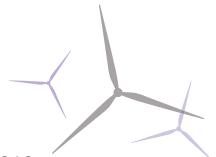


# Sheringham Shoal

by Scira Offshore Energy

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NEWSLETTER

## Trio of vessels install export cable

A trio of large vessels has been engaged for the preparation of the cable route and installation of the export cable that will carry the electricity from the Sheringham Shoal Wind Farm to shore.

First to arrive was the 55m "Atlantic Guardian" which cleared the cable route of debris and any obstacles in preparation for the installation of the two export cables. This work was completed earlier this month.

Project Director Rune Rønvik says it was important to ensure the cable route was clear to minimise any possible interruption to the installation of the two cables.

Once the route was cleared, the 86m "Team Oman", a dynamic positioning vessel with a 3,400 tonne lift capacity, was able to begin laying the cable, starting from shore and working towards the site. This vessel arrived in the UK with the cables in mid-September for some final modifications prior to starting on site.

The cables, which were manufactured by Nexans in Norway, comprise power and optical cables bundled together into one unit. The composition of the cables means their installation is a continuous



"Team Oman" loaded up with the cables bound for the Sheringham Shoal project.

process taking around a month to complete, depending on the weather. The two cables, 23 kilometres and 21 kilometres in length, weigh 77 kilograms per metre so together their total weight is 3,388 tonnes.

The third vessel working on the cable installation is the 79m diving support vessel "VOS Sympathy" which uses the trencher TMO3 from marine engineering firm, TravOcean. It will trench and place

the cable in a concurrent operation. Contractor Visser & Smith Marine Contracting will manage the whole cable operation.

Meanwhile, work on the site continues with the "Svanen" installing the wind farm foundations, each comprising a tubular steel monopile topped with a bright-yellow transition piece. At the time of printing 18 of the 90 foundations have been installed.



The cable route from Weybourne to Salle is now being reinstated and landscaped.

## Onshore work in final stages

After nearly 18 months, the project is in the final stages of its onshore works as both the new substation at Salle and the 22.6 kilometre underground cable are almost complete.

Only minor works need to be finished on the substation before it is commissioned by the end of the year.

These works include the wiring of panels, earthing works, cable terminations in the gas-insulated switchgear hall, the installation of security fencing and the fitting of

cladding to the hall canopy. Meanwhile contractor Carillion is finalising its work on the cable from Weybourne, where the power from the wind farm comes to shore, to Salle. The cables have been laid and HV-AC testing has been completed.

The focus is now above ground with the ongoing removal of corridor fences and reinstatement of the cable corridor to be completed, weather permitting, by the end of October.

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# Operation and maintenance of the wind farm



An artist's impression of the new base at Egmore, just outside Wells-next-the-Sea.

Once in operation, the wind farm will require daily maintenance by teams of wind turbine technicians travelling to and from the site from the new outer harbour at Wells-next-the-Sea.

These technicians, and Scira management and administration, will be based at a proposed new office and storage facility at a site at Egmore, some two miles south of Wells-next-the-Sea. The proposed base will include 800sqm of office space and 500sqm of warehousing, as well as car parking and landscaping.

Currently in the planning phase, if approved, construction work is likely to begin by February 2011 and continue until November 2011, when the wind farm is close to being fully operational.

Being designed by Norwich-based architects LSI Architects, the building will have very low energy consumption, with key features including: low energy lighting, highly insulated walls and roofs, a "green" roof to reduce rainwater run-off, and greywater recycling of rainwater to flush toilets.

There will be a minimum of 10% on-site renewable energy sources using Low to Zero (LTC) technologies such as photovoltaic cells and solar water heater collectors, for electricity and water heating respectively.

Construction materials will be responsibly sourced and the site waste management plan will aim for up to 90% of site waste to be diverted from landfill. Locally sourced and manufactured building materials will be specified wherever possible.

Norfolk-based building contractors will be invited to tender for the construction and those interested can email [norwich@LSIarchitects.co.uk](mailto:norwich@LSIarchitects.co.uk) for details.

Once the main contractor has been selected, they will determine their sub-contracting requirements and look to local sub-contractors to form part of their supply chain. Details of the main contractor will be announced once they have been awarded the tender. Local companies wishing to register their interest in working as sub-contractors with the project can do so via the supplier database registration form on the contact page of [www.scira.co.uk](http://www.scira.co.uk).



The location of the base.

