



ENERGY



UN Sustainable Development Goal No. 7: Does coal have a role in providing affordable and clean energy?

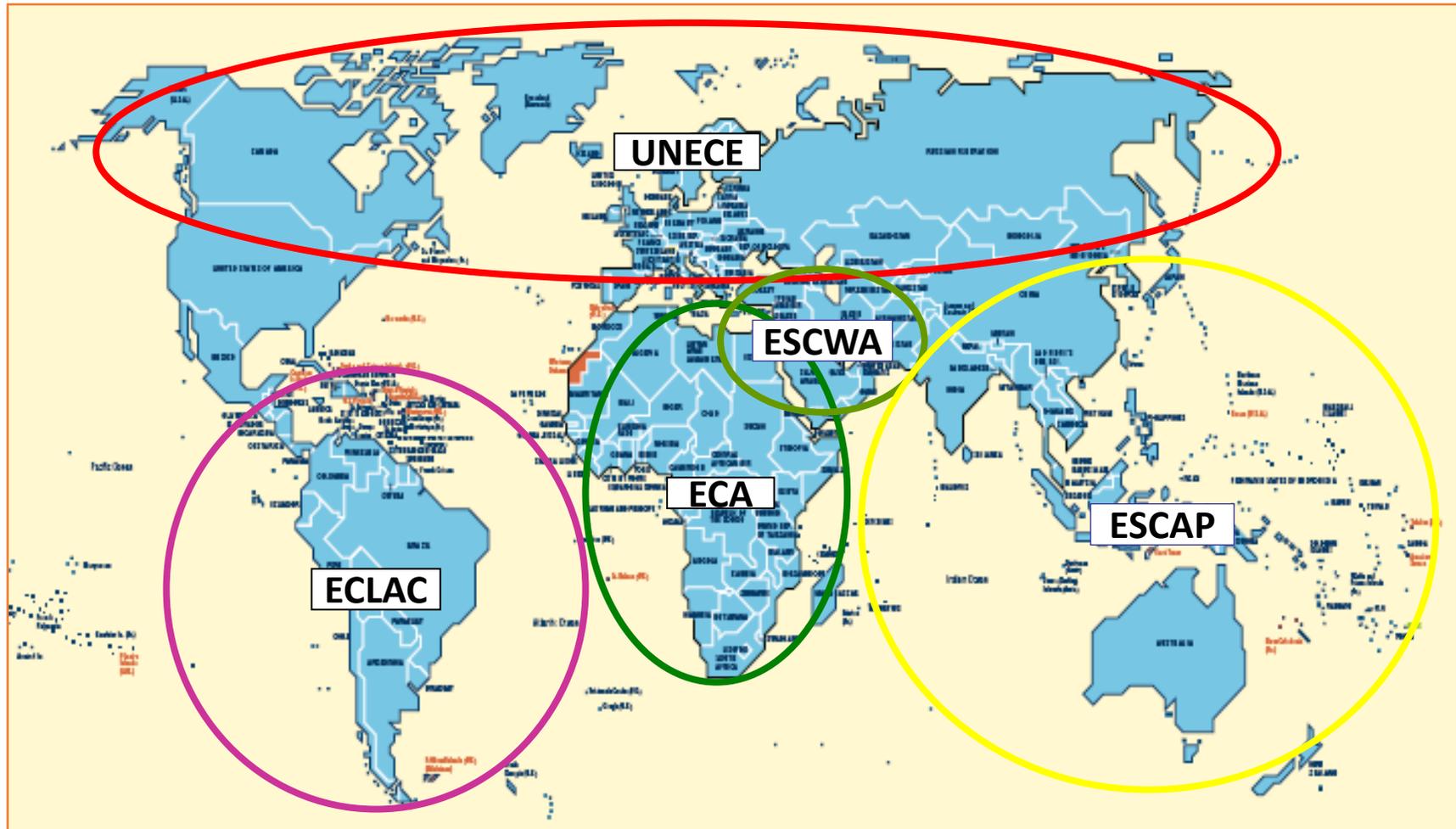


UNECE Perspective

European Energy Forum

9 July 2018, Brussels, Belgium

Michal Drabik, UNECE Secretariat





- Set up in 1947 by ECOSOC
- Brings together 56 countries located in the European Union; non-EU Western, Eastern, and South-East Europe; Commonwealth of Independent States (CIS) and North America
- However, all interested United Nations member States may participate in the work of UNECE
- In addition, over 70 international professional organizations and other non-governmental organizations take part in UNECE activities



