Technology Collaboration Programmes

TCP Universal Meeting - 9 October 2017

SESSION 3 – Interactions with key multi-lateral initiatives

International Smart Grid Action Network - ISGAN

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ISGAN in a nutshell

Mission and scope

- As one of 10 active CEM initiatives provide a strategic platform to support high-level government attention and action for the accelerated development and deployment of smarter, cleaner electricity grids around the world
- emphasizes the importance of strong, reliable, resilient, flexible, and affordable power grids, supported by the digitalization of the electricity system – exchange and dissemination of information and perspectives, no direct technology development or demonstration activities

Participants, Activities and Priorities:

- Contracting parties 25 - 18 IEA members, 6 partner countries and EU
- Cross-cutting Annexes: Drivers & best practice for implementation (2), Cost benefit analysis (3), Strategic communication (4), Transition and societal change (7), ISGAN Academy (8)
- Technical Annexes: Transmission and distribution systems (6), SIRFIN -testing protocols and facility best practice (5)
- ISGAN has selected flexibility and digitalization as its principal themes for 2017 and 2018

Website: ***www.iea-isgan.org***

Interactions with key multi-lateral initiatives

- **State of play**
  - ISGAN is the only global government-to-government forum on smart grids. ISGAN will continue to target government agencies and officials, especially those developing or implementing policies and programs on smart grids.
  - Contact with the CEM Secretariat, Clean Energy Solutions Center and 21st Century Power Partnership to promote and amplify ISGAN's activities and deliverables. MoU with Global Smart Grid Federation (GSGF), discussions with IEEE PES
  - Strong interlinkage between ISGAN and MI challenge #1 – common member countries and national expert but different scopes – coordination
  - Initiative (workshops etc.) to strengthen collaboration with other TSP:s on going
- **The way forward**
  - Strategic plan for engagement with external partners under preparation (private sector, regulatory community, organizations for capacity building etc.)
  - Increased coordination and collaboration with MI Challenge#1 and relevant TCPs
  - Assess ISGAN´s potential role in deeper grid modelling, analysis, metrics and scenarios development in support of broader climate and clean energy efforts

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TCP on Heat Pumping Technologies (HPT TCP)

Stephan Renz (Chairman)

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HPT TCP: About Us

Mission and scope

- To accelerate the transformation to an **efficient, renewable, clean and secure energy sector** in our member countries and beyond by performing collaborative research, demonstration and data collection and enabling innovations and deployment within the area of **heat pumping technologies.**

Activities

- **Perform RDD&D** activities within the areas of **heating**, **cooling** and **refrigeration** for **the building, community, industrial and transport sectors** while widening the scope to include to a larger extent:
  - **Affordable and competitive technologies for heating**
  - **More efficient cooling and air-conditioning, especially in warm and humid climates**
  - **Flexible, sustainable and clean system solutions (e.g. in urban areas) using combinations of** heat pumping technologies with energy storage, smart grid, solar and wind energy, thermal networks, energy prosumers, etc
- Publications, Workshops and **Conferences**

PARTICIPANTS

	IEA members	Partner countries	Intergovern-mental
Contracting Parties	16		
Sponsors			

Website: heatpumptechnologies.org

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Interactions with key multi-lateral initiatives

State of play

- Collaborations with CEM through Initiatives, Campaignes and events are of high interest
- Establish new and strengthen existing collaboration with Mission Innovation in the field of heat pumping technologies. Ongoing Annexes (projects) match well the focus areas of **MI – Challenge 7 – Affordable Heating and Cooling**. New initiative with other TCPs

Further ideas on:

- Arrange ExCo meetings and workshops in host countries as well as in IEA key partner or association member countries, when possible, as well as back-to-back meetings with other TCPs or relevant events
- Contribute to advanced and/or disruptive innovations through cross-cutting networking and collaboration with other TCPs and relevant organisations
- Joint Annexes (projects) with other TCPs focusing on affordable heating and cooling solutions (MI) - **Flexible, sustainable and clean system solutions (e.g. in urban areas) using combinations of**

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TCP on Hybrid- and Electric Vehicles HEV

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HEV TCP: The Future Drive is Electric

Mission and Scope

- To supply objective information on HEVs to governmental policy makers and industry decision makers from utilities, automotive and component suppliers. To facilitate international collaboration involving shared resources from multiple countries. To reduce energy consumption, harmful emissions, and to improve local and global air quality

Activities

- Applied research, technical & economic assessments, policy analysis
- Raise awareness through expert networks, workshops, publications etc.

Current High-Priority Themes

- New task «PV & EV» with TCP PVPS
- How to handle 100% EV country targets
- Acquisition of new members
- EV - infrastructure with renewable energies

PARTICIPANTS

	IEA members	Partner countries	Intergovern-mental
Contracting Parties	17	3-6	1
Sponsors		1	

Website: www.ieahev.org

Interactions with Key Multilateral Initiatives

- **State of Play**
  - Collaboration with CEM (not discussed yet…)
  - Collaboration with MI (EXCO informed/ no decision yet)

- **Further Avenues**
  - Collaboration with TCPs and initiatives on renewable energy sources (RES)
  - Connecting RES and EVs to exploit the synergies for the use of the energy
  - Develop cheap and sustainable batteries for electric drives
  - Use of EVs as decentralized storage systems (such as PV and Wind/ Task 28)
  - Demonstrate and promote 100% use of electric drives in mobility
  - Demonstrate and promote the electric drive in maritime applications (Task 35) and in airplanes
  - Study the interactions of electric drive with a world of 100% RES