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Group of Experts on Gas

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Activities and priorities of the United Nations Economic Commission for Europe Committee on Sustainable Energy

Amended work plan of the Group of Experts on Gas for 2024-2025*

Prepared by the Bureau of the Group of Experts on Gas

I. Introduction

1. The mandate of the Group of Experts on Gas (Group of Experts) is to provide a forum for multi-stakeholder dialogue on promoting sustainable and clean production, distribution, and consumption of gas in the United Nations Economic Commission for Europe (ECE) region.

2. The areas of work of the Group of Experts are policy dialogue and exchange of information and experiences among ECE member States on gas issues of regional relevance, including the ever-increasing share of gas in the total primary energy supply and its economic, social, and environmental impacts and the role of low carbon, decarbonized, and renewable gases.

3. The Group of Experts requests the Committee on Sustainable Energy to renew its mandate until 31 December 2025, with the possibility of extension.[1]

II. Concrete activities

4. The concrete activities of the Group of Experts are intended to help ECE member States deliver on key political commitments, including the 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, and the Paris Agreement signed by the members of the United Nations Framework Convention on Climate Change (UNFCCC).

* The document was endorsed by the Committee of Sustainable Energy at its 32nd session and by the Executive Committee of ECE at its 131st meeting.

[1] The extension of the mandate for 2024-2025, with the possibility of extension, was endorsed by the Committee on Sustainable Energy at its 32nd session and by the Executive Committee of ECE its 131st meeting.

5. Following the successful implementation of the work plan for 2022-2023 and the recommendations from the Group of Experts and its Bureau, the Group of Experts will continue to undertake activities broadly related to the enabling role of gas in achieving carbon neutrality, just transition, and other goals of the 2030 Agenda and will support the Committee's activities under the ECE Platform on Resilient Energy Systems.

6. Most of the activities listed hereafter represent a continuation, adjusted as needed, of past activities. Several new and cross-cutting activities, in line with the mandate of the Group of Experts and emerging priorities, are also included. Of the below listed activities are subject to availability of resources.

A. Gas and Sustainable Development Goals

Description:

7. This activity, at the core of the Group of Expert's mandate, is a long-term, holistic exploration on how gas can help attain the Sustainable Development Goals (SDGs). In addition to the central themes – SDG 7 (Access to affordable, reliable, sustainable, and modern energy for all) and SDG 13 (Take urgent action to combat climate change and its impacts) – in every two-year cycle the Group of Experts focuses on a subset of SDGs. In 2024-2025 the Group of Experts will deep- dive into SDG 9 (Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation), and SDG 11 (Make cities and human settlements inclusive, safe, resilient, and sustainable).

8. As in the previous cycles, the Group of Experts will continue to focus on how gas can help attain SDG 5 (Achieve gender equality and empower all women and girls).

Work to be undertaken:

9. Explore and promote the role of gas and liquefied natural gas (LNG) in attaining SDGs in the ECE region, with a focus on SDGs 5, 7, 9, 11, and 13. In particular, explore the link between the challenges in the financing of projects and in attaining SDGs goals. In policy dialogues, reflections from non-OECD (Organisation for Economic Co-operation and Development) countries should be included to improve variety of perspectives and inclusiveness.

Deliverables and Timeline:

(a) Policy dialogues on the enabling role of gas in attaining SDGs 5, 7, 9, 11, and 13, by December 2025;

(b) Policy briefs on the enabling role of gas in attaining selected SDGs, by December 2025.

B. Methane abatement

Description:

10. The Group of Experts activities foreseen under this work plan are deeply connected with the development of renewable energy and the reduction of greenhouse gases emissions, including methane emissions. The Group of Experts has recognized that a solution to achieving a sustainable and decarbonized energy system is through reducing methane emissions throughout the gas value chain. According to IEA, methane emissions from oil and gas alone could be reduced by 75% with existing technologies. Less than 3% of the income accrued by oil and gas companies worldwide last year would be required to make the USD 100 billion investment in technologies needed to achieve this reduction. During previous work cycles, the Group of Experts successfully developed, published, and disseminated the principles-based Best Practice Guidance for Methane Management in the Oil and Gas Sector (BPG). This work has been supported by the United States Environmental Protection Agency (USEPA) on behalf of the Global Methane Initiative (GMI). To help ECE member States deliver on key political commitments, including the 2030 Agenda for Sustainable Development, the Paris Agreement, and SDG 13 – and to ensure a reliable, affordable, Just

Transition – action on methane management must be prioritized. In support of this effort, during the next work cycle, the Group of Experts will engage in collaborative efforts to produce new resources as well as workshops to disseminate resources and build stakeholder capacity for methane abatement.

