INTERNATIONAL SMART GRID ACTION NETWORK (ISGAN)

Achievements and prospects

IEA CHP/DHC Workshop, Paris 27-28 May
Yonghun Jung, Secretary General
Bo Diczfalussy, Vice-Chair
Clean Energy Ministerial 5 (CEM5)
12–13 May 2014, Seoul, Republic of Korea
# Initiative Structure

## Current Status: 13 Disaggregated Initiatives

### Participation in Clean Energy Ministerial Initiatives

**July 2013**

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<th>Initiative</th>
<th>Australia</th>
<th>Brazil</th>
<th>Canada</th>
<th>China</th>
<th>Denmark</th>
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Non-CEM governments, nongovernmental organizations, and private businesses also participate in selected initiatives.

- Lead
- Participant
OBJECTIVES OF REVISED STRATEGY

Realize the potential through increased ambition and engagement

- Elevate discussions to reinvigorate Minister-level participation and engagement
- Ensure initiative work is ambitious, relevant and continues to progress
  - Gain commitments for scaled-up financial, technical and political support for initiatives
  - Align initiatives under thematic pillars
  - Identify ways initiatives can support domestic action
- Create more value for Ministers and other participants in roundtables
- Raise the public profile of the CEM and its achievements
Focus on thematic pillars and progress within them to streamline activities.
Ministerial direction at previous CEM’s

- **CEM 4**: Discussed ways to enhance linkages between initiatives (e.g. ISGAN, 21CPP and EVI)

- **CEM 5**: Considered new initiatives: Water and energy nexus, Market accessibility of clean energy products, Clean energy finance. Emphasized need to streamline process.
Goals and Objectives

ISGAN = Platform to bring high-level government attention and action to accelerate the development and deployment of smarter, cleaner electricity grids around the world.

Objectives:

1. Build a better global understanding of smart grid systems and applications, and the value they can offer for both developed and developing economies;

2. Address gaps in knowledge and tools related to smart grids; and,

3. Improve peer-to-peer exchange on lessons learned, best practices, and evaluation of smart grid technologies and concepts.

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# Current Work Streams

| Annex 1: Global Smart Grid Inventory | • Assess motivating drivers & technology priorities for smart grids  
| | • Inventory key projects  
| | • Share lessons learned peer-to-peer |
| Annex 2: Smart Grid Case Studies | • Develop books of case studies on priority smart grid topics,  
| | • Identify common themes and best practices  
| | • Foster improved peer-to-peer exchange |
| Annex 3: Benefit-Cost Analyses and Toolkits | • Assess methodologies available to establish the base level of smartness for an electric grid and evaluate costs and benefits of grid modernization investments  
| | • Develop new tools and toolkits as needed |
| Annex 4: Synthesis of Insights for Decision Makers | • Synthesize complex information and data on smart grids  
| | • Foster other forms of outreach, education, and strategic communications across the full range of ISGAN activities |
| Annex 5: Smart Grid International Research Facility Network | • Coordinate joint evaluation of smart grid concepts, technologies and testing protocols across a network of research facilities, test beds, and applicable demonstration projects |
|----------------------|-----------------------------|--------------------------------------------------------|---------------------------|------------------------------------------|------------------------|
|                      | • Assess emerging needs in technology, policy, and regulation for transmission and distribution grids, and their interfaces | • Identify and share best practices for managing the institutional changes that accompany the technological transformation to smart grids | • Recognize excellence in smart grid projects to foster adaptation or replication of proven ideas in other markets, countries, and regions. | • Develop online curricula and training materials to support the development of a 21st century work force to accompany a 21st century grid | • Prepare a public-private roundtable at CEM5 focused on the challenges and opportunities of integrating EVs into the smart grid and overall power system |
Current Participants and Partners

Contracting Parties: 25
Invited:
Brazil, Denmark, Israel, Turkey

- Government of Australia
- Norwegian Ministry of Petroleum and Energy
- European Commission
- Forschungszentrum Jülich GmbH
- Government of Belgium
- Swedish Energy Agency
- Tekes (Finnish Funding Agency for Technology and Innovation)
- Government of the Netherlands, Ministry of Economic Affairs, Agriculture and Innovation
- Sustainable Energy Authority of Ireland
- Government of the United Kingdom
- Government of France
- Swiss Federal Office of Energy
- Government of Mexico
- Government of Austria
- Ricerca sul Sistema Energetico (RSE S.p.A.)
- Energy Market Authority, Singapore
- Government of India
- Government of Korea
- Government of Belgium
- Government of France
- Swiss Federal Office of Energy
- Government of Mexico
- Government of Austria
- Ricerca sul Sistema Energetico (RSE S.p.A.)
- Energy Market Authority, Singapore
- Government of India
- Government of Korea
- Government of Australia
- South African National Energy Development Institute

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ISGAN (International Smart Grid Action Network)

Global Smart Grid Federation (GSGF)

Clean Energy Ministerial

Accelerating the Transition to Clean Energy Technologies... and more
Progress Towards Goals and Objectives (Examples)

- Launched inaugural **Award of Excellence** competition Winner announced at CEM 5 in Seoul, Korea
- Opened second biennial assessment of smart grid drivers and technology priorities
- Prepared a book of **case studies on demand management** and an updated version of a case book on AMI, both at CEM5
- Developed an online database of about 100 key smart grid projects across 17 ISGAN countries
- Conducting joint evaluation of draft test protocols for advanced, grid-facing functions of PV inverters
Prospects for the future

- Integration with other CEM initiatives
- Geographic coverage
- Scope
- Outreach
- Resources
Thank you!

http://www.iea-isgan.org/