

Second International Forum: Long-term Energy Scenarios for the Clean Energy Transition

26 March 2020 - Webcast

Concept note

Background

The world's energy systems are entering profoundly uncharted territory – unprecedented technological advances in power generation, transport and innovation in digitalisation make predictions about future energy conversion and use highly uncertain. At the same time, urgent Sustainable Development Goals and the Paris climate accord insist on a transition to clean energy use as fast as possible, thus compounding the complexity of representing integrated energy systems in **long-term scenarios**. In this context, clear views of the future energy landscape have become invaluable, and the way in which those views are developed requires a sea change.

IRENA is coordinating a group of government institutions from 12 countries and seven technical institutions to explore these issues as part of the [Clean Energy Ministerial Campaign on “Long-term Scenarios for the Energy Transition” \(LTES Campaign\)](#). **The campaign aims to promote the improved use of scenarios for the clean energy transition, enable the exchange of best practices and facilitate work to strengthen and broaden their use.**

The [Second International Forum on Long-term Scenarios for the Clean Energy Transition](#) will gather experts representing governments, technical institutions, academia, industry and the private sector, seeking to exchange experience in the use and development of long-term scenarios to support planning of the clean energy transition. It is the continuation of the [2019 International Forum](#) held in April 2019, which gathered around 130 experts from over 35 countries.

Overarching Objectives

- » **To enable deep-dive discussions with subject experts** on critical scenario issues identified by public and private practitioners from around the world.
- » **To raise awareness of the importance of long-term energy scenarios for policy making** in the context of clean energy transitions.
- » **To take stock of good practices and discuss key messages** that need to be presented to policy makers using energy scenarios.

At the Forum, IRENA's new [“Long-term Energy Scenario Network – LTES Network”](#) will also be showcased as a vehicle to sustain discussion on scenarios with a wider audience from IRENA's member countries.

Forum topics

1. **Electrification scenarios for a carbon-neutral energy system by 2050** – What is the role of electrification in achieving a carbon neutral energy system, and how scenarios can better inform power utilities and government planners?
2. **Representing systemic innovation in energy demand and consumer behaviour in LTES** – How can the impact of system innovation be reflected in long-term energy scenarios?
3. **Stakeholder engagement in the LTES process for a just transition** – How can different stakeholders be included in the scenario-development process to ensure a just energy transition?
4. **Exploring the global landscape of LTES narratives and assumptions** – What global trends are driving the clean energy transition and need to be better represented in national LTES?
5. **Robust and resilient LTES building processes scenarios** – What are the approaches of government institutions to ensure the scenarios methods are robust and results are used for policymaking?

Programme outline

Thursday, 26 March 2020

- » Opening session and keynote presentation
- » Six thematic sessions with presentations and discussions by global energy experts
- » Wrap-up session

Participation and Registration

All persons wishing to participate can do so through the [event website](#) and will be subject to a final approval process.

For more information please contact ltres@irena.org

Second International Forum

Long-term Energy Scenarios for the Clean Energy Transition

26 March 2020 | Virtual event

Programme

*CET = Central European Time

9:20 – 10:40 CET **Opening session**

MC: **Paul Durrant**, Programme Officer, Renewable Energy Innovation, IRENA

Opening remarks by **Dolf Gielen**, Director, IRENA Innovation Technology Centre

Session 1: Electrification scenarios for a carbon-neutral energy system by 2050

Electrification of the end-use sectors and increased use of renewable energy in the power sector is one of the critical pathways for achieving a carbon-neutral energy system by mid-century. This session discusses the perspectives of the electricity industry on crucial technological and societal transformations needed for taking this pathway and how they are represented in LTES. Furthermore, it will provide a platform to discuss their readiness in planning for large-scale electrification as a means of achieving a carbon-neutral energy system by 2050.

Presenters:

- » **Mark McGranaghan**, Vice President of Innovation, Electric Power Research Institute (EPRI), USA
- » **Dante Powell**, Senior Market Modelling Specialist, European Network of Transmission System Operators for Electricity (ENTSO-E)
- » **Kristian Ruby**, Secretary General, Eurelectric

Moderator:

- » **Dolf Gielen**, Director, IRENA Innovation and Technology Centre

10:50 – 11:50 CET **Session 2: Exploring the global landscape of LTES narratives and assumptions**

The LTES campaign has facilitated discussion among national scenario practitioners in which they exchange, among other topics, the key narratives and assumptions used in their respective LTES. This session will focus on the underlying narratives and assumptions driving LTES for an accelerated clean energy transition, building on the discussions held under the LTES campaign so far. The discussion will also touch upon the compatibility among national, regional and global LTES, and how climate targets and carbon-neutrality aspirations for energy systems by mid-century are addressed in these scenarios.

