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Energy Sector Power Transmission Division

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Siemens to connect Thanet offshore wind farm to the British power grid

Siemens Energy and consortium partner Prysmian Cables & Systems, have been awarded an order worth approximately EUR 87 million (c.£72 million GBP) by Thanet Offshore Wind Ltd. to connect the Thanet offshore wind farm to the British power grid. The offshore wind farm, which on completion in 2009 will be the largest in the world, will have 100 wind turbines, each with a rated capacity of three megawatts (MW). To be constructed in the North Sea, eleven kilometers off Margate on the coast of Kent, the wind farm will have its connection to the grid ready for operation in the summer of 2009, with commissioning of all wind turbines planned for the end 2009.

As part of the grid connection for the Thanet offshore wind farm, Siemens is constructing an offshore substation platform which will be the world's largest to date and the first with more than one power Transformer. A 33/132-kV substation with two 180-MVA power transformers will be installed on this platform. Prysmian will supply two three-phase 132-kV high-voltage subsea cables to transport the electrical power to the grid connection point, a new high-voltage switching station, which will be built by Siemens in Richborough, Kent.

As well as housing the transformers, the substations will include high-voltage and medium-voltage switchgear with the necessary protection and control technology. There is also an auxiliary system with emergency power supply on the platform. The substation platform will concentrate the energy generated by the wind farm and boost the voltage from 33 kV to 132 kV for transmission to shore.

Siemens is equipping the substation, which will act as the grid connection point on the coast, with a system for reactive-power compensation based on SVC (Static Var Compensator) technology. The reactive-power compensation system fully meets the requirements of the British power supply system (Grid Code). It provides the necessary power factor correction and improves the voltage quality. Siemens also carried out the design studies for all electrical components of the wind farm necessary for the grid connection, as well as the network studies for verifying compliance with the

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grid code. The energy efficient connection of offshore wind farms to the electrical power grid is an important feature of Siemens' environmental portfolio. In 2007, revenue from the products and solutions of Siemens' environmental portfolio was nearly EUR17 billion. The environmental portfolio is growing 10 percent annually; the revenue target for 2011 is EUR25 billion.

Commenting on the contract win John Willcock, Director of Major Projects, Siemens Transmission and Distribution Ltd. In Manchester said: "Siemens is delighted to be working with Warwick Energy and Prysmian to connect Thanet offshore wind farm to the National Grid. As the UK's leading onshore and offshore substation design and build provider, we won this project by demonstrating that our expertise and capability in the network analysis, design, construction and commissioning of onshore substations, can be equally well transferred to the offshore arena."

Notes to editors:

The **Siemens Energy Sector** is the world's leading supplier of a complete spectrum of products, services and solutions for the generation, transmission and distribution of power and for the extraction, conversion and transport of oil and gas. In fiscal 2007 (ended September 30), the Energy Sector had revenues of approximately EUR20.3 billion and received new orders totaling around EUR28.5 billion and posted a profit of EUR1.8 billion. The Energy Sector had a work force of 73,500 at the beginning of fiscal 2008. Further information is available at: www.siemens.com/energy.



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Caption:

Siemens Energy and consortium partner Prysmian Cables & Systems have been awarded an order by Thanet Offshore Wind Ltd. to connect the Thanet offshore wind farm to the British power grid. Generating enough electricity to power approximately 240,000 homes, the wind farm will have 100 wind turbines, each with a rated capacity of three megawatts (MW).