

US, Europe collaborating on smart grid standards development

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Today, the U.S. Commerce Department's National Institute of Standards and Technology (NIST) and the European Union's (EU) Smart Grid Coordination Group (SG-CG) jointly announced their intention to work together on Smart Grid standards development, emphasizing common goals and areas of focus.

Both NIST and the SG-CG have mandates to coordinate the development of a standards framework for Smart Grids, which can unlock innovation in the electrical sector. The two organizations outlined areas for future collaboration in a joint white paper. The SG-CG represents three private-sector standards organizations: the European Committee for Standardization (CEN), the European Committee for Electrotechnical Standardization (CENELEC) and the European Telecommunications Standards Institute (ETSI).*

Smart Grids are next-generation [electrical grids](#) that attempt to predict and intelligently respond to the behavior and actions of all electric [power users](#) connected to it—suppliers, consumers and those that do both—in order to efficiently deliver reliable, economical and sustainable electricity services. The new collaboration is meant to ensure that Smart Grid standards on both continents have as much in common as possible, so that devices and systems that interact with these grids can be designed in similar fashion.

"While the potential benefits of Smart Grids are enormous, they can only be fully reached if we can all agree on global solutions," says Ralph

Sporer, chairman of SG-CG. "It is promising to see that NIST and SG-CG will be supporting a number of common positions and areas of collaboration to ensure a consistent set of international standards."

Smart Grids are expected to ease the incorporation of renewable energy sources, energy saving devices and electric vehicles into the power system. Overall goals include the reduction of carbon emissions and security of supply. To promote this transformation, governments on both sides of the Atlantic have taken a number of actions in recent years, including the U.S. Energy Independence and Security Act of 2007 and the American Recovery and Reinvestment Act of 2009, and Europe's Directives 2009/72/EC and 2009/73/EC within the framework of the 3rd Package for the Internal Energy Market. This legislative effort has translated into a number of standards initiatives like the NIST Framework and Roadmap for Smart Grid Interoperability Standards in the United States and a Smart Grid mandate in the EU.

The collaboration aims to harmonize these conceptual frameworks. It also will promote the regular exchange of information regarding such issues as:

- Legislation, regulation and other policies underpinning NIST and SG-CG work
- Respective work methods, work programs and time lines
- Standardization deliverables
- Testing and certification frameworks
- Cybersecurity requirements and technologies

According to NIST's George Arnold, the National Coordinator for Smart Grid Interoperability in the United States, the many facets of Smart Grid development—spanning multiple sectors of the economy and a wide range of stakeholders—make the standardization effort anything but

business as usual, but this collaboration will advance efforts in the long run.

"The need for integration of multiple technologies, the many international activities, and ever-changing technical solutions within a short time frame make standards development a challenging task for standards organizations worldwide," says Arnold, "But this collaboration should help make sure that no one reinvents the wheel."

Arnold adds that NIST's [Smart Grid](#) Interoperability Panel (SGIP) plans to draft a letter of intent outlining the specifics of the collaboration in the near future. The White Paper of NIST and SG-CG on Standardization of Smart Grids is available online at www.nist.gov/smartgrid/upload/eu-us-smartgrids-white-paper.pdf.

Provided by National Institute of Standards and Technology

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