ABB inaugurates microgrid in South Africa, boosting renewables and power reliability

Zurich, Switzerland, June 8, 2016 – Innovative solar-diesel solution provides continuity of power supply for ABB’s premises in Johannesburg and helps reduce carbon emissions

ABB today commissioned an integrated solar-diesel microgrid installation at its 96,000 square meter Longmeadow facility in Johannesburg, South Africa. This is a world premiere for the innovative solution with fully grid-connected and off-grid functionalities designed to maximize the use of renewable energy and ensure uninterrupted power supply to keep the lights on and the factories running during any planned or unplanned power outages on the main grid supply.

South Africa has the highest electricity consumption in the sub-Saharan region and demand continues to outpace supply. Power shortages, fossil fuel price volatility, environmental concerns and the increased focus on renewable energy sources like wind and solar, are leading to the search for sustainable solutions. South Africa is not alone when it comes to power shortages and outages and several other emerging economies in Africa, Asia, South America and other parts of the world face similar challenges. There are thousands of facilities that could leverage such a microgrid solution to address the matter.

ABB’s microgrid installation in Johannesburg comprises its compact and versatile PowerStore™ battery-based grid stabilizing system to address frequency and voltage fluctuations. It also includes a Microgrid Plus distributed control system (DCS) to manage the supply of power and balance the fossil-fuel and renewable energy sources in accordance with loads, in a coordinated manner, enabling access to utility grade power.

The 1 MVA/380 kWh PowerStore™ and Microgrid Plus, together with a 750 kW rooftop photovoltaic field have been added to the existing back-up solution at the location to boost renewables and provide continuity of supply during disruptions or transitions from grid to island operation. The modular and containerized microgrid solution is pre-designed for this type of application. A cloud-based remote service system will be deployed for the operations and maintenance of the microgrid in keeping with ABB’s Internet of Things, Services and People (IoTSP) approach.

“This innovative microgrid solution helps address a real-world challenge by providing stable and cost-effective continuity of power supply while minimizing environmental impact,” said Claudio Facchin, President of ABB’s Power Grids division. “Penetration of growth markets like Africa and leveraging innovative technologies like microgrids to improve power reliability are key elements of ABB’s Next Level strategy.”

ABB is a pioneer in microgrid technology with more than 30 global installations across a diverse range of applications serving remote communities, islanded grids, utility grid support and industrial campuses.

ABB (www.abb.com) is a leading global technology company in power and automation that enables utility, industry, and transport & infrastructure customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in roughly 100 countries and employs about 135,000 people.

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