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Committee on Sustainable Energy

Group of Experts on Gas

Eleventh session

Geneva, 20-21 March 2024

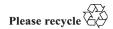
Report of the Group of Experts on Gas

I. Introduction

- 1. The eleventh session of the Group of Experts was held on 20-21 March 2024.
- 2. This report summarizes the discussions of the Group of Experts at its eleventh session. All the documents and presentations of the session are available on the United Nations Economic Commission for Europe (ECE) website.¹

II. Attendance

- 3. More than 72 experts registered, from the following United Nations Economic Commission for Europe (ECE) member States: Austria, Azerbaijan, Belarus, Belgium, Canada, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Israel, Italy, Kazakhstan, Kyrgyzstan, Latvia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Russian Federation, Serbia, Spain, Sweden, Switzerland, Türkiye, Turkmenistan, Ukraine, United Kingdom, the United States of America, and Uzbekistan. The European Union was represented.
- 4. Experts from Brazil, China, Colombia, India, Mexico, and Saudi Arabia participated under Article 11 of the Commission's Terms of Reference.
- 5. Representatives of the following organizations participated: Energy Community Secretariat, Environment and Climate Change Canada, European Commission, Gas Exporting Countries Forum (GECF), Global Methane Initiative (GMI), Hydrogen Council, Hydrogen Europe, International Gas Union (IGU), the National Aeronautics and Space Administration (NASA), Organization of Arab Petroleum Exporting Countries (OAPEC), and the United Nations Environment Programme (UNEP).
- 6. Representatives of non-governmental organizations, academia, and the private sector, as well as independent experts, attended the meeting.



¹ https://unece.org/sustainable-energy/events/global-methane-forum-2024

III. Adoption of the agenda (agenda item 1)

7. The Group of Experts adopted the agenda as circulated previously (ECE/ENERGY/GE.8/2024/1).

IV. Global Methane Forum 2024 (agenda item 2)

- 8. The Group of Experts expressed its gratitude to the United States Environmental Protection Agency, the Global Methane Initiative, the Climate and Clean Air Coalition, and other partners for convening the Global Methane Forum 2024 (GMF), and to all GMF international participants for advancing action to achieve ambitious methane mitigation targets.
- 9. The Group of Experts took note of the key GMF 2024 outcomes that promote replicable methane mitigation successes, as follows:
- (a) Methane is a potent greenhouse gas, and thus its emissions contribute to climate change;
- (b) According to the International Energy Agency (IEA), regardless of the price of natural gas, cutting methane emissions from oil and gas facilities remains one of the cheapest and most effective ways to limit global warming, and represents the lowest hanging fruit in global efforts to achieve climate goals²;
- (c) Achieving a sustainable and decarbonized energy system requires a reduction of methane emissions throughout the gas value chain. The IEA estimates³ that these emissions could be reduced with existing technologies and calls upon all actors to apply these technologies as quickly and consistently as possible;
- (d) To make sure the gas sector advances on the path toward achieving global climate and sustainability goals, the Group of Experts considered:
 - (i) The deployment of methane monitoring, verification, and mitigation technologies, such as leak detection and repair (LDAR);
 - (ii) The reconciliation of top-down (satellite) and bottom-up emissions data;
 - (iii) The refinement of methane emissions inventories for enhanced mitigation prioritization;
 - (iv) The role of voluntary and regulatory efforts to drive emissions reductions.
- 10. The Group of Experts acknowledged that the gas industry is actively addressing methane emissions reductions in the energy sector and expressed its gratitude to the gas industry for making efforts to tackle methane emissions through its participation in different initiatives, and the new Oil and Gas Decarbonization Charter announced at COP28. The Group of Experts further acknowledged the economic, safety, and environmental benefits of methane reductions and recommended that industry continue to reduce emissions by adopting existing mitigation technologies and investing in innovative approaches.
- 11. The Group of Experts was informed about the recently approved EU Regulation on methane emissions reduction in the energy sector, which might impact European and non-European companies and suppliers accessing the European Union. The Group of Experts will monitor potential needs and opportunities to further align interests, also incorporating technological innovation.

https://www.iea.org/news/urgent-action-to-cut-methane-emissions-from-fossil-fuel-operations-essential-to-achieve-global-climate-targets

