
ZURICH, SWITZERLAND, MARCH 27, 2018

ABB wins \$30 million order to upgrade two critical Australian HVDC links

Upgrades of historic Murraylink and the Directlink transmission connections will secure future power reliability and energy exchange.

ABB has won an order to replace the control and protection systems for two vital high-voltage transmission links in Australia that achieved significant technical breakthroughs when ABB installed the systems nearly two decades ago.

The order, worth approximately \$30 million, will modernize the Murraylink and Directlink high-voltage direct current (HVDC) transmission links with the latest ABB Ability™ MACH control system. The replacement of the control and protection systems will further improve power and grid reliability, while also extending the life spans.

The Directlink transmission system was commissioned in 2000 and marked the first interconnection of the regional electricity markets of the Australian states of New South Wales and Queensland.

Two years later, the 180-kilometer Murraylink transmission system became the world's longest underground HVDC power transmission system when it was put into service, connecting the states of South Australia and Victoria. Underground cables were chosen for Murraylink instead of overhead transmission lines to minimize visual and environmental impact. The cables were drilled under the Murray River, road and rail crossings and a number of significant Indigenous Australian heritage sites.

Both Directlink and Murraylink are based on HVDC technology, which ABB pioneered more than 60 years ago. In HVDC, the alternating-current (AC) power used by the utility grid is converted to direct current (DC) for transmission; a much more efficient way of transporting large amounts of electricity over long distances with minimum losses.

ABB will carry out the upgrades for APA Group, Australia's leading energy infrastructure company, which manages Directlink and Murraylink facilities owned by Energy Infrastructure Investments (EII).

Central to the upgrade of both links is the installation of the latest ABB Ability MACH control and protection solution, which acts like the brain of the HVDC transmission system. By monitoring, controlling and protecting the sophisticated technology in the converter stations, the system ensures reliability and efficiency, along with remote-control functions to ensure power security.

"We are delighted to implement our latest MACH control technology to upgrade these important HVDC transmission links," said Claudio Facchin, President of ABB's Power Grids division. "The project reiterates our strategic focus on service and digital technologies and reinforces our HVDC market and technology leadership, as a partner of choice for enabling a stronger, smarter and greener grid."

ABB is a global leader in HVDC with over 120 HVDC projects, representing a total installed capacity of more than 130,000 megawatts - around half the world's installed base. ABB also leads the industry in major HVDC upgrades, having completed projects around the world with minimized interruption to the power flow.

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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