

## ABB launches innovative high voltage switchgear for power transmission

**Smart Disconnecting Circuit Breaker with integrated Fiber Optic Current Sensor can substantially reduce footprint of AIS substations while enhancing power availability and reliability**

Zurich, Switzerland, April 9, 2013 – ABB, the leading power and automation technology group, has developed an innovative high voltage switchgear solution for 362-550 kilovolt (kV) transmission applications. The new Disconnecting Circuit Breaker (DCB) has an integrated Fiber Optic Current Sensor (FOCS) which simplifies substation design and significantly reduces footprint requirements. It also adds to the intelligence of the device, enabling it to be part of a more flexible, reliable and smarter grid. The new DCB-FOCS has been successfully deployed in a 420 kV pilot project in Sweden. ABB is showcasing the new product at Hannover Messe for the first time from Apr 8-12, 2013.

Conventional air-insulated high voltage switchgear comprises the circuit breaker, disconnecter, and current transformer as separate components which require individual installation space. ABB pioneered the DCB in 2000, integrating the disconnecting function in the breaking chamber of the circuit breaker thereby reducing footprint and making installation easier.

ABB has now taken this concept a step further by integrating FOCS (a current measuring device) within the DCB itself. This new design has the potential to reduce the overall physical footprint of the substation where it is installed by up to 60 per cent compared with a conventional solution. At the heart of the innovation lies a robust, state-of-the-art optical sensor with a digital interface, compatible with IEC 61850 standards, that enables easy access to critical substation data, to monitor and control vital parameters.

“This latest development is yet another milestone in our continued commitment to technology and innovation” said Giandomenico Rivetti, head of ABB’s High Voltage products business within the company’s Power Products division. “Integrating the FOCS with the DCB reduces footprint while delivering a ‘smart grid’ enabled solution that is virtually ‘plug and play’ and yet flexible enough to accommodate customer needs. This makes it ideally suited for new and upgrade substation applications with the added benefit of enhanced power availability and reliability.”

The new product has low maintenance needs and is more environmentally friendly and eco-efficient in terms of CO<sub>2</sub> emissions and material used for production and insulation. Moreover, the wiring comprises standard Ethernet cable connections, making it both simpler and safer while improving efficiency by cutting electro-thermal and electrical losses. Further, the replacement of multiple CT (Current Transformer) cores with a single FOCS has the dual advantage of better protection and control.

ABB ([www.abb.com](http://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 145,000 people.

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