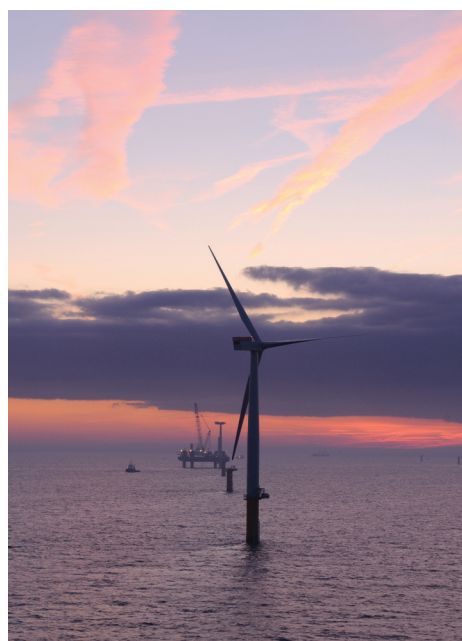


# Dogger Bank News

## Grid connection agreements

The key link in any wind farm project is the grid connection, where the power generated by the wind farm feeds into the national grid system. In March Forewind announced the signing of 3GW grid connections, which added to the 3GW signed since the zone was awarded in early-2010.



Forewind's first two stages could produce as much power per year as the total used annually in Yorkshire and the Humber region.

These latest agreements for connections located in Teesside and Yorkshire mean Forewind will proceed with the development of a total of 6GW of offshore wind farm generation capacity. This could generate as much green energy per year as the total amount of electricity used annually by homes and industry in Yorkshire and the Humber region.

Forewind signed a 1GW grid agreement to connect its first project into the Creyke Beck substation, near Cottingham, in the East Riding of Yorkshire, in March 2010, so this latest signing means a total of 2GW of generation capacity could connect at this site. This first stage of Forewind's development is known as Dogger Bank Creyke Beck.

The other two new 1GW connections are likely to connect into an as yet undefined site in Teesside. Forewind and National Grid have entered into a study phase to identify the most suitable connection location for these two projects.

This builds on Forewind's existing two grid connection agreements for the Teesside area, planned to connect at an existing substation in Lackenby. This second stage of Forewind's development, known as Dogger Bank Teesside, will therefore comprise a maximum of four wind farm projects.



## Forewind and the Dogger Bank Zone

**Welcome to the first edition of Dogger Bank News, a regular publication aimed at updating progress on Forewind's development of the Dogger Bank Offshore Wind Zone.**

Forewind is a consortium comprising four leading international energy companies – RWE, SSE, Statkraft and Statoil – which is committed to securing all the necessary consents required for the development and construction of offshore wind farms in the Dogger Bank Zone, the first of which is anticipated around 2014.

The Dogger Bank Zone is between 125 and 290 kilometres (77 to 180 miles) off the east coast of Yorkshire and extends over an area of approximately 8660 km<sup>2</sup> (3343 square miles). The water depth ranges from 18 to 63 metres (59 to 206 feet).

This newsletter will feature the latest news on Forewind activity – to receive a copy electronically, please visit [www.forewind.co.uk](http://www.forewind.co.uk) and register your contact details.

## Landfall decision announced

The landfall location for Dogger Bank Creyke Beck – the site the electricity cable from the wind farm comes to shore – has been finalised following surveys, research and feedback from stakeholders. The location – between Barmston and Ulrome – was selected because of the low lying cliffs, relatively low levels of fishing activity, available space and the ability to route around onshore constraints.

Dogger Bank Creyke Beck will be the first stage of development in the Dogger Bank Zone. It will have an installed capacity of up to 2.4GW and will connect into the existing Creyke Beck substation near Cottingham, in the East Riding of Yorkshire. It will comprise up to two offshore wind farms, each with a maximum installed capacity of up to 1.2GW.

## Consultation in the East Riding of Yorkshire

**The first stage of formal consultation on Dogger Bank Creyke Beck took place over December and January, when more than 300 people attended five public exhibitions. A terrestrial ecology workshop was also held with key ecology stakeholders.**

More than 700 stakeholders including statutory bodies, fishermen, special interest groups and MPs and MEPs were consulted. A further 1000 members of the local community were directly invited to attend the exhibitions.

The consultation documents comprised an overarching report called Preliminary Environmental Information 1, and a number of appendices – all still available from the Forewind website and on CD by request.

Feedback from the exhibitions and posted response cards indicated general local support for the project, with the most common enquiry being the number and type of jobs that would be created. Concerns were raised on such issues as cumulative impact with the National Grid's carbon

capture and storage project, possible noise and visual impact of the converter station/s, traffic and access issues and coastal erosion.

Requests for the local community to play a greater part in the development of the converter station site were taken on board and Forewind has now formed a community working group to help establish the optimum location and design for the converter station/s (see story opposite). The converter station/s, including buildings to house industrial equipment, could require at least nine hectares (22 acres) of land and be up to 20m in height.

