

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.



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

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.

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** as the primary theme and **Digitalisation, Resiliency and Interoperability** as the supporting themes for 2019.

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*, *European Utility Week* and *Swedish Smart Grid Forum*. Other important ISGAN outreach tools are webinars organised by the **ISGAN Academy**; highly recognised 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 30 distinguished smart grid projects through an annual **ISGAN Award of Excellence** competitions each with a special focus. Furthermore, ISGAN has developed a combined MC-CBA toolkit that is expected to help decision makers identify the best alternatives among a set of different smart grid development options.

Lead CEM Member(s)



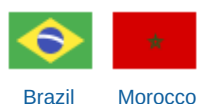
CEM Member Participant(s)



Non-CEM Member(s)



Observer(s) to the Initiative



*Participation and leadership are under review.

**Non-CEM co-lead

Key actions

- **Sharing knowledge:** ISGAN is the only global government-to-government initiative for sharing information, best practices, and competence on smart grid.
- **Technical cooperation** to evaluate and improve smart grid technology development, testing and systems integration, regulatory structures and policy planning.
- **Project coordination** to help policy makers orchestrate a sustainable transition to smarter grids.



Highlights and deliverables since CEM9

- 4th ISGAN Knowledge Transfer Workshop on RD & Investment (October 2018, Vienna).
- ISGAN Award 2018 Webinar: Coordinating Power Control (10th December, 2018).
- Multicriteria and cost benefit analysis for smart grid projects Webinar (4th September, 2018).
- Comprehensive On & Off-Grid Planning For Universal Access. The Reference Electrification Model Webinar (13th June, 2018).
- Policy brief and workshop summary on Opportunities to Accelerate Smart Grid Deployment through Innovative Market Design.
- ISGAN renewed a MoU with GSGF for future cooperation in the field of smart grids from the industrial perspectives.
- ISGAN Annual Report 2017.
- ISGAN has signed a letter of intent to foster collaboration with *Mission Innovation Challenge 1* and to further explore opportunities for joint activities on strategic topics of mutual interest in the field of Smart Grids as storage integration and flexibility options. ISGAN is planning a joint CEM/MI event on Smart grids at CEM10, highlighting opportunities and needs to accelerate smart grid deployment through market design involving both the local and global level.
- The ceremony of 5th ISGAN Award of Excellence competition will take place as a part of *ISGAN-MI IC1* joint event on 29th May at CEM10 to showcase the leadership and innovation of the 8 winning projects around the world.
- ISGAN will engage with 21CPP, EVI and PSF on a horizontal collaborative effort on sector coupling.
- A new communications strategy has been adopted and ISGAN members are working to implement it.
- Official invitation is extended to Brazil to join ISGAN.
- ISGAN agreed to cooperate with ENTSO-E and, as a first step, and is partnering with ENTSO-E and EDSO for Smart Grids to jointly organise the Innogrid conference in May 2019.
- ISGAN will support ERA-Net Smart Energy Systems (SES) projects and the initiative as Associated Partner.
- ISGAN Knowledge Transfer Workshop on Experimental (Regulatory) Sandboxes (April 2019, Stockholm).
- ISGAN public workshop on The Future of Electricity Markets in a Low Carbon Economy (April 2019, Stockholm).
- Case Book & Policy Brief on Experimental (Regulatory) Sandboxes.
- ISGAN-MI IC1 Joint Fact Sheet on Flexibility and Energy Storage.
- Discussion papers on MC-CBA Toolkit: Model and Case Study; on ICT Aspects of TSO-DSO Interaction; and on Flexibility in Future Power Systems.

Operating Agent(s) /
Coordinator(s)



Austrian Institute of
Technology (AIT) is
Operating Agent



Korea Smart Grid Institute
(KSGI) is Co-Secretariat

Funding
Government(s)/
Organisation(s)

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.

Global and
In-Country Technical
Partner(s)

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.