## Wells-next-the-Sea opinion survey concluded

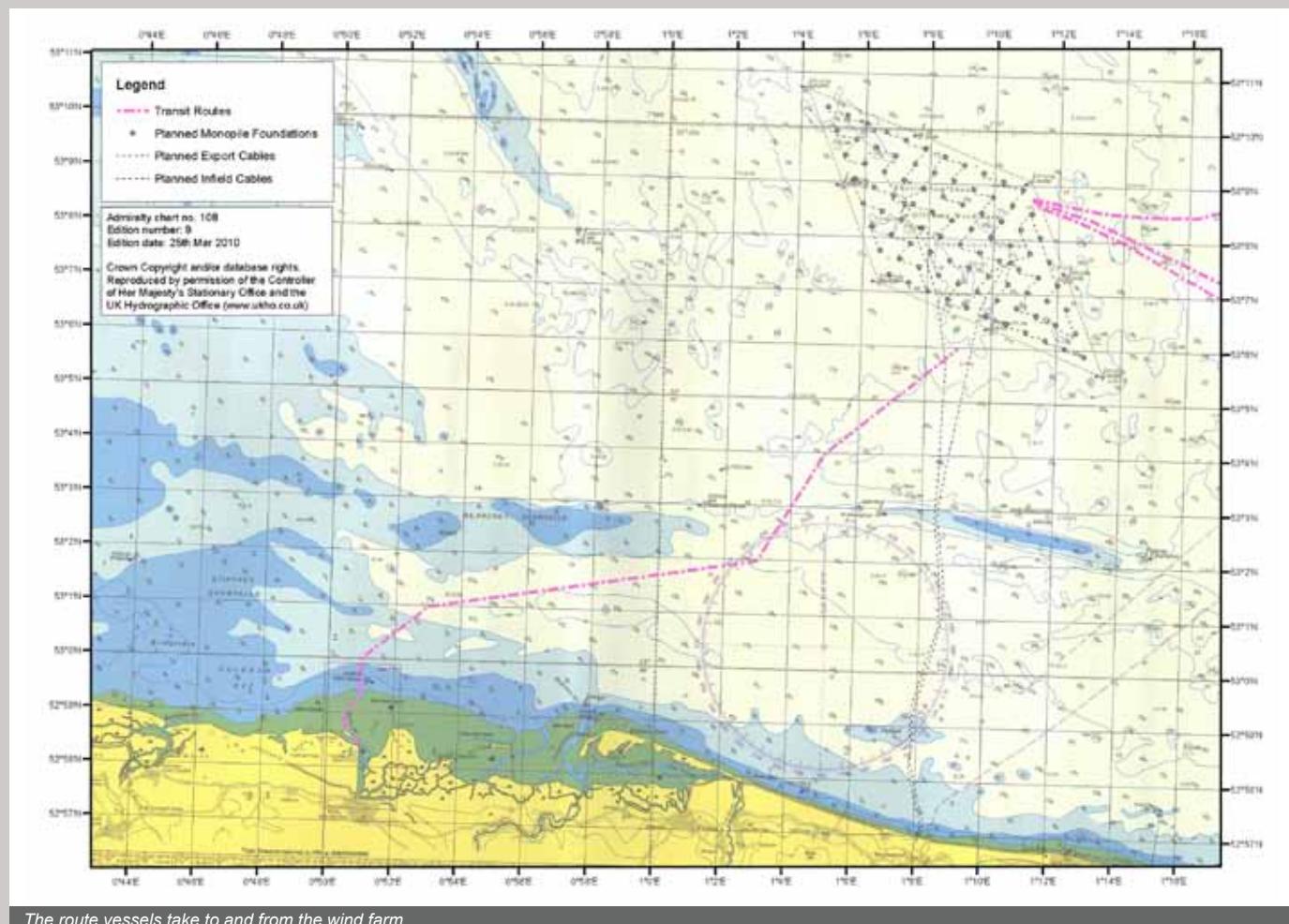
A total of 119 people who live and work in Wells-next-the-Sea and the surrounding area were recently telephoned by Discovery Research as part of a community survey.

The aim of the survey was to gauge public opinion, explore awareness, perceptions and levels of satisfaction with various elements of the wind farm project, expectations in terms of impact on the local area and opportunities for training and employment.

The majority of respondents see the wind farm as having benefits for the local area with 79% having no concerns. Of those with concerns, the key issues are impact on wildlife and effectiveness of wind energy.

There were some suggestions from local people as to how the project can improve perceptions and they will be followed up in the coming months. A copy of the results will shortly be available on [www.scira.co.uk](http://www.scira.co.uk). Scira is grateful to all those who took part.

# Navigation from Wells-next-the-Sea



The route vessels take to and from the wind farm.

A set direct route for crew transfer and other vessels has been established from Wells-next-the-Sea to the wind farm site to ensure short, safe and comfortable passage.

Established in liaison with fishermen, Wells Harbour and other local users, the route avoids shallow waters, wreck sites and those areas most used for fishing. An additional challenge was the need to cross a heavy trafficked shipping lane as directly as possible.

