NIST releases final Smart Grid 'Framework 2.0' document

February 29 2012, By Chad Boutin

An updated roadmap for the Smart Grid is now available from the National Institute of Standards and Technology (NIST), which recently finished reviewing and incorporating public comments into the NIST Framework and Roadmap for Smart Grid Interoperability Standards, Release 2.0.

The 2.0 Framework lays out a plan for transforming the nation's aging electric power system into an interoperable Smart Grid—a network that will integrate information and communication technologies with the power-delivery infrastructure, enabling two-way flows of energy and communications.

The final version reflects input from a wide range of stakeholder groups, including representatives from trade associations, standards organizations, utilities and industries associated with the power grid.

“Release 2.0 represents a significant update to the NIST Release 1.0 Framework,” said George Arnold, the National Coordinator for Smart Grid Interoperability at NIST. “In addition to the comments received through the public review, we vetted the draft framework in advance with the Smart Grid Interoperability Panel (SGIP) and other groups. The document reflects the consensus-based process the SGIP uses to coordinate development of Smart Grid standards.”

The SGIP was created by NIST in November 2009 to provide an open forum for members to collaborate on standards development. Through

the SGIP, NIST collaborates with the private sector in coordinating Smart Grid standards. Its more than 1,900 volunteer members from 740 organizations serve as technical experts who work together to create usable standards for the Smart Grid. Hundreds of such standards—covering matters ranging from wireless communication to home energy meters to electric cars—are needed to ensure the many elements of the Smart Grid will work together seamlessly.

Just as its draft version did, the final 2.0 Framework adds 22 standards, specifications and guidelines to the 75 standards NIST recommended in the 1.0 version of January 2010 as being applicable to the Smart Grid. Further improvements and additions to the 1.0 version include:

• a new chapter on the roles of the SGIP;
• an expanded view of the architecture of the Smart Grid;
• a number of developments related to ensuring cybersecurity for the Smart Grid, including a Risk Management Framework to provide guidance on security practices;
• a new framework for testing the conformity of devices and systems to be connected to the Smart Grid—the Interoperability Process Reference Manual;
• information on efforts to coordinate the Smart Grid standards effort for the United States with similar efforts in other parts of the world; and
• an overview of future areas of work, including electromagnetic disturbance and interference, and improvements to SGIP processes.

More information: www.nist.gov/smartgrid/upload/ … Release_2-0_corr.pdf

Provided by National Institute of Standards and Technology