

ABB successfully tests ultrahigh-voltage transformer, key for power superhighways

New transformer to be used on world's longest power transmission link in China

Zurich, Switzerland, Dec. 23, 2008 – ABB, the leading power and automation technology group, has successfully tested a new type of transformer that is a key component of power superhighways, or power links that can deliver vast amounts of electricity over very long distances.

ABB developed the 800-kilovolt transformer within one year of winning a major order to equip the ultrahigh-voltage direct current (UHVDC) transmission corridor from the Xiangjiaba hydropower plant in western China to Shanghai, 2,000 kilometers to the east. It is the world's highest-voltage power link and will have a record capacity of 6,400 megawatts, capable of supplying about 31 million people.

The transformer is the first of several ordered by the State Grid Corporation of China (SGCC), and is a critical element of the systems that ABB is supplying to convert AC current to DC and back, and to alter the voltage at each end. Among other challenges, raising the voltage to as much as 800 kV increases the technical requirements on a transformer's insulation and on the design of critical parts such as bushings.

“The cooperation between ABB and SGCC has played a key role in this success, which is further evidence of ABB's commitment to technology and innovation,” said Bernhard Jucker, head of ABB's Power Products division. “UHVDC technology enables more efficient use of renewable energy sources, reducing dependence on fossil fuels and cutting carbon dioxide emissions.”

Power transmission at ultrahigh voltage has considerable advantages for the environment, as it reduces the power losses and requires a smaller transmission corridor than conventional technologies. UHVDC technology is particularly suitable for large countries such as China, where the centers of power consumption are often far from the power sources.

UHVDC is a technological development of HVDC, pioneered by ABB more than 50 years ago, and is the biggest leap in capacity and efficiency of transmission in more than two decades.

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 120,000 people.

For help with any technical terms in this release, please go to: www.abb.com/glossary

For more information please contact:

Media Relations:

ABB Corporate Communications
Thomas Schmidt, Wolfram Eberhardt
Tel: +41 43 317 6568
Fax: +41 43 317 7958
media.relations@ch.abb.com