THE LATEST NEWS FROM SCOTTISHPOWER RENEWABLES

# THE EAST ANGLE

EAST ANGLIA OFFSHORE WINDFARM PROJECTS SPRING 2017



Image shows ScottishPower Renewables' and DONG Energy's West of Duddon Sands windfarm, off the coast of Cumbria

### Welcome

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### East Anglia ONE at a glance



The most cost effective offshore windfarm to go into construction – CfD at £119 per MW hour<sup>1</sup>



Almost 15% of the UK's current offshore capacity<sup>2</sup>

102 turbines generating 714 megawatts

Committed to 50% UK content

Investing to put 37km of onshore cables underground, removing the need for pylons

£1 million invested in South East England's largest ever archaeological trial trenching exercise

Ecological Clerk of Works to monitor ecology and specific protection activities such as:



Formation of hazel hurdles for bats



Detailed monthly aerial bird surveys over a two-year period



Relocating badgers to an artificial sett



Creation of a reptile area

### Welcome

Welcome to the latest edition of our East Anglia newsletter. Since the last edition we have cleared many significant hurdles to enable us to confirm our final investment decision for East Anglia ONE. This means we are now fully committed to the project and charging full steam ahead towards construction.

After successfully winning a Contract for Difference (CfD) in February 2015, we have been working hard to achieve all of the milestones set out for us by the UK government and the success of these milestones has been managed by the government-owned Low Carbon Contracts Company (LCCC), ensuring that East Anglia ONE will be the best value offshore windfarm to go in to construction anywhere in the world.

The next step for the project is preparing for construction of the cable route, which is planned to commence in the Spring of 2017. The first part of this is the enabling works to prepare the roads and countryside for the construction process and you can read more about this on the opposite page.

Throughout 2016, we have been working hard to secure many of the major contracts for East Anglia ONE construction including what is believed to be Europe's largest offshore wind contract with Siemens to provide 102 seven megawatt turbines. See page 7 for more.

We also announced Peel Ports Great Yarmouth as our chosen port for turbine assembly and marshalling activities. Preparatory works to enhance the facilities at the port have already begun and this development work will ensure that the facilities at Great Yarmouth are some of the best anywhere for delivering large-scale offshore windfarms.



One very important concept for our industry is to continually strive to reduce the cost of offshore wind and this is something we are doing in earnest. We believe the East Anglian coast is perfectly placed to become a major hub for offshore wind and drive industrialisation and cost reduction in the UK. East Anglia ONE is the first of up to four projects we would like to build in the Southern North Sea, and our zonal approach to developing these projects means that we are committed to long-term investment in the region and the creation of lasting employment opportunities. See more about the progress of our other East Anglia projects on page 10.

#### We are dedicated to bringing down the cost of renewable energy and we are already making great headway

ScottishPower Renewables is one of the world's leading wind power developers and whilst we're busy in East Anglia we are also undertaking projects right across the globe, such as our Wikinger windfarm in the Baltic Sea, which is currently under construction. See page 12.

We have a proven track record and our most recent UK offshore windfarm, West of Duddon Sands off the coast of Cumbria, was completed on time, within budget and is already contributing to the UK's cleaner energy market.

If you would like to find out more about our work in the region please visit spreastanglia.co.uk

We will be in touch later in 2017 with our next update.

**Best wishes** 

Charlie Jordan East Anglia ONE Project Director

## Making cleaner energy work

While others are speculating, ScottishPower Renewables is getting on with the job, building windfarms across the world. East Anglia ONE is just one in a pipeline of projects to make cleaner, greener, energy work.

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### **Pre-construction works commence**

- Pre-construction works, such as highways improvements, start January 2017
- Works being undertaken to prepare the ground and roads for the start of cable route construction in Spring

A fter years of planning, surveying and liaising with stakeholders, January 2017 will see us commence pre-construction works, which is the first major step in constructing East Anglia ONE.

From January you may start to notice activity right the way along the cable route from Bawdsey to Bramford. These pre-construction works are to prepare the ground and the road networks for the start of construction, which we will tell you more about on page 9.

