

ABB wins orders worth \$300 million to boost power capacity and grid reliability in China

Zurich, Switzerland, October 15, 2015 – ABB to enable two new long-distance 800,000 volt UHVDC transmission links transporting 8,000 megawatts each

ABB, the leading power and automation technology group, has won orders worth over \$300 million for critical power technologies to enable two new ultra-high-voltage direct current (UHVDC) power transmission links. The two 800 kilovolt (kV) links will each have the capacity to transmit 8,000 megawatts (MW) of wind and thermal power from Shanxi to Nanjing and from Jiuquan to Hunan – enough electricity to meet the needs of 26 million consumers based on average national consumption. The orders were booked in the third quarter of 2015.

ABB will supply leading-edge HVDC converters, converter transformers and components, capacitors and filters, and high voltage circuit breakers to facilitate the efficient and reliable long distance transmission of electricity. Converter transformers for the two projects will serve as the vital interface between the AC network and the DC links. By using 800 kV UHVDC links, the transmission losses can be reduced significantly. This application highlights the capability of HVDC technology to reinforce AC grids.

The Jiuquan to Hunan project is the world's and China's second 800 kV UHVDC to 750 kV UHV alternating current (AC) connection, an innovation that also enhances the efficiency and capacity of long-distance UHV electricity delivery systems. Converter transformers connecting very high voltage AC networks (750kV) to ultrahigh voltage DC networks (800kV) are technologically challenging and earlier this year, ABB was selected to supply 800 kV UHVDC converter transformers and components to the first such connection from Lingzhou to Shaoxing.

"These projects will help integrate more renewable energy and further strengthen China's transmission grid," said Claudio Facchin, President of ABB's Power Systems division. "Technology and innovation are key differentiators for ABB and a major pillar of our Next Level strategy, and ABB continues to be at the forefront of HVDC and transformer technology making projects like these feasible."

In recent years, China has been focusing on developing UHVDC power transmission links to boost capacity and improve grid efficiency. This will allow more power generated in China's western regions to be transmitted over longer distances with fewer losses to the country's high demand eastern regions, where many major load centers are based.

UHVDC transmission is an advancement of HVDC, a technology pioneered by ABB 60 years ago, and represents the biggest capacity and efficiency leap in over two decades. ABB has been awarded about 100 HVDC projects since pioneering the technology, which represents a total installed capacity of more than 120,000 MW and accounts for around half the global installed base.

About ABB

ABB (www.abb.com) is a leader in power and automation technologies that enable utility, industry, and transport and infrastructure customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in roughly 100 countries and employs about 140,000 people.

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