

# RACE BANK OFFSHORE WIND FARM

PROJECT UPDATE MAY 2014



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# Introduction

This briefing introduces the Race Bank Offshore Wind Farm project and DONG Energy, the company now responsible for taking the project forward. We will explain DONG Energy's vision for Race Bank and how it contributes to our aims for affordable, secure and renewable energy as well as local jobs and supply chain opportunities.

Find out more about us at www.dongenergy.co.uk.



## The need for renewable energy

The three key challenges facing the energy industry today are to secure energy supply and address climate change while ensuring that energy is affordable. As part of meeting these challenges, the UK aims to generate 15% of domestic energy from renewable sources by 2020 and achieve an 80% reduction in CO2 emissions by 2050. To achieve the renewable energy target, the UK may have to generate as much

as 32% of its electrical energy from renewable sources such as offshore wind.

DONG Energy is leading this development and we are working towards a target to reduce the cost of electricity from offshore wind by 35-40% for projects sanctioned in 2020, compared with 2012. This objective will require pioneering turbine and foundation designs, standardisations and new ways of installing and operating wind farms.

Race Bank would play a key part in our journey to bringing down the cost of electricity.

Offshore wind can also ensure a low carbon domestic energy supply. The proposed Race Bank project is classed as a nationally significant infrastructure project and could generate enough electricity annually to meet the needs of 460,000 UK homes.

## **About DONG Energy**

DONG Energy is one of the leading energy groups in Northern Europe. Headquartered in Denmark, we cover a wide range of energy sector activities and have been a pioneer in the offshore wind industry for more than 20 years. We are the market leader in offshore wind and are involved in more than half of the current operating offshore wind farms worldwide. DONG Energy's vision is to lead the energy transformation towards a lower carbon energy mix, and we are focused on reducing the cost of energy.

The UK is one of DONG Energy's primary markets for developing offshore wind, and so far we have £4.2 billion already realised and committed to wind energy projects in the UK. Together with our partners, we currently operate six offshore wind farms with a total capacity of 1.5GW, including Walney, Gunfleet Sands and the world's largest offshore wind farm, London Array. We have two more projects under construction and an extensive pipeline of future offshore wind farms under development.



## The Race Bank project

In December 2013, DONG Energy acquired the Race Bank Offshore Wind Farm project (Race Bank) from Centrica, which is why DONG Energy is now taking forward the project. The Race Bank project has received all major consents from UK authorities for the construction and operation of the wind farm, and extensive geotechnical and geophysical investigations of the site have already been carried out.

As part of the project acquisition, DONG Energy has worked closely with Centrica to develop a thorough understanding of the project and has planned some additional studies and surveys this year to enable us to finalise the project plans. Alongside this we will also be speaking with key stakeholders to further advance our understanding of

the area and evaluate any issues that may need mitigating.

A final decision to build the project is expected in Summer 2015. If the project goes ahead, onshore construction would begin following this final investment decision, and offshore construction would begin in Spring 2016 at the earliest.

#### **Facts**

**Maximum capacity** 

580MW – enough to power close to 460,000 UK homes annually\*

**Potential CO2 savings** 

Over 830,000 tonnes of annual CO2 savings, equivalent to the amount of CO2 emitted by 390,000 cars in

a year

**Number of turbines** 

up to 91

Turbine tip height

Maximum 180m above Mean High

Water Spring

**Turbine rotor diameter** 

Maximum 155m

Number of offshore substations

Up to three

Location of onshore substation Expected operational lifetime of Walpole 25 years

the wind farm

<sup>\*</sup> Homes Powered Equivalent (p.a.): This is calculated using the most recent statistics from the Department of Energy and Climate Change showing that annual UK average domestic household consumption is 4,222kWh. See more at: http://www.renewableuk.com/en/renewable-energy/wind-energy/uk-wind-energy-database/figures-explained.cfm#sthash.BJYz8Z5i.dpuf

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# Location of the Race Bank project

Race Bank would be located approximately 16.8 miles off Blakeney Point on the North Norfolk coast and 17.4 miles off the Lincolnshire coast at Chapel St Leonards. It would cover an area of approximately 29 square miles.

Export cables would bring power from the windfarm to the substation onshore. For Race Bank these would come to shore east of the mouth of the river Nene and approximately 3.7 miles north-northeast of Sutton Bridge. The cables would run in a southerly direction to the connection point at the existing Walpole substation. The approximate length of the onshore section of cable is 6.8 miles.