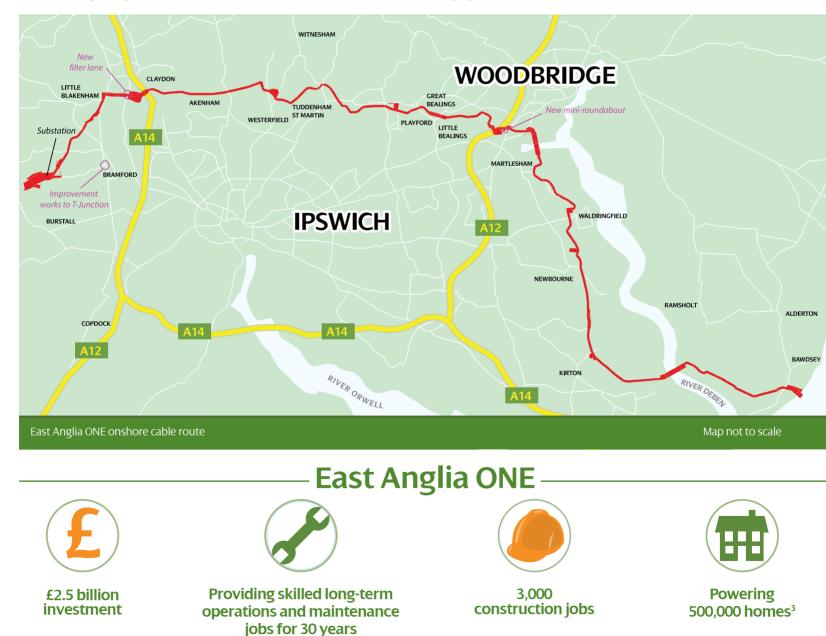
The activity we will be commencing in early 2017 includes a number of highways improvements, such as road-widening and the creation of extra passing places to enable the flow of traffic along roads which we will be using during construction. There will be temporary traffic management measures in place during these works and we would request that members of the public remain patient and follow the procedures set out.

The major highways works we are undertaking include the creation of a new mini-roundabout at Top Street, Martlesham, to provide safe access into our construction site, and the creation of a left-hand filter lane on Paper Mill Lane, Claydon, to enable the flow of traffic near another of our construction sites. We will also be undertaking improvements to the T-junction from Bullen Lane to Loraine Way, Bramford, to increase visibility and safety.

We will be undertaking minor road improvements at a number of locations along the route and these will be marked with advance warning signs. We are working closely with Suffolk County Council and the Highways Agency to ensure that these works are carried out safely and efficiently. We have a Code of Construction Practice and this will be strictly adhered to.

We are liaising with a wide variety of stakeholders regarding these works, such as town and parish councils, landowners, and utility companies, as well as the general public through information events.

During early 2017 we will also be undertaking a number of further surveys, including ecological mitigation and further archaeological investigations.



[1] Based on a Contract for Difference awarded in February 2015 at £119 per MWh [12] UK offshore capacity 5.09GW at November 2016 (RenewableUK) www.renewableuk.com/page/UKWEDhome [3] Calculated taking the number of megawatts (714) multiplied by the number of hours in one year (8,766), multiplied by the average load factor for offshore wind for 2014 (34.88 %, published by the Digest of United Kingdom Energy Statistics), divided by the average annual household energy consumption (4,115 kWh), giving an equivalent of powering 530,162 homes.

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# **Skills & Events**

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# Four dedicated students awarded UEA scholarships

• Each student will receive a grant to cover full enrolment costs as well as a living allowance



Connor Matless receiving his certificate from Queen Letizia of Spain

**F**ollowing the announcement in our previous newsletter that through the ScottishPower Foundation we would be funding four postgraduate scholarship places at the University of East Anglia, we are delighted to see the recipients now undertaking their courses.

The four students selected are: Connor Matless, from Norwich, Norfolk; Juliet Mills, from Newmarket, Suffolk; Esmee Thornton, from Tenterden, Kent and Charles McKinlay, from Grantham, Lincolnshire. Connor, Esmee and Charles have chosen to study Energy Engineering with Environmental Management, whilst Juliet is focusing on Environmental Science. Each student will receive a grant to cover full enrolment costs, as well as a living allowance.

In July, the students attended an awards ceremony in Madrid to receive their certificates from King Felipe and Queen Letizia of Spain, alongside other successful candidates from the ScottishPower Foundation and sister charity, Fundación Iberdrola.

Charlie Jordan, project director for East Anglia ONE, commented: "It is a well-known fact that the UK needs more engineers and scientists so we are delighted to be able to fund scholarship places to assist these students to continue their education.

"We have been working hard on a detailed Skills Strategy for East Anglia ONE and helping to educate young people who have the capabilities to lead the energy industry into the future is a key part of this."

