

Workshop: **Creating an Early-Warning System to Track Progress on Sustainable Energy**

Organizers: Fraunhofer, IIASA, PNNL, UNECE

Target group: Open to all participants; “Pathways to Sustainable Energy” Project community

UNECE together with IIASA, Fraunhofer, PNNL is implementing the “Pathways to Sustainable Energy” Project. The project seeks to provide answers on how countries can attain sustainable energy. It combines modelling of energy scenarios with policy dialogue, technology research and the development of an early-warning system.¹

The early warning system in the context of the Pathways project aims to track implementation of energy related targets of international climate and sustainable development agreements, notably the 2030 Agenda and the Paris Agreement. Sustainable Energy has been defined in the context of the project with the three pillars “energy security”, “energy and environment”, and “energy for quality of life”.² Long-term performance goals to be achieved in 2050 play an important role in conceptualizing the early-warning system, together with signposts that highlight specific indicators along the path toward the 2050 goals.

In this session, the project team under the lead of Fraunhofer will present preliminary results on the framing of the early-warning system, its purpose and components. The discussion will include the link to the scenario modelling and how both tools combined can help to derive adaptive policy pathways to achieve sustainable energy. Participants are invited to share their views and provide feedback to the selection of signposts and the definition of target ranges.

Guiding questions:

- *What is an early-warning system in the context of the Pathways project, and how can it be useful for countries?*
- *Which components are required to develop an early-warning system to track sustainable energy?*
- *Which signposts are most important? How to quantify signposts?*
- *How to implement an early-warning system concept nationally? What are related data needs and institutional capacities? Which signposts are useful / can be measured?*
- *How can signposts be put in relation with the formulation of adaptive policy pathways?*

Time	Content	Resource person
16.00-16.05	Welcome / Introduction	Moderator: UNECE
16.05-16.20	Presentation: Conceptualizing the Early-Warning System in the context of the Pathways to Sustainable Energy project	Nils Kemen, Fraunhofer Institute for Environmental, Safety, and Energy Technology (UMSICHT) Sascha Lehmann, Competence Center Energiepolitik und Energiemärkte, Fraunhofer Institut für System- und Innovationsforschung (ISI)
16.20-17.00	Group Work: Possible Indicators for the Early-Warning System in the Pathways Project - Signposts to track sustainable energy pathways - Linkage to modeling and scenario development - Application and usability of the system	All participants
17.00-17.25	Presentation of group work Discussion	Group leads All participants
17.25-17.30	Wrap-Up / Conclusion	UNECE Fraunhofer

¹ See more details about the project approach here: <https://www.unece.org/energy/pathwaystose.html>

² See more details about the metrics used to define sustainable energy here: https://www.unece.org/fileadmin/DAM/energy/se/pdfs/Pathways_to_SE/ECE_ENERGY_2018_1_Pathways_-_FINAL.pdf