



Foundation update: A robust plan for a robust vessel

The twin-hulled, heavy lift installation vessel *Svanen* was decommissioned by the Sheringham Shoal project team in late November due to its sensitivity to weather conditions. The team has now placed a contract with Seaway Heavy Lift to utilise its *Oleg Strashnov* newbuild for completion of the foundation installation.

While *Svanen* had been employed for the installation of the wind farm foundations, the project team decided that installation progress was not satisfactory. Work then began to contract a more robust installation vessel, and the team found a good match with Dutch firm Seaway Heavy Lift.

The company has a newbuild heavy lift vessel, *Oleg Strashnov*, that fits Sheringham Shoal's specifications. This vessel will carry out installation of the foundation monopiles and transition pieces, along with the two substations.

Seaway Heavy Lift is an experienced



The twin-hulled vessel *Oleg Strashnov*.

Photo courtesy of Linda Stienstra.

company within offshore wind installation. The company successfully installed all of the monopiles on the Greater Gabbard wind farm currently being constructed off the Suffolk coast. The same installation equipment will be utilised for Sheringham Shoal.

Resuming installation activities

Installation activities resumed in late

April, with the elastomer spring bearings in the foundations being first on the docket. *Oleg Strashnov* will pick up the monopiles at the storage site at Kats close to Vlissingen, Netherlands, and the transition pieces at the BOW terminal in Vlissingen. Four of the monopiles and four transition pieces will be transported on board the *Oleg Strashnov* in one go.

Export and infield cable installation programme

The Sheringham Shoal Offshore Wind Farm subsea export cables were installed at the end of 2010. However, the cables have yet to be trenched – a trenching trial will be performed to qualify the alternative trencher proposal.

The export cables were initially planned to be buried simultaneously with the laying of the cables, but vessel availability and trenching spread were lost due to delays on other projects.

Cables being installed

The vessel Team Oman has now pulled in the export cables to the two substations and has also installed all infield cables around the offshore substations. Infield

cable installation will continue throughout the winter season, but there may be a delay until more turbine foundation structures are installed.

Dependencies

The installation of the infield cable is dependent upon the fitting of a cable protection system, called external J-tubes, and further successive pipe protection systems.



The export cables come to land at Weybourne Hope.

Contents: Page 2 ● Taking on the principal contractor role
● Sheringham Shoal Visitor Centre opens in The Mo

Page 3 ● Sheringham Shoal brings new lease of life to Wells Field Study Centre
● A purpose designed Operation and Maintenance Base
● Sheringham Shoal offshore substations in place

Page 4 ● *Svanen* created fascination in North Norfolk
● Second round of Community Grants awarded
● Questions from the community
● Contact details and further information

Taking on the principal contractor role

The mechanical works of the Sheringham Shore onshore substation at Salle have now been completed. The substation work has also entered a new phase, as Scira has taken over the principal contractor role.

The main outstanding works at the onshore substation are related to the clearing of snag lists and some civil works – including grass seeding and final landscaping – that will be concluded in the coming months.

The main temporary office and welfare barracks have now been removed from the neighbouring site, while those who will be carrying out the final works and commissioning phase have been installed in the Scira offices.

Principal contractor

As of the middle of January, Scira has taken over the principal contractor role from AREVA T&D – which had held this responsibility throughout the entire central construction period.

With assistance from other contractors,

Scira now has the main responsibility of undertaking all of the commissioning work at Salle. While some of these activities were carried out last year, the main commissioning period coincided with Scira's ascension to the principal contractor role.

The main commissioning period leading up to the energising of the substation by UK Power Networks lasted approximately 3 months. Careful coordination with UK Power Networks was essential during the energising end phase.



The completed Sheringham Shore onshore station at Salle.

Sheringham Shoal brings new lease of life to Wells Field Study Centre

When Norfolk County Council decided to close Wells Field Centre in 2010, there was considerable concern in the community about the future of this historic building, with many residents of Wells-next-the-Sea fearing that it would remain unoccupied and slowly fall into a state of disrepair.

However, since February 2011 this landmark on Polka Road has been a hive of activity as Scira Offshore Energy has leased the building as its temporary Operation and Maintenance centre for the Sheringham Shoal Offshore Wind Farm.

Having been tastefully re-decorated throughout, the building has now been equipped with sophisticated management systems and work stations which will support around 50 people involved in the intensive offshore construction operations which are now underway, and which will continue until early 2012 when the wind farm becomes fully operational.

The marine co-ordination centre, which is based in the building, has a vitally important role to play during the development and throughout the working life of the wind farm. Following the recent

recruitment of 6 Marine Co-ordinators, the marine co-ordination centre recently became a 24 hour/ 7 day per week operation in support of offshore operations.

The terms of the lease granted by Norfolk County Council will enable the Scira team to continue to work from Polka Road until February 2013, by which time it is anticipated that its purpose designed Operation and Maintenance base will have been constructed at Egmere, some two miles south of Wells-next-the-Sea.

A purpose designed Operation and Maintenance base



Section of plan for the Operations and Maintenance base.

In December 2010 Scira Offshore Energy Limited was granted planning consent by North Norfolk District Council to re-develop part of the North Creake Airfield Business Park at Egmere to provide an Operation and Maintenance Base for the Sheringham Shoal Offshore Wind Farm.

Since then discussions have been ongoing regarding many safety and practical issues relating to the use of this site for the O&M Base. However, the number of concerns which have arisen from these discussions has resulted in the decision to seek planning consent to build the O&M Base on a site on the opposite side of the B1105 road at Egmere on land which is owned by the Walsingham Estate. After considerable research it is believed that the characteristics of the site will not create any of the concerns which have been frustrating plans for North Creake Airfield Business Park.