Professor Lawrence Coates, Head of Engineering at the University of East Anglia, said: "We are delighted that ScottishPower Renewables has chosen to invest in training our future engineers and scientists."

# Encouraging the region's students to consider a career in offshore wind

We recently attended the Suffolk Skills Show at Trinity Park, Ipswich and The Big Bang Fair, at Newmarket Racecourse, to speak to students about considering a career in engineering and environmental sciences.

As part of our Skills Strategy for the East Anglia region, we had a stand at both careers fairs and saw students flock to us to experience what a windfarm is really like up close through our virtual reality headsets (image on the right).

The technology allowed the students to be transported from shore by boat and helicopter to visit our West of Duddon Sands windfarm, off the coast of Cumbria, as well as experiencing climbing up inside a turbine and the view looking out from the top at Whitelee, the UK's largest onshore windfarm. At the Big Bang Fair we sponsored the judges' lunch, as well as two maths and science 'buskers'. A couple of our engineers were also involved in judging the students' projects and holding 'Meet the future you' careers talks.

The Suffolk Skills Show saw us sponsoring the 'Mad Science' stand, which involved 'Helium Helen' and 'Neutron Nic' conducting wind-related activity workshops to get the students enthused about wind power and to help bring the industry to life.

As part of our Skills Strategy, our East Anglia ONE turbine supplier, Siemens, had the stand next to us at the show and engaged with students through a variety of STEM activities.

Members of our team spoke to students about considering a career in energy engineering, environmental science and the many other disciplines required to support projects such as our East Anglia ONE offshore windfarm.

We have a detailed Skills Strategy for East Anglia ONE, which has been agreed with councils across Suffolk, with the aim of developing a skilled local workforce which can access future employment opportunities within the offshore wind industry.





Student experiencing one of our offshore windfarms through our virtual reality headset

## **Skills & Events**

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East Anglia ONE project director, Charlie Jordan, and Esmee Thornton, University of East Anglia student and ScottishPower Foundation scholar, speaking at EEEGR's Offshore Wind Week event

### **EEEGR Sponsorship & Events**

• Sponsorship agreement with the East of England Energy Group (EEEGR) for five leading industry events in East Anglia

n 2016 we agreed a significant sponsorship deal with the East of England Energy Group (EEEGR), to be its platinum sponsor for the year, focusing on five important industry events. The sponsorship commenced with EEEGR's flagship Southern North Sea (SNS) conference. The deal was a natural progression for us following a number of successful supply chain events held in conjunction with EEEGR in 2015.

The SNS conference saw a record turnout of over 700 delegates from across the industry. Other events included the EEEGR House of Commons evening and 'Energise Your Future at the Skills for Energy Conference' at Hopton Park, Great Yarmouth.

The EEEGR House of Commons event saw our managing director of offshore, Jonathan Cole, update key politicians and representatives from the East of England's energy sector on progress with East Anglia ONE.

Energise Your Future at the Skills for Energy Conference, saw students, their families and education providers brought together with the energy industry. During the morning students had the chance to experience what a windfarm is like through our virtual reality headsets, then the afternoon saw parents and teachers hear from a variety of industry specialists about the future of the energy industry within the region and what this means for the younger generation. ScottishPower Renewables operations and maintenance engineer, Chris McGinnis, spoke about the evolution of the electricity sector, the rise in demand and need for a cleaner source of power.

# The SNS conference saw a record turnout of over 700 delegates from across the industry.

Our agreement with EEEGR also saw us secure UEA and ScottishPower Foundation scholar, Esmee Thornton, the opportunity to speak at EEEGR's Offshore Wind Week event at OrbisEnergy. Esmee spoke alongside leading industry developers and suppliers as part of our strategy to help the next generation be a part of the growing offshore renewables industry, particularly in East Anglia.

### Find out more online

To find out about EEEGR's upcoming events

Nease visit: eeegr.com/eeegr-events

### **Careers Talks**

A s part of our Skills Strategy for the region we have been working closely with The Mason Trust to pilot careers talks at schools and colleges across East Anglia. The Mason Trust is a charitable organisation set up to inspire young people living in Norfolk and Suffolk to fulfil their potential.

Together with Carole Opie-Baker, the organisation's education project manager, we have conducted careers talks at Great Yarmouth College, Ormiston Denes, Lowestoft, Hartismere School, Eye and University Technical College, Norwich.

The careers talks were held by ScottishPower Renewables' specialists Ewan Watson, senior wind turbine engineer; Cristina Navarro Larrinaga, structural engineer; Pablo Morales Moreno, operations and maintenance engineer, and David Partington, senior electrical engineer.

