

# ABB completes HVDC link upgrade in Canada supporting transmission of renewables

Zurich, Switzerland, January 17, 2017 – Madawaska upgrade to support transmission of hydro-power from Quebec, enhancing reliability and efficiency

ABB has completed a major upgrade of the 350 megawatt (MW) Madawaska high-voltage direct current (HVDC) transmission link that connects the grids of Québec and New Brunswick in southeast Canada. The back-to-back converter station has been in operation for more than 30 years and the modernization is expected to significantly improve grid reliability and help reduce maintenance needs. The project, executed for the leading power utility Hydro-Québec, includes the installation of ABB's latest generation MACH control and protection system and enhancement of the valves and associated cooling system.

"This upgrade will enhance power availability, reduce outages and improve grid reliability in the region." said Claudio Facchin, President of ABB's Power Grids division. "The success of this project reflects our drive for world class execution and reiterates our focus on service and life extensions, a key element of our Next Level Strategy. ABB's digital MACH control and protection system acts like the brain of the HVDC link, incorporating advanced fault registration and remote control functions, supporting our efforts to support customers with increased grid automation and digitalization."

ABB has significant experience in the upgrade of HVDC links around the world, as many such installations are coming of age and this is the 23rd major HVDC modernization project awarded to ABB since 1990.

ABB's MACH system offers a high degree of integration capability to handle control and protection functions and designed to run around the clock for decades. It is the world's most extensively deployed control solution for HVDC and Flexible Alternating Current Transmission Systems (FACTS) installations, with over 1,100 such systems in operation throughout the world.

ABB pioneered HVDC technology more than 60 years ago and has been awarded over 110 HVDC projects, representing a total installed capacity of more than 120,000 megawatts, accounting for around half the global installed base. ABB remains at the forefront of HVDC innovation and is uniquely positioned in the power sector with in-house manufacturing capability for all key components of HVDC systems.

Hydro-Québec has been generating, transmitting and distributing electricity for over half a century. It is Canada's leading electric utility and among the biggest in North America. Over 40 percent of Canada's water resources are in Québec and Hydro-Québec has developed this potential to become one of the world's largest hydropower producers, using water to generate over 99 percent of its electricity.

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 more than a 125-year history of innovation, ABB today is writing the future of industrial digitalization and driving the Energy and Fourth Industrial Revolutions. ABB operates in more than 100 countries with about 135,000 employees. [www.abb.com](http://www.abb.com)

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