Press Release



ABB wins \$180 million order for Norway-Denmark power transmission link

Skagerrak 4 sets HVDC Light[®] voltage record and helps integrate renewable energy into the grid for Statnett and Energinet

Zurich, Switzerland, Feb. 10, 2011 – ABB, the leading power and automation technology group, has won an order worth about \$180 million from utilities Statnett of Norway and Energinet.dk of Denmark to supply an HVDC Light[®] (high-voltage direct current) converter solution to support the interconnection of the Norwegian and Danish power grids.The 500 kV (kilovolt) link is a new record in transmission voltage using this technology.

The underwater link will boost transmission capacity between the mainly hydroelectric-based Norwegian system and the wind and thermal power-based Danish system. It will enable both networks to add more renewable energy to their energy mix, and to use electricity more efficiently.

ABB will design, supply and commission two 700 MW (megawatt) converter stations based on the company's leading-edge HVDC Light® technology. The converter stations will be located at both ends of the 240-km long interconnection, and will be situated at the same site as the existing converter stations for Skagerrak 1-3 previously supplied by ABB, in Kristiansand, Norway and Tjele, Denmark. The bipolar link will be operated with the Skagerrak 3 transmission system. An advanced control system is key to optimizing converter performance, and ABB will install its world-leading MACH2 control system. The project is scheduled for commissioning in 2014.

"This HVDC Light solution will boost power capacity, enable better load balancing in both grids and help draw more renewable generation into the energy mix," said Peter Leupp, head of ABB's Power Systems division. "It will also reduce the impact of power system disturbances and contribute to the stability and reliability of the grids. The higher voltage level will also help minimize transmission losses."

HVDC Light® continues to be a preferred choice for underground and underwater long-distance power interconnections as well as new applications, such as providing mainland power supplies to islands and offshore oil and gas platforms, city center in-feeds where space is scarce, and more recently in the integration of renewable energy generation from sources such as land based and offshore wind farms.

Controllability, compact modular design, ease of system interface and minimized environmental impact are some of the key advantages of this technology. These systems help overcome distance and grid constraints while ensuring robust performance, power quality and minimal electrical losses. In the rare case of a power system outage, the technology's 'black-start' capability allows for fast network restoration using power from the other end of the link. ABB leads the way in this technology and has delivered 20 such converter stations across the world.

ABB (www.abb.com) is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 124,000 people.

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