Carole Opie-Baker, commented: "We are delighted to be working with ScottishPower Renewables to help inspire young people in East Anglia to consider a career in the offshore renewable energy industry."



Cristina holding a career talk at Hartismere school

### At Sea

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### Day in the life

By Zoe Barrett, remote sensing scientist, APEM Ltd

- My aerial bird surveys helped to secure planning approval for East Anglia ONE
- Over a two-year period 90,000 images were taken and analysed

When I first started my career as an image analyst I jumped at the chance to get involved in undertaking the aerial surveys with APEM.

As part of ScottishPower Renewables' development plans, APEM undertook a two-year aerial bird survey resulting in East Anglia ONE being the first windfarm to be consented using digital aerial bird surveys. The aim was to collect a baseline assessment of migratory and foraging birds.

With the East Anglia ONE project involving monthly aerial surveys and spanning two years, I've spent many days, often up to six hours, in a tiny plane over 40 kilometres offshore in the southern North Sea. It is not for the faint hearted but every trip is exhilarating and I am always looking forward to the next one.



#### Zoe Barrett, APEM Ltd

As a remote sensing scientist my job involves being responsible for the camera operating systems on board.

When the pilot lines the aircraft up on the pre-set flight path, the camera is triggered at designated points on transects. It uses ultra-high resolution imaging systems to map bird and animal life. Throughout the East Anglia ONE project over 90,000 images were taken and analysed.

Using a small plane you have to like flying and not be scared of a bit of turbulence, although we never fly in adverse conditions. The size of the plane means we're able to fly very low, often only 800 feet above the sea.

Throughout our survey flights, the camera amasses data on bird species including gannets, fulmars and

a range of gulls. Back on terra firma, the other side of my role is analysing the data collected, where birds and mammals are located, identified to species level and mapped.

Prior to aerial surveys, such projects were boat based, but APEM was one of the first companies to develop and embrace the new technologies, enabling us to be consistent in our methodologies and ensure permanent data is available. Most importantly, we are able to monitor and provide highly accurate data with no disturbance to the species we are surveying.

I love my job because I get to see things that most other people will never see and my days are always different – whether notching up my flying hours, or analysing data that plays such a significant role in future decision making processes

### **Offshore Survey Works**



n preparation for constructing the windfarm, we have been conducting extensive surveys to ensure we fully understand the make-up of the area where the cables will be laid and the wind turbines and offshore substation located.

We recently spent four weeks undertaking geophysical surveys to closely examine the seabed conditions along the offshore cable route and across the East Anglia ONE windfarm area. We are now analysing the data and will undertake follow-up geophysical surveys prior to construction to refine our understanding of the seabed.

We are also currently conducting industry-leading aerial ornithology surveys with a company called APEM (see Day in the Life, above) to study the birds across the East Anglia ONE area. We undertake these surveys across many months during which the team from APEM, which has an office in Cambridge, capture thousands of images of the birds. These surveys are undertaken in the early stages of planning a windfarm, pre-construction and then for three years post-construction, to ensure we fully understand the birds in the area and their behaviour around

the windfarm.

During 2017 we will be conducting further benthic, geotechnical, geophysical and UXO (unexploded ordinance) surveys off the coast of Suffolk. This is to ensure we are analysing every element of our work, any impact it may have on the environment and where necessary looking at ways in which we can mitigate this.

### LiDAR Update

We are delighted the pioneering floating LiDAR (Light Detection and Ranging) system installed in the East Anglia ONE windfarm area has been extremely successful.

The innovative floating device was deployed using local vessel Suffolk Spirit in late 2015, to collect wind, wave and climate data. This method of collecting data offshore is more cost effective than the traditional meteorological masts. The LiDAR system allows our engineers to access data collected in real time, throughout the day and night. Lowestoft-based marine engineering company Small & Co assisted with transferring the LiDAR from dock to vessel and it has now been retrieved by local vessel Forth Trojan.

The project to install and monitor the LiDAR is part of the Offshore Wind Accelerator (OWA) programme, managed by the Carbon Trust. The final data report has now been completed and we presented the successful results to the Carbon Trust. The data shows that LiDAR is comparative to the meteorological mast at measuring wind, reaffirming the notion that East Anglia is at the forefront of reducing the cost of offshore wind.

