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Iberdrola, EDP announce big smart grid expansions at EUTC event

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CURRENT's Willie predicts 2010 will be pivotal year

Smart grid announcements by Spain's Iberdrola and EDP of Portugal boosted optimism among vendors at the European Utility Telecom Council (EUTC) Annual Meeting last week in Budapest. EUTC is the European counterpart to the UTC in the US.

Iberdrola in 2010 plans to install 100,000 smart meters and EDP plans 50,000 smart meters as part of the second phase of its previously announced Inovgrid project that aims to have 6 million smart meters in place nationwide by 2012.

Although the projects did not seem to surprise attendees, they did provide concrete examples that smart grid plans are moving ahead after more than four years of discussions at the European Commission (EC).

The jury is still out on whether smart grid demand is market driven or driven by EC carbon reduction, smart metering and network-efficiency goals. In the case of the Iberian Peninsula projects, the demand for ICT (information and communication technologies) from renewable energy projects seems to be as big a driver as smart metering legislation in the two countries.

Paul Renshall told attendees at the conference that legislation helps but he believes markets will drive smart grids. Renshall is a consultant with the UK's Mott MacDonald and his firm is working on a "green field" smart micro grid project in Abu Dhabi.

"Worldwide energy demand will rise by 50% over the next 20 years. In Abu Dhabi it will treble by 2020," he added. "Market forces will dictate the requirements and roll-out of smart grids -- not the utility, legislators or regulators. Once these isolated projects get widely publicized, momentum will grow for developing more and more micro-grids."

The EC, after creating a staggering number of committees and work groups to look at smart meters and grids, is apparently taking a cue from the US and may make money available for smart grid projects.

"The European Commission has a lot of money going to agriculture today that could also go to smart grids," UTC CEO William Moroney told us at the conference. "Between now and 2014, the commission could set up something like the US stimulus package -- perhaps 1-2 billion Euros -- for smart grids. But this is speculation," he noted.

"The next round of European funding is officially in 2014. However, there could be some money before then -- perhaps as early as 2010. The money would be to create smart grids and jobs," predicted Moroney.

CURRENT reveals inside scoop

Thomas Willie reported hearing from EC insiders about the possible funding -- and told the attendees that "2010 will be a pivotal year for smart grids." He's CURRENT Group's Senior VP of Product Management & Development.

"We could see rollouts in the tens of thousands," Willie told us. "We expect more deployments in France and Germany."

The Iberdrola project has special importance for Willie as he also holds the title of vice chairman of the PRIME Alliance (for Power Line [sic] Intelligent Metering Evolution), an industry group that worked with Iberdrola to develop a smart grid standard. The Spanish utility is using PRIME in its commercial smart grid roll out next year.

CURRENT uses the PRIME standard to connect meters to transformers (SGT, Oct-08) and back.

In June, during an interview about Xcel Energy's just-then completed Smart Grid City project in Boulder, Colo, CURRENT's Senior VP Jay Birnbaum told us big developments were brewing in Europe (SGT, Jun-24).

Iberdrola will use PRIME to connect the 100,000 smart meters to its smart grid in 2010. The firm has not yet announced the name of the city where meters will be deployed, said Miguel Angel Sánchez Fornié, Iberdrola's director of control systems and telecom and chairman of the EUTC.

The Prime Alliance's founding members are Iberdrola and CURRENT plus technology partners Advanced Digital Design, Itron, Landis & Gyr, ST Microelectronics, Texas Instruments and Ziv Group.

The Prime alliance in October announced in Barcelona that it had successfully demoed the first open standards-based, multi-vendor interoperable metering system for the utility industry. The project was funded with money from the EC and the trial last summer included 1,000 meters, said Sánchez Fornié.

Europe offers advantage

CURRENT used the EUTC conference to unveil its complete Smart Transformer Station (STS) that incorporates equipment using the PRIME standard (SGT, Nov-05). STS is based on the platform used in Boulder, then adapted to European network topology. Europe has on average 100-200 homes/transformer compared to six or eight in the US.

"Because of the low number of homes per-transformer in the US, you have to put all the functionality in from the start," Willie told us. "In Europe, we can make the equipment more modular and add functionality as it is needed."

The higher meter-to-transformer ratio in Europe helped make the case for PLC to connect meters to transformer stations, said Moroney, especially important in countries where wireless spectrum is not available.

Iberdrola is using PLC to connect its smart meters while EDP is using a mix of PLC and wireless.