

Celebrating the move to Operations



Norman Lamb MP [left] with Scira's Einar Strømsvåg

A formal day of celebration on Friday 19 April 2013 marked Scira Offshore Energy's move from the 'Prepare for Operations' stage of the Sheringham Shoal Offshore Wind Farm to its long term 'Operation and Maintenance' stage. Norman Lamb, the MP for North Norfolk and Minister of State at the Department of Health, formally opened Wind Farm Place, the purpose built Operation and Maintenance base three miles south of Wells-next-the-Sea in North Norfolk, into which Scira moved in February 2013

The formal proceedings were followed by a celebration lunch for guests and employees in the new building, during which catering students from Alderman Peel High School in Wells-next-the-Sea served canapés, and its music students performed for the guests.

Scira's procurement policy is, wherever possible, to support the local supply chain in North Norfolk, so it was highly appropriate that the buffet was prepared



Catering students from Alderman Peel High School

by Walsingham Farm Shops, and a small gift for all guests and employees was sourced from the Chocolate Deli in Walsingham.

Constructed by local firm Mansell Construction of Swaffham, Wind Farm Place is a low energy consumption building featuring low energy lighting, highly insulated walls and a 'green' roof to reduce rainwater run-off. With office accommodation and warehousing, Wind Farm Place now houses Scira's management and administration staff and serves as the base for the wind turbine technicians working on the maintenance of the offshore wind farm on a daily basis.

Einar Strømsvåg, Scira's General Manager said: "It was good that so many people who have played an active part in



Local artist John Hurst [left] with Einar Strømsvåg and Wells Harbour Master



Music students from Alderman Peel High School

the development of the Sheringham Shoal Offshore Wind Farm, and the infrastructure which will now support its operation and maintenance, could join us for this celebration. Now the wind farm is fully operational, the local team is delighted to have moved into its new purpose built home. It will be an excellent base for our activities for many years to come."

During the course of the celebration, Einar Strømsvåg presented Wells Harbour Master Robert Smith with a painting of the new Wells Outer Harbour, constructed to give Scira, and future developers, offshore access. It was painted by local artist John Hurst, who took part in the celebrations.

Education Update

Over the last 18 months, Scira Offshore Energy has embarked on a number of education initiatives to support the development of the skills in the local labour market which are relevant to the operation and maintenance of offshore wind farms. The North Norfolk economy has typically been characterised by employment in tourism, agriculture and fishing, so it is important that the next generation workforce is aware of the career opportunities which are being created by Scira and other offshore wind farm developers and operators, particularly to enable students to make informed curriculum choices should they wish to qualify for a position in this industry.

The Scira Schools Engagement programme starts with primary school engagement, with members of the Scira team giving introductory talks to local primary schools, usually at one of their general assemblies. A close relationship with Alderman Peel High School in Wells-next-the-Sea has developed, with the company participating in learning activities which now include the Year 7 STEM Challenge and sponsorship of the annual STEM Award. After sponsoring the A-Level Geography students at Fakenham College with the purchase of survey equipment for the study of coastal processes and landforms off the North Norfolk coast, Scira is now working closely with Colin Bye,

Head of Geography and Humanities at Fakenham College, on a Year 8 learning module relating to environmental aspects of the North Norfolk landscape, called the North Norfolk Landscape Project.

Strong links have been developed with Lowestoft College and Great Yarmouth College which will see site visits by their students. The first of these visits took place on 18 April 2013 when eleven students from Lowestoft College toured Wind Farm Place and went aboard a personnel transfer vessel in the outer harbour to learn a little about what is involved in the management of a £1 billion offshore wind farm. Similarly 30 Environmental Science students from the



Fakenham College A Level students surveying beach profiles at Weybourne

University of East Anglia (UEA) visited the Scira offices on 9th April to gain further understanding about the construction and operation of an offshore wind farm.

Through the Sheringham Shoal Community Fund, Scira has also introduced a Bursary Scheme to help young people from lower income families in North Norfolk who would like to study engineering at one of the three Norfolk colleges which offer such courses – the College of West Anglia in Kings Lynn, Great Yarmouth College and City College, Norwich. Each year funding is available for 20 students to receive a bursary of £500 per annum to study the BTEC Diploma in Engineering Level 3 through to graduation.

Meet the new members of the Scira Team

Now that the construction phase is over, and the business moves into routine operations, the Scira team is continuing to grow and develop with new appointments for permanent team members at Scira's new home, Wind Farm Place. As an operator, it has two primary focus areas – the daily operation and maintenance of the plant, and the technical integrity of the plant infrastructure. Heading up these two areas are the new managers who will help drive the efficiency of Sheringham Shoal.