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### Works commence at Great Yarmouth

- Great Yarmouth selected as turbine marshalling port for East Anglia ONE
- <image>

Main image: A ground-breaking event was held at the port to mark the start of preparatory works. Top right and bottom right: Work starts at Peel Ports Great Yarmouth

A t EEEGR's Southern North Sea conference we announced that Peel Ports Great Yarmouth had been selected as the turbine assembly and marshalling port for East Anglia ONE and recently preparatory works commenced at the port.

Up to £5million is being co-invested in Peel Ports Great Yarmouth to prepare the facility to begin supporting offshore construction and installation work in 2018. The port will host load-in, pre-assembly, marshalling and load-out operations for wind turbine components.

The decision to locate works at Peel Ports Great Yarmouth provides a further boost to the significant investment and job creation that the project will bring to the region. During the peak of wind turbine installation in 2019 there will be approximately 100 personnel based at Great Yarmouth port.

Preparatory works to enhance port infrastructure have started and will include delivery of a new storage and marshalling yard, quay modifications to allow Roll-on-Roll-off vessels to use the port, as well as the installation of heavy-lift quay crane facilities.

The Rt Hon Brandon Lewis MP for Great Yarmouth commented: "This multi-million-pound investment in Great Yarmouth further strengthens the town's position as a leading port for the offshore energy industry and brings jobs and growth to our local area."



£5m co-invested in Peel Ports Great Yarmouth

to prepare the facility



As detailed in our last newsletter, it was announced that a £25million agreement with the Port of Lowestoft had been reached for it to be the operations and maintenance base for the 30-year lifespan of the East Anglia ONE project.

Peel Ports Great Yarmouth will be used for:

- Load-in of wind turbine components from transport vessels by a mix of RoRo (roll-on roll-off) and LoLo (Lift-on Lift-Off) vessels
- Storage and marshalling of components
- Pre-assembly works to components (e.g. lengths of wind turbine tower will be joined together)
- Load-out of wind turbine components onto installation vessels

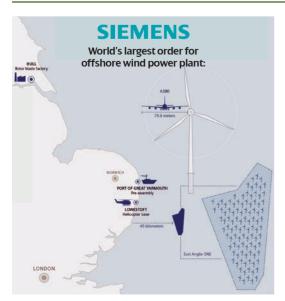
Siemens will supply up to 102 state-of-the-art 7-megawatt (MW) turbines, which in total will power up to 500,000° homes every year, equivalent to the majority of households in Norfolk and Suffolk.

The 75m-long turbine blades are planned to be manufactured in Siemens' brand new factory in Hull. From there they will be transported to Peel Ports Great Yarmouth for assembly, before being shipped out to the windfarm.

#### The Siemens 7-megawatt turbine:

- Rotor diameter: 154 metres
- Blade length: 75 metres
- Tip height: up to 190 metres

<sup>\*</sup> Calculated taking the number of megawatts (714) multiplied by the number of hours in one year (8,766), multiplied by the average load factor for offshore wind for 2014 (most up to date figure available) (34.88 %, published by the Digest of United Kingdom Energy Statistics), divided by the average annual household energy consumption



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### East Anglia ONE turbine contract agreed with Siemens

Earlier this year we concluded what is believed to be Europe's largest ever contract for offshore wind turbines. The agreement with Siemens is worth up to one-third of the overall £2.5bn project investment and includes a five-year service agreement.

# **On Land**

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### **Onshore survey works**

#### • We have conducted extensive environmental surveys and ecological mitigation works

A n important part of the process for the onshore underground cable route is the ecological mitigation work we undertake prior to commencing construction.

This has included the creation of two new artificial badger setts to relocate badgers that were residing along the cable route. Over the past six months we have worked closely with Natural England to gain permission to build two new setts for these badgers in appropriate and safe locations away from where construction works will take place.

We carefully constructed the new setts and then monitored them with night-vision cameras. We were delighted to find that the badgers were happily using their new homes. With the new setts having been a success, Natural England confirmed that the badgers were now safe in their new homes and granted a licence for us to close the old setts.

We have also been monitoring newts along the cable route area and we have used a specialist fencing technique to capture them in order to relocate them to a safer environment.

Our habitat management has also extended to reptiles, which similarly has seen us relocate any reptiles discovered, to a new safer location away from the site. We have also carried out extensive environmental surveys over the last few years to ensure that we fully understand the environment along the cable route. Following these surveys we have used a variety of specialist techniques, like the ones mentioned above, to mitigate any impact on the local environment

Over the past six months we have worked with Natural England to gain permission to build two new homes for these badgers in a safe environment.



