

Press release

How Global Climate Policy Can Learn from the Energy Transition

The Kopernikus projects present their research findings on the German Energiewende at the world's largest academic conference in Austin



ENavi Spokesperson Ortwin Renn (right) and ENavi Scientific Manager Stefan Stückrad (left) in front of the Berlin Efficiency House Plus of the Federal Environment Ministry.

Potsdam, 12 February 2018. Germany's Energiewende seeks to transform the country's largely fossil-based energy system into one based on renewable energy sources and approaching carbon neutrality. Researchers from the Kopernikus projects "Energy Transition Navigation System | ENavi" and "Synchronized and energy adaptive production technology for flexible alignment of industrial processes towards a fluctuating energy supply | SynErgie" will describe how such a broad societal transformation of the energy system can succeed at the world's largest academic conference, the annual meeting of the American Association for the Advancement of Science (AAAS) in Austin, Texas.

In three presentations, ENavi spokesperson Ortwin Renn, ENavi Deputy Scientific Manager Heiko Thomas – both from the Institute for Advanced Sustainability Studies (IASS) – and Stefan Seifermann, head of the SynErgie Coordination Office at the Technische Universität



GEFÖRDERT VOM

Bundesministerium
für Bildung
und Forschung



Darmstadt, will share their insights into the largest ever German research initiative on the energy transition, highlight lessons learned, and point to potential implications for the USA and global climate policy. In a subsequent commentary, Carlo Jaeger, IASS Fellow and Chairman of the Global Climate Forum in Berlin, will focus on the economic aspects of the energy transition.

“At first glance, technological changes and innovations may seem pertinent only to engineering and the natural sciences, but our experience, for example of resistance to the expansion of the energy grid, shows that research in this area needs to include sociological perspectives,” underlines Ortwin Renn, Scientific Director at the IASS. The Kopernikus project ENavi develops policy options for implementing the energy transition, which it represents as navigation routes that show both the desired effects and the undesired side effects of these options.

“When one looks at the current share of renewables in total energy consumption, it becomes clear that we’re only at the beginning of the energy transition. The currently available technologies with potential for expansion, i.e. wind turbines, photovoltaics, and solar thermal energy, only account for about 4.5 per cent of total energy consumption,” explains Heiko Thomas. To achieve the goals set out in the German government’s Climate Action Plan 2050, the industrial, transport, heating and electricity sectors must be linked up. Significant reductions in CO₂ emissions are possible if existing oil- and gas-fired heating systems are successively replaced with sustainable heating systems, for example of the kind that run on solar energy.

Examples from industry show how this could work in practice. “While measures like the adaptation and expansion of the power grid are often associated with high costs and low public acceptance, so-called demand-side management could make a cost-efficient and broadly accepted energy transition possible,” notes Stefan Seifermann. In demand-side management, industrial processes are flexibly adapted to and synchronised with an energy supply that fluctuates in accordance with the seasons and weather conditions.

The American Association for the Advancement of Science (AAAS) is the world’s largest scientific association and the publisher of highly regarded academic journals (including Science). At the annual meeting of the AAAS, around 10,000 leading scientists, educators, policymakers and journalists from 60 countries come together to discuss the latest developments in science and technology.



GEFÖRDERT VOM

Bundesministerium
für Bildung
und Forschung



The Federal Ministry of Education and Research (BMBF) is funding four Kopernikus Projects for the Energy Transition, which will give a decisive impetus to the transformation of the energy system. Three of these projects focus primarily on the technical aspects of storage systems (Power2X), new grid structures (Ensure), and the flexibilisation of industrial processes (SynErgie). The ENavi project is more concerned with system integration: It approaches the energy transition as a process of broad societal change and links scientific analyses to political and social requirements.

Further information is available at www.kopernikus-projekte.de

When:

Saturday, 17 February 2018, 10–11.30 a.m.

Where:

Austin Convention Center Texas, USA

What:

Three presentations followed by a discussion with the speakers and a guest commentator

The Transformation of the German Energy System

Heiko Thomas, *Institute for Advanced Sustainability Studies, Potsdam, Germany*

The Energy Transition as a Process of Social Transformation

Ortwin Renn, *Institute for Advanced Sustainability Studies, Potsdam, Germany*

Synchronising and Adapting Industrial Processes to a Fluctuating Energy Supply

Stefan Seifermann, *Technische Universität Darmstadt, Germany*

Guest commentator

Carlo Jaeger, *Global Climate Forum, Berlin, Germany*

Moderator

Stefan Stückrad, *Institute for Advanced Sustainability Studies, Potsdam, Germany*

The complete conference programme can be found [here](#):

<https://aaas.confex.com/aaas/2018/meetingapp.cgi/Session/17871>

GEFÖRDERT VOM



Bundesministerium
für Bildung
und Forschung



To arrange an interview or make further enquiries, please contact
Eva Söderman / Christina Camier
Press & Communications

Institute for Advanced Sustainability Studies e.V. (IASS)

Berliner Straße 130, 14467 Potsdam

Tel. +49 (0)331 288 22-340/477

Fax +49 (0)331 288 22-310

Email eva.soederman@iass-potsdam.de / christina.camier@iass-potsdam.de

www.iass-potsdam.de

The IASS conducts research with the goal of identifying, advancing, and guiding processes of social change towards sustainable development in Germany and abroad. Its research practice is transdisciplinary, transformative, and co-creative. The IASS cooperates with partners in academia, policymaking, civil society, and the business community to understand sustainability challenges and generate potential solutions. A strong network of national and international partners supports the work of the Institute. Among its central research topics are the energy transition, emerging technologies, climate change, air quality, systemic risks, governance and participation, and cultures of transformation. The institute is funded by the research ministries of the Federal Government of Germany and the State of Brandenburg.

If you no longer wish to receive IASS press briefings, please send an e-mail with the subject line "**unsubscribe**" to media@iass-potsdam.de.