

9th Annual EPRI-IEA Challenges in Energy Decarbonisation Workshop

A window into the global energy transition

6-7 October 2022

International Energy Agency, Room 1

9 rue de la Fédération, Paris 75015

International
Energy Agency

Background

Two years into the “decade of action” to achieve international climate objectives, there is greater appetite from governments and industry to take bolder action on decarbonisation. Ensuring a resilient and decarbonised power system will require rethinking how power markets work to ensure sufficient investment in new technologies.

This year’s EPRI-IEA Challenges in Decarbonisation Workshop takes a snapshot of our current moment in the energy transition. The workshop will take an in-depth look at how leading policymakers and energy stakeholders are adapting to address today’s biggest challenges, such as record energy prices and the need for security of supply as well as bright spots such as emerging technologies and emerging approaches to drive investment in clean energy. Over the course of two days, high-level speakers will address topics including:

- Security of supply and resilience
- Future-proofing market design
- Emerging technologies to secure decarbonisation
- The challenges and solutions of seasonal variability
- Innovative strategies to accelerate investment in decarbonisation

The EPRI-IEA Challenges in Decarbonisation Workshop series brings together leading experts from government, academia, think-tanks and the private sector from around the world to share experiences relating to decarbonising the electricity system. Participants identify barriers and opportunities for the sector and discuss best practices from various approaches to decarbonisation in different jurisdictions. Past workshops have included deep dives into a diverse set of topics such as near-term market structure, long-term decarbonisation pathways, supply resiliency, and end-use electrification opportunities.

Agenda

Day 1: Thursday 6 October	
13h30 CEST	Welcome coffee
14h00 CEST	Welcome and opening remarks Arshad Mansoor, President and CEO, EPRI
14h05 CEST	Keynote speech Michael Pollitt, Professor of Business Economics, University of Cambridge
14h35 CEST	Session 1: Risks for security of supply in clean energy transitions Decarbonisation will involve profound changes in the way power systems operate, including rapid increases in deployment of variable renewable resources, which become the dominant source of electricity. However, in order for this transition to be secure and affordable, investments also need to be made to scale up flexible and dispatchable resources as well as networks. These investments will require significant quantities of raw materials inputs, including critical and rare minerals. This session will examine the potential challenges and solutions for ensuring security of supply.

<i>Speakers</i>	<p>Moderated by Keith Everhart, Energy Analyst, Renewable Integration and Secure Electricity, IEA</p> <p>Zachary Ming, Director, Energy and Environmental Economics E3 Pierre Laurent Lucille, Chief Economist, Engie Rina Bohle Zeller, Senior Specialist, Global Public Affairs, Vestas</p>
15h50 CEST	Coffee break
16h05 CEST	<p>Session 2: Electricity market design for high renewables systems</p> <p>The current energy crunch has been translated into unprecedented highs for electricity wholesale electricity prices in many regions over the world, making many questions on what extend the electricity are delivering on their main objective of providing affordable and efficient electricity to consumers. Are current electricity markets fit for a fast and affordable decarbonisation, or we need to think in new set ups to achieve our new objectives.</p>
<i>Speakers</i>	<p>Moderated by Alejandro Hernandez, Former Head of Unit, Renewable Integration and Secure Electricity, IEA</p> <p>Sarah Keay-Bright, Manager, Market Strategy, National Grid ESO Elizabeth LaRose, Energy Transformation Director, GE Power, part of GE Vernova Christophe Gence-Creux, Head of the Electricity Department, ACER</p>
17h20 CEST	Reception
18h30 CEST	End of workshop Day 1

Day 2: Friday 7 October	
08h30 CEST	Welcome coffee
09h00 CEST	<p>Welcome and opening remarks</p> <p>Mary Burce Warlick, Deputy Executive Director, IEA</p>
09h05 CEST	<p>Keynote speech</p> <p>Morgan Scott, Director, Climate READi, Sustainability & Ecosystem Stewardship, EPRI</p>
09h30 CEST	<p>Session 3: Emerging technologies to accelerate energy transitions</p> <p>A bunch of technologies is usually correlated to a fast and cost-efficient energy transition towards net-zero societies. However, what is the status of these technologies of which most are either on the market or close to. How do their performance and scale-up match with common expectations on cost, efficiency and anticipated demand? Do these technologies fulfil claims for inter-operability with other products and technologies taking into account sector-coupling? Do standardization efforts and regulations keep up pace with the technological developments or will the lack of it create a (future) barrier and closed in investments? Are there any technologies or developments outside of today's major focus which could be of interest to ensure a secure, reliable and cost-efficient energy transition in all societal sectors, e.g. clean heat, clean mobility etc.?</p>

<i>Speakers</i>	<p>Moderated by Vida Rozite, Energy Policy Analyst, Energy Efficiency Division, IEA</p> <p>Simone Accornero, CEO, FlexiDAO Henrike Sommer, Associate, Aurora Energy Research Christian Kissling, Director Sales & Business Development, Kraftblock</p>
10h15 CEST	<p>Session 4: Flexibility and resilience for long-term variability</p> <p>The low wind and hydro outputs in many regions around the world in 2021 raised many questions regarding on what extent power systems could face seasonal and long-term variability challenges, or if on the contrary, where flexibility options and a reduced reliance on volatility of fossil fuels could actually create a more stable supply demand balance compatible with net-zero objectives.</p>
<i>Speakers</i>	<p>Moderated by Morgan Scott, Director, Climate READi, Sustainability & Ecosystem Stewardship, EPRI</p> <p>Renato Machado, Deputy Superintendent, Empresa de Pesquisa Energetica, Brazil Ilkka Hannula, Senior Energy Analyst, Renewable Energy Division, IEA Olivier Lebois, RTE Expert, ENTSOE TYNDP Scenario convenor Philip Schnaars, Manager, Institute of Energy Economics at the University of Cologne</p>
11h30 CEST	<p>Coffee break</p>
11h45 CEST	<p>Session 5: Strategies to accelerate investment in clean energy</p> <p>As renewables become increasingly cost-competitive, many companies and governments around the world are looking at new models to procure clean energy directly. For single companies, this offers the opportunity of reducing their energy costs and overall can contribute to improving the conditions for new investments in renewables. Depending on the jurisdiction, this may pose challenges, such as lack of open markets for private participants, lack of clarity on methodologies to measure and report clean energy purchases or even missing infrastructure to for companies and governments to understand their own energy consumption. This session will present some of the most innovative approaches to advance clean energy purchasing and highlight challenges that are specific to public and private sector stakeholders.</p>
<i>Speakers</i>	<p>Moderated by Enrique Gutierrez, Energy Analyst, Renewable Integration and Secure Electricity, IEA</p> <p>Gabriela Elizondo Azuela, Practice Director ESMAP, World Bank Norman Bay, Partner, Willkie Farr & Gallagher LLP Adam Diamant, Technical Executive, Energy Systems and Climate Analysis, EPRI</p>
13h00 CEST	<p>End of workshop</p>