



ISGAN Award of Excellence 2015 Frequently Asked Questions¹

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Q1: What is ISGAN?

ISGAN is the Implementing Agreement for a Co-operative Programme on Smart Grids (ISGAN), though it is more commonly known as the International Smart Grid Action Network.

ISGAN is a voluntary, multilateral collaboration to advance the development and deployment of smarter, cleaner electricity grids around the world. ISGAN facilitates dynamic knowledge sharing, technical assistance, and project coordination in an effort to improve the understanding of smart grid technologies, practices, and systems, address gaps in knowledge and tools, and promote the adoption of related enabling government policies. ISGAN operates under the auspices of the Clean Energy Ministerial (CEM) and is formally organized under a framework of the International Energy Agency (IEA). Currently, 25 countries from 5 continents officially participate. More information on ISGAN can be found at its website, www.iea-isan.org.

Q2: What is the ISGAN Award of Excellence?

The ISGAN Award of Excellence recognizes excellence in innovation, integration and transformation of smart grid systems around the world. As a global mark of excellence, the ISGAN Award of Excellence seeks to leverage leadership and innovation in smart grids to accelerate global exchange of best practices and promote replication or adaptation of proven concepts in other markets, countries, and regions. By identifying and celebrating best practices, leadership, and innovation in smart grids, the ISGAN Award of Excellence helps to facilitate exchange of information among national and international entities, stimulate cooperative pursuit of high-value smart grid targets, and accelerate field testing or demonstration of leading-edge smart grid concepts and technologies.

This is the second year of the ISGAN Award of Excellence, and the intent is to make this a prestigious annual award to recognize exemplars in the global smart grid community. Each year of the ISGAN Award of Excellence competition will focus on one or more topical themes chosen by ISGAN to highlight a critical aspect of smart grid projects, policies, and programs. The theme for the second Award of Excellence is “Excellence in Smart Grids for Renewable Energy Integration.” Entities engaged in the smart grid implementations to integrate variable renewable generation resources are encouraged to submit those projects for consideration.

¹ Please see the Official Rules, available at www.iea-isan.org/Award2015/Main, for the official details about the Award of Excellence competition. In the event that this Frequently Asked Questions document and the Official Rules do not agree, the text in the Official Rules applies.



Winning projects will be recognized during a formal ceremony targeted for May 26-27, 2015 at the Sixth Clean Energy Ministerial meeting (CEM6), in Mérida, Mexico as well as in ISGAN and GSGF programs, events, publications, and proceedings. Winners will be granted a limited individual license to advertise and promote the award granted to the project and a limited right to use and refer to ISGAN Award of Excellence mark (i.e., the logo) and the phrase “ISGAN Award of Excellence Winner”, subject to the Official Rules for this competition and any guidelines published by the Awards Administrator.

Q3: What is the GSGF?

ISGAN is implementing the Award of Excellence in partnership with the Global Smart Grid Federation (GSGF). Established in 2010, the GSGF links leading national and regional smart grid organizations from around the world, each representing a variety of private sector, academic, and other stakeholder interests. The GSGF works to accelerate the deployment of smart grids by facilitating sharing of best practices on resolutions around barriers to deployment, consumer engagement, innovation, and capacity building. More information on the GSGF can be found at <http://www.globalsmartgridfederation.org/>.

Q4: What smart grid topic(s) does the Award of Excellence cover?

Each year of the ISGAN award focuses on a different “theme” within the broader smart grid vision.

The theme for 2015 is “Excellence in Smart Grids for Renewable Energy Integration” in recognition of the importance of renewable energy sources, such as wind and solar, in achieving environmental sustainability and the role smart grids can play to enable their improved integration.

Q5: Who implements the awards process?

The Korea Smart Grid Institute (KSGI) is the Administrator for the award. KSGI is the Operating Agent for the Implementing Agreement for a Co-operative Programme on Smart Grids (ISGAN) and, in that role, acts on behalf of ISGAN.

Q6: Who should apply?