## **Project Timeline**

Race Bank

**Dec 2013:** DONG Energy's acquisition of the Race Bank project from Centrica.

**Jan-March 2014:** Internal review of the project.

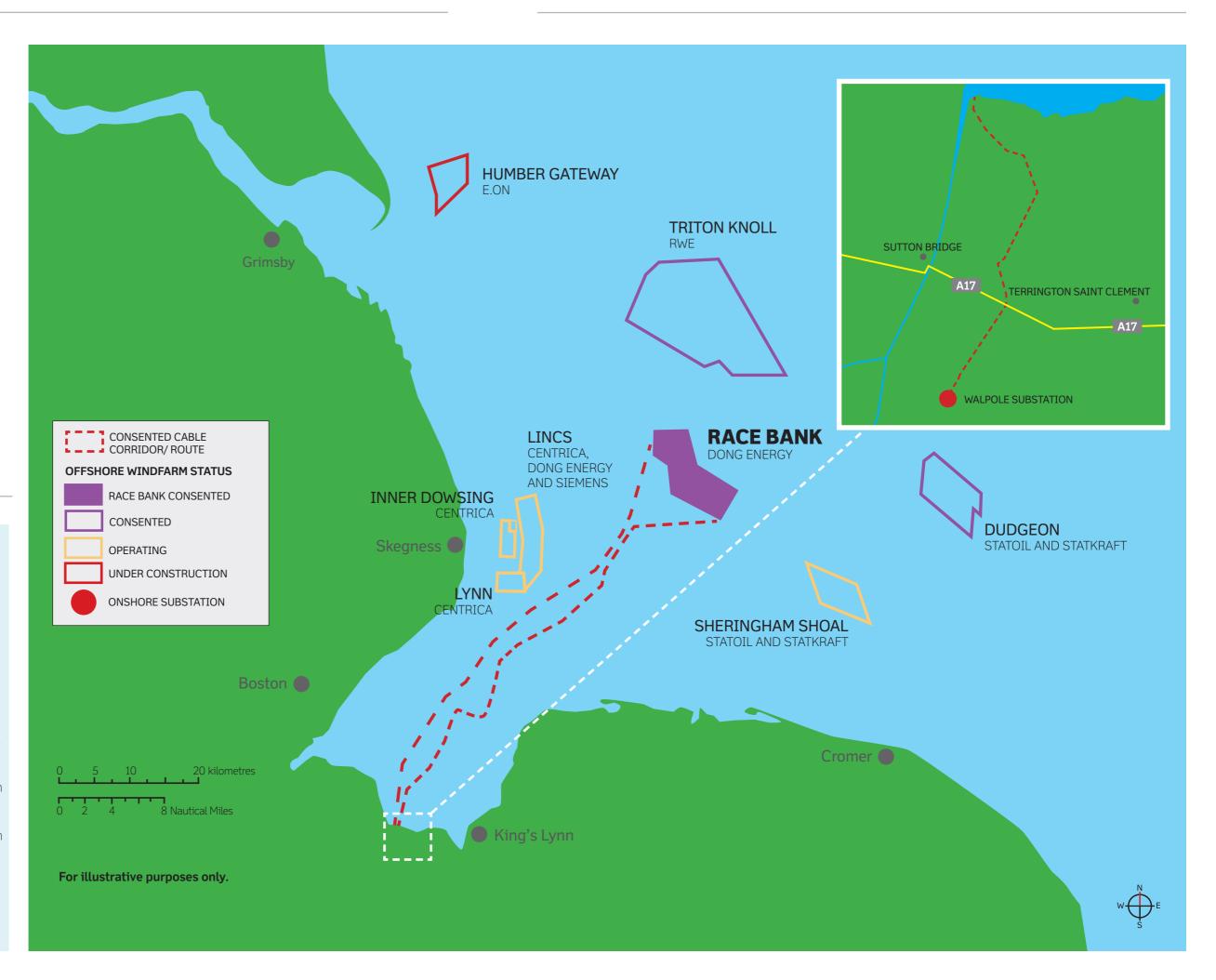
**From April 2014:** Planned studies in the area, including geotechnical studies.

**Spring 2015:** Onshore construction to begin at the earliest.

**Spring 2016:** Offshore construction to begin at the earliest.

**2018:** Operations to begin at the earliest.

Dates are indicative and subject to change.



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# Potential impacts of the project

The Race Bank project has been subject to an extensive Environmental Impact Assessment for all onshore and offshore works.