- Produce 40% of the world's energy, consume 45%.
- Home to important energy industries.
- Produce nearly 50% of the global economic output.
- Dominant in the world's financial infrastructure.
- Fossil fuels are 60% of primary fuel in the UNECE region.
- UNECE region accounts for half of global emissions.
- The region is diverse: comprised of high and low income countries, countries that are energy rich and energy poor and countries that are in economic transition.

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- Its major aim is to promote pan-European economic integration
- It provides a platform for dialogue on economic and sectoral issues
- It facilitates greater economic integration and cooperation among its member countries and promotes sustainable development and economic prosperity through:
 - policy dialogue
 - negotiation of international legal instruments
 - development of regulations and norms
 - exchange and application of best practices as well as economic and technical expertise
 - technical cooperation for countries with economies in transition



Committee on Sustainable Energy

- Develops normative instruments (best practices, standards) that facilitate cooperation and enable needed investments.
- Provides countries with a platform for a dialogue.
- Leads and oversees SED's work on implementation of the UN Sustainable Development Goals.



Committee on Sustainable Energy

- Has six subsidiary bodies (Groups of Experts on):
 - Energy Efficiency
 - Renewable Energy
 - Resource Classification
 - Cleaner Electricity Production from Fossil Fuels
 - Natural Gas
 - Coal Mine Methane

Sustainable Development Goals (1)

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➤ 17 SDGs, agreed by UN GA in 2015, are the **principal framework** for the **UNECE's work** in sustainable energy.



- SDG 7 is about providing sustainable energy to the world.
- All 17 goals, depend on energy.
- UNECE focuses on ‘energy for sustainable development’ because energy is a golden thread that underpins all SDGs.

Sustainable Development Goal No. 7 (1)

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➤ Targets:

- (7.1) By 2030, ensure universal **access** to affordable, reliable and modern energy services
- (7.2) By 2030, increase substantially the **share of renewable energy** in the global energy mix
- (7.3) By 2030, double the global rate of improvement in **energy efficiency**

Sustainable Development Goal No. 7 (2)

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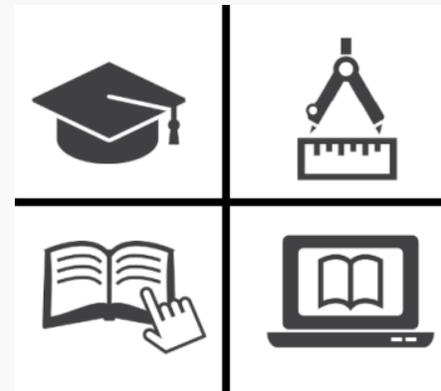


➤ Targets:

- (7A) By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and **advanced and cleaner fossil-fuel technology**, and promote investment in energy infrastructure and clean energy technology



- Discourse on energy and climate change is usually based on emotions rather than the truth.
- There is a need for open and honest discussion on energy that is based on facts.





- Fossil fuels today: 80% of primary energy and key to energy access.
- In 2050, even under a 2 degree scenario, fossil energy will represent 40% of the energy mix.
- We are headed for a 4 degree climate change scenario.
- SDG7: is not about “clean energy”, but about “**sustainable, reliable, modern, accessible, and affordable**” energy.
- There are 17 SDGs, not just SDG13.
- Without fossil fuels, SDGs will not be achieved.