ISGAN and GSGF invite entities engaged in smart grid or grid modernization projects that exhibit excellence in the smart grid implementations to integrate variable renewable generation resources to submit those projects for Award consideration. The primary purpose or goal of a submitted project does not need to be the integration of renewables enabled by smart grids; however, this topic must be a significant project element and should be the focus of the Award application for a project to be eligible. For instance, a project focused on the deployment of advanced metering infrastructure (AMI) could be acceptable if and only if the use of smart grid technologies directly supports the integration of significant variable renewable energy and the application focuses on those activities.

Applications from entities in developed, developing and emerging economies will be accepted and are encouraged. To be clear, although ISGAN operates under a framework of the IEA, the award is not restricted to activities hosted within or by IEA member nations. Often, deployment opportunities for variable renewable



generation depend on the economic, policy and regulatory frameworks under which grids operate, which can and do vary significantly between developed and emerging/developing economies. In addition, the scale and nature of a renewable generation installation (e.g., distributed rooftop PV contrasted with transmission-scale wind farms compared to projects that bridge both transmission and distribution assets) determine the specific technical and operational challenges related to its grid integration. The focus of the Award is to recognize one or more projects that exhibit excellence in utilization of smart grid concepts, systems and technologies to enhance integration of variable renewable energy regardless of grid scale and status of economic development.

It is not required that the project be fully completed at the time of award application. However, it is expected that the project have demonstrable results, supported by evidence, for the selection jury to make a reasoned judgment about the strength of the project measured against the evaluation criteria. To ensure that the project results are current and relevant, only projects that were active during or after 2011 will be considered.

Any entity or team of entities may apply, but only one entry per project (per annual competition) will be allowed.

Q7: How do I apply?

Simply download and complete the Official Project Submission Form available at www.iea-iscan.org/Award2015/Main for each nominated project. Completed templates, along with any additional information or exhibits, must be submitted by **00:00 UTC, March 20, 2015** via email to award@smartgrid.or.kr.

Q8: What are the minimum requirements for a nomination?

- (1) The nominations package must focus substantively on how use of smart grids facilitates the integration of variable energy generation, as described in Q6 above, although the overall project described can be focused on other aspects.
- (2) Submissions must align with the ISGAN mission “to accelerate progress on key aspects of smart grid policy, technology, and related standards.”
- (3) The project must have been active during or after 2011.
- (4) All sections of the nominations package, as described in the Official Rules available at www.iea-iscan.org/Award2015/Main, must be complete.
- (5) The primary nominations package must be in English, though attachments in other languages are permitted.
- (6) The entity submitting the nomination must include a signed statement or corresponding letter signifying acceptance of all provisions in the Official Rules.
- (7) Any additional partner entities included in the nomination must include a signed statement or send a letter designating their representation to the submitting entity and signifying their acceptance of all provisions in the Official Rules.
- (8) Only one nomination or entry per project is permitted.



The Awards Administrator will review each submission to ensure it meets the minimum requirements as described above and in the Official Rules available at www.iea-iscan.org/Award2015/Main. Nominations packages that do not meet the minimum requirements will be rejected. Applicants are free to address the problems and resubmit their nominations package for re-consideration at any time up to the final deadline.

The Administrator may contact the Applicant to schedule a teleconference call or similar interaction to validate information and claims included in the Submission.

The described project is also expected to have demonstrable results, supported by evidence, for the expert review jury to make a reasoned judgment about the strength of the project measured against the evaluation criteria (described in Q9 below).

Q9: How will the nominated projects be judged?

A jury of international experts will be convened to review the submitted materials. The jury will select one or more winning projects using four criteria as follows:

- Potential Impact – The potential impact of the project, including its approach, design, implementation, and similar elements, to influence the rate and scale of smart grid and variable renewable energy deployments and integration as well as the magnitude of realized benefits.
- “System” Benefits – The degree to which smart grid technologies, systems, and approaches add value and produce either direct or indirect benefits across all dimensions (e.g. economic, social, safety, community, etc.), whether the targeted stakeholders for the project are end-user customers (residential, industrial, commercial), the utility, the distribution system operator, network owners, energy traders, generators, or others.
- Potential for Replication or Adaptation – The degree and ease with which the project attributes can be replicated, adapted or scaled to other markets, environments, and/or countries for enabling the deployment and integration of variable renewable generation with smart grids, taken into account attributes such as cost-effectiveness.
- Innovation – The degree to which a project attribute(s) is new, novel, and potentially highly effective or transformative.