The assessments were key in the appraisal of the project by the Department of Energy and Climate Change (DECC) and Local Authorities in their award of consent for the wind farm. Further assessment has also been conducted by DECC and the Marine Management Organisation to ensure that any impacts on habitats and features of The Wash and other designated areas have been fully considered.

### **Onshore impacts**

The onshore cable route has been selected to be direct and minimise environmental impact between the cable landfall and the onshore substation. The cable route largely crosses agricultural land, and environmental surveys have not recorded any features of significant ecological interest. The extension to the existing Walpole substation will be a continuation of the existing development, and will be similar to the structures already in place. The substation will include landscaping with native trees along the boundary.



#### **Birds**

The Wash is an internationally important bird habitat. In order to protect the large numbers of passage and overwintering birds, marine works in sensitive areas will be restricted to specific periods.

Additionally, other measures to minimise disturbance will be agreed in consultation with Natural England prior to beginning works.

The potential operational impacts of wind turbines on birds have also been thoroughly assessed, and the specific numbers and types of wind turbine generators are being selected and agreed with DECC with careful consideration to birdlife.

#### Flood defence

Flood defence infrastructure, including the primary sea defence, as well as the network of drainage channels and rivers that characterise North Norfolk and Lincolnshire, perform a critical role in terms of protecting local areas and livelihoods from the risks of flooding. Construction of the Race Bank project will respect all obligations for protecting the drainage and flood risk management infrastructure.

### Visual amenity

Visual impacts of Race Bank would be limited by its position, which is a minimum of 16 miles offshore from the coast. As part of the Environmental Assessment, a series of photomontages were produced to show what the wind farm might look like. Detailed analysis of views from eight representative viewpoints, including the North Norfolk Area of Outstanding Natural Beauty, concluded that visual effects arising from the development would be of no more than minor significance.

#### **Saltmarsh**

The intertidal areas of the Wash comprise up to 10% of England's saltmarshes and forms one of England's most important natural habitats. Mitigating any potential for installation works to impact these habitats is a key priority, and measures to ensure that works are conducted in the most appropriate ways possible will be agreed in accordance with the project's consents.

DONG Energy is continuing to explore the full range of installation options to ensure that disturbance to the saltmarsh is minimised, including the use of less intrusive technologies, timing of works and minimisation of machinery used in installation activities.



## **Meeting local suppliers**

As part of DONG Energy's ongoing initiatives to engage with, and develop the local supply chain, we plan to hold supply chain events in the areas local to Race Bank before the end of this year. At the moment, we are in dialogue with local ports and commerce networks to discover economic opportunities for the area arising from the proposed offshore wind farm.

We have a procurement strategy that focuses on ensuring local suppliers get the opportunity to participate in tenders for services and components, and that we source locally where it makes sense from an economic and quality perspective. For instance, the development phase of DONG Energy's Burbo Extension Offshore Wind Farm has cost around £7 million, of which more than 95% has been spent in the UK to date with UK-based staff, contractors and services.

We continue to examine opportunities for further increasing our UK supply chain, and we are committed to the government's vision that over 50% of the content of all offshore wind farms will come from the UK.



# Jobs created at Westermost Rough Offshore Wind Farm



**475** indirect jobs are set to be created in vessel and offshore related services

# Local job creation

DONG Energy has extensive experience in building offshore wind farms, investing in local areas around our wind farms and creating local jobs.

An example of this is London Array Offshore Wind Farm with a capacity of 630MW, which is comparable to the proposed Race Bank project. At the peak of construction, up to 1,000 people were working on London Array. In addition, around 90 jobs have been created at the Operations and Maintenance base at the Port of Ramsgate and will be maintained throughout the operational lifetime of London Array.

Another example of Dong Energy's commitment to the local economy is Westermost Rough Offshore Wind Farm, which is just up the coastline from Race Bank. Here, an estimated 100 jobs are expected to be directly created by March 2016, with at least 100 jobs to come later as part of ongoing developments. In addition, more than 475 indirect jobs are set to be created in vessel and offshore related services in the borough of North East Lincolnshire over the next few years.

### **Contact us**

To find out more about the Race Bank Offshore Wind Farm, please visit the project website: www.dongenergy.co.uk

To contact us, please email **racebank@dongenergy.co.uk** or call 0800 111 4478 (open between 9am and 5pm, with an answer phone facility to take calls outside of these hours).

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