

AGENDA

What architecture for the EU's future electricity infrastructure?

Impacts of decentralised and centralised generation on the transmission grid

Friday, 24th March 2017, 9:30-12:45

Venue: CEPS, Place du Congrès 1, 1000 Brussels

Please note that participation in this Event is free of charge but **requires registration.**

The location of a large part of renewable capacity will be decided based on the availability of its resource. This means that a substantial amount of capacity will be installed in areas located away from consumption areas; at present, these areas tend to be weakly connected to the rest of the system. As a result, there will be a need for specific transmission connections as well as reinforcements to bring the new renewable power from the place of production to areas where it will be consumed.

This workshop will present new insights from the SET-Nav project on the impact of decentralised renewables on transmission grids. SET-Nav research will be discussed with policy-makers and industry representatives, with a chance for questions from the audience during the panel session.

The *SET-Nav* (www.set-nav.eu) project has the overarching goal of supporting strategic decision making in Europe's energy sector, enhancing innovation towards a clean, secure and efficient energy system, financed by the European Commission's EU Horizon 2020 programme.



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09:30 *Registration of participants*

Session 1: Introduction and keynote speech

10:00 Welcome by Eleanor Drabik, CEPS

10:05 Progress of the SET-Nav project by Gustav Resch, Senior Researcher, TU Wien

10:15 Keynote speech by Remy Denos, DG Energy, European Commission

Session 2: Decentralised vs. centralised development of the electricity sector – Impact on the transmission grid

This session will answer the key questions associated with development of the electricity sector and the impact on the transmission grid, including:

- What will be Europe's electricity infrastructure needs?
- What are the main impacts of renewable energy sources and demand response on the need for power and gas infrastructure, including energy storage?
- What are the main grid architectures that should be considered?
- What is the impact of innovative transmission technologies on optimal grid architectures?

On the panel will be experts from policy, academia and industry to discuss the policy brief on decentralised vs. centralised development of the electricity sector – Impact on the transmission grid. There will be the chance for a discussion and Q&A at the end.

10:30 Introduction by chair, Gustav Resch, TU Wien

10:35 Presenting the policy briefing: Sara Lumbreras, Comillas

10:50 Frank Sensfuß, Fraunhofer ISI

11:05 Robert Schroeder, Manager, System Development and RDIC teams, ENTSO-E

11:15 Emmanuel Brutin, Head of European Affairs, National Grid

11:25 Representative of Red Eléctrica (tbc)

11:35 Representative of ACER (tbc)

11:45 Comments provided by Remy Denos, DG Energy, European Commission

11:55 Panel discussion and Q&A

12:45 **End of the meeting followed by a light lunch**

SET-Nav at a glance

SET-Nav will support **strategic decision making** in Europe's energy sector, enhancing innovation towards a **clean, secure** and **efficient energy system**. Our research will enable the EC, national governments and regulators to facilitate the development of optimal technology portfolios by market actors. We will comprehensively address critical uncertainties and derive appropriate policy and market responses. Our findings will support the further development of the SET-Plan and its implementation by continuous stakeholder involvement.

These contributions of the SET-Nav project rest on three pillars:

The wide range of objectives and analytical challenges set out by the call for proposals can only be met by developing a broad and technically-advanced **modelling portfolio**. Advancing this portfolio and enabling knowledge exchange via a modelling forum is our first pillar.

The EU's energy, innovation and climate challenges define the direction of a future EU energy system, but

the specific **technology pathways** are policy sensitive and need careful comparative evaluation. This is our second pillar. Using our strengthened **modelling capabilities** in an integrated modelling hierarchy, we will analyse multiple dimensions of impact of future pathways: **sustainability, reliability** and **supply security, global competitiveness** and **efficiency**. This analysis will combine bottom-up 'case studies' linked to the full range of SET-Plan themes with holistic 'transformation pathways'.

Stakeholder dialogue and **dissemination** is the third pillar of SET-Nav. We have prepared for a lively stakeholder dialogue through a series of events on critical SET-Plan themes. The **active involvement** of stakeholders in a two-way feedback process will provide a reality check on our modelling assumptions and approaches, and ensure high policy relevance. Our aim is to ensure policy and market actors alike can navigate effectively through the diverse options available on energy innovation and system transformation.

SET-Nav partners

No	Participant name	Country code
1	Technische Universität Wien, Energy Economics Group (<i>TU Wien</i>)	AT
2	Fraunhofer-Institut für System- und Innovationsforschung (<i>Fraunhofer</i>)	DE
3	Deutsches Institut für Wirtschaftsforschung (<i>DIW Berlin</i>)	DE
4	Norges teknisk-naturvitenskapelige universitet i Trondheim (<i>NTNU</i>)	NO
5	Stiftelsen for industriell og teknisk forskning ved NTH (<i>Sintef</i>)	NO
6	Société Européenne d'ECONomie (<i>Seureco</i>)	FR
7	Universidad Pontificia Comillas (<i>Comillas</i>)	ES
8	National Technical University of Athens (<i>NTUA</i>)	GR
9	Regional Center for Energy Policy Research (<i>REKK</i>)	HU
10	Centre for European Policy Studies (<i>CEPS</i>)	BE
11	University of East Anglia (<i>UEA</i>)	UK
12	Eidgenössische Technische Hochschule Zürich (<i>ETH</i>)	CH
13	Axpo Services AG (<i>Axpo</i>)	CH
14	General Electric (<i>GE</i>)	CH
15	International Institute for Applied Systems Analysis (<i>IIASA</i>)	AT