³ https://www.iea.org/commentaries/reaching-net-zero-emissions-demands-faster-innovation-but-weve-already-come-a-long-way

V. Opening remarks (agenda item 3)

- 12. Welcoming participants to the session, the Chair noted that the 11th session would focus on three activities of the Group's biannual work plan: methane abatement, system resilience and security of supply, and the hydrogen economy.
- 13. The Chair thanked the United States Environmental Protection Agency, the Global Methane Initiative, the Global Methane Hub, the Climate and Clean Air Coalition, and other partners for convening the Global Methane Forum 2024 (GMF), and to all GMF international participants for advancing action to achieve ambitious methane mitigation targets towards meeting the Global Methane Pledge. The Chair invited the Group of Experts to endorse key GMF outcomes that promote replicable methane mitigation practices.
- 14. The Chair stressed that the Group of Experts is committed to the Committee's work on building the Platform on Resilient Energy Systems, in which natural gas would continue fulfilling a critical role. In this sense, the Chair noted that the possibility of interruptions in gas supply to Europe remains real. The Group of Experts needs to explore potential consequences, and the ways of preventing them, through rebalancing Europe's gas supplies, or mapping alternative gas supplies for Europe. In doing so we must stay on the path of transition away from fossil fuels and achieving carbon neutrality within the boundaries defined by the global climate agenda following COP28. Yet, we must we aware that natural gas has an important role in maintaining industrial competitiveness of the ECE region.
- 15. The Chair informed participants of the developments at the climate talks in Dubai, where the COP28 Presidency had included hydrogen in its high-level agenda and launched three flagship initiatives to accelerate commercialisation of hydrogen, keep climate targets within reach, and unlock the socio-economic benefits of cross-border value chains for hydrogen and its derivatives.
- 16. The Chair argued for a possible change of Group's name to "Group of Experts on Gases". In the view of the Chair, such change would reflect the increasingly important role of low carbon and renewable gases and would better align Group's work with the recent agreements of COP28 in Dubai to transition away from fossil fuels. The United Kingdom of Great Britain and Northern Ireland and the United States of America supported the Chair's proposal.
- 17. The Russian Federation expressed concerns about the time allocated to discussions and the overall agenda of the session, because out of 6 activities of the work plan agreed for 2024-2025, only 3 areas were included in the program of the session; to one of them methane management an entire day was devoted. In the view of the Russian Federation, the agenda of the annual sessions should be structured so that all activities of the work plan are discussed, with sufficient time for discussion and exchange of views provided. The Russian Federation asked the secretariat to return to the practice of holding the group in a two-day format without combining it with other events.
- 18. The Russian Federation stressed that the mandate of the Group of Experts is to organize a dialogue on how to promote sustainable and clean production, distribution, and consumption of natural gas in the ECE region, demonstrating its benefits as a transition fuel, and positioning it as a critical energy source and part of a just energy transition. In the view of the Russian Federation the agenda in its current form does not meet this goal and looks very one-sided.
- 19. The Russian Federation further stressed that although the UNECE member States are moving along the path of energy transition through the development of hydrogen energy and the growth of biogas production, these energy sources currently represent an insignificant portion of the European energy balance: in 2020, global biomethane production amounted to 38 billion cubic meters, while natural gas production is about 3800 billion cubic meters, or 100 times more.⁴ While these new and developing areas require attention, we must focus on

⁴ Gas Exporting Countries Forum, Global Gas Outlook Synopsis 2050 (https://www.gecf.org/_resources/files/pages/gecf-global-gas-outlook-2050/gecf-gas-outlook-2022.pdf)

the core mandate of our group - natural gas. In doing so, we must discuss gas issues from both security of supply and security of demand perspective, while paying attention to the development of technologies that contribute to the reduction of emissions (CCUS technologies), and the overall role of natural gas within the framework of the sustainable development agenda.

VI. Elections of officers (agenda item 4)

20. The Group of Experts elected a Bureau to serve from the close of the eleventh session for two years, until the end of the 13th session in 2026. The new Bureau comprises: Mr Francisco de la Flor Garcia (Spain) as Chair, and Mr Uwe Wetzel (Germany), Mr Amir Foster (Israel), Ms Ilaria Conti (Italy), Mr Torstein Indrebø (Norway), Mr Andrew Meluch (United States), Mr Harmen Dekker (European Biogas Association), and Mr Andrei Tchouvelev (Hydrogen Council), as Vice-Chairs.

