

Scenarios Forum 2019

Session #35: Renewable-based Electrification: How can we Improve Scenarios for Clean Energy Transition?

Part of IRENA's CEM Campaign "Long-term Energy Scenarios for the Clean Energy Transition"

9:00 – 10:45, Wednesday, March 13, 2019, University of Denver

While clean electricity is one of the main enablers for a clean energy transition, representing transition pathways with high shares of electrification across sectors is evolving territory to many models and scenarios. Accounting for the contribution of variable sources of energy (e.g. solar and wind) and associated technology solutions in end use can be challenging, for example, given limitations in geospatial and temporal granularity. Furthermore, innovation related to digitalization may have profound impacts on the fundamentals of future of energy systems, thus compounding the uncertainty inherent in long-term scenarios.

Against this background, this session aims to address the question – how can long-term energy scenarios better account for the potentially transformational changes related to renewables-based electrification? Panellists will present recent work on long-term energy scenarios that approaches this question from various geographical and sectoral angles, and where gaps need to be filled to better represent the complexities of this topic.

This session will inform the Campaign on "Long-term Energy Scenarios (LTES) for the Clean Energy Transition", organized under the umbrella of the Clean Energy Ministerial (CEM). The session is co-organized by IRENA and NREL/JISEA, the operating agent of the Campaign and a technical partner to the Campaign, respectively.

Programme

Moderator: Jeffrey Logan (Chief Analyst, Strategic Energy Analysis Center, NREL)

9:00 - 9:05: Introductory remarks from the Moderator

9:05 - 9:25: Introductory presentations

- » Daniel Russo (IRENA)
- » Jeffrey Logan (NREL)

9:25 - 10:25: Panel interventions (each ca. 15 min oral presentation, 5 min Q&A)

- » *Electrification Futures: Scenarios for Demand-Side Adoption in the United States*; Caitlin Murphy (NREL)
- » *Electrification in Baltic energy technology scenarios*; Tomi Lindroos (VTT Technical Research Centre of Finland)
- » *What future for electrofuels in transport? - Analysis of cost-competitiveness in global climate mitigation*; Mariliis Lehtveer (Chalmers University)

10:25 - 10:45: Panel discussion and open interventions from the audience

[Poster session]

- » *Future fuels in the shipping sector assuming stringent CO2 reduction scenarios: Results from the global energy transition (GET) model*; Maria Grahn (Chalmers University)
- » *Energy transition in Argentina: High Variable Renewable Energy penetration, high efficiency scenarios*; Roque Pedace (University of Buenos Aires)