Presenters:

- » **Pablo Carvajal**, Associate Programme Officer, Clean Energy Transition Scenarios, IRENA
- » **Tiina Koljonen**, Principal Scientist, VTT Technical Research Centre of Finland
- » **Sven Teske**, Research Director at the Institute for Sustainable Futures, University of Technology Sydney
- » **Wouter Nijs**, Researcher, European Commission Joint Research Centre

Moderator:

- » **Brian O’Gallachoir**, Director, MaREI, the SFI Research Centre for Energy, Climate and Marine, Environmental Research Institute, University College Cork, Ireland

12:00 – 13:00 CET **Session 3: Stakeholder engagement for an inclusive LTES development process**

The clean energy transition impacts different segments of society to different extents, which may create socio-political and economic tensions. This session will focus on how countries engage different stakeholders in the scenario development process to ensure that the transition is just and inclusive.

Presenters:

- » **Dennis Volk**, Team Lead, Network Infrastructure Development, Bundesnetzagentur, Germany
- » **Ivetta Gerasimchuk**, Lead, Sustainable Energy Supplies, International Institute for Sustainable Development (IISD)
- » **Marek Harsdorff**, Green Jobs Specialist, International Labour Organisation (ILO)

Moderator:

- » **Michael Renner**, Programme Officer, Policy, IRENA

13:00 – 14:00 CET Break

14:00 – 15:00 CET Session 4: Systemic innovation in energy demand and consumer behaviour in LTES

Innovation in technological adoption and consumer behaviour, driven by digitalisation and decentralisation trends will change not only how energy is provided but the way that energy is consumed. This session will discuss how the representation of these trends can be better reflected in LTES. It will also discuss how LTES can help policy-makers consider highly uncertain impacts of systemic innovation.

Presenters:

- » **Ron Benioff**, International Program Manager at National Renewable Energy Laboratory, USA
- » **Deger Saygin**, Director, SHURA Energy Transition Center, Turkey
- » **Klaus Willnow**, Head of Innovation & Future Technologies, Siemens Gamesa
- » **Charlie Wilson**, Researcher, Tyndall Centre for Climate Change Research, UK

Moderator:

- » **Paul Durrant**, Programme Officer, Renewable Energy Innovation, IRENA

15:10 – 16:10 CET Session 5: Robust and resilient LTES development processes

Some governmental institutions adopt measures to ensure that their LTES are robust and resilient and that they are effectively used for policymaking. This session will explore various approaches such as review processes and quality assurance mechanisms, to ensure that scenario development methodologies are robust.

Presenters:

- » **Pieter Boot**, Head of Climate, Air and Energy department, Netherlands Environmental Agency (PBL)
- » **Alec Waterhouse**, Head of the Central Modelling Team, Department for Business, Energy and Industrial Strategy, UK
- » **Uwe Remme**, Analyst, International Energy Agency
- » **Vincent van Steenberghe**, Climate Policy Expert, Federal Public Service of Health, Food chain safety and Environment, Belgium.

Moderator:

- » **Pablo Carvajal**, Associate Programme Officer, IRENA

16:20 – 17:30 CET **Session 6: Risk and systemic innovation in long-term energy policy-making**

This session will feature a panel of governmental energy policy-makers and planners, who will reflect on how LTES insights into systemic innovation can inform policymaking and aid in mitigating risk. Panellists are requested to provide insights into what challenges exist for effective long-term energy planning in government and insights into how risk and systemic innovation are perceived in the policymaking sphere.

Presenters:

- » **Ruud Kempener**, Policy Officer at Directorate-General for Energy (DG-ENER), European Commission
- » **Giovani Machado**, Director of Energy Economics and Environmental Studies, Energy Research Office, Brazil
- » **Joana Portugal Pereira**, Professor at the Energy Planning Program of the Federal University of Rio de Janeiro, Lead Author of the IPCC WG III AR6 Chapter 4

Moderator:

- » **Asami Miketa**, Senior Programme Officer, Power Sector Investment Planning, IRENA

For more information please contact ltres@irena.org

Event website [link](#).