% of Scotland's electrical power consumption. It is an exciting prospect.

Demonstrator set to bring major benefits to Scotland

Scotland's Deputy First Minister, Nicol Stephen, has visited the site of the Beatrice Wind Farm Demonstrator Project in the company of Dr. Jim Buckee, President and Chief Executive Officer of Talisman Energy Inc.

The Scottish Executive (£3m) and the UK's Department of Trade and Industry (£3m) have been major funders of the project with other funding coming from the EU, Talisman, SSE and other partners.

Deputy First Minister, Nicol Stephen said: "I am delighted that the Scottish Executive has been able to provide substantial funding support for this project. Scottish companies have over 30 years of experience of working in the challenging conditions of the North Sea, and Scotland now has an opportunity to become a world leader in renewable energy technology, including offshore wind, wave and tidal power."

"We have set ourselves a target of generating at least 40 per cent of Scottish electricity from renewable energy sources by 2020. The success of this Demonstrator Project will play an important part of achieving that target."

Dr. Jim Buckee, added: "This project is already utilising many of the project management, engineering and fabrication skills and techniques developed in the UK's offshore oil and gas industry. Such skills are transferable and underline the role the oil and gas sector is able to play in developing offshore wind."

EU Energy Commissioner visits Beatrice and Nigg

Energy Commissioner for the European Union, Andris Piebalgs, visited Scotland in July to review progress on the Beatrice Wind Farm Demonstrator Project. His visit marked the start of installation work on the £35 million project. The European Community has contributed €6 million towards the project.

The Commissioner visited the Beatrice Alpha oil platform and viewed modifications being made to tie-in the cable linking the two turbines to the platform, and the special bird radar system, which is part of an innovative environmental data gathering program.

Onshore, Commissioner Piebalgs visited the Nigg fabrication yard where he reviewed progress on the assembly of the wind turbines. This work is being undertaken by two local companies, Isleburn Mackay & MacLeod Limited and Weldex Limited, working with REpower Systems AG of Germany.

Commissioner Piebalgs commented: "I am delighted to be able to be here today and see for myself the scale of these turbines and learn about the assembly and installation process."



Deputy First Minister Nicol Stephen with the Rambiz barge on the Beatrice Field



First jacket being prepared for installation



Tower being assembled at Nigg fabrication yard.



Andris Piebalgs, Energy Commissioner for the European Union & Jim Buckee, President and Chief Executive Officer of Talisman Energy Inc., view the installation site from the Beatrice Alpha platform

CHANCELLOR UNVEILS JACKETS AT SAIL OUT FROM BURNTISLAND

On 14 July 2006, the Rt Hon Gordon Brown MP, Chancellor of the Exchequer, unveiled the two support structures for the Beatrice Wind Farm Demonstrator Project.

The completion ceremony took place at the fabrication yard of Burntisland Fabrications Limited (Bi-Fab) in Fife prior to the sail out of the jackets to the installation site adjacent to the Beatrice Alpha oil platform.

Gordon Brown said: "I was delighted when I heard that this contract had been awarded to BiFab, a world class company based in Fife. I am very pleased to be here today to see for myself the

completion of these structures, which are clear evidence of the high-tec, highly skilled work that has gone into this project.

"If we are to achieve our goals on climate change and energy security we need to substantially increase our use of renewable energy, including wind power. It is a credit to the world class skills and determination of everyone involved in the Beatrice Project that we will be able to test the feasibility of wind farm technology in substantially deeper water than has ever been tried before, and I congratulate all those involved on their pioneering approach."

"IT IS A CREDIT TO THE WORLD CLASS SKILLS AND DETERMINATION OF EVERYONE INVOLVED IN THE BEATRICE PROJECT"



Left to right: John Robertson, Managing Director, Burntisland Fabrications Limited; RT Hon Gordon Brown MP; Ian Marchant, Chief Executive, Scottish and Southern Energy; Nick Walker, Vice President, Talisman Energy (UK) Limited

OUR TIMETABLE FOR INSTALLATION

The full sequence of installation is outlined on an animation which can be viewed on the project dedicated website www.beatricewind.co.uk

Sub-structure installation and piling is expected to be complete by early August.

Assembly of the tower generator and temporary transition piece has already commenced at Nigg. Once the substructures are installed the crane barge Rambiz will return to the Cromarty Firth to lift the tower and generator blade assembly for transit to site.

Weather permitting, the first structure is expected to be lifted from the Nigg yard in mid August with the second structure towards the end of August.

For those interested in observing this operation, we plan to give precise up to the minute dates on the project website. Observation from Cromarty and the Sutors should give a clear view of the structure and barge as it sails to the Beatrice field.



The two wind turbines in the Nigg construction yard

Consultation and research: the lessons learned

The recent approval given to the Beatrice Wind Farm Demonstrator Project by the UK Department of Trade and Industry (DTI) underlined the benefits of the in-depth research and consultation process undertaken by Talisman prior to the submission of the project's Environmental Statement.

The consultation and research process extended over more than 18 months and ensured that once the Environmental Statement was submitted, there were few unidentified issues and the approval process was smoother with only some clarification of data required.

Because all electricity generated by the wind turbines will be used by the Beatrice oil platform, the project is consented as an oil and

gas project. The process of consultation and gaining approval occurred against a backdrop of evolving concerns and new standards for renewables projects.

From our experience, Talisman believes it is essential for the future success of similar projects that clear regulatory standards are established and widely agreed for all future renewables projects.

We hope that the continuing environmental research around the Beatrice Demonstrator will more clearly define acceptable standards for consenting future offshore renewable developments.



Acoustic monitoring in the Moray Firth

TALK TO US

For more information on the Beatrice Wind Farm Demonstrator Project please send an email to: environment@talisman.co.uk

Or write to:

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Environmental planning helps boost confidence

By preparing an Environmental Protection Plan from the outset of the Beatrice Demonstrator Project, Talisman has consistently reassured stakeholders of its commitment to minimising any environmental impact. Key controls and research projects in the plan include:

- > **A dedicated environmental vessel for mitigation and data gathering**
- > **Marine mammal observers on site to minimise risk from pile driving**
- > **Two year-long seabird surveys pre- and post-installation**
- > **Experimental use of radar for bird detection and tracking**
- > **Long-term recording of dolphins and porpoises at the site**

Working with Aberdeen University, Talisman is continuing to monitor bird movements at the Wind Farm Demonstrator site. This research will provide one of the first sets of data in the world where bird flight patterns offshore have been monitored 24 hours a day for a whole year.

Talisman is also working with two teams to monitor subsea noise during the installation phase. In conjunction with Aberdeen University, and independently with Subacoustech, Talisman will take comprehensive noise measurements during sensitive piling operations which will last approximately 16 hours spread over four days. Outwith these times, the monitoring equipment will also be used to measure background noise in the Moray Firth to create a detailed profile of the ambient noise in these waters.



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www.beatricewind.co.uk