VII. Activities and priorities of the United Nations Economic Commission for Europe Committee on Sustainable Energy (agenda item 5)

- 21. The Director briefed the Group of Experts on the outcomes of the thirty-second session of the Committee on Sustainable Energy (the Committee) (Geneva, 13-15 September 2023). The Group of Experts took note that its work plan for 2024-2025 (ECE/ENERGY/GE.8/2024/3) was endorsed by the Committee at its thirty-second session and by the Executive Committee of ECE at its 131st meeting (Geneva, 4 December 2023).
- 22. The Director presented recent work on developing cross-thematic knowledge to produce joint papers and events on complex topics such as: building resilient energy systems, sustainable hydrogen production pathways, sustainable resource management system (UNRMS), critical raw materials, energy connectivity, climate finance and digitalization of energy systems, and the role of women and youth in energy transition. An online bi-monthly series Methane Mondays provided a platform for a multi-stakeholder dialogue on matters related to monitoring, reporting, verification, and mitigation of methane emissions along the coal value chain. The Director described the recently launched Demo EnergyChat, in partnership with University of Zurich and 13 International Organizations.
- 23. In November 2023 the secretariat organized the 3rd Almaty Energy Forum (in collaboration with UNESCAP and UNDP) and launched the UNECE ESCAP Programme on Energy Connectivity in Central Asia to help countries scale up renewable energy capacity and design and build resilient and carbon neutral energy systems in Central Asia.

VIII. The role of gases in building a resilient energy system (agenda item 6)

- 24. The Group of Experts acknowledged the fundamental role of natural gas in achieving the United Nations Sustainable Development Goals, satisfying rising global energy needs and securing universal access to affordable, reliable, sustainable, and modern energy for all.
- 25. The Group of Experts also recognized the potential and increasing role of other gases (like biogas, biomethane, and hydrogen).
- 26. The Group of Experts supported the recognition of natural gas as a transition fuel.
- 27. The Group of Experts concluded that a resilient energy system is the one that maximizes energy security, affordability, and environmental sustainability. The Group of Experts remained committed to the Committee's work on building the Platform on Resilient Energy Systems, in which natural gas would continue fulfilling a critical role in providing resiliency to future energy systems. The Group of Experts pointed out the important role of gas in maintaining industrial competitiveness of the ECE region.

- 28. The Group of Experts concluded that carbon capture, use and storage (CCUS) technologies could be key to decarbonising, especially the hard-to-abate industrial sectors. CCUS has the potential to furthermore provide solutions to reaching negative emissions when combined with biofuel and direct air capture (DAC) and would be critical for scaling up production of low-emissions hydrogen. Use of existing and new gas infrastructure could enable and facilitate introduction and scaling up of CCUS-projects. The Group of Experts calls for an active policy support to promote CCUS initial projects, to reach technology and full commercial viability.
- 29. The Group of Experts recommended to ECE member States to engage in an open, balanced, informed, and scientifically sound debate on system resiliency concerns, while considering the best available upstream technologies, taking into consideration geological conditions.
- 30. The Group of Experts concluded that low carbon, decarbonised and renewable gases, including biogas, biomethane, e-methane and synthetic methane, contribute to achieving carbon-neutrality according to nationally determined goals. In this sense, the Group of Experts stressed the need to be more engaged in activities that would increases the share of biogas in the primary energy supply. The use of the best technological options which are already available allows to achieve intermediate results in a quick manner while transitioning to a net zero economy.
- 31. The Group of Experts acknowledges that biogas and biomethane are renewable gases that may help abate emissions across the whole value chain and that their use contributes to the reduction of GHG emissions in multiple sectors, including buildings, industry, transport, and agriculture, while contributing to an efficient circular economy.
- 32. The Group of Experts recommended to ECE member States to consider with attention developing economically efficient liquified natural gas (LNG) liquefaction and regasification capacities. Additional LNG capacities would help overcome supply chain bottlenecks and unlock the total potential of the existing gas infrastructure while increasing security of supply. The Group of Experts recommended to look at investments in LNG facilities. The Group of Experts acknowledged that development of new LNG infrastructure should be backed by long term commitments that would ensure certainty to producers and reasonable prices for importers. It is desirable that these new facilities should be ready to receive both LNG and various types of low carbon, decarbonised and renewable gases. The Group of Experts on gas concluded that global natural gas including LNG trade reinforces security of supply since it enables and increases the diversification of sources and routes.
- 33. The Group of Experts remained committed to contributing to the Committee's work on Just Transition, which is one of the key components of a resilient energy system.
- 34. The United States noted that discussions on energy security and the role of gas in a decarbonized energy mix must consider the negative impacts on GHG emissions from gas operations on public health and the environment. They acknowledged that marginalized communities worldwide bear the brunt of climate change and the poor health effects of air pollution. The United States advocated for the further reduction of methane emissions as a key element of providing Just Energy Security for All.

