

Scira Community News

for North Norfolk and Broadland

December 2007 | Issue 1



A visualisation of the proposed offshore wind farm from the Sheringham shore.

Offshore Wind Farms for the UK

Surrounded as it is by sea, the UK has the largest offshore wind energy resource in the world, estimated to be in excess of 33% of the total European potential. This is equivalent to three times our annual electricity consumption.

Conservative calculations show that offshore wind alone could meet the latest government target of producing 20% of its energy needs from renewable sources by 2020. Every unit of electricity generated from the wind saves a unit generated from fossil fuels, therefore reducing emissions of greenhouse gases, pollutants and waste products as well as our reliance on international supplies of coal, gas and oil.



An established offshore wind farm.



The harbour at Wells-next-the-Sea.

Britain's relatively shallow waters and strong winds extend far into the North Sea. This unlimited natural resource, combined with government support and an established offshore regime, mean offshore wind farm development is set to increase steadily. This puts the UK in a good position to achieve its renewable targets.

Given these factors, Scira Offshore Energy Limited has proposed the development of the 315 megawatt (MW) Sheringham Shoal Wind Farm, located in the greater Wash area off the coast of North Norfolk, and is now seeking the consents needed for its construction and operation.

The Sheringham Shoal Offshore Wind Farm

Wind farm facts and figures

The site of the Sheringham Shoal Wind Farm is due north from the thriving seaside town of Sheringham and the village of Weybourne.

The site was chosen because it:

- lies within a government approved area for development
- enjoys high wind speeds
- has favourable water depths
- has relatively low levels of fishing activity
- affords good access
- has grid connection options
- is outside protected and scientifically designated areas.

The wind farm will consist of 88 turbines with a total power capacity of 315 MW. The turbines will be positioned less than 1 kilometre apart and will be supported by foundations secured to the seabed. The 35 square kilometre diamond-shaped site is located between 17 and 23 kilometres offshore. The turbines will be visible from the shore approximately 60% of the time, depending on the weather.

With an annual production of around 1.0 billion kilowatt hours (1.0 TWh) the Sheringham Shoal Offshore Wind Farm



The proposed wind farm site - which lies between 17 and 23 kilometres offshore, due north of Sheringham

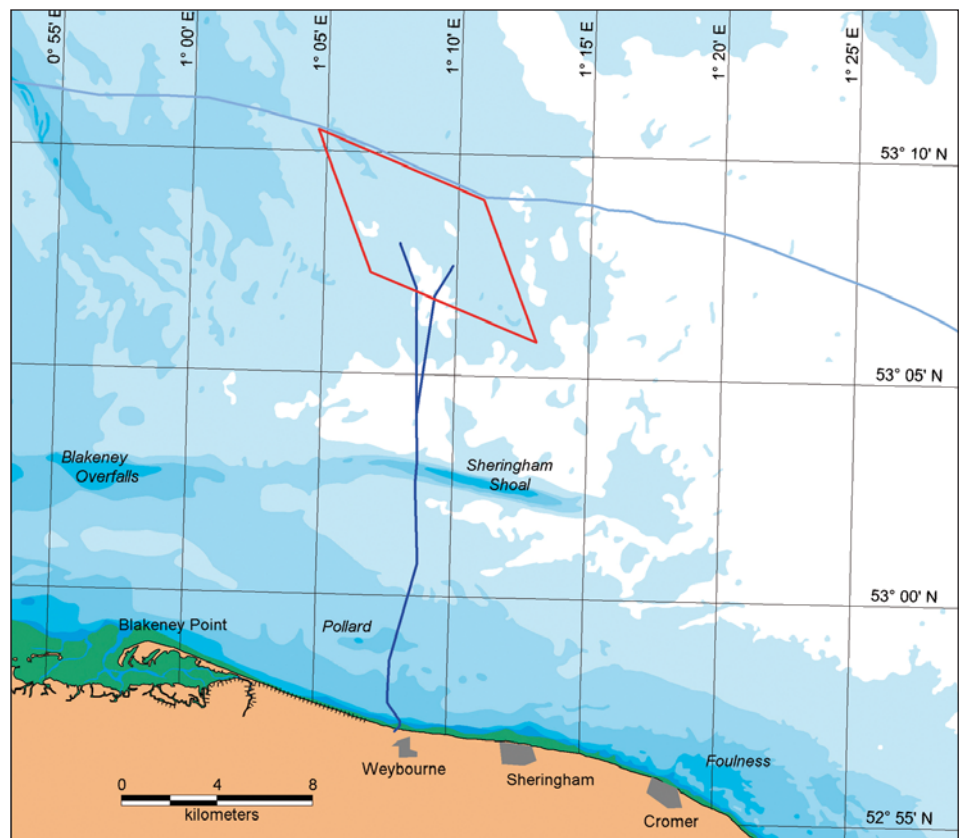
will produce enough energy to power almost 210,000 homes. Over its 40 year lifetime, the wind farm will result in the reduction of approximately 34,400 kilotonnes (kt) of carbon dioxide, 400 kt of sulphur dioxide and 120 kt of nitrogen dioxides, which would otherwise be released into the atmosphere if the electricity generated had been produced by a conventional coal-fired power station.

