

## Robin Rigg Offshore Wind Farm

Project and community update from E.ON UK

# Construction begins on Robin Rigg Offshore Wind Farm

Construction has started on the Robin Rigg Wind Farm, which when completed will be one of the largest offshore wind farms in the UK. At 180MW it will produce enough energy to power 117,000 homes\*.

Work began on the onshore connection earlier this year and offshore construction will start this summer.

Robin Rigg will play a significant role in the fight against climate change. By generating clean, renewable energy, it will displace the emission of over 200,000 tonnes of carbon dioxide<sup>†</sup> and help the Government meet its tough renewable energy targets.

We're one of the UK's largest green generators and we already have strong links to the community with our combined heat and power plant in Workington.

What's happening next in the Solway Firth
Find out on p4



Robin Rigg Project Manager Ian Johnson said: "We're committed to being a good neighbour and we're looking forward to building on our strong relationship with the community.

"This is an exciting project and one we feel that local people can take great pride in because it will make such a big contribution in the effort to prevent global warming.

"Please enjoy the first issue of our newsletter, which we have produced to keep you fully up-to-date with developments throughout the construction of the wind farm."

<sup>\*</sup>Annual Homes Equivalent - Based on average domestic household consumption of 4700kWh (DTI Report on domestic energy consumption 2004) divided by 2001 census for the number of homes.

<sup>†</sup> CO<sub>2</sub> - Based on an emissions factor of 430g/KWh, which assumes that energy generated displaces a balanced portfolio.

### Who is

## E.ON UK?

E.ON UK is part of the E.ON Group, the world's largest private sector energy services company. We're the company that runs Powergen, one of the UK's leading energy brands, and we generate, distribute and supply electricity and gas to millions of people.

From our portfolio of world class coal, gas and renewable power stations we generate 10% of the UK's electricity, using some of the most advanced technologies in the world.

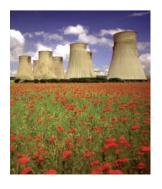
We're using our energy know-how to develop new technologies for a lower carbon future and we're preparing for the next generation of power stations that will help keep the UK's lights on.

These include new gas fired power stations and gas storage facilities, developing cleaner coal generation and carbon capture and storage technologies.

We're fully committed to renewable sources of energy generation and are building the UK's largest dedicated biomass power station, Steven's Croft, near Lockerbie, developing wave and tidal energy projects to harness the power from our oceans in addition to developing and building further onshore and offshore wind farms.











# Project Update

The 180MW Robin Rigg Wind Farm consists of 60 three megawatt Vestas turbines and is located in the middle of the Solway Firth (see top map).

Once operational the wind farm will be capable of generating enough electricity to power the equivalent of 117,000 homes annually as well as displacing the emission of over 200,000 tonnes of harmful greenhouse gases.

The 60 turbines will be supported on foundations which typically extend 30-40m into the sea bed. Each turbine is 80m tall to hub height and has a generation capacity of 3MW.

#### How will the turbines get to the site?

The turbine foundations will be delivered directly to the offshore site from Belgium during the summer. The wind turbines will then be assembled in Belfast and delivered to the offshore site for installation next summer. The offshore sub-station platforms will be fitted out with all the electrical equipment in Barrow-in-Furness this year before being installed offshore next summer.

Local ports such as Maryport, Workington and Whitehaven are expected to be used for supporting the offshore construction activities. The Port of Workington has been selected as the base for the operation and maintenance (O&M) of the wind farm for it's 20 year operational life.

#### **Quick Facts**

Total Power: 180 MW

No of turbines: 60

Annual CO<sub>2</sub>: over 200,000 tonnes

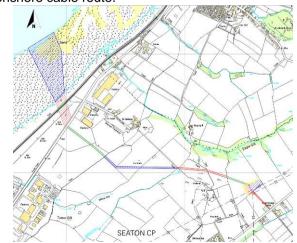
Homes equivalent: 117,000



Above: Location of Robin Rigg Wind Farm

#### Where is the cable route?

Each of the 60 turbines will be connected to the offshore substations by subsea cables. These substations will then be connected to the local electricity distribution system via two 132Kv cable. These cables come ashore near Seaton, Cumbria where they will travel approximately 2Km inland to the new onshore substation. The map below shows the onshore cable route.



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# What's happening next in the Solway Firth

The foundation installation Jack Up Barge "Lisa A" is due to arrive on site soon. It will be of a similar size to the vessel seen during October and November 2006, the "MV Resolution", which was used to carry out geotechnical surveys.

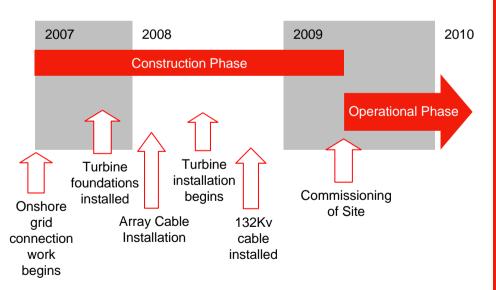
The "Lisa A" will be installing monopiles (35m long pipes 4.3m diameter) and fitting the Transition Pieces, which look like upside down yellow top hats. The Jack Up Barge will be replenished by other vessels bringing foundations directly from the factory in Belgium.

These vessels will be positioned using tugs and anchor handlers which utilise state of the art navigation equipment which provide centimetre accuracy.

A number of smaller vessels will also be going to and from the site over the summer months. These boats will be carrying out surveys and continuing the monitoring studies, which have been ongoing throughout the development of the project.

#### **Project Plan**

The proposed construction programme with key milestones is shown below:



#### What's in the next edition?







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