



## **FACT SHEET: INTERNATIONAL SMART GRID ACTION NETWORK**

At the Clean Energy Ministerial in Washington, D.C. on July 19<sup>th</sup> and 20<sup>th</sup>, ministers launched an **International Smart Grid Action Network (ISGAN)** to accelerate the development and deployment of smart electricity grids around the world.

Smart grid will help the world accelerate its transition to clean energy and capture the associated energy- and money-saving opportunities. These technologies will promote the growth of renewable energy, help consumers and businesses to better measure and lower their energy use, and speed the introduction of fuel-saving electric vehicles.

Smart grid can also contribute to gigatonne-scale reductions in carbon dioxide (CO<sub>2</sub>) 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 CO<sub>2</sub> 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.

ISGAN will focus high-level government attention on this promising suite of technologies capable of cost-effectively reducing greenhouse gas emissions while responding to changing electricity generation and demand. It will facilitate dynamic knowledge sharing, technical assistance, peer review and, where appropriate, project coordination among participants. ISGAN will sponsor activities that accelerate smart grid deployment and address gaps in five key areas of engagement:

1. Smart grid policy, regulation and finance;
2. Standards policy;
3. Research, development, and demonstration of pre-competitive technologies;
4. Workforce skills and knowledge; and,
5. Engagement of smart grid users and consumers at all levels.

The United States pledged US\$4 million in 2010 funding to help launch ISGAN, with additional funding anticipated from other participating governments. Ministers announced three initial activities under ISGAN:

1. Working with the IEA as it develops a global Smart Grid Technology Roadmap, Partners will inventory global smart grid initiatives and needs and identify opportunities for collaborative technology and policy development efforts. The Roadmap will be published in November 2010.
2. They will establish a forum to discuss standards policy for infrastructure and charging related to plug-in electric vehicles, addressing a rapidly emerging need.
3. The Partners will develop a series of in-depth, multimedia case studies, highlighting the experience of stakeholders such as regulators, utilities, SMEs (small and medium enterprises), local policymakers, and electricity consumers in early smart grid deployments.

ISGAN builds on the momentum of the substantial investments being made in smart grid in participating countries. This includes about US\$0.6 billion in planned investment between 2010 and 2014 for four demonstration projects promoted by the Japanese national government, local governments, and private sector; a US\$4.5 billion investment by the United States under the Recovery Act that is matched by more than US\$5.5 billion in private sector investment; £10 billion in the United Kingdom between 2010 and 2020 on a full smart meter roll-out, smart grid trials and deployment under the Low Carbon Networks Fund and electric vehicle infrastructure; and US\$21.6 billion in planned investment between 2010 and 2030 by the Korean government and private sector under the Korea Smart Grid Roadmap. Italy has a leading role in the SET-Plan European Electricity Grid Initiative (EEGI) coordinated by the European Commission, which was launched in June 2010 and plans to invest more than €2 billion between 2010 and 2020.

ISGAN also fulfills a key recommendation in the Smart Grids Technology Action Plan, which was co-authored by Korea and Italy and released by the Major Economies Forum on Energy and Climate's Global Partnership in December 2009.

ISGAN complements the **Global Smart Grid Federation**, a global stakeholder organization that was also announced at the Clean Energy Ministerial. Composed of the U.S. GridWise Alliance, the Korean Smart Grid Association, the India Smart Grid Forum, the Japan Smart Community Alliance, Smart Grid Australia, Smart Grid Canada, Smart Grid Ireland, and other leading organizations, this "association of associations" brings together the intellectual capital of smart grid stakeholder organizations from around the world. ISGAN is meant to leverage and bolster this and other international efforts to support the development and deployment of smart grid technologies. The ISGAN Partners promised to work closely with the Federation on joint public-private projects that will capitalize on the strengths of each sector. For more on the Global Smart Grid Federation and its members, please visit its [website](#).

Looking ahead, the ISGAN Partners pledged to continue discussions on the formal establishment of ISGAN, leading up to an 8-9 November meeting at Jeju Island, Korea, as part of the recently announced Korea Smart Grid Week.

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#### *What is smart grid?*

In general, a smart grid refers to an electricity system that uses information technology to connect those who generate and transmit electricity with those who consume it. Smart grid brings many of the concepts and technologies that enabled the internet to the electric power system. It empowers consumers to become active participants in their energy choices. It allows utilities and grid operators to dynamically manage electricity supply and demand, which is crucial for integration of large amounts of renewable energy and the widespread deployment of plug-in electric vehicles. Ultimately, these technologies should cost-effectively increase the grid's reliability, flexibility, and resiliency.

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#### ***Participants as of July 23, 2010***

Participating governments include Australia, Belgium, Canada, China, the European Commission, France, India, Italy, Japan, Korea, Mexico, Norway, Russia, Sweden, the United Kingdom, and the United States.