The likelihood of winning depends primarily on the number and quality of all submissions, as determined by the jury.

Q10: How is the evaluation criterion, “Innovation,” characterized with regard to this award and theme?

A project can exhibit innovative characteristics at various levels, whether it be technological innovation, operational innovation, innovative policy or regulatory measures, or novel marketing, outreach or stakeholder engagement practices.



Q11: Is the 2015 Award theme focused primarily on the integration of *variable* renewable energy?

Yes. The 2015 ISGAN Award theme focuses on projects that integrate **variable renewable** generation, such as wind and solar photovoltaic (PV). Although variable renewable generation can enhance environmental sustainability, these generation sources introduce new complexities and uncertainties in power system planning, operation, and regulation. The effective use of smart grids can enable electricity networks to accommodate higher degrees and rates of variable renewables integration with no degradation of grid services.

Q12: Is the 2015 Award theme targeting a particular capacity or scale of renewable generation (e.g., distribution-scale versus transmission-scale)?

Projects of any and all scales of renewable deployment will be considered for this award. In addition, projects that bridge small-scale and large-scale deployments and/or both transmission- and distribution-level systems are also encouraged to submit applications. The final award categories will be determined by the expert judging panel for the award.

Q13: What are some examples of smart grid projects that would fit the theme, “Smart Grids for Renewable Energy Integration?”

Smart grid technologies and concepts can significantly reduce barriers to the integration of renewable resources and allow power grids to support a greater percentage of variable renewable resources. Enabling smart grid technology, such as distributed storage, demand response, advanced sensing, control software, information infrastructure, and market signals, increases the ability to influence and balance supply and demand. With smart grid technology, grid operators can better coordinate and control the system in response to grid conditions, thus allowing integration of increasingly greater levels of renewable resources more effectively and at lower cost.

The following provides examples of program focus areas that could be well suited to address the 2015 Award of Excellence theme focusing on smart grid-enabled integration of renewable energy. *This list is not comprehensive and is only provided to illustrate the range of projects that could fit this theme.* Project topics not listed, but that meet the overarching theme of excellence in smart grids for renewable energy integration are welcome.

- (1) Projects focusing on challenges related to the **transmission and distribution** of variable renewable energy resources:
 - Changing or adapting the network structure and operations concepts to help integrate renewables;
 - Distribution energy management systems that can help manage distributed energy resources, load and energy storage by locally balancing load and generation and controlling the power exchange with the connected networks;
 - Installation of distribution automation and active components to replace passive components to control the voltage in the distribution network;
 - Applying active components to influence the active and reactive power flow;



- Installation of Information and communication technologies;
 - Coordination and control of system – e.g., Coordinating control of renewable energy sources during normal times versus abnormal or emergency situations;
 - Reducing Side-effects of renewable intermittency and variability.
- (2) Projects that focus on **Automated Metering Infrastructure** (AMI) deployments: AMI is often considered the backbone of any smart grid deployment and can play a key role in a smart-grid enabled deployment of renewables. AMI is used to integrate small distributed energy generation into the distribution network for billing and automation purposes and helps with overall planning.
- (3) Projects implementing **Energy Storage Systems** (ESS): The intermittency of variable renewable can be helped with integration of energy storage systems facilitated with smart grids.
- (4) Projects employing **Microgrids**: When combined with smart grid technologies, microgrids can help facilitate higher penetration of distributed renewable energy sources because they can be operated in islanded modes, parallel to utility grids –for example, being isolated from the bulk power network in the case of disturbances and blackouts. Therefore, microgrid functionality can increase reliability and security of supply with higher penetrations of renewables. In addition, microgrids can also offer access to electricity services in areas with limited access to a utility grid.
- (5) **Demand Response** projects: With regard to the integration of renewables, demand response programs can achieve many of same benefits as storage and gas peaking plants to help balance power supply and demand. This can be achieved at a much lower cost when implemented using smart grids to help facilitate the demand response. Demand response programs will necessarily involve recruitment, engagement, and education with the consumer, in most cases facilitated by communication systems and components.

