

Renewable energy and the future of long-term energy scenarios: Emerging practices and channels for policy impact

Clean Energy Ministerial Campaign “Long-term Energy Scenarios for Clean Energy Transition”

IEW side event

16:45-18:15, RunAn room, June 19, 2018

Event Programme

Moderator: Professor Brian O’Gallachoir (University College Cork)

16:45 - 16:50: Introductory remarks from the moderator

16:50 - 17:00: Setting the Scene

- » Dr. Asami Miketa (International Renewable Energy Agency)

17:00 - 17:35: Interface between scenario developers and scenario users

- » Dr. David Daniels (U.S. Energy Information Administration)
- » Dr. Kenneth Karlsson (Technical University of Denmark)
- » Professor Tomas Kåberger (Chalmers University, Japan Renewable Energy Institute)
- » Open discussion

17:35 - 18:10: Long-term scenarios for clean energy transition – key gaps and solutions

- » Dr. Geoffrey Blanford (Electric Power Research Institute)
- » Dr. Uwe Remme (International Energy Agency)
- » Professor Clas-Otto Wene (Chalmers University)
- » Open discussion

18:10 -18:15: Concluding remarks from the moderator

Format and discussion

This side event will be oriented toward an open discussion with expert panellists and IEW attendees. Following brief introductory remarks and presentation, the session will have two panel sessions, each consisting of brief interventions from three panellists around pre-defined questions. Following these interventions, open discussion will be welcomed from attending experts in the audience around additional examples of best practice and methodological gaps.

Panel Session 1: Interface between scenario developers and scenario users

- » Which types of stakeholders currently have capacity to develop scenarios? Do other types of stakeholders need further enhancement of in-house capacity for scenario development?
- » How can the link between the scenario development community (at different levels, be it national or international) and the scenario user community improved? Are there specific examples of best practice?

Panel session 2: Long-term scenarios for clean energy transition – key gaps and solutions

- » What are the key gaps in current scenarios related to the clean energy transition? For example:
 - Representation of variable renewable energy
 - The coupling of power and other end-use sectors, e.g. transport, industry, etc.
 - Innovations in flexibility, e.g. demand side response/management, storage, etc.
 - Greater decentralization, e.g. sub-national and municipality-level systems
 - Digitalisation
 - Behavioural change
- » Will new focus areas of clean energy transition within long-term scenario modelling mean a shift in the type of tools used for scenario development, or how those tools are used?

Event background

In 2014, IRENA launched its project “Addressing Variable Renewable Energy in Long-term Energy Planning (AVRIL)”, with the first brainstorm meeting taking place during IEW 2014 in Beijing. The project aimed to bridge the state-of-art modelling practices from research communities to the application of scenarios by government planners. Inputs from the modelling community have been critical throughout the project, and resulted in IRENA’s publication of “*Planning for the Renewable Energy Future: Long-term Modelling and Tools to Expand Variable Renewable Power in Emerging Economies*” in 2017.

In 2018, to expand upon this work, IRENA started supporting a new Clean Energy Ministerial (CEM) campaign on “Long-term Energy Scenarios (LTES) for Clean Energy Transition”. The campaign was proposed by the governments of Germany and Denmark, and has now been joined by eight other countries. The campaign is a manifesto of strong interest from the policymaking community to improve the use of long-term energy scenarios in guiding the clean energy transition.

As IRENA and the research community begin to explore deep decarbonization scenarios further, and the role of low-cost renewables in these scenarios, challenges begin to go beyond the integration of variable renewables in power systems, toward issues such as the additional integration of other end-use sector solutions, and assessment of behavioral change due to potentially disruptive innovations enabled by digitalization trends.

Many perceive that the majority of long-term scenarios do not adequately address such issues, and IRENA’s LTES campaign seek to identify examples of scenarios and methodologies that do explore this new ground. At the same time, governments are increasingly looking for various institutional setups to better link with scenario development and communities. For example, in some countries, governments effectively use scenarios developed by the research community to spark political debates, while in others, scenarios are developed by in-house government modelling teams, and used directly as decision making tools.

This side event therefore aims to discuss two topics – first, a self-critical identification of key gaps in current long-term scenarios with high shares of renewable energy (and possible solutions), and second, the interface between the scenario development community and ultimate scenario users, primarily policy and decision makers.

Outcomes

The outcome of the discussion will be consolidated and used as input material for reporting to the Clean Energy Ministerial Meeting in May 2019.

For further information please contact:

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