

London Array offshore wind farm: statistics

COMPANIES INVOLVED:	DONG Energy, E.ON and Masdar.
DUE ONLINE:	From 2012.
INSTALLED CAPACITY:	1,000 MW to be built in two phases: First phase 630 MW by 2012; Second phase by 2015.
NUMBER OF TURBINES:	Up to 341 turbines of 3-7 MW in electrical capacity, installed over a four year period.
TURBINE SIZE:	Hub heights will be between 85 m and 100 m above sea level, and the total turbine height will not be greater than 175 m.
LOCATION:	Over 20 km from the Kent and Essex coasts in the outer Thames Estuary, UK. The farm will cover up to around 245 km ² .
WATER DEPTH:	23 metres.
POWER SUPPLIED:	The completed project will produce about 3.5 TWh – 7% of the UK’s national renewable electricity target of 15.4% by 2015.
CO ₂ AVOIDANCE:	1.9 million tonnes per year.
OPERATING WIND SPEEDS:	The wind turbines will begin generating electricity at a minimum wind speed of three metres per second (m/s), with full power from 13 m/s. For safety reasons they will shut down at wind speeds greater than 25 m/s.
INVESTMENTS:	€2.2 bn for the building of the first 630 MW.
STUDIES:	16 offshore and onshore environmental studies.
SOURCE:	www.londonarray.com

For more information see the Focus, p. 17.

Wind bites

“Just as investing in electrification, railways and the internet led to economic growth in the past, investing in clean energy can help reignite the global economy now.”

Tony Blair, former Prime Minister, UK, 6 July 2009

“The nation that leads in the creation of a clean energy economy will be the nation that leads the 21st century global economy”.

Barack Obama, President, United States, 28 June 2009

“Offshore wind is fundamental to delivering our target of 15% renewable energy by 2020, and looking ahead to reducing our carbon emissions by 80%. (...) With the right support, we can grow the industry even further, supporting tens of thousands of high-value, green manufacturing jobs.”

Lord Hunt, Energy and Climate Change Minister, UK, 25 June 2009

“Harnessing the energy related opportunities presented by Scotland’s natural capital can create tens of thousands of jobs and help us emerge from the current global economic downturn on the back of a strong green economic revival.”

Stewart Stevenson, Climate Change Minister, Scotland, 25 June 2009

“We must make the expansion of renewable energy a keystone of development.”

Ban Ki-moon, UN Secretary-General, 18 June 2009

“Wind energy is a driving force for climate protection, economic development and the creation of future-proof jobs. The Global Wind Day 2009 demonstrates the enormous potential of wind energy to the public.”

Sigmar Gabriel, Environment Minister, Germany, 15 June 2009

“Europe has a golden opportunity to develop a green economy which will boost the economy overall and build new jobs [...] Europe has already an advantage in terms of technological know-how and it needs to continue this technological leadership, but also to provide political and market stimuli.”

Maud Oloffson, Energy Minister, Sweden, 15 June 2009

“We are going to make as significant a change of direction on renewable energy as General de Gaulle did for nuclear energy in the 1960s.”

Nicolas Sarkozy, President, France, 9 June 2009

BELGIUM

Vestas to provide turbines for Belgian offshore farm

Vestas is to provide 55 of its V90 turbines for the Bligh Bank offshore wind farm to be built off the coast of Belgium near Zeebrugge. The farm will have a total capacity of 165 MW. The order has been placed by Belwind N.V. which is owned by Belgian and Dutch investors. Delivery and installation of the turbines, should take place during 2010, and the farm should be completed in early 2011.

For more information: www.vestas.com

CHINA

Gamesa to supply 300 MW of wind turbines

Spanish wind turbine manufacturer Gamesa is to supply 300 MW worth of wind turbines to Chinese firm, China Huadian New Energy Development. Some 200 MW of the wind turbines will be set up at four wind farms which are being developed between 2009 and 2011 in Inner Mongolia.

For more information: www.gamesacorp.com

FRANCE

Vergnet wins €20 million contract in Nigeria

French wind turbine manufacturer Vergnet has won a €20 million contract to design, build, install and maintain a wind farm in Nigeria. The farm will be made up of 37 wind turbines and have a total capacity of 10 MW.

For more information: www.vergnet.fr



German wind power is set to go offshore

Photo: GWEC

GERMANY

First offshore wind farm taking shape

EWE, E.ON and Vattenfall announced that the first out of 12 wind generators has been installed in the Alpha Ventus wind farm 45 km north of the island of Borkum, Germany. The farm is due to be completed by the end of 2009. Deutsche Offshore-Testfeld und Infrastruktur GmbH (DOTI), a joint venture of EWE, E.ON and Vattenfall, is investing €250 million in Alpha Ventus.

For more information: www.alpha-ventus.de

GREECE

Enel Green Power acquires new wind farm near Lithos-Achaia

Enel Green Power, the renewable energy section of Italian utility Enel, has acquired a new wind farm near Lithos-Achaia in Greece with a capacity of around 18.9 MW. The Italian firm bought the farm from a local operator. The acquisition means that Enel Green Power's installed capacity in Greece now amounts to over 127 MW.

For more information: www.enelgreenpower.com

UK announces new long-term renewables targets

In July, the UK announced its strategy for meeting carbon emissions targets including a massive increase in renewable energy.

UK Energy and Climate Change Secretary, Ed Miliband announced that 30% of the UK's power would come from renewables by 2020. The country's EU target is 15% of total energy from renewables in 2020.

Along with its Low Carbon Transition Plan and Low Carbon Transport Plan, the government published its Renewable Energy Strategy, mapping out how it will reach its EU target by 2020, from around 2% today. The Strategy identifies a range of low carbon sectors with potential for job creation and growth. These include offshore wind. The Strategy also sets out how the government aims to remove

barriers that are blocking the development of Britain's full potential in these areas.

The British Wind Energy Association has calculated that this implies that 22% of all electricity will come from offshore and onshore wind and another 2% from marine technologies.

For more information: www.decc.gov.uk