

ABB to supply medium voltage power products for smart grid project in Italy

Smart electricity distribution system to reduce outages and speed up restoration

Zurich, Switzerland, March 27, 2014 – ABB, the leading power and automation technology group, has won an order from ACEA (Azienda Comunale Elettricità e Acque), the Italian utility, to supply medium voltage products that will facilitate the development of a pioneering smart grid project spanning a new section of Rome's electrical distribution network. This is one of eight pilot projects approved and partially financed by the Italian Regulatory Authority for Electricity and Gas.

As part of the order, ABB will supply its state-of-the-art UniSec switchgear equipped with protection relays from the Relion product family. This extremely compact switchgear has specifically been developed for smart grid applications and has combined current and voltage sensors for use in secondary substations. It also includes devices for primary substations and for interfacing with distributed generation in secondary distribution substations for better reliability and availability.

"The installation of these intelligent products will result in reduced number of outages and cut down the average duration of service interruptions. In case of a fault, they will enable early detection and quick restoration" said Bruno Melles, head of ABB's Medium Voltage Products business, a part of the company's Power Products division. "Eventually this results in better power services to consumers."

The logic selectivity developed for the project is based on the IEC 61850 protocol, enabling open communication between multi-source devices. The system also adopts a G.O.O.S.E. (Generic Object Oriented Substation Event) model over wireless network for communication among the various devices connected and between substations, and the system in the control room.

The two companies have already been working together on initial experiments based on sections of Rome's electrical grid. The tests involved two primary substations, 76 secondary substations, four distributed generation plants, several customers connected at a medium voltage level and around 1,200 low voltage users. Many of the simulations were carried out at ABB's state-of-the-art Smart Lab recently established in Dalmine.

The integration of intelligent power solutions in infrastructure development presents an opportunity for mega cities to address growing demand for reliable power while creating a strong foundation for a sustainable urban future.

ACEA is a multi-utility company, that develops and manages grids and services related to water, energy and the environment in Italy, with a user base of over eight million residents.

ABB (www.abb.com) is a leader in power and automation technologies that enable utility and industry customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 150,000 people.

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