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Public's tolerance of outages said to be falling

Every day 500,000 don't have power?

Antique technology cited in blackout

Long Island Power Authority is one of the few utilities that regularly use the Electricity Innovating Institute (EPRI) recommendations on the web.

Bruce Germano, a LIPA vice president, told the ACEEE (above) he's been using the database to make sure LIPA is aware of all of its technology options.

He senses enormous pressure on utilities to do things smarter, noting that when a hurricane hits every one wants to know when the power will come back on.

"Customers' tolerance level to deal with outages has gone way down," he said.

Only a handful of utilities and research groups have been using the institute's free database although the institute has been reaching out to state and federal regulators and NARUC.

Intelligrid Architecture is the concept of the smart power delivery system including automated capabilities to recognize problems, find solutions and optimize performance of the system, said Clark Gellings, EPRI vice president of power delivery and markets.

"On any given day, 500,000 people are temporarily without electricity. If we can change that, that will be real savings for utilities and ratepayers," Gellings said.

During the Aug 14 blackout, several affected utilities didn't even have the ability to visualize the problem or see on their systems where the outage was occurring, he observed, but the latest technology can fix that.

Most utilities have electric transmission systems that are based on technology developed more than 40 years ago, said William Parks, a director in the DOE's Office of Electric Transmission & Distribution.

"If all stakeholders follow a common architecture, the modernized grid will be more robust, more reliable and more secure," said Parks.

The architecture offered on the web is a database of tools and technologies the institute believes utilities should use to advance their systems to upgrade the entire grid.

Utilities spend about $3.5 billion a year on telecom equipment but those investments could be more efficient, said Don Von Dollen, an EII manager.

In the works are:

- DOE, New York Power Authority and several other utilities are going to follow architecture plea for communications standards and technologies to expand and strengthen a phasor measurement network for the Eastern interconnection;
- The California Energy Commission will use these tools in working with the three major utilities to design automated demand response systems, and
- Utilities and government agencies are developing detailed plans now to use the databases and tools in a wide range of applications, including automated substation design, upgrading communications systems between control centers and power plants, and specifying compatibility as a requirement for new equipment acquisitions.