



# Improving the Efficiency of the Energy System



1 March 2018, 15:00-16.30

Lead organizers: UNECE

Room 18

International Conference Centre Geneva (CICG)

## Objective

To exchange experience among countries of the UNECE region on ways to improve energy efficiency, with particular focus on energy efficiency in industry, energy performance of buildings and accelerating investments in energy efficiency.

The roundtable discussion aims to:

- ✓ Provide a mutual learning space where policymakers can interact with their peers and other relevant stakeholders in order to exchange experiences, propose solutions to address identified problems and anticipate future developments; and
- ✓ Identify main lessons and compile a set of key action areas and good practices that can be shared with a wider audience.

## Core questions

- (a) What specific barriers do you face to improving energy efficiency in your country, and what is your approach to overcoming them?
- (b) What approaches have been effective in accelerating investments in energy efficiency?
- (c) What is being done to improve energy efficiency in industry?
- (d) What steps are countries taking to improve energy performance of buildings?

## Case studies

Experiences in improving energy efficiency in the UNECE Region in:

- ✓ Germany - *Applying industrial waste heat to supply new city district in Hamburg*
- ✓ Serbia - *Establishment and operation of the Budgetary Fund for Energy Efficiency*
- ✓ The former Yugoslav Republic of Macedonia - *Raising awareness for energy consumption through a marketing campaign "Energy Mathematics"*
- ✓ Ukraine - *Improving Energy Efficiency – Launch of the State Program on Energy Efficiency*

## Target audience

This roundtable will be of interest to policymakers and other stakeholders involved in transition to sustainable energy, energy efficiency, renewable energy, buildings sector, industry sector, climate change mitigation, innovations, and in building the green economy of the future.

## Format

This roundtable offers a unique peer learning opportunity. While short introductions to selected case studies will be used to provide examples of how countries have addressed specific problems, all participants are expected to contribute to the discussion by sharing their own experiences, reflecting on challenges and suggesting possible solutions. More information on these and other case studies is available at:

<http://www.unece.org/index.php?id=44145> and <http://www.unece.org/index.php?id=47415>

- Moderator: Mr. Scott Foster, Director of UNECE Sustainable Energy Division
- Rapporteur: Ms. Antonela Solujic, Vice-Chair, Group of Experts on Energy Efficiency

### Key participants:

- ✓ Mr. Mikhail Malashanka, Vice Chairman of the Committee, Director of the Department, Department for Energy Efficiency of the State Committee for Standardization of the Republic of Belarus
- ✓ Mr. Ulrich Benterbusch, Deputy Director General, Heat and Efficiency in Industry and Households, Federal Ministry for Economic Affairs and Energy, Germany
- ✓ Ms. Margalita Arabidze, Head of Energy Efficiency and Alternative Energy Division, Ministry of Economy and Sustainable Development, Georgia, Vice-Chair, Group of Experts on Renewable Energy
- ✓ Ms. Antonela Solujic, Head of the Department for Energy Efficiency, Ministry of Mining and Energy, Serbia, Vice-Chair, Group of Experts on Energy Efficiency
- ✓ Mr. Kostiantyn Gura, Acting Director, State Company Subdivision “Green Investment Development Center”, State Agency on Energy Efficiency and Energy Saving of Ukraine
- ✓ Mr. Aleksandar Dukovski, Senior Energy Expert, the former Yugoslav Republic of Macedonia, Chair, Group of Experts on Energy Efficiency
- ✓ Mr. Martin K. Patel, University of Geneva, Switzerland, Vice-Chair, Group of Experts on Energy Efficiency
- ✓ Mr. Hannes Mac Nulty, Independent Expert, France, Vice-Chair, Group of Experts on Energy Efficiency

### Resource person:

- ✓ Mr. Jaroslaw Ponder, Head, International Telecommunication Union (ITU) Office for Europe

## Background

Energy efficiency is widely viewed as one of the most effective ways to achieve multiple economic, social and environmental benefits and therefore making significant progress towards the Sustainable Development Goals (SDGs). It is also recognized that significant progress is being made in energy efficiency. The UNECE region reduced its energy intensity from 2012-14 at an average rate of 2.0% per year, just below the global rate. Improving conversion efficiencies in fossil fuel power generation reduces inputs and emissions required to produce the same electrical output. In the UNECE region, average fossil fuel power plant efficiency improved from 36% in 1990 to 41% in 2014. Increasing amount of investments in energy efficiency is necessary to reach a Sustainable Energy for All (SEforALL) objective of 2.6 percent annual improvement rate of energy efficiency. These investments are increasing globally and have reached over USD 220 billion in 2015, constituting 12 percent of total energy investments. However, they are not happening on the scale necessary to achieve a breakthrough in energy efficiency improvement.

Most countries in the region have developed National Energy Efficiency Action Plans but show limited progress in their implementation. Improving building energy performance is slow, though there has been solid appliance efficiency progress in North America and the European Union. A largely untapped potential for industry energy productivity improvement exists across the region. Low priority of energy efficiency, as it is not part of the core business, is one of the main barriers faced by a company when considering investment in industrial energy efficiency. The other two significant barriers are lack or high cost of capital and absence of government incentives.

Significant potential for improving energy efficiency exists in the UNECE region, but attempts to improve energy efficiency often fall short because of flawed national policy frameworks: policies that artificially lower energy prices encourage wasteful consumption; production and consumption subsidies distort markets; housing stocks are poorly managed; land use management is inefficient; new participants face barriers to entry; there are inadequate norms and standards; and the statistics and information to manage energy use and track progress are incomplete. In addition, there is often a lack of public awareness and education about the long-term economic and social benefits of actions to improve energy efficiency and industrial productivity.

**RELEVANT PUBLICATIONS:**

Experience in the Europe & CIS Region with Clean Energy: UNDP, GEF and UNECE, <http://www.unece.org/index.php?id=44145>

Global Tracking Framework: UNECE Progress in Sustainable Energy, UNECE Energy Series No. 49, <http://www.unece.org/energywelcome/publications.html>

Best Policy Practices for Promoting Energy Efficiency - Second Edition, UNECE Energy Series No. 53, <http://www.unece.org/index.php?id=47415>

Overcoming Barriers to Investing in Energy Efficiency, UNECE Energy Series No. 56, <http://www.unece.org/index.php?id=47698>

**Linkages with other SDGs**

The discussions in this round table concerning affordable and clean energy (SDG7) are also relevant for the achievement of many other SDGs, in particular: poverty (SDG1), hunger (SDG2), good health and well-being (SDG3), resilient and sustainable cities (SDG11), responsible consumption and production (SDG12), and climate action (SDG13).