ABB to improve reliability of power grid in South Korea

ABB FACTS technology to boost transmission capability and improve power stability for electricity consumers in Seoul area

ABB has won an order from Korea Electric Power Corporation (KEPCO) to supply technology that will help strengthen long distance transmission and provide more reliable power to the North Eastern part of the country. The innovative Series Compensation technology will enable existing Alternating Current (AC) lines to transmit more power and support the power flow control from the generation plant nearby, providing a cost-efficient and environmentally friendly solution, and eliminating the need to build new lines.

South Korea is one of the largest economies in Asia and among the world’s fast growing countries. Rising electricity consumption requires a strong grid to supply industrial, commercial and household consumers with reliable power. In addition to its efforts to meet growing demand, the South Korean government has set an ambitious target to reduce carbon dioxide (CO₂) emissions by 30 percent, by 2020. To achieve this, the country is investing in smart grid infrastructure with the help of KEPCO, the largest electric utility in the country. KEPCO’s target is to optimize its transmission and distribution network to ensure stable electricity supply and build grid resilience, helping to avoid outages and blackouts, including those that could be caused by natural disasters.

South Korea’s power production is concentrated in the Eastern part of the country with many high consumption centers in the metropolitan area in the north, necessitating a robust transmission system. ABB will deliver a series compensation system that will enable the transfer of more electricity over a longer distance and help improve power stability. This solution will play a key role in supporting reliable power supply to the country’s capital.

“We are pleased to support the strengthening of South Korea’s grid infrastructure and help improve the stability and reliability of power supplies to millions of consumers in the region,” said Claudio Facchin, President of ABB’s Power Grids division. “ABB’s innovative Series Compensation technology will provides a cost-effective and eco-efficient solution enabling more power to flow through existing lines, reinforcing ABB’s position as a partner of choice for enabling a stronger, smarter and greener grid.”

The innovative solution being deployed, a Thyristor Controlled Series Compensation (TCSC), provides controllability and flexibility and can also address complex power quality issues in the grid. ABB is one of the few suppliers around the world capable of delivering such an advanced power electronics device. ABB’s family of Flexible Alternating Current Transmission Systems (FACTS) technologies not only help enhance power quality in the grid, they also improve the capacity and flexibility of power transmission systems and contribute to the evolution of smarter grids. ABB pioneered this technology and is a market leader, having delivered more than 800 FACTS installations around the world.

ABB (ABBN: SIX Swiss Ex) is a pioneering technology leader in electrification products, robotics and motion, industrial automation and power grids, serving customers in utilities, industry and transport & infrastructure globally. Continuing a history of innovation spanning more than 130 years, ABB today is writing the future of industrial digitalization with two clear value propositions: bringing electricity from any power plant to any plug and automating industries from natural resources to finished products. As title partner of Formula E, the fully electric international FIA motorsport class, ABB is pushing the boundaries of e-mobility to contribute to a sustainable future. ABB operates in more than 100 countries with about 135,000 employees. www.abb.com
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