Above, bottom left: construction of the artificial badger sette





Badger caught on night-vision camera using its new home



### **Substation Update**

- Substation design has been approved by Suffolk County Council
- Design will reflect local agricultural buildings, using a subdued colour palette

n our last newsletter we advised that we had presented our designs for the substation to the Design Council and they were carefully considering their recommendations. Since then we have provided our designs to Suffolk County Council and these have been approved.

The substation will be constructed at Bramford, next to the existing National Grid substation. This will enable the energy generated by the East Anglia ONE windfarm to be connected into the National Grid and used across the UK.

We will be using a subdued palette of colours on the site to reflect local agricultural buildings, minimise visual impact and help blend the building with the background. Earthwork bunding, where gentle-sloped mounds are constructed around the perimeter, and the planting of native mixed species of hedgerows and woodland, will help to soften the visual impact of the substation and provide screening of the majority of electrical infrastructure. Open areas will also be re-seeded to encourage wildflower meadows to evolve.

Originally our plan for the substation allowed for a building of up to 25 metres in height but we have worked hard to reduce this to 12 metres through the use of innovative technologies. The building will also use 'task lighting' to minimise any lighting overspill.

#### Archaeological Works

In January we will also commence the next stage of archaeological works to check and remove any remaining items of interest along the cable route and around the substation area. These works require careful management and we are working closely with the Suffolk County Council Archaeology Service to ensure they are carried out appropriately.

# **Coming Up**

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### **East Anglia ONE construction commencing**

### • Construction of the cable route commencing in Spring 2017

#### Once the pre-construction works have been completed in early 2017, we will commence actual construction works for the laying of the electricity cables in the spring.

We are investing significantly to put the cable route underground, instead of constructing new overhead pylons, as this method preserves the view of the Suffolk countryside. The cable route will enable the transportation of the power generated from our East Anglia ONE offshore windfarm to be input into the National Grid via a new substation adjacent to the existing National Grid substation at Bramford.

The cable route will have a perimeter fence constructed all the way along it from Bawdsey to Bramford to ensure the public remain a safe distance from the construction works.

#### Cable route will be marked by perimeter fencing for safety

The works are due to last until approximately January 2019 and will include the creation of seven construction consolidation sites and two primary construction sites. These will all be clearly marked along the route, as will all works.

A traffic management plan has been agreed with Suffolk County Council, along with a Code of Construction Practice, and both will be strictly adhered to.

The first obvious sign of actual construction works will be the stripping of the top soil along the length of the cable route. The trenches for the ducting and the cables will then be dug and in due course the cables will be installed. The cables will then be covered over and the land returned to its original state.

Footpaths, which usually cross the route, will be clearly signposted.

We will be working with a wide variety of contractors, both local and national, depending on the specialist nature of each element of the works, so you may notice some of our contractor vehicles and unusual looking machinery being transported to site. Similarly, we will be working with local suppliers and people from further afield via our contractors, so there will be an influx in the use of hotels along the route.

#### Become a ScottishPower Renewables supplier

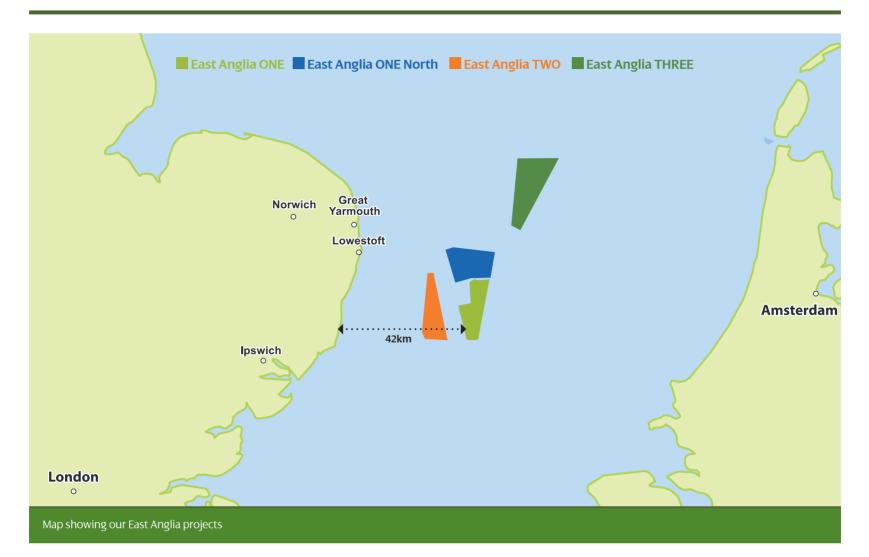
We are keen to work with local suppliers wherever possible, so if you would like to be involved in the project, please complete our supplier registration form.

