Next steps for energy systems integration:

Linking policy and practice for clean energy transitions across sectors

Thursday, 26 March 2020, 9:00am – 1:30pm

Spreespeicher, Stralauer Allee 2, 10245 Berlin (Friedrichshain)

Agora Energiewende and the International Energy Agency (IEA) are hosting a public event to discuss global perspectives for energy systems integration. The current trend towards electrifying transport, heating and industry represents a unique opportunity to decarbonise sectors, previously seen as hard to abate in terms of emissions. This, along with key resources such as hydrogen, contributes to broadening the scope of options to integrate ever greater shares of variable renewable energy (VRE) and accelerate the decarbonisation of the wider energy system. This event will shed light on the opportunities and challenges integrating electric vehicles into the power system and of synthetic fuel production and use.

The deployment of electric vehicles has been growing rapidly over the past ten years, with the global stock of electric passenger cars passing five million in 2018, an increase of 63 percent from the previous year. According to the IEA's EV30@30 scenario, global electric vehicle sales are set to reach 33 percent by 2030. Without concrete efforts for integration in the power system, this will have a significant effect on electricity consumption patterns and the associated requirement for additional network infrastructure. This workshop will provide an overview of innovative approaches – from long-term planning to concrete pilot projects – to better understand and enable the link between transport electrification and power system flexibility.

Electricity-based fuels – referred to in the following as "electrofuels" – can promote decarbonisation if they are produced with renewable power and if carbon inputs (when required) are climate-neutral. The most important electrofuel is hydrogen as the basic molecule, followed by methane and liquid fuels. The precise role that these fuels will play in the energy system of the future is still unclear, however.The answer to this question depends in large part on cost competitiveness, infrastructure development and favorable

policy frameworks. Clean, green hydrogen is becoming an important topic of political and business consideration, with the number of research, policies and projects around the world expanding rapidly.

What are the benefits and challenges of scaling up technologies? What is the potential role of electrofuels in 21st century power systems characterised by high shares of clean energy and increasingly electrified economies?

PROGRAMME

8:30	Registration and coffee
9:00	Welcome and introduction Agora Energiewende and International Energy Agency (IEA)
9:10	Global perspectives for energy systems integration Enrique Gutierrez Tavarez, Energy Analyst Electricity, IEA
9:25	Case study: Transport sector transformation: integrating electric vehicles into Turkey's distribution grids Deger Saygin, Director, SHURA - Turkey
9:40	Case study: Distribution grid planning for a successful energy transition – focus on electromobility Urs Maier, Senior Associate Freight Transport, Agora Verkehrswende
9:55	Case study: Fleet charging patterns and impacts on distribution grids Nicola Thompson, Optimise Prime Consortium Lead and Innovation Director, Hitachi Vantara
10:10	Discussion
10:50	Coffee break
11:15	Making the most of Power-to-X Matthias Deutsch, Senior Associate, Agora Energiewende
11:30	The role of hydrogen in clean energy transitions Enrique Gutierrez Tavarez, Energy Analyst Electricity, IEA
11:45	Case study: The potential role of hydrogen in Morocco Badr Ikken, Director General, Institut de Recherche en Énergie Solaire et en Énergies Nouvelles (IRESEN)
12:00	Discussion
12:30	Lunch and end of the event

PARTICIPATION

In order to register for the workshop kindly send an e-mail to events@agora-energiewende.de indicating your interest by 8 March. Please mention your name, organisation and position title.

Once your registration has been approved we will inform you by e-mail by 12 March. Please keep in mind that the number of seats is limited and that the workshop targets thought leaders and practitioners.

CONTACT

Farah Mohammadzadeh, Project Manager Training Programme Energy Transiitions
phone: +49 (0)30 700 14 35-346.
e-mail: farah.mohammadzadeh@agora-energiewende.de

***

This Power System Flexibility Campaign is organised in the framework of the Clean Energy Ministerial's 21st Century Power Partnership:

Agora Energiewende is a joint initiative of the Mercator Foundation and the European Climate Foundation.