

ABB wins \$90 million power order to improve grid stability in Michigan

HVDC Light system to facilitate power flow control and integration of renewables

Zurich, Switzerland, Feb. 23, 2012 – ABB, the leading power and automation technology group, has won an order worth around \$90 million from American Transmission Co. (ATC) to supply a power solution that will help control the flow of power and enhance grid stability in the State of Michigan, US.

ABB's low-loss and environmentally friendly HVDC Light (high-voltage direct current) technology will control the power flow between the Upper and Lower Peninsulas of Michigan and provide dynamic voltage support, thereby increasing regional grid reliability and also enabling integration of additional wind generation. The link is scheduled to go into operation in mid-2014.

"This HVDC Light solution will boost power capacity and enhance grid stability and reliability through power flow control. It will also help draw more wind power into the energy mix," said Peter Leupp, head of ABB's Power Systems division. "Controllability, compact modular design, ease of system interface and minimized environmental impact are some of the key advantages of this technology."

As part of the project, ABB will design, supply and install a 200 megawatt (MW) back-to-back HVDC Light station in Upper Michigan. During maintenance or other occasions when one of the converters is non-functional, the other converter operates like a STATCOM (static synchronous condenser) regulating device, continuing to provide dynamic voltage support to the network. An HVDC back-to-back system comprises two converters connected directly to each other, without any DC transmission line, making it possible to fully control the power transfer through the connection.

The voltage and reactive power control features of the system will enable the integration of additional wind energy and stabilization of the network. In the rare case of a power outage, the technology's 'black-start' capability allows for fast network restoration using power from the other end of the link.

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. 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 their performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 135,000 people.

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