

Decarbonising our Energy System

Transformation pathways, policies and markets, with spotlight on Greece

16 November 2018

Venue: Electra Metropolis Hotel
Mitropoleos 15, 10557 Athens, Greece
Contact: chkara@unipi.gr; kpapap@epu.ntua.gr
For registration please click [here](#).

09:00 – 09:30	REGISTRATION
09:30 - 09:35	Welcome speech <i>John Psarras (Professor and Director of Decision Support Systems Lab, NTUA)</i>
09:35 - 09:40	SET-Nav project Introduction <i>Gustav Resch (SET-Nav Coordinator - TU Wien)</i>
09:40 - 09:45	TRANSrisk project Introduction <i>Alexandros Flamos (Associate Professor - TRANSrisk Dissemination Leader, TEESlab - UPRC)</i>
09:45 – 11:45	Session I: Energy demand and supply towards a low-carbon European Union Chair: Haris Doukas (Assistant Professor in Decision Support Systems Lab, NTUA)
09:45 - 10:05	Investments in the EU power system: A stress-test analysis on the effectiveness of decarbonisation policies- <i>Pedro Crespo del Granado (NTNU)</i>
10:05 - 10:25	Diffusion rate of renewable electricity generation - the optimal RES-electricity share (focus on 2030) - <i>Gustav Resch (TU Wien)</i>
10:25 - 10:45	Energy demand and supply in buildings and the role for RES market integration - (<i>Sebastian or Michael tbc, TU Wien</i>)
10:45 - 11:05	Switching from coal in Balkans: how current infrastructure developments affect the gas consumption - <i>Peter Kotek (REKK)</i>
11: 05 - 11:25	Discussion
11:25 – 11:45	COFFEE BREAK
11:45 – 12:25	SESSION II: Policies and Markets for decarbonisation – with spotlight on the Greek perspective Chair: Alexandros Flamos (Associate Professor - TRANSrisk Dissemination Leader, TEESlab - UPRC)
11:45 - 11:55	Fostering robust and inclusive climate policymaking: Innovative models and tools - <i>Haris Doukas (NTUA)</i>
11:55 -12:05	Current status and possible future development of the Greek solar market - <i>Alexandros Nikas (NTUA)</i>
12:05 - 12:15	Towards decentralized renewable energy generation and storage: Transition pathways for a low-carbon power system in Greece - <i>Alexandros Flamos (TEESlab – UPRC)</i>
12:15 - 12:25	Empowering consumers in Greece to produce and store clean energy at the local level: Implications and consequential risks - <i>Vassilis Stavrakas (TEESlab – UPRC)</i>
12:25 – 12:45	Discussion

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13:00 – 13:45	ROUNDTABLE DISCUSSION
13:00 – 13:45	<p>Moderators: <i>Haris Doukas (NTUA), Gustav Resch (TU Wien)</i></p> <p>Discussants: <i>Giorgos Stamtzis</i> <i>General Manager - Hellenic Association of Independent Power Producers</i></p> <p>Topic: Security of supply and decarbonisation: Prospects and challenges</p> <p><i>Konstantinos Xifaras</i> <i>Secretary General - Hellenic Committee of the World Energy Council</i></p> <p>Topic: Natural gas as an alternative for energy in the decarbonisation era</p> <p><i>Alice Corovessi</i> <i>COO/CFO- INZEB, Coordinator of the AEE Hellenic Chapter</i></p> <p>Topic: Formulating national policies for Building Renovation Passports. The case of iBRoad project</p>
13:45	END OF THE WORKSHOP
13:45- 15:00	LUNCH

ORGANISED BY:



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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'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	International Institute for Applied Systems Analysis (<i>IIASA</i>)	AT
15	M-Five GmbH Mobility, Futures, Innovation, Economics (<i>M-Five</i>)	DE

TRANSrisk at a glance

Both the *models* concerning the future *climate evolution* and its impacts, as well as the models assessing the *costs and benefits* associated with different *mitigation pathways* face a high degree of *uncertainty*. There is an urgent need to not only understand the costs and benefits associated with climate change but also the *risks, uncertainties and co-effects* related to different mitigation pathways as well as *public acceptance* (or lack of) of low-carbon (technology) options.

TRANSrisk therefore *creates a novel assessment framework* for analysing *costs* and *benefits* of transition pathways that will integrate well-established approaches to modelling the costs of *resilient, low-carbon pathways* with a wider interdisciplinary approach including risk assessments.

In addition TRANSrisk designs a *decision support tool* that should help policy makers to *better understand uncertainties and risks* and enable them to include risk assessments into more *robust policy design*.

TRANSrisk's work has spanned the *globe*, with 14 *country case studies* focusing on relevant

technologies in the context of each country's *national policy goals*.

Our work has included:

- *Developing techniques* to identify (and mitigate) risks, *uncertainties and opportunities* when scaling up climate solutions in low carbon transition pathways.
- Creating user friendly *desktop modelling tools* for exploring 'what if' scenarios.
- Understanding the *potential for a range of low carbon technologies*: from photovoltaics to geothermal energy.
- Exploring the *potential of energy efficiency and behaviour change* measures.
- Developing *novel research techniques* that coordinate the use of *stakeholder input* with *energy, economic and environment models*, allowing more robust modelling of climate policy scenarios and socially acceptable climate solutions.

Our results will help inform more *effective climate change policy*, which is directly relevant for implementation of the Paris Agreement.

TRANSrisk partners

No	Participant Name	Country Code
1	Science Technology Policy Research, University of Sussex (<i>SPRU</i>)	UK
2	Basque Centre for Climate Change (<i>BC3</i>)	ES
3	Cambridge Econometrics (<i>CE</i>)	UK
4	Energy Research Centre of the Netherlands (<i>ECN - TNO</i>)	NL
5	Swiss Federal Institute of Technology (<i>ETH Zürich</i>)	CH
6	Institute for Structural Research (<i>IBS</i>)	PL
7	Joint Implementation Network (<i>JIN</i>)	NL
8	National Technical University of Athens (<i>NTUA</i>)	GR
9	Stockholm Environment Institute (<i>SEI</i>)	SE, KE
10	University of Graz (<i>UniGraz</i>)	AT
11	Technoeconomics of Energy and Environmental Systems laboratory, University of Piraeus Research Centre (<i>TEESlab - UPRC</i>)	GR
12	Pontifical Catholic University of Chile (<i>CLAPESUC</i>)	CL