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# **On the Horizon**

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## East Anglia THREE update

• Plans for East Anglia THREE are progressing well and we hope to receive a decision from the Secretary of State for Business, Environment and Industrial Strategy in Summer 2017

n the last issue of this newsletter we advised that plans had been submitted to the Planning Inspectorate for the East Anglia THREE project. The plans were for consent to construct and operate a 1200 megawatt offshore windfarm and associated offshore and onshore infrastructure, enough to power up to 890,000° homes with cleaner renewable energy.

The windfarm would be located some 69km off the Suffolk coast and would connect to the National Grid electricity distribution network at Bramford. We also mentioned the many benefits the project could bring, such as around 2,900 jobs in the East Anglia region alone and a potential addition of £248 million to the regional economy during construction.

Since submitting our plans in November 2015, we are pleased to report that the project team has continued to positively engage with a broad range of stakeholders with wide and varied interests in our proposals, to understand their ideas or concerns, or simply just to respond to questions. Additionally, the project is now approaching the end of a Public Examination period which formally commenced in June 2016 and will conclude in early 2017.

The Examination has been led by a panel of four expert examiners appointed by the Planning Inspectorate and has been attended by many stakeholders such as statutory and non-statutory nature conservation bodies, local authorities or others with more specific or general interests. Every aspect of the project has been openly discussed with interested parties invited to make representation should they wish to do so.

Once they have concluded their examination of the project taking into account all the representations made to them, the expert panel will deliberate and then make a recommendation to the Secretary of State for Business, Environment and Industrial Strategy, regarding whether or not the project should be given the green light. The Secretary of State's decision is expected during the summer of 2017.

\*Calculated taking the number of megawatts (1,200) multiplied by the number of hours in one year (8,766), multiplied by the average load factor for offshore wind (34.88 %, published by the Digest of United Kingdom Energy Statistics), divided by the average annual household energy consumption (4,115 kWh), giving an equivalent of powering 891,029 homes.

# EA ONE North & EA TWO update

### • Looking to submit planning permission in 2019/2020

Plans for our East Anglia TWO and East Anglia ONE North windfarms are in the early stages. Both projects are planned to be approximately 800MW, slightly larger than East Anglia ONE's 714MW.

We are progressing plans for the two windfarms in parallel at the moment, and following the same procedure as East Anglia ONE and East Anglia THREE, which makes the process easier.

The first milestone is submitting planning permission, which we hope to do in 2019/2020. We will look to progress East Anglia TWO first with East Anglia ONE North following a year later. This keeps the projects close in timescale whilst still ensuring we give each project our full attention.

We are now working on the Environmental Impact Assessment with the same consultants we used for East Anglia THREE, Royal Haskoning in Peterborough, which enables us to build on the relationship already formed with our stakeholders.

In 2017 we will be looking to hold public consultations to engage with communities about the cable routing for these next projects.

# **Contracts News**

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# **Supply Chain Update**



Jonathan Cole, Managing Director, offshore at ScottishPower Renewables speaking at EEEGR's Southern North Sea conference

### **Contract update**

- 60 jacket foundations to Lamprell, including work for Harland and Wolff, Belfast
- 42 jacket foundations to Navantia and Windar

Following a competitive tender process, we have now concluded all contracts for fabrication of the jacket foundations for East Anglia ONE.

Joint venture Navantia and Windar will deliver 42 of the jacket foundations with the remaining 60 awarded to Lamprell, which includes agreement with the Harland and Wolff facility in Belfast to deliver 24 jackets, supporting up to 200 jobs in the area.

Standing over 65 metres tall and weighing more than 845 tonnes, the three-legged steel jacket structures will be as prominent on the Belfast skyline as the famous Samson and Goliath cranes.

Navantia has successfully delivered 29 jackets as well as the offshore substation for our Wikinger windfarm in Germany and fabrication work for these jackets will commence in 2017 from their yard in northern Spain. Lamprell's yards in the UAE will also work on the contract, with work due to commence in March 2017, lasting for 18 months.

