SIEMENS

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News Release

Siemens wins new £101 million order to connect Lincs offshore wind farm to the UK grid

Siemens has been awarded a major order with Lincs Wind Farm Ltd to implement the grid connection for the Lincs offshore wind farm. Siemens Energy will also supply its latest high-performance 3.6MW wind turbines, each with a rotor diameter of 120 metres. When operational, the Lincs wind farm will provide green power for homes in the East of England, contributing towards a significant reduction of carbon dioxide emissions.

The wind farm with up to 75 turbines and an installed capacity of up to 270 MW will be installed 5 miles offshore, near Skegness, Lincolnshire on the east coast of the UK.

Udo Niehage, CEO of the Power Transmission Division of Siemens Energy said: "We not only have the technology and know-how, but also extensive project management experience with grid connections for offshore wind farms. Our recognised expertise in offshore connections is benefiting a number of international projects, especially in the UK, a fast growing market for renewable energy."

Ron Smith, managing director, Siemens Transmission and Distribution, said: "In the UK, Siemens is the leading provider of integrated grid connection solutions for renewable energy, connecting 75% of the UK's offshore wind farms to the UK grid. Our current projects will provide over 2.2GW of energy to homes and businesses across the UK."

Siemens will supply an offshore substation platform, which will bundle the power generated by the wind turbines before it is transported via high-voltage cable to the mainland. The substation will be equipped with two 240MVA transformers, and 132kV high-voltage and 33kV medium-voltage switchgear. The requisite protection and instrumentation and control equipment will also be installed on the platform.

The transformers on the substation platform will step up the 33 kV voltage from the wind turbines to a transmission voltage of 132 kV. High-voltage subsea cables will transport the power to the grid feed-in point, which is located at the Walpole 400kV substation near King's Lynn. In addition to the substation, which will be equipped with two 300MVA power transformers (400/132/13.9 kV), Siemens will install two filters, 132kV and 400kV switchgear, and reactive-power compensation system in order to meet the requirements of the UK power supply network on the quality of the power infeed (Grid Code). Siemens will use its new SVC Plus system for this purpose.

SVC Plus operates with Siemens' innovative voltage-sourced converter (VSC) technology and can be continuously controlled with the aid of insulated–gate bipolar transistors (IGBTs). The central feature of SVC Plus, a refined statcom (static synchronous compensator) is its modular multilevel converter technology. By contrast with other self-commutated converter topologies, the voltage waveshape produced by SVC Plus is practically sinusoidal by virtue of the multilevel technology. This makes existing low-frequency harmonic filters, found in current solutions unnecessary, and significantly reduces the space requirements for the overall system. Siemens will also prepare the requisite design studies for all of the wind farm's electrical components and the grid studies to provide evidence of fulfillment with grid connection requirements.

Onshore preparatory works commenced in April with completion scheduled for 2012.

Notes to editors:

About Siemens in the UK
Siemens was established in the United Kingdom 167 years ago and now employs 16,915 people in the UK. Last year's revenues were £4.2 billion. As a leading global engineering and technology services company, Siemens provides innovative solutions to help tackle the world's major challenges, across the key sectors of energy, industry and healthcare. Siemens has offices and factories throughout the UK, with its headquarters in Frimley, Surrey. The company's global headquarters is in Munich, Germany. For more information, visit www.siemens.co.uk

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