- **Certain options** for improving the performance of the energy system are **arbitrarily excluded**.
- We don't have the luxury to reject any solution.
- Low emissions are better than high ones.
- Access to **financing for R&D is necessary** in both: renewable energy and clean fossil fuels technologies.
- Reduction of the carbon footprint of the coal industry does not need to happen by its closure.
- There are: **HELE technologies, CCUS, CMM**.

Group of Experts on Cleaner Electricity Production

Principles for Financing Clean Fossil Fuel Projects

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- UNECE Group of Experts on CEP drafted *Principles for Financing Clean Fossil Fuel Projects in the Context of the 2030 Agenda for Sustainable Development*.
 - Conditions:
 - If deployment of HELE technology with CCUS **replaces investments** that would otherwise take place **in non-HELE fossil or biomass technology**;
 - If development of new carbon-neutral fossil technology is conceived as **a way of accelerating the uptake of low- or no-carbon technology**;
 - If investment in HELE technology with CCUS **enhances total energy system efficiency in a carbon neutral way** and provides needed **access** to modern and sustainable energy services to support quality of life;
 - If deployment of HELE technology with CCUS is pursued **in parallel with a full value chain emissions programme** that yields net negative GHG emissions (e.g., management of methane emissions from coal resources or reducing natural gas venting or flaring); and
 - If advancing HELE technology **contributes to further development of net carbon neutral or carbon negative solutions** (e.g. CCUS).



- Capture and use of CMM is among the most effective near-term options to minimize the carbon footprint of the mining sector.
- It mitigates climate change, but also:
 - enhances **mine safety** and productivity;
 - **localizes** energy production;
 - improves local/regional **air quality**;
 - serves as a catalyst for **investment**.

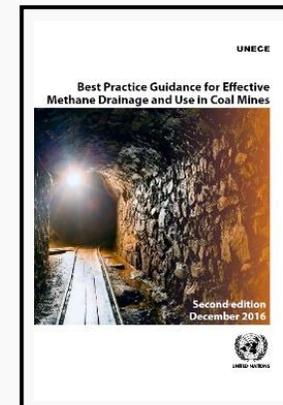
Group of Experts on Coal Mine Methane

Best Practice Guidance

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- *Best Practice Guidance for Effective Methane Drainage and Use in Coal Mines*
 - First edition: 2010;
 - Second Edition: 2016.
- In 2011, ECOSOC invited UN Member States, International Organizations, and the Regional Commissions to take measures to ensure the application of BPG in countries **worldwide**.



Group of Experts on Coal Mine Methane

Best Practice Guidance

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- The document presents recommended principles on CMM capture and use in a clear and succinct way, providing decision-makers with a **base** of understanding from which **to direct policy and commercial decisions**.
- It does **not replace** or supersede **laws** and regulations.
- The guidance is **principle based** and can be adapted to varying mining conditions.
- Provides industry with a **standard set of recommended principles and best practices** for methane recovery and utilisation.
- Intended audience: mine operators, regulators, government officials and technical professionals.

Group of Experts on Coal Mine Methane

International Centres of Excellence on CMM

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- Operate **under the auspices of UNECE** and in partnership with local specialized entities;
- Members and their institutions and companies are **repositories of knowledge**;
- **Promote best practices** developed by the Group;
- **Facilitate international communication and cooperation** in the field of CMM;
- **Identify** emerging **good practices**.