Operations & Maintenance Manager Arild Soleim with Production & Technology Manager Don Bertram

Don Bertram has recently been appointed as Production & Technology Manager at Scira. Don heads up a team of highly qualified engineers specialising in taking care of the technical integrity of the plant, including the electrical, mechanical, instrumentation and structural elements of the infrastructure.

Don is clear that this is both challenging and exciting, "The wind farm is a highly complex piece of engineering, further complicated by it's offshore location. Every piece of this plant needs to be monitored so that we can maintain the highest level of availability and therefore maximise production. The complexity of the plant means that we have several specialist sub-contractors taking care of specific areas from the sub-sea cables, to inspections and certifications of the crane equipment necessary for lifting tools and spare parts for the technicians to carry out their routine work. We also monitor the life cycle information of the plant to support planning of the maintenance programme, and we are responsible for production notifications to the National Grid."

As electricity on this scale cannot be stored, the National Grid requires half-hourly notifications of projected

production so that it can balance its system and meet national consumer demand with the appropriate supply, so accuracy of information is critical. To this end the state of the art IT systems at Sheringham Shoal monitor and control three weather forecasting systems, two SCADA (supervisory control and data acquisition) systems for monitoring the wind farm and flagging faults,

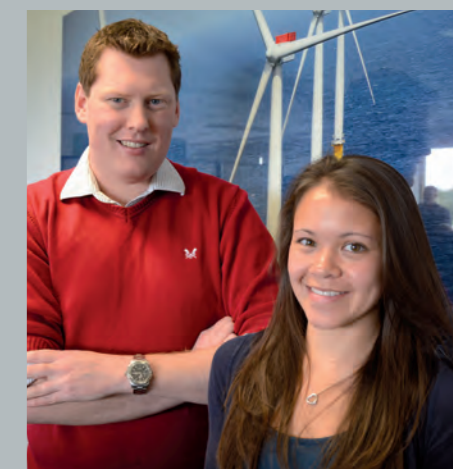
and a wind farm management system which provides detailed information on performance.

Responsible for the daily Operations and Maintenance activities of the wind farm is Arild Soleim. Arild is on secondment for a two year contract from one of the parent companies, Statkraft, where he has had more than ten years' experience of running onshore wind farms. Arild has welcomed the opportunity to bring his onshore experience to this new industry. "We cannot forget that the offshore wind industry is still very new, and we are continuously learning how to operate and maintain a wind farm out at sea with all the logistical challenges that brings. Our focus now is to be a front runner in this fledgling industry by developing and executing the very best maintenance plan."

Arild's role includes maintenance planning and field logistics responsibilities. Maintenance planning involves both routine servicing of the turbines, and also reactively fixing faults that may occur. Working closely with the Siemens wind turbine technicians, a significant challenge is the access to the field which can be restricted during inclement weather. Consequently partnerships with specialist companies offering marine transport for

technicians and spare parts to site is crucial to the effective running of the plant.

Arild and Don's teams work closely together to ensure the safe and efficient operation of this power plant, and of course they rely on their teams to manage this complex operation. The role of an engineer in either department requires a good educational background and an ability to handle information from many sources to maintain the overview and to diagnose and implement preventive and corrective actions. Experienced engineers in this region are hard to find, so consequently Scira has decided to "grow our own" by recruiting talented graduates and putting them through a structured two year training programme where they learn on the job. After a lengthy recruitment campaign, two new faces joined the Scira team at the end of March. Harriet Green and Andrew Saunders both have Bachelor degrees in engineering, and Master degrees in renewable energy. Harriet joins Arild's team supporting maintenance planning, and Andrew joins Don's team supporting warranty and life cycle information of the turbines.



New graduate engineers Andrew Saunders and Harriet Green

European Energy for Life project visits The Mo

On March 16th 2013 the Sheringham Shoal Wind Farm Visitor Centre at The Mo on the seafront in Sheringham welcomed a large party of students and teachers from schools in Finland, Germany, Italy, Lithuania, Poland and Turkey, together with their hosts from Reepham High School and College, who are all part of an international school partnership project called 'Energy for Life'.

Whilst the visit to each country will have a different energy theme, this visit to the UK was centred around wind energy. Having taken part in discussions, debates and workshops associated with wind energy for the first two days of the visit, the students travelled by boat to Blakeney Point on the morning of 16th March 2013, before visiting The Mo. They were greeted by Scira's HR and Communication Manager Liz Hancock, who led a presentation about the development of wind energy in the southern North Sea, and the construction, operation and maintenance of the 88 turbine Sheringham Shoal Offshore Wind Farm.

Sheringham Shoal

by Scira Offshore Energy



Wind Farm Visitor Centre At The Mo...

