

# AGENDA

## SET-Nav Modelling Workshop:

### Two-stage decision making and modelling for energy markets

Thursday, October 11, 2018

9:00 – 18:15

Venue: DIW Berlin  
Elinor Ostrom Hall (1<sup>st</sup> floor)  
[www.diw.de](http://www.diw.de)

8:30 - 9:00	<b>REGISTRATION</b>
9:00 – 9:10	<b>Welcome and introduction</b> Dawud Ansari ( <i>DIW Berlin / EADP</i> ) & Franziska Holz ( <i>DIW Berlin</i> )
9:10 – 9:15	<b>SET-Nav at a glance</b> Marijke Welisch ( <i>TU Wien / DIW Berlin</i> )
9:15– 11:00	<b>SESSION I: Multilevel equilibrium modelling – Basics and advances</b>
9:15 – 11:00	<b>An introduction to (multilevel) equilibrium modelling</b> Sauleh Siddiqui ( <i>Johns Hopkins University</i> )
11:00 – 11:20	<b>COFFEE BREAK</b>
11:20 – 13:20	<b>SESSION II: Applications for electricity</b>
11:20 – 12:00	<b>Modeling coordination between renewables and grid: Policies to mitigate distribution grid requirements using residential PV-battery systems</b> Paul Neetzow ( <i>Humboldt University Berlin</i> )
12:00 – 12:40	<b>Network Expansion to Mitigate Market Power</b> Alexander Zerrahn ( <i>DIW Berlin</i> )
12:40 – 13:20	<b>Least-cost distribution network tariff design in theory and practice</b> Tim Schittekatte ( <i>Florence School of Regulation / Paris-Sud University</i> )
13:20 – 14:00	<b>LUNCH BREAK</b>

14:00 – 16:00	<b>SESSION III: Applications for resources</b>
14:00 – 14:40	<b>Inconsistent policies in an MPEC framework</b> Olivier Massol ( <i>ifp School</i> )
14:40 – 15:20	<b>A new game theoretical approach for modeling export energy markets equilibria</b> Ibrahim Abada ( <i>Engie, Center of Expertise in Economic Modeling and Studies</i> )
15:20 – 16:00	<b>Multi-objective bi-level optimization problem for the investment in new gas infrastructures</b> Aurora del Valle Díez ( <i>Comillas Pontifical University</i> )
16:00 – 16:20	<b>COFFEE BREAK</b>
16:20 – 18:20	<b>SESSION IV: The broader frame</b>
16:20 – 16:55	<b>Bargaining power in networks: a cooperative game theory approach</b> Franz Hubert ( <i>Humboldt University Berlin</i> )
16:55 – 17:30	<b>Convex formulations for equilibrium &amp; bi-level problems</b> Ruud Egging ( <i>NTNU</i> )
17:30 – 18:15	<b>Panel discussion:</b> <b>Which road for applied modelling – scientific excellence or policy communication?</b> Moderation: Franziska Holz ( <i>DIW Berlin</i> ) Discussants: Rudolf Egging ( <i>NTNU</i> ) Oliver Massol ( <i>ifp School</i> ) Sauleh Siddiqui ( <i>Johns Hopkins University</i> ) Marijke Welisch ( <i>TU Wien / DIW Berlin</i> )
18:15	<b>END OF THE WORKSHOP</b>
From 18:30	<b>EVENING RECEPTION</b>



## 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	Vienna University of Technology, Energy Economics Group ( <i>TU Wien</i> )	AT
2	Fraunhofer-Institut für System- und Innovationsforschung ( <i>Fraunhofer ISI</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 SINTEF ( <i>SINTEF</i> )	NO
6	Société Européenne d'Économie ( <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	International Institute for Applied Systems Analysis ( <i>IIASA</i> )	AT
15	M-Five GmbH Mobility, Futures, Innovation, Economics ( <i>M-Five</i> )	DE