ICE-CMM
卓越瓦斯



Group of Experts on Coal Mine Methane

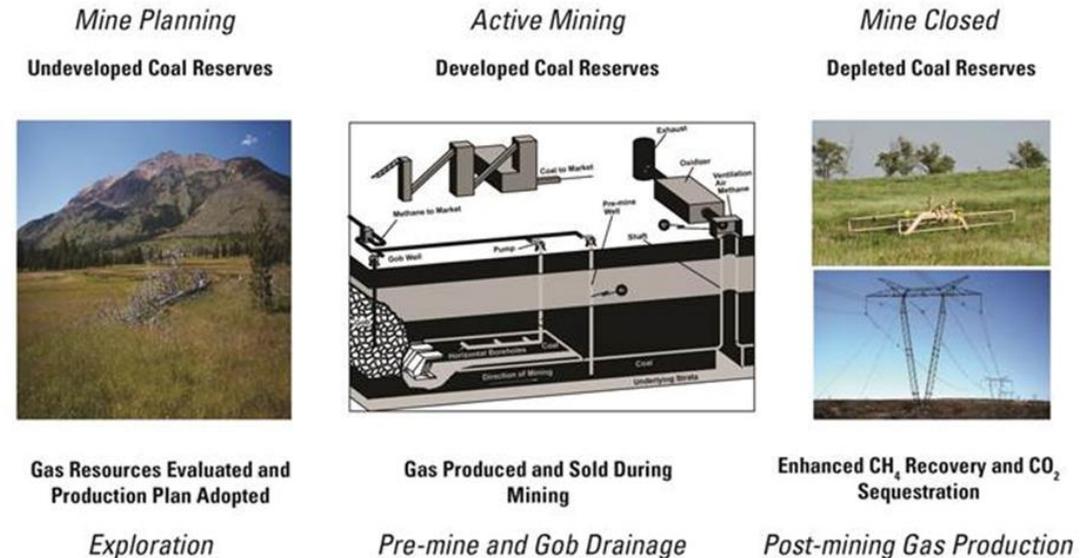
Broad Approach

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- Coal does not serve only as a fuel for energy production
- Problem of emissions persists throughout the **whole coal-mining life cycle**.

Coal Mining Life Cycle



Gas Production Life Cycle

Group of Experts on Coal Mine Methane

Abandoned Mine Methane (AMM)

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- There is huge **potential for GHG reduction** in proper AMM management.
- In many countries problem of mine closure is **gradually more challenging**.
- Methane emissions increase for a short period immediately after mine closure and then decrease and **persist on a relatively stable level for many years**.
- **Proper mine closure is necessary** for efficient use of AMM.
- The GoE on CMM works on the document identifying best practices for effective AMM capture and use.

Committee on Sustainable Energy

Project on Transition of the Energy Sector (1)

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- **Joint project** of all Groups of Experts operating under the umbrella of the UNECE Committee on Sustainable Energy.
- A **tool for** assisting UNECE member States in delivering on **effective transition to low-carbon energy** and green economy.
- Centered on **“legacy” industrial regions** and complexes in many parts of the world.
- In conversations with **government and private sector**.



Committee on Sustainable Energy

Project on Transition of the Energy Sector (2)



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- Modernization **cannot be avoided** or delayed.
- It is **in states' best interest** to undertake the process in the most efficient and cost-effective manner.
- Objective to explore a great potential that lies in **transformation of large industrial complexes**.
- **The initial stage**: a plan for modernization of fossil fuel based industrial sites by **reorienting them towards modern technologies and more efficient use of available resources**.
- **The subsequent stage**: a robust and flexible business model for efficient industrial site's transition, **replicable** in other industrial sites in like countries or regions.



Does coal have a role in providing affordable and clean energy?

➤ Yes

▪ Under certain conditions:

- Necessity of a **broad approach** (not only as a fuel; full coal mining life cycle).
- As a fuel - in a **short- and mid-term perspective** of a transition period towards renewables.
- Only **clean coal technologies**.
- Only in parallel with a **full value chain** emissions programme.

➤ Rational approach is necessary.

➤ UNECE is the **only UN body** that talks openly about fossil fuels.



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Committee on Sustainable Energy

- 27th Session: 26-27 September 2018, Geneva, Switzerland

Group of Experts on Coal Mine Methane

- 13th Annual session: 24-25 September 2018, Geneva, Switzerland

Group of Experts on Cleaner Electricity Production

- 14th Annual session: 28 September 2018, Geneva, Switzerland

International forum on Energy for Sustainable Development

- 9th Forum: 12-15 November 2018, Kiev, Ukraine



Thank you!

Sustainable Energy Division

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9 July 2018, Brussels, Belgium