Q14: When and how will winners be announced?

Applicants with winning projects will be contacted by the Award Administrator in April 2015. Winning projects will be publically announced in a press release and media notifications coinciding with the Sixth Clean Energy Ministerial meeting (CEM6) in Mexico in late May 2015. An international awards ceremony will be held at CEM6 on May 26th or 27th to publicly recognize the winning projects.

Q15: What benefit is there for winning applicants?

Winning projects will be recognized internationally at a highly-publicized awards ceremony at the Sixth Clean Energy Ministerial meeting (CEM6) in Mexico on the 26th and 27th of May 2015. Entities participating in the winning projects will be invited to attend. Winners will be granted a limited individual license to advertise and promote the award granted to the project and a limited right to use and refer to ISGAN Award of Excellence mark (i.e., the logo) and the phrase “ISGAN Award of Excellence Winner,” subject to the Official Rules for this competition and any guidelines published by the Awards Administrator. Winning projects will be further recognized in ISGAN and GSGF products, proceedings, and events over the ensuing months and promoted to ISGAN and GSGF’s global audience.



Q16: Will project information be made public for projects not selected as a winner?

If the jury identifies projects that do not rise to the level of an ISGAN Award of Excellence winner but nonetheless exhibit good, innovative ideas, ISGAN may contact the applicants to obtain permission to use project information in case studies, peer-to-peer information sharing, and similar activities. However, any such use will be on a case-by-case basis with the prior permission of the award applicants.

Q17: Is this competition limited to large-scale projects?

No! Projects at pilot, demonstration and deployment scales are all eligible to apply. Based on the evaluation criteria, small, innovative projects that could yield larger impacts if implemented at scale are eligible and encouraged to apply. All projects will be evaluated using the same four criteria, described in Q9 above.

Q18: The Official Project Submission Form does not request data on specific metrics. Should I include quantitative data in my submission?

If you have such data available, yes! ISGAN recognizes that a diversity of metrics and performance measures are tracked in projects around the world, with significant differences across markets based, in part, on local regulatory, economic and technical conditions. Hence, this competition does not require the submission of data on any specified metrics. However, applicants are encouraged to include relevant data that supports claims relative to the strength of the project measured against the four evaluation criteria, described in Q9 above.

Q19: I have more questions about this Award of Excellence competition. How do I get them answered?

Please carefully review this FAQ and the Official Rules, available at www.iea-isgan.org/Award2015/Main. If neither the Official Rules nor this FAQ answer your question, then please contact the Award Administrator at award@smartgrid.or.kr. When appropriate, ISGAN will add the questions and answers to future versions of this FAQ or similar documents.

Q20: Is it possible to apply twice with the same project over several years of the competition? For example, if we apply this year and do not win, are we still eligible to apply again next year?

Yes! Each annual round of the Award of Excellence competition is separate and distinct from the other rounds. Therefore, projects that apply in one year and are not selected for the award can still apply to future rounds of the competition. However, the content of each application must be tailored to the theme of the award for that particular year.

Within each annual round of the competition, any entity or team of entities may apply, but only one entry per project (per annual competition) will be allowed.



Q21: With regard to Project Outcomes, is the response for this to be filled out on one page only (i.e., information on all four criteria on one page) or can we add one page per evaluation criteria (i.e., one page on potential impact, one page on system benefits, etc.)?

Please confine your response on Project Outcomes in the Official Project Submission Form to one page. If you need more space, we encourage you to use also the Supplemental Information form; see page 6 of that form, for example. All forms are available at www.iea-isgan.org/Award2015/Main.

About ISGAN: Launched in 2010, the International Smart Grid Action Network is an initiative of the Clean Energy Ministerial that brings together 25 countries from five continents to advance the deployment of smarter, cleaner electricity grids globally. ISGAN is organized as the Implementing Agreement for a Co-operative Programme on Smart Grids (ISGAN) under an International Energy Agency framework.

About GSGF: Established in 2010, the Global Smart Grid Federation links leading national and regional smart grid organizations from around the world, each representing a variety of private sector, academic, and other stakeholder interests.