

Commerce Secretary Unveils Plan for Smart Grid Interoperability

Editor's Note: The development of the next-generation grid is of critical importance to the future of the USA. Poor energy logistics will damn us more than any other factor in the coming years.



WASHINGTON - Commerce Secretary Gary Locke today unveiled an accelerated plan for developing standards to transform the U.S. power distribution system into a secure, more efficient and environmentally friendly Smart Grid and create clean-energy jobs.

Produced by the Commerce Department's National Institute of Standards and Technology (NIST), the approximately 90-page document identifies about 80 initial standards 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. These standards will support interoperability of all the various pieces of the system—ranging from large utility companies down to individual homes and electronic devices. The report also lists a set of 14 "priority action plans" that address the most important gaps in the initial standard set.

"To use an analogy from the construction world, this report is like a designer's first detailed drawing of a complex structure," said Locke in prepared remarks. "It presents a high-level conceptual model to ensure that everyone is on the same page before moving forward to develop more detailed, formal Smart Grid architectures. This high-level model is critical to help plan where to go next."

The draft will be posted for a 30-day period of public comment and review. According to George Arnold, NIST's National Coordinator for Smart Grid Interoperability, finalizing the standards will ensure that the grid transformation goes both smoothly and rapidly—a priority of the Obama Administration. About \$4.5 billion of American Recovery and Reinvestment Act of 2009 (ARRA) funds to the Department of Energy also are slated for Smart Grid demonstration projects.

Commerce Secretary Unveils Plan for Smart Grid Interoperability

Published on Electronic Component News (<http://www.ecnmag.com>)

“Because of the urgent need to remake the grid into a modern power distribution system, we have set a timetable that is much swifter than usual for establishing these standards,” said Arnold. “But at the same time, we also want to be certain that the initial standards we establish will hold up in the future so that investments in the Smart Grid will not become prematurely obsolete.”

When completed, the Smart Grid will employ real-time, two-way digital information and communication technologies in the operation of the nation’s electricity grid. The system would allow consumers to better manage and control their energy use and costs, reduce America’s dependence on foreign oil and create clean-energy jobs.

The draft report, entitled NIST Framework and Roadmap for Smart Grid Interoperability Standards, Release 1.0, incorporates input from more than 1,500 industry, government and other stakeholders who have participated in the NIST framework development process.

The Framework draft includes:

a basic set of standards for interoperability and security, identifying roughly 80 specific standards and specifications to support the Smart Grid;

the 14 “priority action plans” that describe what is being done immediately to fill important gaps where additional or revised standards are needed. These outline everything from plug-in electric vehicles, to home energy management systems, to distributed intelligence aimed at keeping the grid from developing problems before they arise. Each plan identifies standards organizations responsible for addressing them, a recommended approach and aggressive timelines to develop solutions to these needs; and

a summary of a separate NIST cyber security strategy, which aims to protect the Smart Grid against the modern threat of cyber attack.

Following the 30-day public review and comment on the draft, NIST will finalize the Framework document, which is the culmination of the first phase of NIST’s three-phase approach to develop Smart Grid standards. Phase 1, the engagement of stakeholders in a participatory public process to identify applicable standards and gaps in currently available standards and priorities for new standardization activities, ends with the final publication of the Framework report after public comments have been incorporated.

Phase 2 will establish a private-public partnership and forum—a Smart Grid Interoperability Panel—to drive longer-term progress. NIST is using ARRA funds to establish the panel by the end of 2009. Phase 3 will develop and implement a framework for testing and certification of how standards are implemented in Smart Grid devices, systems and processes. NIST is consulting with industry, government and other stakeholders to develop a plan for a testing and certification framework by the end of 2009 and take steps toward implementation in 2010.

Commerce Secretary Unveils Plan for Smart Grid Interoperability

Published on Electronic Component News (<http://www.ecnmag.com>)

The results of NIST's ongoing work on standards for the Smart Grid also provides input to the Federal Energy Regulatory Commission, which under the 2007 Energy Independence and Security Act is charged with instituting, once sufficient consensus is achieved, rulemaking proceedings to adopt the standards and protocols necessary to ensure Smart Grid functionality and interoperability in interstate transmission of electric power, and in regional and wholesale electricity markets.

For more information on NIST's work with Smart Grid, visit <http://www.nist.gov/smartgrid/> [1].

The draft of the report is available at http://www.nist.gov/public_affairs/releases/smartgrid_interoperability.pdf [2].

Source URL (retrieved on 08/21/2014 - 1:56pm):

<http://www.ecnmag.com/news/2009/09/commerce-secretary-unveils-plan-smart-grid-interoperability>

Links:

[1] <http://www.nist.gov/smartgrid/>

[2] http://www.nist.gov/public_affairs/releases/smartgrid_interoperability.pdf