

Workshop: Modernising Infrastructure - Transition of the Energy Sector

Organizers: United Nations Economic Commission for Europe (UNECE), ENavi Kopernikus Projekt, IPIECA

Target group: Coal Community, Oil and Gas Community, Energy Efficiency Community, Renewable Energy Community, Financial Institutions, Policy-Makers, Industrial Sites Operators

The panel will discuss transition of the energy sector from a fossil fuels intensive industry to a cleaner and efficient system, giving a particular focus to modernization of the energy infrastructure.

The panel is a part of the UNECE effort to launch a project the objective of which is to explore a great potential that lies in transformation of large industrial complexes. Many of these complexes were constructed prior to the emergence of carbon-constrained economies and are now, to a greater or lesser extent, relics of economies that no longer exist. Nearby population centers provide the workforce for such complexes and thus, on the one hand, benefit from the employment opportunities, and on the other hand, unavoidably render themselves vulnerable to secondary impacts on the local economy and expose their communities to a degraded local environment.

Modernization of energy sector cannot be avoided, particularly in light of the states' voluntarily made environmental pledges, nor can it be further delayed as the energy infrastructure in many cases is at the very end of its life-cycle. Consequently, since modernization is necessary and inevitable, it is in the state's best interest to undertake it in the most cost-efficient manner. The more profound the transition towards low-carbon energy and green economy that is undertaken by a member State, the more competitive the state's economy will become. In the long run a cleaner modern energy economy is more cost-effective, for it impacts not only on the efficiency of the production itself, but also on a wide number of other intertwined issues, which constitute indirect costs to the state, such as energy security, social costs, healthcare costs, reputational cost, etc.

In the initial stage, the project will seek to develop a plan for greening the selected State's economy through modernisation of its fossil fuel based industrial sites by reorienting them towards modern technologies and more efficient use of available resources. In the subsequent stage, the project, on the basis of lessons learnt throughout the initial phase, will develop a robust and flexible business model for efficient industrial site's transition, replicable in other industrial sites in like countries or regions.

Consequently, the panel will also discuss the financial aspect of the issue in question, trying to determine the options available for securing the means necessary for undergoing a profound transition of the energy sector.

Finally, the panelists will look at Germany as a case study of a country with, on the one hand, extensive experience, and on the other hand, persisting challenges in the field in question.

Guiding themes and questions:

- *Energy transition: what is the reality, challenges, and opportunities that lie in the structural change to the markets and infrastructure?*
- *Modernization of the energy infrastructure—what are the central issues that we must confront and how much do these vary from region to region? Will the variation prohibit the development of flexible and robust business models?*
- *Costs and benefits: environmental, social, and economic aspects of the unavoidable transformation. What are the arguments that we can use to urge an earlier transition and modernization? What are the most successful incentives/motivators.*
- *Review and discussion of the existing projects and initiatives addressing the issue. Where are there useful examples of successful transformations that have taken place. Perhaps there are some projects that serve as models for one component of the process of transformation that would be useful to understand.*
- *How can the large legacy industry complexes, including those generating energy from fossil fuels, which are at the core of many urban localities and agglomerations in industrial regions around the world, be modernized and adapted to the requirements of the green economy in symbiosis with a sustainable, socially-responsible, and environmentally-friendly development of the surrounding urban areas.*

Time	Content	Speaker
9.00-9.05	Welcome / Introduction	Moderator: Mr. Raymond Pilcher , Chair, UNECE Group of Experts on Coal Mine Methane
9.05-10.10	<p>Panel Discussion:</p> <ul style="list-style-type: none"> • Costs and benefits of the transition <ul style="list-style-type: none"> ○ Technological aspect of the transformation <ul style="list-style-type: none"> ▪ Structural change of the energy infrastructure ▪ Clean fossil fuels technologies – availability and applicability ▪ Integration of the “green” and the fossil-based energy ○ Environmental aspect of the transformation <ul style="list-style-type: none"> ▪ Short- and long-term benefits to the environment of the deep transformation on a local and national level. ○ Social aspect of the transformation <ul style="list-style-type: none"> ▪ Transformation – a problem, or an opportunity for the local community ▪ Self-initiative and a local ownership of the undergoing change ○ Economic aspect of the transformation <ul style="list-style-type: none"> ▪ Available avenues of financing ▪ Potential for developing a flexible and robust business models ▪ • Case study: Germany <ul style="list-style-type: none"> ○ Status of the energy transition in the country <ul style="list-style-type: none"> ▪ Objectives ▪ Implemented policies ▪ Results ○ Climate policy <ul style="list-style-type: none"> ▪ GHG emission reduction: the goals and the reality 	<p>Panelists:</p> <p>Mr. Mykhailo Bno-Airiian, Deputy Chief Executive Officer, Ukrenergo</p> <p>Mr. Phil Grainger, Manager, Climate Change, IPIECA</p> <p>Ms. Stefanie Held, Project Manager, Pathways to Sustainable Energy Project, UNECE</p> <p>Mr. Stephan Singer, Senior Advisor, Global Energy Policies, Climate Action Network International</p> <p>Mr. Stefan Stückrad, Scientific Managing Director, Kopernikus ENavi Coordination Office</p> <p>Mr. Heiko Thomas, Research Associate, Institute for Advanced Sustainability Studies, Potsdam</p>
10.10-10.25	Q&A with audience	All participants
10.25-10.30	Wrap-Up / Conclusion	Mr. Ray Pilcher , Chair, UNECE Group of Experts on Coal Mine Methane