Bringing the power to land

The offshore wind turbines will be connected via a network of marine cables linking to one or two offshore transformer stations within the wind farm. From these, power will be exported via two 145kV marine cables reaching landfall close to the site of the Muckleborough Collection Museum near Weybourne.

The route of these export cables has been agreed with the Department for Business Enterprise and Regulatory Reform (DBERR) and Marine and Fisheries Agency (MFA) as part of the wind farm's licence conditions.

Factors considered include engineering feasibility, seabed geological conditions, sediment movements and the location of sensitive marine organisms and their habitats.



It is proposed to bring two cables to land near Weybourne.

Connecting to the electricity grid



A 132kV onshore connection will be required to feed electricity generated by the wind farm into the national electricity distribution network. The installation of approximately 22 kilometres of underground cables is planned from Weybourne to an existing substation at Salle near Cawston. A new substation is also planned next to the existing substation at Salle.

The proposed cable route from Weybourne to Salle.

Update on the project

Both parts of the project – the offshore wind farm and the onshore grid connection – have been subject to separate Environmental Impact Assessments looking at the full range of natural, physical and human environmental factors which could be affected by the development.

The resulting Environmental Statements have been submitted to the relevant authorities and Scira Offshore Energy is now awaiting consents:

- Section 36 consent application was submitted to Department for Business, Enterprise and Regulatory Reform (DBERR) in May 2006 for the offshore wind farm;
- Town and Country Planning Act applications were submitted to the North Norfolk and Broadland District Councils at the end of August 2007 for the onshore grid connection.

It is hoped that consents will be received early next year. Completion and operation of the wind farm is scheduled for 2011.

Power to Norfolk

Construction of the wind farm will not be without disruption. However, once completed, the proposed Sheringham Shoal Wind Farm will bring a number of benefits to the east of England both directly and indirectly.

The first will be the availability of a renewable energy supply that will provide clean, pollution free, 'home grown' electricity which will go a long way towards the government's target of producing 20% of the UK's electricity from renewable energy sources by 2020.

The wind farm has already generated work for local people as part of its development, survey and consultation activities. For example, ECON Ecological Consultancy from Norwich who carried out the bird survey work. During construction, and in the longer term for its operation and maintenance, the wind farm will offer some direct employment opportunities for local firms as well as flow-on benefits for goods and service providers.



Tourism in towns including Cromer may benefit from the offshore wind farm.

There may also be a boost to local tourism, as visitors show increasing interest in the sight of wind turbines on North Norfolk's horizon. Scira is keen to be involved with the local community on an ongoing basis and is already giving thought to possible initiatives.

Care and Concern for the Environment

Comprehensive studies undertaken as part of both the offshore and onshore Environmental Impact Assessments have taken into account all possible environmental impacts of the wind farm. Non-Technical Summaries outlining these can be found at www.scira.co.uk. Some examples of the assessments are given below.

Marine wildlife

Studies have found that, after the temporary impact on wildlife during construction and eventual decommissioning, the Sheringham Shoal Offshore Wind Farm could provide a safe haven for all forms of marine wildlife, and that fish, crabs, lobsters, whelks and sea mammals, as well as micro-organisms, will continue to flourish in the waters of the Greater Wash.



Birdlife

A number of species of terns, gulls, razorbills, gannets, and guillemots are indigenous to the area. To reduce any possible effect on these species, the wind farm will be designed so that the corridors between the rows of turbines are orientated in the main flying direction of birds which travel between breeding sites on the coast and foraging areas of sea to the north east of the wind farm site.



Fishing consultation



Scira recognises that the wind farm must be considered in the context of all users of the sea, including local fishermen. In planning both the construction schedule and installation methods to be used for the wind farm, the interests of fishermen will be considered and taken into account. As part of the EIA studies, and as reported in the offshore ES, it was found that

the wind farm area was not intensively fished. Those fishermen likely to be affected by the work have been identified and discussions with respect to relevant disruption payments are now underway.



Onshore nature conservation

The cable route and substation site have been planned to ensure that there is no impact to any international, European or nationally-designated nature conservation sites. Careful management during construction and

post-construction reinstatement work will minimise any potential impact on the local ecology. The substation site and cable route, along with the proposed construction methods, have been selected to take into account resident species of water vole, otter, great crested newts, bats and white-clawed crayfish.

Scira Offshore Energy

Scira Offshore Energy Limited is a project-specific company owned by Norwegian-based StatoilHydro (www.statoilhydro.com) and Evelop (www.evelop.com) from the Netherlands.

Contact details and more information

Scira Offshore Energy Limited, 11a Regent Street, London SW1Y 4ST

T: +44 (0)207 766 7777 F: +44 (0)207 766 7862 E: info@scira.co.uk W: www.scira.co.uk

Contact: Sue Vincent, Public Relations and Communications Manager