



FACT SHEET: INTERNATIONAL SMART GRID ACTION NETWORK

The International Smart Grid Action Network (ISGAN) creates a mechanism for multilateral collaboration to advance the development and deployment of smarter electric grid technologies, practices and systems. Smart grid is a key enabler for the application of most low-carbon energy technologies, including renewables and energy efficiency measures, and can contribute to gigatonne-scale reductions in carbon dioxide (CO₂) emissions from electricity generation and use. The International Energy Agency (IEA) recently estimated in its “Energy Technology Perspectives 2010” report that the global deployment of smart grids can help reduce CO₂ emissions by between 0.9 and 2.2 gigatonnes annually by 2050, equivalent to the annual emissions of between 300 and 730 mid-sized power plants. Through its activities, ISGAN is engaging governments and key stakeholders to achieve that potential.

ISGAN activities center on those aspects of smart grid where governments have regulatory authority, expertise, convening power or other leverage, with a focus on five principal areas: policy, standards and regulation; finance and business models; technology and systems development; user and consumer engagement; and workforce skills and knowledge.

ISGAN was launched at the first Clean Energy Ministerial (CEM) in July 2010, and fulfills a key recommendation of the Major Economies Forum Global Partnership’s Smart Grids Technology Action Plan, which was released in December 2009.

Progress since the first Clean Energy Ministerial

At a sub-ministerial meeting on Jeju Island in the Republic of Korea in November 2010, representatives from ISGAN governments and the IEA pushed forward on two fronts: (1) to establish a stable framework for multilateral technology cooperation on smart grid at a global level; and (2) to identify, scope and make progress on substantive projects while that framework is being developed. Significant progress has been made on both.

To create a robust and durable framework for ISGAN, participating governments proposed its formal establishment as an Implementing Agreement under the umbrella of the IEA. The Implementing Agreement provides ISGAN with a proven governance model, facilitates cooperation with the growing grid-related efforts at the IEA and other international initiatives, allows direct participation from the private sector and maintains program flexibility. Both IEA members and non-members can participate.

The ISGAN Implementing Agreement received final approval from the IEA's Governing Board on April 4. Interested governments signed it on April 6 at the second Clean Energy Ministerial (CEM2), with others expected to follow. To support and coordinate ISGAN’s administration and communications, an interim Secretariat was established in the Republic of Korea at the Korea Smart Grid Institute.

In addition to the proposal for its operation, ISGAN has developed a strategic plan and program of work, identifying the following four foundational projects:

- The **Global Smart Grid Inventory** identifies countries' specific drivers for pursuing smart grids, catalogues the wide range of smart grid activities underway, and collects and organizes the wealth of experience being generated by these activities into a resource available to a global audience.
- The **Smart Grid Case Studies** activity includes assessments of current case studies on smart grid deployments, the creation of a common methodological framework for future case studies and development of in-depth case studies using this framework. Communicating the lessons learned from real-world projects will help stakeholders understand the true promise and challenges of deploying smarter electricity grids.
- **Benefit-Cost Analyses and Toolkits** will build on metrics and data identified in the previous two projects and by the IEA. This includes analyses of the benefits and costs of smart grid technologies, practices and systems, from both top-down and bottom-up perspectives. From these analyses, toolkits will be developed to inform smart grid policy at global, regional, national and/or sub-national levels, as well as deployment priorities at project- and utility-scales.
- **Synthesis of Insights for Decision Makers** recognizes the need to provide brief and accessible, but substantively useful information to high-level decision makers, such as the Ministers, on the knowledge developed through the activities of ISGAN and similar efforts. This effort will try to provide decision makers with a common basis or language for discussion of smart grid.

Upcoming activities

The launch of the ISGAN Implementing Agreement marks a significant step forward for ISGAN collaboration. ISGAN participants plan to meet in the second quarter of 2011 to assess progress on the four foundational projects, as well as develop new projects. The ISGAN Strategic Plan identifies the following two further projects under development:

- A Smart Grid International Research Facility Network
- An Electricity Transmission and Distribution Networks project to facilitate cooperation with other electricity-related Implementing Agreements, most notably Electricity Networks, Analysis, Research and Development

ISGAN participants anticipate establishing closer ties with other relevant smart grid efforts, such as the Asia-Pacific Economic Cooperation Smart Grid Initiative. In addition, they plan to release periodic issue briefs on key smart grid topics.

Participants as of 7 April 2011

Participating governments include Australia, Austria, Belgium, Canada, China, European Commission, France, Germany, India, Italy, Japan, Korea, Mexico, Netherlands, Norway, Russia, Sweden, Switzerland, United Kingdom and the United States. ISGAN collaborates closely with the IEA and the Global Smart Grid Federation.