



International Smart Grid Action Network (ISGAN)

Accelerating progress on key aspects of smart grid policy, technology, and investment

Goals

ISGAN creates a strategic platform to support high-level government attention and action for the accelerated development and deployment of smarter, cleaner electricity, and more flexible electricity grids around the world. It provides an important channel for communication of experience, trends, lessons learned, and future plans in support of national, regional, and global clean energy objectives.

Rationale for being included in the CEM

The implementation of smart electricity grids enabled by digital technologies is a key building block for ensuring affordable, reliable, sustainable, and secure energy systems that can effectively integrate and balance a diverse range of energy sources and uses.

Policy makers and other stakeholders can leverage ISGAN's activities, outputs, and growing network of experts accelerating deployment of renewable energy and power system integration and transformation



Future network vision. Source: http://ec.europa.eu/research/energy/pdf/smartgrids_en.pdf

Key accomplishments

ISGAN is a trusted partner and centre of expertise for a growing number of smart grid-related activities and events, such as India Smart Grid Week and European Utility Week. Other important ISGAN outreach tool are webinars organised by the ISGAN Academy or co-hosted with the Clean Energy Solutions Center; highly recognized public workshops, and thematic knowledge exchange events. The latter bring together leading participants from public, private, and academic sector to engage in discussions and sharing best practices on specific aspects of smart grid development, e.g. integration of distributed renewable energy sources and microgrids. Since 2014, ISGAN has recognised and showcased the leadership and innovation of more than 20 distinguished smart grid projects through an annual ISGAN Award of Excellence competitions each with a special focus.

Lead CEM Member(s)



India Italy Korea Sweden United States*

CEM Member Participants



Australia China Canada Denmark European Commission Finland



France Germany Japan Mexico Netherlands Norway Russia South Africa Spain

Non-CEM Member(s)



Austria** Belgium Ireland Singapore Switzerland

Observer(s) to the Initiative



United Arab Emirates*** Brazil Malaysia Turkey

*U.S. leadership is under review.

**Non-CEM co-lead

***in accession

Work organisation and structure of the initiative

ISGAN is both a CEM initiative and an IEA Technology Collaboration Programme (TCP), with the activities organized in the form of Annexes. ISGAN has chosen flexibility, digitalisation and resilience as themes for 2017 and 2018. ISGAN activities and deliverables give support to member countries in their efforts to overcome the numerous challenges constraining their ability to develop, deploy, and operate smarter grids, including technology development, testing and integration, regulatory structures and policy aspects.



Recent activities and deliverables since 2017

Examples of policy briefs and publications:

- Spotlight on Customer Engagement and Empowerment – case book.
- Why We Do Not Know Much About the Social Dimension of Smart Grids Transition, ISGAN.
- Draft Test Protocols for Advanced Battery Energy Storage System Interoperability Functions.
- Discussion papers on System Efficiency and a Single Marketplace for Flexibility, ISGAN.
- Social Costs and Benefits of Smart Grid Technologies and Assessment of Cost Benefit Analysis (CBA) when Applied to Large-Scale Smart Grids Projects.

Examples of activities

Launched a new website, and started developing a communications strategy and action plan.

Deepened engagement with Mission Innovation, innovation challenge #1 on smart grids, IEA TCPs, and the private sector.

Forward-looking priorities and actions

- Organise a CEM9 side event on smart grids, highlighting opportunities and needs to accelerate smart grid deployment through market design involving both the local and global level, with the objective to provide input to the ministerial discussions and conclusions.
- Select the winning projects of the 2018 ISGAN Award of Excellence, develop case studies on the best practices they embody, and showcase the results at an awards ceremony at CEM9.
- Distributed key reports, such as a synthesis report that uses international cases to illustrate specific approaches on how smart grids can enable grid resiliency.
- Developing a new web-based tool on a combination of multi-criteria and CBA based on ISGAN's earlier CBA toolkit.
- Finalising the communications strategy.
- Broadening collaboration with other CEM initiatives such as 21st Century Power Partnership (21CPP), Electric Vehicle Initiative (EVI), and others.

Operating Agent(s) /
Coordinator(s)

Funding Government(s)/
Organisation(s)

Global and
In-Country Technical
Partner(s)



Austrian Institute of
Technology (AIT) is
Operating Agent



Korea Smart Grid Institute
(KSGI) is Co-Secretariat

ISGAN participants pay annual fees for core functions of the ISGAN operating agent. Working group-level operating agents and project leads are funded by their host organisations and governments. Activities are task-shared.

21st Century Power Partnership (21CPP), Clean Energy Solutions Center (Solutions Center), DERlab, ELECTRA IRP, European Utility Week (EUW), Global Smart Grid Federation (GSGF), GO15, India Smart Grid Forum (ISGF), International Energy Agency (IEA), Leonardo Energy.