IX. Activities of the Hydrogen Task Force (agenda item 7)

- 35. The Group of Experts noted that for the first time in COP history, COP28 Presidency included hydrogen in its high-level agenda and launched three flagship initiatives to hold the increase in the global average temperature to well below 2°C above pre-industrial levels within reach and to unlock the socio-economic benefits of cross-border value chains for hydrogen and its derivatives, featuring:
- (a) The Intergovernmental Declaration of Intent on Mutual Recognition of Certification Schemes for Hydrogen and Hydrogen Derivatives covering over 80% of the future global market in hydrogen and its derivatives;

- (b) An ISO methodology providing a global benchmark for greenhouse gas (GHG) emissions assessment of hydrogen pathways on a life-cycle analysis basis;
- (c) The Public-Private Action Statement on cross-border trade corridors in hydrogen and derivatives in partnership with the International Hydrogen Trade Forum (IHTF) and the Hydrogen Council.
- 36. These flagship outcomes were launched at the COP28 Presidency's High-Level Roundtable on Hydrogen.
- 37. The Group of Experts invited ECE members States to participate in preparing a hydrogen high-level agenda for COP29, hosted by Azerbaijan in late 2024.
- 38. The Group of Experts noted that, despite numerous supportive policies implemented and hydrogen projects announced, very few of these projects have reached a final investment decision. Yet, the room for growth is huge: low-emissions hydrogen still constitutes less than 1% of overall hydrogen production and use. The Group of Experts concluded that achieving the scale and pace of hydrogen deployment requires more decisive actions from policymakers and long-term agreements between producers and consumers of hydrogen. The Group of Experts will continue to promote an adequate regulatory framework that incentivises the uptake of hydrogen projects, through appropriate measures, including through the promotion of private-public partnerships that allow learning from each other and share risks.
- 39. The Group of Experts would continue to assist ECE member States in accelerating deployment of hydrogen projects, including through promoting enabling policies and facilitating international collaboration in hydrogen projects.
- 40. The Group of Experts supported the establishment of an internationally agreed-upon classification system of the climate impact of hydrogen as a product that is clear, scientifically rigorous, based on ISO methodology and easy to implement. In this context, the Group of Experts welcomed the release of the ECE publication "Towards a Hydrogen Economy in the UNECE Region" (ECE/ENERGY/151) which looks at hydrogen classification based on technology-neutral, quantified greenhouse gas emissions intensity levels of hydrogen production options.
- 41. The Group of Experts recommended to ECE member States to continue investing into modern infrastructure, such that it could be used for ammonia or hydrogen (including liquid) cross-border trade, as well as for carbon dioxide transport and storage, without impacting security of natural gas supply, and with special consideration to safety measures related to transportation of hydrogen and its derivatives and ensuring, as appropriate, that repurposing natural gas infrastructure is done safely and reliably (i.e. hydrogen embrittlement, leakages, hyperpermeability, etc.).

X. Preparations for the twelfth session of the Group of Experts on Gas (agenda item 9)

- 42. The Group of Experts stressed the need to plan to agenda of the twelfth session in a way that ensures appropriate attention to all thematic areas of its work plan for 2024-2025, and that advances the goals of the Group of Experts.
- 43. The Group of Experts recommended that the twelfth session of the Group of Experts be held in Spring 2025.

XI. Adoption of the report and close of the meeting (agenda item 12)

44. The report of the meeting was adopted, including the conclusions and recommendations, subject to any necessary editing and formatting.

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