Siemens at CIRED 2009: Focus on innovative smart grid solutions

At this year's international conference on power distribution CIRED in Prague Siemens Energy presented innovative solutions for setting up and expanding smart grids at the accompanying exhibition. The topics covered included condition monitoring and asset management as well as virtual power plants, intelligent station and distribution network automation, smart metering and building automation.

The key features of a smart grid include the enhancement of grid energy efficiency. This makes it possible to utilize an existing grid and to implement requisite innovations and expansions as modern, future-oriented additions. “We have the requisite smart grid solutions in our portfolio. We are world market leader in key areas of power transmission and distribution, for example in the field of power engineering automation. We are thus a competent, reliable partner for utilities looking for cost-effective, eco-friendly and energy-efficient solutions for setting up smart grids”, said Ralf Christian, CEO of the Power Distribution Division of Siemens Energy.

Siemens illustrated the challenges facing the power supply grid at the distribution network level in the sense of a smart grid at CIRED using the example of the e-energy joint project “E-DeMa”, which Siemens recently realizes together with the German utility RWE and other partners. This project focuses on the development of distributed, networked energy systems toward an e-energy marketplace in the future, giving due consideration to grid-specific communications and data technology. The E-DeMa project is promoted by the German Federal Ministry for Economic Affairs and Technology (BMWi). Using the example of the distributed energy management system Dems, Siemens furthermore showed in Prague how distributed generation plants can be bundled to form a virtual power plant and optimized.

Siemens presented that smart grids under the aspect of smart metering will also penetrate as far as power consumption with the aid of a solution, which comprises the automated metering and
information system Amis and meter data management Energy IP. With its integrated electronic meters the system will in the future enable the generation of monthly electricity bills so that consumers have a better overview and control over their power consumption. In addition, a practical example was shown to demonstrate how the Swiss utility Arbon Energie is deploying the Amis system to expand its distribution networks to form a smart grid. This is essentially implemented by extensive representation of meter data acquisition processes and the representation of voltage quality.

The Siemens Energy Sector is the world’s leading supplier of a complete spectrum of products, services and solutions for the generation, transmission and distribution of power and for the extraction, conversion and transport of oil and gas. In fiscal 2008 (ended September 30), the Energy Sector had revenues of approximately EUR22.6 billion and received new orders totaling approximately EUR33.4 billion and posted a profit of EUR1.4 billion. On September 30, 2008, the Energy Sector had a work force of approximately 83,500. Further information is available at: [www.siemens.com/energy](http://www.siemens.com/energy).