

time to speak up!

get involved in developing smart grid standards

THE RACE TO BUILD THE SMART grid is on, with electric utilities across the country investing in both pilot programs and systemwide deployments of advanced digital technologies to manage generation, transmission, demand, and distributed energy resources in real time. Now, more than ever, the electric power industry must play an equally active and coordinated role in defining and developing the standards and protocols that will be needed to realize a secure and interoperable nationwide smart grid.

At a recent stakeholder workshop on smart grid interoperability standards sponsored by the National Institute of Standards and Technology (NIST), the electric utility industry accounted for less than 15% of the total attendance. If the industry continues to be severely underrepresented as the process moves to the various standards development organizations, the utility industry will have little say over the final standards as they are developed without its significant input.

When fully realized, smart grid standards have the potential to radically transform utility business models. They could dramatically change or alter the way that utilities produce, transmit, and deliver electricity. And the standards could conceivably redefine the relationships with, and roles of, the industry's customers as well as create new business partnerships, new products, and new services.

The time for utilities to get involved is now, as the standard development initiative is moving very quickly. NIST has already released its interoperability

framework and road map, which identifies 31 initial standards and 46 additional standards for further industry comment that will enable the vast number of interconnected devices and systems that will make up the nationwide smart grid to communicate and work with each other. The report also lists a set of 12 "priority action plans" that address important gaps identified by NIST.

To drive longer-term progress, NIST has established a Smart Grid Interoperability Panel. This public-private partnership will provide a more permanent organizational structure to support the ongoing evolution of the NIST framework. The panel also will assist NIST in identifying, prioritizing, and addressing new and emerging requirements for smart grid interoperability and security beyond the initial road map release. In 2010, NIST will develop and implement a framework for testing and certification of how standards are implemented in smart grid devices, systems, and processes.

Once NIST has certified the standards, the Federal Energy Regulatory Commission (FERC) will proceed with a rulemaking to adopt them. FERC issued a final smart-grid policy statement in July 2009 that addressed its jurisdictional authority, set priorities for work on developing the standards, and put in place an interim rate policy. Each of these actions will help to encourage and expedite investment in smart grid systems.

Electric utilities need to get more involved now as the standards development process moves from NIST to the many domestic and international standards development organizations, such as the National Electrical Manufactur-

ers Association and IEEE, and eventually to FERC. Early and coordinated involvement is the only way to have a meaningful utility industry impact on the standards that are being developed.

Getting involved early in developing smart grid interoperability standards will help to avoid situations where the standards are formulated entirely by equipment manufacturers and technology vendors. This could create the risk that the standards do not reflect the industry's operational concerns, and this could affect grid reliability.

Early and active participation in the process also will minimize the potential cost impacts on customers that could arise if utilities adopt technologies that later become obsolete or are found to be insufficient to meet minimum standards.

And finally, federal and state policy directives such as increasing demand response and energy efficiency and integrating renewable energy will be facilitated by the new standards. Since utilities will be charged with achieving these goals, they need to be actively involved in developing standards designed to enable or meet them.

For all of these reasons, it is critical that electric utility knowledge and vision are a part of the standard setting process. The smart grid represents a once-in-a-lifetime opportunity to renew and modernize one of the nation's most important infrastructures. And electric utilities can ensure that all electricity customers—rural, urban, large, and small—benefit from the smart grid.

For more information about Edison Electric Institute's involvement in the smart grid, please visit www.eei.org.