The route is highlighted in the captain's handbook - an operational manual supplied to the captain of each

transfer vessel – and vessels follow the route daily. Marine coordinators follow the vessels on the computer screens.

The main coordinates are: from Wells outer buoy to:

- A: 053° 01' N 000 ° 53' E, then to
- B: 053 ° 02' N 001 ° 03' E, then to
- C: 053 ° 04' N 001 ° 05' E, then to
- D: 053 ° 06' N 001 ° 09' E, from here head on a Northerly course entering the wind farm field.

The route back to Wells is simply reversed.

## First nacelle fabricated

The first of the 88 nacelles for the wind farm has been completed at the Siemens plant in Brande, Denmark. A small celebration with production workers and the project group was held last month to celebrate the milestone.

Each wind turbine consists of five major components: the nacelle, blades and hub, which together form the rotor, the tower and control system. The nacelle is the strong, outer shell that contains the inner workings of the wind turbine including the main drive shaft, gearbox, a hydraulic system that controls the angle of the blades, and the yaw drive controlling the position of the turbine relative to the wind. The components for the Siemens nacelle are produced by a number of sub-contractors and delivered to Denmark for fabrication.

This first 140 tonne nacelle will feature in a documentary-style video that will follow its progress until it is installed at the Sheringham Shoal site towards the middle of next year. Siemens have also engaged the first 10 wind turbine



Celebrating the completion of the first turbine nacelle produced for Sheringham Shoal

technicians, who will start training at their Newcastle facility this month. All 10 are from the Norfolk area.

A further 30 technicians will be appointed prior to the start of the turbine installation work.

# Grant applications open

Applications are now open for the second round of grants from the Sheringham Shoal Community Fund.

A total of £12,500 will be available to support mainly environmental or sustainability-focused projects and initiatives from community groups, charities, educational institutions and parish and town councils in North Norfolk.

The application form can be found at: [www.norfolkfoundation.com/Sheringham-Shoal-Community-Fund](http://www.norfolkfoundation.com/Sheringham-Shoal-Community-Fund).

The deadline for applications is Wednesday, November 10 with awards granted in December.



*Applications for second round of community grants are now open.*



*Colouring-in a wind turbine at Greenbuild*

## More than 700 to Scira stand at Greenbuild

The Scira stand at this year's annual Greenbuild event at Felbrigg Hall, Norfolk attracted more than 700 visitors who were eager to find out about wind energy in general and the Sheringham Shoal project in particular.

They received information packs, watched the latest project film and took the opportunity to ask project team members a wide range of questions. Children were able to enter a colouring-in competition. Project Director Rune Rønvik said that it

is clear many people along the Norfolk coast are following the project closely with a number of visitors stating they have keenly watched the "Svanen" from shore since it started the foundation installation in June.

"We were impressed at the level and depth of interest shown by stand visitors," he said.

The Sheringham Shoal project was the major sponsor for this annual North Norfolk District Council event.

## Questions from the community

### Does the wind farm project have anything to do with the recent seal deaths?

In relation to the death of more than 40 seals found at Blakeney Point coast, Scira is currently conducting an internal investigation to systematically assess whether any vessels or equipment used on the wind farm project could have caused the type of damage that has killed the seals.

Dead seals with severe injuries began washing ashore in December 2009, with an increase in the number of carcasses being found in early July 2010. At that time the Norfolk police began a thorough investigation with significant input and assistance from the Sheringham Shoal project team.

Scira has taken the seal deaths very seriously and is as eager for the cause to be identified as the police and local community. Key to the internal investigation has been to assess the mechanical specifications of all vessels and equipment as well as when and where they were in operation.

The Marine Management Organisation (MMO), which regulates of the use of English seas, has taken a lead role in the further investigation with the aim to establish the cause of the deaths. Both the Norfolk Police and Scira continue to assist the MMO in its investigation.

### Where will job advertisements be placed?

Local recruitment agency Cooper Lomaz has been engaged to assist with the recruitment of administrative positions within Scira.

Advertisements for all jobs relating to the project will be on the website under Operation and Maintenance/Local employment opportunities, in all the key local newspapers including the Eastern Daily Press and the Fakenham and Wells Times and also in the window at the information point in Staithes Street, Wells-next-the-Sea.

If you would like a question answered in the next Newsletter, please email [info@scira.co.uk](mailto:info@scira.co.uk)

## Contact details and more information

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The project also has an office and information point at 18 Staithes Street, Wells-next-the-Sea open for public enquiries from 0930 to 1700 Monday to Friday and 0900 to 12noon on Saturdays.

The Sheringham Shoal Offshore Wind Farm is owned equally by Statoil and Statkraft through the joint venture company, Scira Offshore Energy Limited. Statoil is the operator for the project during the development phase and Scira will be the operator of the wind farm when completed.



**Statkraft**

