Intelligent market design – boosting global smart grid deployment

An opportunity to contribute to ministerial policy discussions

The rapid development of technology and innovative services has the potential to enable the transition to a renewable future. What policy initiatives and regulatory changes are needed in the electricity market to accelerate the deployment of new solutions and create a smarter grid?

This workshop is your chance to influence the global agenda by contributing with your ideas and expertise. The key findings from the workshop will provide basis for a high-level panel dicussion, and be included in a policy brief distributed to participants of the Clean Energy Ministerial.

If you want to share your views and experiences on how challenges in the prevailing market rules need to be tackled in the future – this is the event for you. A draft version of the policy brief will be distributed to you before the workshop and serve as a starting point for the discussions.

We offer coffee and lunch. It is also possible to participate part of the day.

To help us think around the topics at hand we have gathered a range of great minds. See the full programme and keynote speaker details below.

Target groups

Electricity market professionals, government administration, industry representatives, political representatives, think tanks, investors and academic professionals.

Time and location

May 23, 2018, 9:30 am – 5:00 pm, Malmö Live, Dag Hammarskjölds Torg 4, Malmö

Organizers

Smart Grid Action Network (ISGAN) and Swedish Smart Grid Forum

Read more and register

www.swedishsmartgrid.se/intelligentmarketdesign

The event is part of the Nordic Clean Energy Week www.nordiccleanenergyweek.com/

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ISGAN
INTERNATIONAL SMART GRID ACTION NETWORK

NORDIC CLEAN ENERGY WEEK
COPENHAGEN MALMÖ
21-25 MAY 2018

Programme

Moderator: Marie Fossum Strannegård, partner Ernst and Young and member of the Swedish Smart Grid Forum steering committee.

09:30 am Coffee and mingle

10:00 Welcome and opening speech: *Karin Widegren, Chair, ISGAN and Maria Sandqvist, Executive Director, Swedish Smart Grid Forum*

10:15 am Key note speaker: *Ewald Hesse, CEO Grid Singularity*

Interactive Session 1: How to design an energy market for a greater variety of stakeholders and roles?

10:45 am Key note speaker: *Dr. Liu Yang, Senior Research Fellow, National University of Singapore*

11:00 am Dialogue in roundtable groups and short presentation by rapporteurs from each group

12:00 am Lunch

Interactive Session 2: How to achieve energy system integration and interaction?

1:15 am Key note speaker: *Jeffrey Logan, Chief Analyst, NREL (National Renewable Energy Laboratory), Operating Agent of the 21 Century Power Partnership (21CPP)*

1:30 am Dialogue in roundtable groups and short presentation by rapporteurs from each group

2:30 pm Coffee break

Interactive session 3: What are the key elements in market design to accelerate deployment?

2:45 pm Key note speaker: *Anne Vadasz Nilsson, vice president Council of European Energy Regulators (CEER) and Director General of the Swedish Energy Market Inspectorate*

3:00 pm Dialogue in roundtable groups and short presentation by rapporteurs from each group

4:00 pm Panel discussion reflecting on the results from the interactive sessions

4:50 pm Closing remark

Our speakers

Ewald Hesse (GER) leads the Grid Singularity venture, rooted in his extensive experience in the energy sector and acute interest in distributed business models. Grid Singularity is a green blockchain technology company, leading the development of an open, decentralised energy data exchange platform under the auspices of the energy web Foundation (EWF). This newly structured ecosystem provides a data transparency and integrity solution in a major shift away from a traditional, centralized model of the energy market. In addition to building the core technology, Grid Singularity is also developing applications, including a grid management agent with the objective to coordinate increasing numbers of small energy producers and flexible loads, in a trustless, open, decentralized network.

Dr. Liu Yang (SIN) joined The Energy Studies Institute at the National University of Singapore as a Senior Research Fellow in 2017. He was previously an Energy Specialist at the International Energy Agency (IEA), whereby his work was focused on the monitoring of energy efficiency trends and impacts in emerging economies, as well as providing technical assistance to governments and businesses. Earlier, he advised on governments and influenced policy decision makers in Paris, France and the West African region to accelerate their clean energy and climate finance programmes. He started his professional career as a diplomat in Beijing and in Morocco from 2001 to 2004.

Jeffery Logan (USA) is Chief Analyst at the Strategic Energy Analysis Center (SEAC), NREL (National Renewable Energy Laboratory). SEAC conducts a broad range of energy analysis in support of NREL programs and initiatives, DOE's Office of Energy Efficiency and Renewable Energy (EERE), technology transfer, and the greater energy analysis community. SEAC integrates and supports the energy analysis functions located in many of the Laboratory's research programs and technology centers. Jeff is also part of the leadership team of the Clean Energy Ministerial initiative 21 Century Power Partnership (21CPP) supporting national and regional initiatives in power sector transformation.

Anne Vadasz Nilsson (SWE) was appointed Director General of the Swedish Energy Markets Inspectorate in 2013. Since the end of 2017 she is also a member of the board of the Swedish Agency for Government Employers and Vice President of the Council of European Energy Regulators (CEER). During 2014–2017, she has been a member of the Board of the Swedish Telecom and Post Regulator. She graduated as a lawyer from the University of Uppsala, Sweden in 1993. Upon leaving university, she worked as legal advisor at the Swedish Energy Regulator until 2000 when she joined the Swedish Competition Authority. At the Competition Authority she held various positions, among others Deputy Director General.

Context

New challenges are emerging with the ongoing transformation of the electricity industry. The forces driving change include the expansion of renewables, distributed generation, digitalization and increased electrification e.g. within the transport sector. The shift away from fossil fuels to renewables raises both technical and non-technical issues calling for an increasingly responsive electricity systems. New storage technologies and demand response from smart homes may provide solutions, but this will require some market rule enhancements. Energy policy and power sector regulation must work in co-ordination and be adapted to the new reality, whilst considering the specific characteristics of each power market, such as its institutional arrangements, grid development, electrification rate and renewables penetration.

Accelerating the deployment of new smart grid technologies will enable a broader, faster, and more cost-effective utilization of a range of clean energy technologies, substantially transforming how electricity systems are planned, operated and controlled. Power system integration and transformation is an increasingly complex policy challenge, which will require a combination of new initiatives, regulations, standards, strategies and business models to make use of emerging opportunities provided by smart grid solutions. These are to be found across the entire electrical system, from the high voltage transmission grid, through the local grid and finally at consumer level. Good governance is needed to assure market rules adapt to meet the challenges generated by this transformation of the power system calling for novel and innovative solutions in market design.

To meet national challenges different approaches and priorities may be needed and there is no generic solution or one-size that fits all. At the same time, there are generally applicable findings from experiences that can be adapted by other countries to make local implementation faster and more efficient. Identifying best practice principles, which apply in a wider range of circumstances, will play a key role to accelerate power system integration and transformation to the benefit of consumers.