Keith Anderson, Chief Executive of ScottishPower Renewables, said: "East Anglia ONE is the best value offshore windfarm to go into construction, at the same time as delivering industry-leading levels of UK content. Both of these considerations have been prominent in our thinking during the process of placing contracts and we are pleased Belfast will play important roles in delivering this project, supporting hundreds of jobs.

"The facilities in Belfast are excellent for supporting offshore wind construction, as we experienced on our West of Duddon Sands project. We hope the successful delivery of this contract will lead to more opportunities for Belfast.

"Our contracting strategy will ensure over 50% of the overall lifetime investment for East Anglia ONE goes to suppliers in the UK. We are investing with our partners and supporting highly skilled jobs in Hull, Lowestoft, Great Yarmouth and now Belfast, and we are in discussions with a range of other UK suppliers to deliver important contracts covering all aspects of the project."

Jonathan Guest, H&W Director, Business Development, added: "In a global supply chain environment, it is significant when a developer stands over its commitment to give opportunities to local fabricators, as ScottishPower Renewables has demonstrated for East Anglia ONE." Over the last few years we have held a number of successful supply chain events which have enabled us to share updates on our contracting progress. We have been delighted to see so many people attending these events and engaging with us.

We are pleased to report that many of the large contracts for the East Anglia ONE project have been successfully awarded, following a rigorous tender process, such as the contract for the turbines, the substation foundations and both of the key ports.

The project team is still in the process of tendering for all of the remaining construction phase contracts and is focusing on our target commitment of 50% UK content.

In 2017 the project will commence tendering for the operations and maintenance phase of the project. This will include contracts for consultancy services, temporary diesel generators, crew transport vessels, sub-sea array cable repairs and post-construction environmental monitoring.

#### Supply Chain event – Spring 2017

Our next Supply Chain event for East Anglia ONE will take place in Spring 2017, with more details to follow. To put your company on our Supply Chain Register please visit:

#### 🛞 spreastanglia.co.uk

East Anglia ONE jacket foundation

# Making cleaner energy work

# **Construction elsewhere: Wikinger**

BBC Look East and Archant joined us to visit our German windfarm project, Wikinger, to see first-hand the benefits the project is bringing to the local area



Main image: 65-metre-high jacket foundations ready to be installed at the Wikinger windfarm site.

**B**C Look East's Richard Bond and Mark Shields from Archant (publishers of the East Anglian Daily Times and Eastern Daily Press) joined us on a trip to our Wikinger windfarm project off the coast of Germany. The tour provided first-hand experience of a windfarm being developed and enabled the business correspondents to see the benefits it is bringing to the local community.

Flying 20 miles off the coast of Northern Germany, the jacket foundations for Wikinger could be seen rising out of the Baltic Sea, surrounding the 4,550-tonne substation which will take the power generated from each turbine back to shore via three offshore export cables running along the seabed.

Back onshore a tour of the local town, Sassnitz, highlighted just how important windfarm projects are in creating new jobs and investment.

The Mayor of Sassnitz, Frank Kracht, commented: "The offshore wind industry is very good for Sassnitz as it has created jobs which last throughout the year, not just during the tourist season. This project has brought new people to live and work in the town and has also allowed local people to re-train and find new jobs.'

The operations and maintenance base at Mukran port, near Sassnitz, has already created a variety of jobs, with others expected once the windfarm is operational. The work currently being undertaken in Sassnitz gives real insight into the future for



Wikinger's offshore substation 'Andalucia' being installed in the Baltic Sea Below: Group shot from the trip to Sassnitz



East Anglia and how the huge level of investment will benefit the local area.

Charlie Jordan, project director for East Anglia ONE, commented: "Sassnitz has benefited greatly from supporting the construction of Wikinger. Similar benefits will be realised in East Anglia through works planned at Great Yarmouth and Lowestoft. We are committed to ensuring that the region and the UK as a whole benefits from the project and Wikinger is a great example of the value that these projects can bring to an area".

To find out more about Wikinger please visit wikingeroffshorewindfarm.de

### Meet the team



Joanna Young

Email:

jyoung@scottishpower.com

As stakeholder manager for our East Anglia projects, Joanna has been working on East Anglia ONE since the early planning stages. Joanna can often be found discussing the project with local communities across Suffolk and is always happy to answer any questions.



Bridie has recently joined the team as community liaison officer for East Anglia ONE. Having previously worked on large infrastructure projects for ScottishPower Energy Networks, the Scottish Parliament and others, Bridie has extensive experience of liaising positively with communities and she is happy to discuss any queries with you.

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