Forewind will work with National Grid Carbon to answer questions on the cumulative impact of the respective projects, and will continue to review the feedback from all consultees and provide detailed responses as required.

Phase two of consultation on Dogger Bank Creyke Beck is scheduled for autumn. Further details will be published in the next edition of this newsletter and on the Forewind website.



Discussions at the first community working group meeting.

### Community input sought

**Representatives from parish councils, East Riding of Yorkshire Council and community groups have had their inaugural working group meeting to assist Forewind with the siting of its converter station infrastructure for Dogger Bank Creyke Beck.**

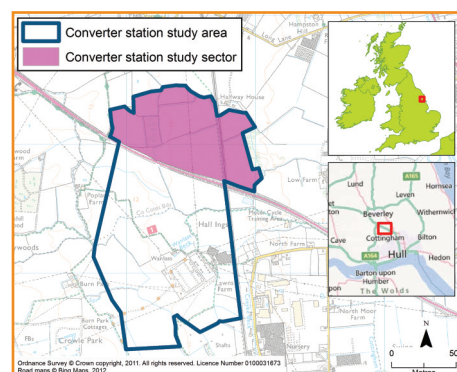
The working group will both help identify the precise location of the direct current to alternating current (AC) converter station/s and onshore AC cable route and assist with the communication of issues between Forewind and local stakeholders including businesses and nearby residents.

The formation of this working group means stakeholders living or working nearby have the opportunity to be directly involved in its siting from an early planning stage.

Details of each meeting, planned to be held quarterly, will be published on the Forewind website. The minutes of each meeting and any presentations given will also be available to download.



Overview of Dogger Bank Creyke Beck.



The working group will help Forewind finalise the substation site from within the study sector. This sector was chosen after consultation and constraints mapping of the larger study area.



## DOGGER BANK TEESSIDE

Dogger Bank Teesside will be Forewind's second stage of development and will consist of a maximum of four wind farm projects. Two of the projects are planned to connect to the national grid at an existing substation in Lackenby, Teesside. The other two wind farm projects are expected to connect at a new substation, which is also likely to be sited in Teesside, however the location is to be finalised.

# Consultation in Teesside

**The first phase of consultation on Dogger Bank Teesside will start with the production of a Statement of Community Consultation (SoCC) outlining the consultation approach for this stage of development.**

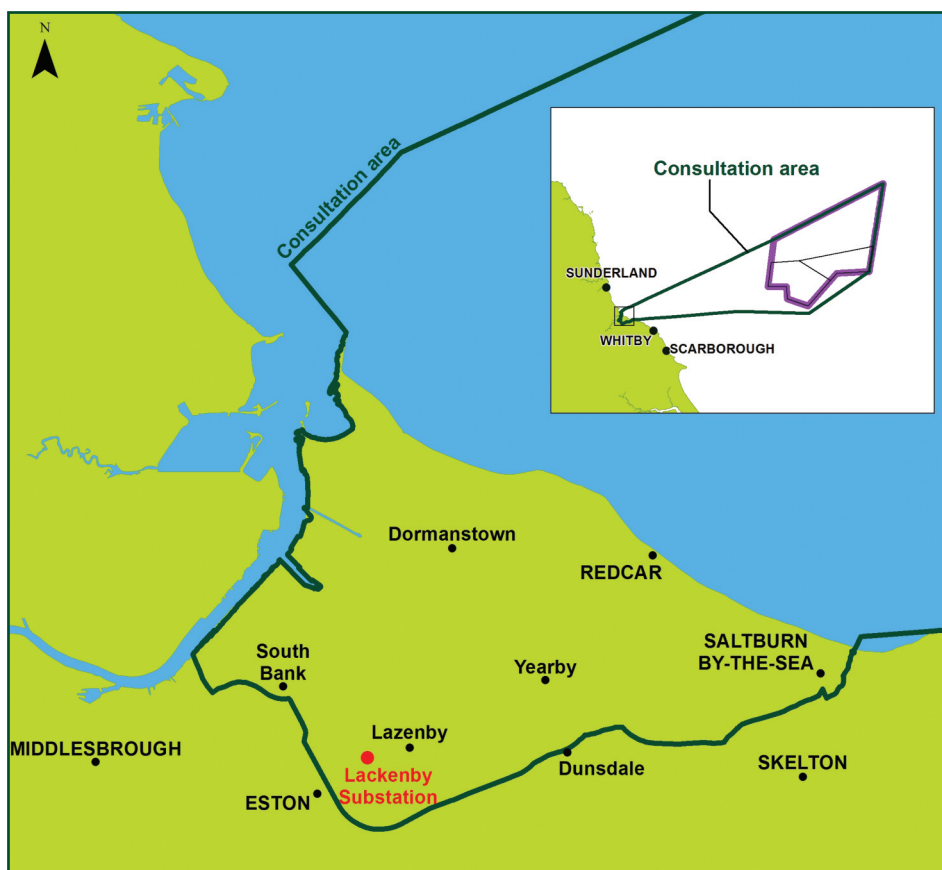
Copies of the SoCC will be made available at local libraries and council offices as well as on the Forewind website during May. Local press advertisements will detail where it will be available plus the dates and locations for the first set of public exhibitions.