There will be a further progress report in the next issue of this newsletter.

Sheringham Shoal Visitor Centre opens in The Mo

As construction of the innovative Sheringham Shoal Offshore Wind Farm continues on the horizon off the coast of Sheringham, it is fitting that the visitor and wind energy education centre associated with the project has opened in The Mo, located on Sheringham seafront.

The Sheringham Shoal Visitor Centre is located on the first floor of The Mo, and the fit-out was completed in time for it to receive its first visitors on 1st February 2011.

The visitor centre features graphics and interactive displays designed to illustrate the importance of wind to the North Norfolk community over the years, as well as showcase the

processes involved in the development, construction and operation of an offshore wind farm. When completed in 2012, the Sheringham Shoal development will generate enough electricity each year to power the equivalent of 220,000 domestic homes.

"I believe we have achieved a balance in the design and content of the visitor centre," says Sheringham Shoal stakeholder manager Kari Hege Mørk, who has been greatly involved in the centre's design and planning. "It should be of assistance to local schools with their climate change and renewable energy curriculums, students carrying out research or looking at career options, as well as appeal to North Norfolk visitors as a tourist attraction."

The Sheringham Shoal Wind Farm Visitor Centre is open daily Tuesday to Sunday from 1st February – 31st October 2011. Further information can be obtained from Nigel Tompkins by phone on 01263 822427 or by e-mail on nigel@ni4b.co.uk.



Inside the visitor centre at The Mo.

Sheringham Shoal offshore substations in place

A key milestone in the construction of the wind farm arrived when two large offshore substations, each weighing nearly 1,000 tonnes, arrived for installation at 22:00 on 3rd May. They will channel the energy generated by the turbines to the onshore substation at Salle for distribution into the National Grid.

The complex logistics operation to transport the substations from Hartlepool, (where they were constructed by Heerema), started in November 2010. The procedure to get the substations out of the Victoria quay and on to the barge, Dina Launcher, required careful planning and precise manoeuvring.

"The conditions were potentially difficult," reports John Short, barge engineer. "There was concern about the swells, which measured 2.5 metres, and the difference between high and low tides which average 4 metres in this area. Most challenging was ensuring that the barge didn't touch the bottom at low tide."

The hand-over took 30 minutes. "It was one of the best handovers I've ever seen," comments John.

Once on site, the substations were lifted onto their individual foundations, which had been installed during the Autumn 2010 by Svanen. The first substation was installed at its location at 23:32 on 8 May, and the second substation was lifted onto

its foundation at 14:20 two days later.

There will be a further progress report in the next issue of this newsletter.



A substation being lifted onto its foundation from the barge Dina Launcher.

Svanen created fascination in North Norfolk

It has now been demobilised and will not be seen off the coast of North Norfolk again, but the Svanen will long be remembered by North Norfolk's residents and visitors alike.

It arrived on the horizon in late spring last year and quickly became a talking point on the promenades and seashores from Cley-next-the-Sea to Overstrand. The early questions of "What is it?" and "what is it doing?" were soon followed by "Have you seen Svanen today?", "Where is she?" and on the occasion that



Svanen out at sea.

the vessel took cover from the storms and moored close to shore between Sheringham and Weybourne, the photographers came out in strength.

It was one of the early icons of the Sheringham Shoal Offshore Wind Farm project.

Second round of Community Grants awarded

At the end of November 2010, a further £7,000 in grants from the Sheringham Shoal Community Fund were awarded to the Holt Community Centre, Ladybird Pre-school Nursery in Sheringham and the National Coastwatch Institution in Mundesley. The grants are earmarked to primarily support environmental or sustainability focused projects.



Brian Pilgrim developed Holt Community Centre's application

The £4,500 award to Holt Community Centre – which provides facilities for use by local organisations, and accommodates the Holt Town Council and the Citizens'

Advice Bureau – will partially fund a two-part green energy project involving the installation of photovoltaic solar panels and cavity wall insulation.

Ladybird Pre-school Nursery in Sheringham has successfully bid for £500 to enable it to seek independent advice and to develop plans to improve energy efficiency and reduce carbon emissions.

Lastly, the National Coastwatch Institution – which plays an invaluable role in monitoring local weather and in the preservation of life at sea and on the foreshore in Mundesley – has been awarded £2,084 to replace windows in the Coastwatch station.

Further applications for grants from the Sheringham Shoal Community Fund will be welcomed 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.

Contact details and more information

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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.

Questions from the community

Can details about Sheringham Shoal still be obtained from the Staithe Street Information Point?

At the moment the Information Point at 18 Staithe Street in Wells-next-the-Sea is open on Monday and Friday from 10:00am – 4:00pm and on Saturday from 9:00am – Noon. As project activity increases during the coming months, and the town gets busier with tourists, it is likely that these opening hours will be extended. Visitors to the Staithe Street Information Point will either be met by Kay Reeve or her colleague Juliet Allen.

What has happened as a result of last year's recruitment advertisement for wind turbine engineers?

As a result of that advertisement, twenty four people, all from Norfolk, have been employed by Siemens to work on the Sheringham Shoal Offshore Wind Farm. They have all completed their initial training at Siemens training centre in Newcastle-upon-Tyne and they are now gaining on site experience at various wind farms which utilise Siemens turbines around the UK.

They will arrive in Wells later in 2011 as the turbines are erected out at sea.

If you would like a question answered in the next Newsletter, please email info@scira.co.uk

Future newsletter distribution

As the re-instatement works along the on-shore cable route from Weybourne to Salle have now been virtually completed, this is the last issue of the Sheringham Shoal newsletter which will be widely distributed to North Norfolk's inland villages and communities.

However residents who would like to continue to receive future issues will shortly be able to register to do so on-line at www.scira.co.uk