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For Immediate Release
May 18, 2009

Locke, Chu Announce Significant Steps in Smart Grid Development

WASHINGTON - U.S. Commerce Secretary Gary Locke and U.S. Energy Secretary Steven Chu today announced significant progress that will help expedite development of a nationwide "smart" electric power grid.

A Smart Grid would replace the current, outdated system and employ real-time, two-way communication technologies to allow users to connect directly with power suppliers. The development of the grid will create jobs and spur the development of innovative products that can be exported. Once implemented, the Smart Grid is expected to save consumers money and reduce America's dependence on foreign oil by improving efficiency and spurring the use of renewable energy sources.

Before it can be constructed, however, there needs to be agreement on standards for the devices that will connect the grid.

After chairing a meeting of industry leaders at the White House, Locke and Chu announced the first set of standards that are needed for the interoperability and security of the Smart Grid and \$10 million in Recovery Act funds provided by the Energy Department to the National Institute of Standards and Technology to support the development of interoperability standards.

Secretary Chu also announced that based on feedback from the public and Smart Grid stakeholders, the Department of Energy is increasing the maximum award available under the Recovery Act for Smart Grid programs. The maximum award available under the Smart Grid Investment Grant Program will be increased from \$20 million to \$200 million and for the Smart Grid Demonstration Projects from \$40 million to \$100 million. In making awards, DOE will ensure that funding is provided to a diversity of applications, including small projects as well as end-to-end larger projects.

"President Obama has made a smart electrical grid a key element of his plan to lower energy costs for consumers, achieve energy independence and reduce greenhouse gas emissions," Secretary Locke said. "Today, we took a significant step toward developing the open and transparent interoperability standards necessary to realize the Smart Grid vision."

"The Smart Grid is an urgent national priority that requires all levels of government as well as industry to cooperate," Secretary Chu said. "I'm pleased that industry leaders stepped forward today and are working with us to get consensus. We still have much to do, but the ultimate result will be a much more efficient, flexible power grid and the opportunity to dramatically increase our use of renewable energy."

Today's meeting was designed to encourage industry executives to work to expedite the adoption of

standards in advance of a major two-day, public standards workshop tomorrow in metro Washington, DC.

The initial batch of 16 National Institute of Standards and Technology (NIST)-recognized interoperability standards announced today will help ensure that software and hardware components from different vendors will work together seamlessly, while securing the grid against disruptions.

Spanning areas ranging from smart customer meters to distributed power generation components to cybersecurity, the list of standards is based on the consensus expressed by participants in the first public Smart Grid Interoperability Standards Interim Roadmap workshop, held April 28-29 in Reston, Va. A full list of the announced standards is attached below.

The Energy Department also announced that the \$10 million it received to support the development of interoperability standards under the American Recovery and Reinvestment Act has been provided to NIST to help accelerate their efforts to coordinate these critical standards.

Public comments on the initial standards will be accepted for 30 days after their upcoming publication in the Federal Register. The date of publication will be posted on [NIST's Smartgrid webpage](#).

Comments may be submitted to smartgrid@nist.gov.

The Energy Department is the lead federal agency responsible for Smart Grid development. Creating national standards is a critical part of that process. Coordinating these standards and achieving industry buy-in is the responsibility of the Commerce Department. This meeting is part of an aggressive three-phase plan recently launched by the Commerce Department to expedite standards development.

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Initial Smart Grid Interoperability Standards Framework, Release 1.0

| Standard | Application |
|---|---|
| AMI-SEC System Security Requirements | Advanced metering infrastructure (AMI) and Smart Grid end-to-end security |
| ANSI C12.19/MC1219 | Revenue metering information model |
| BACnet ANSI ASHRAE 135-2008/ISO 16484-5 | Building automation |
| DNP3 | Substation and feeder device automation |
| IEC 60870-6 / TASE.2 | Inter-control center communications |
| IEC 61850 | Substation automation and protection |
| IEC 61968/61970 | Application level energy management system interfaces |
| IEC 62351 Parts 1-8 | Information security for power system control operations |
| IEEE C37.118 | Phasor measurement unit (PMU) communications |
| IEEE 1547 | Physical and electrical interconnections between utility and distributed generation |

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| IEEE 1686-2007 | Security for intelligent electronic devices (IEDs) |
| NERC CIP 002-009 | Cyber security standards for the bulk power system |
| NIST Special Publication (SP) 800-53, NIST SP 800-82 | Cyber security standards and guidelines for federal information systems, including those for the bulk power system |
| Open Automated Demand Response (Open ADR) | Price responsive and direct load control |
| OpenHAN | Home Area Network device communication, measurement, and control |
| ZigBee/HomePlug Smart Energy Profile | Home Area Network (HAN) Device Communications and Information Model |

U.S. Department of Energy, Office of Public Affairs, Washington, D.C.