Shaping the green energy transition: Carbon neutrality roadmap for Turkmenistan

Ashgabat, 25 October 2023
UNECE work on natural gas

**Group of Experts on Gas:** a forum for dialogue on sustainable and clean production & consumption of gas in the ECE region

Focus on **SDG 7** (Access to energy for all) – deep dives into **SDG 13** (Climate), **SDG 9** (Resilient infrastructure), **SDG 11** (Cities), **SDG 5** (Gender)

- **Carbon capture and storage**
- **System resilience**
- **Security of supply**
- **Hydrogen**
- **Gas & SDGs**
- **Methane management**
- **Synergies with RE**

- HTF: classification, value chain development, synergies

Global Methane Forum in March 2024

How gas can accelerate deployment of RE

... and the role of natural gas in it
3 corner stones of carbon neutrality in Turkmenistan

- **Methane abatement** – Global Methane Forum to be held in March 2024
- **Synergies** between RE and natural gas (and other gases – e.g., hydrogen)
- **New technologies** including CCUS, gas to liquids, power to X
Methane abatement

- UNECE’s Best Practice Guidance for Effective Methane Management in the Oil and Gas Sector - A guidance for developing and implementing effective practices for monitoring, reporting and verifying methane emissions from the oil & gas sector

- UNECE welcomes June 2023 decision by President Berdimuhamedov to approve the “Roadmap for the Development of International Cooperation for 2023-2024”

- We encourage Turkmenistan's accession to the Global Methane Pledge and stand ready to work with relevant ministries and departments to ensure the implementation

- The Global Methane Forum to be held the week of 18-22 March 2024 – Turkmenistan is invited
Synergies between gas and RE

• **Carbon neutrality through synergies between gas and renewable energy**
  - A UNECE publication, with 4 case studies (Italy, Germany, Spain, and the US) of how natural gas could accelerate deployment of variable RE

• Synergies could improve EE and reliability and decrease GHG emissions

• Cooperation in this field could benefit Caspian countries, through SPECA and other mechanisms
New technologies

Carbon capture, storage and use (CCUS)
- Today over 80% of primary energy comes from fossil fuels.
- Achieving carbon neutrality will require a rapid deployment of CCS.
- Gas infrastructure, including UGS, the use of depleted gas fields may accelerate the development of technologies.

Power to X
- Using RE (PV & wind) create something else.
- New energy carrier – usually hydrogen, but could be liquids.

Gas to Liquids
- Converts methane to liquid transportation fuels via FT – a difficult proposition from UN perspective.
- No ready answers - need to find a way to do it more sustainably.
Thank you for your attention