An educational, interactive & fun exhibition; accessible to everyone, group visits welcome.

- Learn about climate change & renewable energy
- Understand the historic importance of wind energy to North Norfolk
- See the development and construction of the wind farm unfold before you
- Learn about the daily operation and maintenance activities at the wind farm

Now the Sheringham Shoal Offshore Wind Farm is complete, it is expected to generate enough clean energy to power almost 220,000 British homes each year.

Free entry to exhibition
(Normal entry fees apply if combining a visit to the Sheringham Museum).

Open:
February Half term
March 1st to Nov 3rd 2013
Tues to Sat: 10am – 4.30pm
Sundays: Noon – 4pm
Mondays throughout June to September & school holidays.

01263 824482
The Mo, Lifeboat Plain,
Sheringham, NR26 8BG
www.scira.co.uk



Community Fund supports 4 new projects

The Sheringham Shoal Community Fund receives £100,000 per annum from Scira Offshore Energy to fund grants to North Norfolk community groups, including schools and NGOs, seeking financial assistance for projects or initiatives that meet key criteria and focus on renewable energy, marine environment and safety, sustainability or education.

Since June 2010 grants have been made to 20 such projects, including funds awarded for 4 new community projects made at the last panel meeting held in November 2012. Amongst these projects was a grant to complex needs school Sheringham Woodfields to help pay for the installation of PIR lighting and electric hand driers.

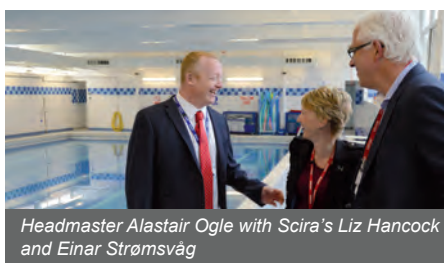
Matthew Smith from Sheringham Woodfields School wrote to say: "Could I please ask you to pass on our thanks for the grant that we have just been awarded. The grant will make a real difference and allow our pupils to be involved in every

aspect of school life. The support given is very much appreciated and the school will ensure it keeps everyone informed as the project progresses."

More information about the Sheringham Shoal Community Fund, and the outline proposal form, can be found at www.norfolkfoundation.com. The grant panel will review outline proposals at any time, and selected applicants will be invited to submit a full proposal for consideration. Full proposals are normally considered at meetings held in May and November each year.

Community Fund grant funds solar hot water heating for swimming pool

In May 2012 Alderman Peel High School in Wells was awarded the funding to install solar hot water heating for the school/community swimming pool. The pool, which is now 50 years old as it dates back to the original build of the school in 1963, is not only used for school activities but also serves as the local community swimming facility. The local community can access the pool for a range of scheduled sessions throughout the week and during weekends, including adult and baby sessions on Saturday mornings, ladies only sessions on Sunday evenings, fitness classes and dawn dippers for the early risers in Wells.



Headmaster Alastair Ogle with Scira's Liz Hancock and Einar Strømsvåg

The work on the new solar energy heating system was completed in October 2012, and Eddie Kossowicz, Site Manager at APHS, projects an annual saving of £10,000 on costs for heating the pool. Alastair Ogle, Headmaster at APHS, is delighted with the improvements, "This is a brilliant example of how the Sheringham Shoal Community Fund is benefiting the students, as not only do we have an improved facility but also the savings can be ploughed back into learning activities. And the school children are not the only beneficiaries, because now we can keep prices low for those members of the community who regularly enjoy these facilities".

Questions from the community

How do members of the community find out how much electricity is being generated by the wind farm?

The Scira website is currently under review and will soon be rebuilt to reflect routine operations, and longer term we will provide production information through the website. In the meantime those interested can email us at info@scira.co.uk in order to obtain information on our production output.

Are Norfolk's fishermen now able to fish in the wind farm site?

During the construction phase of the wind farm there was a restriction on fishing over the cable route, before the cable (which transfers the electricity produced offshore to the onshore substation near Cawston) was buried beneath the sea bed. Similarly there were advisory restricted zones of up to 500 metres around some of the heavy construction vessels for safety reasons during the installation of the offshore structures. Now the wind farm is fully operational, fishermen can freely access the site maintaining an advisory safety exclusion zone of 50 metres around the base of each turbine. As there is a 700 metre spacing between each turbine, and the whole site is 35 square kilometres, there is plenty of space for both fishing and the production of wind energy at Sheringham Shoal Offshore Wind Farm.

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

Diary dates 2013

4th July – Skills for Energy Conference, John Innes Centre, Norwich

7th – 8th September – Greenbuild Exhibition, Felbrigg Park, North Norfolk

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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, the wind farm operator.