Due to the scale of Dogger Bank Teesside, Forewind may submit one application for a development consent order for the full development, or up to four separate applications.

Forewind will consult the community on the full scale of the Dogger Bank Teesside projects to be clear and transparent about the scale of the proposal and how it may affect the local community.

### Consultation documents

For the first phase of consultation, Forewind will present a number of documents and reports. These include an overarching non-technical summary of the development, supported by a scoping report, setting out Forewind's approach to environmental



The consultation area for Dogger Bank Teesside is marked by the dark green line.

impact assessment. There will also be a project description detailing each component part and potential installation methods, as well as a site selection report outlining how the offshore, onshore and landfall areas have been selected.

All consultation documents will be available in hard copy at local libraries and council

offices and electronically on the Forewind website – [www.forewind.co.uk](http://www.forewind.co.uk).

Forewind will also hold public exhibitions where visitors can review the consultation documents, talk to the project team and comment on the proposals. Dates and locations for these will be published in local newspapers and on the Forewind website.

## Onshore and offshore survey activity



Onshore and offshore surveys will help Forewind plan its projects to have minimal impact on the environment.

**A Scoping Report is the first step in Forewind's environmental impact assessment process and outlines how any effects likely to arise from its proposals will be assessed. For Dogger Bank Creyke Beck this was published in October 2010 and for Dogger Bank Teesside this will be published in May this year.**

The environmental impact assessment process is iterative and will evolve as research and survey work progresses and as understanding develops. Forewind has contracted a number of technical specialists to carry out the environmental surveys specific to each stage of development.

Offshore, Forewind is more than half-way through what is believed to be the world's largest bird and marine mammal survey and is also assessing the geotechnical and geophysical characteristics of the Dogger Bank Zone and potential cable routes.

Onshore survey work continues in both Yorkshire and Teesside on local habitats as well as local inhabitants such as bats, newts, water voles and otters.

Results of these surveys will be used to help plan and design the wind farms, the offshore and onshore cable routes and locations for offshore substations and onshore converter stations.



## Liaison with the fishing industry

**Forewind has published a Fisheries Liaison Plan to present the organisation's approach to liaison and consultation with the fishing industry in relation to all development offshore – the wind farm sites, cable corridors and landfall locations.**

The plan was drafted in conjunction with the Fisheries Liaison Coordinators appointed to support Forewind's consultation with this important stakeholder group.

Forewind believes that coexistence – where both industries can work side by side – between the fishing industry and offshore wind farm developments can be achieved at Dogger Bank.

The key to this will be the continuation of open, meaningful and regular communication between Forewind and the fishing industry, which is the organisation's on-going aim.

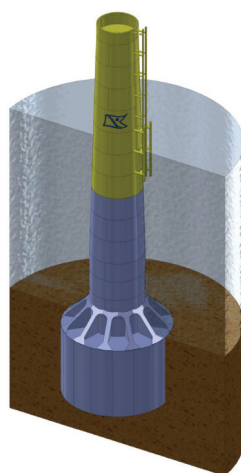


Forewind believes the fishing and offshore wind industries can coexist at Dogger Bank.

## Innovative foundation under construction

**Fred Olsen United AS, via subsidiaries Brighton-based SeaRoc and Harland and Wolff in Belfast, will design, construct and install the foundations and met masts, which will monitor wave and wind conditions at Dogger Bank.**

The 'suction installed bucket' was identified as part of the Carbon Trust's foundation design competition that attracted 104 entries from around the world and resulted in seven finalists including the suction bucket, designed by Danish specialists Universal Foundation A/S.



Innovative suction installed bucket technology.

The foundation is steered into place via an operator applying controlled water pulses along the edge of the foundation skirts, as a pressure difference "sucks" it into the seabed. It uses less steel than conventional piled foundations and its design removes the need for pile driving, seabed preparations, scour protection and a transition piece.

The foundations are due to be installed using a new 132m jack-up vessel, Brave Tern, which is now under construction.

## Teachers form network of offshore wind champions

**Ten teachers from Hull and East Riding secondary schools are officially offshore wind "champions" having been selected to take part in a careers education programme launched by Forewind working together with the Humberside Engineering Training Association (HETA).**

Secondary school teachers from Scarborough in the north to Withernsea in the south have been accepted for the first phase of the 'Champions for Wind' programme, which will enable the development of tailored curriculum materials aimed at raising awareness amongst students of the full range of potential career opportunities in offshore wind energy.



Teachers take part in the Champions for Wind kick-off workshop.

Together the 10 teachers form a network of secondary school 'champions' from a variety of subject areas including humanities, geography, business, science and design and technology. They now have until July to design a programme specific to their students before it is delivered in the classroom, then rolled out to other schools in the Dogger Bank Creyke Beck catchment area.

Following evaluation of this initial phase, it is planned to extend the programme to schools in the vicinity of the Dogger Bank Teesside catchment area.

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