

ABB and Fortum to develop large-scale smart grid for sustainable city project

Project in Stockholm is part of goal to make significant emission cuts in city

Zurich, Switzerland, Nov.13, 2009 – ABB, the leading power and automation technology group, will work on a joint development project with the Nordic utility Fortum to design and install a large-scale smart grid in a new district of the city of Stockholm.

The R&D project will test the concept of a flexible, low-emission power network in the Stockholm Royal Seaport area as part of a larger initiative to cut emissions in the Swedish capital by two-thirds by 2020. It is one of 16 global projects supported by the Clinton Climate Initiative Program for sustainable urban growth with a focus on sustainable and efficient generation, transmission and distribution of power.

ABB and Fortum will develop a variety of solutions to ensure that excess power generated from renewable energy sources in the district itself (from sources such as rooftop solar panels) can be fed into the power grid; to enable electric vehicles to draw electricity from the grid or feed it back in; to store energy; and to provide more flexibility and transparency in the distribution grid, helping to lower consumption and emissions.

Stockholm's new district will have 10,000 homes and 30,000 office spaces, and will incorporate an innovation center to showcase the latest technologies being tested and deployed.

“In terms of scale, this is a big step forward in the development of a smarter and more flexible urban grid that can integrate distributed and renewable energy sources and help realize the vision of sustainable cities,” said Bazmi Husain, head of ABB’s smart grids initiative.

“Besides seeking energy-efficient solutions that help to address climate change, the evolving grid will also need to accommodate the more active involvement of electricity consumers,” said Per Langer, CEO of Fortum Sweden.

The new development is an integral part of Stockholm’s effort to reduce CO₂ emissions by 2020 and to eliminate the use of fossil fuels entirely within the Royal Seaport district by 2030. Local power generation and a more flexible and responsive power grid will be instrumental in achieving these ambitious environmental targets. They will also contribute to the national goal of increasing the use of power from renewable energy sources.

ABB envisions a smart grid based on industry-wide standards supporting a stable, secure, efficient and environmentally sustainable power system. It will also accommodate customer demand response management systems that allow local producers and consumers to interact with the network operator and the energy market to reduce peak loads and increase efficiency.

Fortum’s operations focus on the Nordic countries, Russia and the Baltic Rim area where it operates and maintains power plants, and generates, distributes and sells electricity and heat. It distributes electricity and heat in Stockholm.

ABB (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 120,000 people.

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