Work to be undertaken:

(a) In collaboration with USEPA, GMI, Environmental Defense Fund (EDF), Oil and Gas Climate Initiative (OGCI), Climate and Clean Air Coalition (CCAC), IPIECA, Gas Infrastructure Europe (GIE), Marcogaz, the European Gas Research Group (GERG), Eurogas, the United Nations Environmental Programme (UNEP) and other stakeholders, solicit, collect, edit, publish, disseminate and promote illustrative resources, including case studies on reporting, measuring and reducing methane emissions from natural gas systems. This could include supplementing previously developed guidance; collaborative new resources on topics such as leak detection and repair (LDAR); delivering and facilitating workshops, etc, as well as providing support to the 2024 Global Methane Forum to be held in Geneva;

(b) Explore current methane abatement regulatory proposals in ECE member States;

(c) Identify other potential partners that undertake methane emissions action beyond the ECE region.

Deliverables and Timeline:

(a) Subject to extra budgetary funding, the Group of Experts on Gas could:

(i) Together with GMI, convene a virtual multi-stakeholder brainstorming session to identify critical resources needed for implementing effective methane management, by 30 November, 2025;

(ii) Review technical resources developed in response to this session; develop relevant communication materials to promote resources within UNECE framework, by 31 December, 2025;

(iii) Conduct a 1–2-day workshop during the 2024 Global Methane Forum in Geneva and in conjunction with the 11th Session of the GEG, in March 2024.

(b) In collaboration with other Groups of Experts as relevant, discuss, develop, and promote best practices and recommendations on reducing methane emissions from the gas sector in the ECE region, ongoing through December 2025:

(i) Enhanced promotion of best practices and recommendations on reducing methane emissions from the gas sector in the ECE region, achieved through leveraging the networks and communication mechanisms of other Groups of Experts.

(c) Case studies on abatement of methane emissions from the gas sector in the ECE region, by December 2025.

C. Attaining net zero through synergies between renewable electricity and gases

Description:

11. The Group of Experts has recognized that a solution to achieving a sustainable and decarbonized energy system could be found within the triangle “gases-renewable energy-energy efficiency”. In this context, the Group of Experts concluded that the least-cost and fastest path to creating a sustainable energy system of the future requires: (i) increasing energy efficiency to reduce energy requirements, (ii) meeting those requirements through a combination of gas (including natural gas, as well as low carbon, decarbonized, and renewable gases) and renewable energy. The Group of Experts offers its support to ECE member States in developing policies needed to harness synergies between renewable

electricity and gases. This activity will be undertaken in cooperation with the Group of Experts on Renewable Energy and the Group of Experts on Cleaner Electricity Systems.

Work to be undertaken:

12. Case studies and policy dialogues, to be undertaken in cooperation with other Groups of Experts, to improve cohesiveness of recommendations provided to ECE members States.

Deliverables and Timeline:

13. In cooperation with the Group of Experts on Renewable Energy and the Group of Experts on Cleaner Electricity Systems:

(a) Policy dialogues on synergies between renewable electricity and gases in the future energy system, by December 2025;

(b) Case studies on gas as an enabler of the integration of variable renewable energy sources, by December 2025.

D. Hydrogen Economy

Description:

14. Hydrogen is recognized as the means to achieving carbon neutrality, especially in hard-to-abate sectors. At its thirty-first session (Geneva, 21-23 September 2022), the Committee on Sustainable Energy concluded that hydrogen could play a key role in building resilient energy systems and reaching carbon neutrality. The Committee asked the Group of Experts on Gas to lead the work on hydrogen, in close collaboration with the other groups of experts.

15. The work performed in relation with hydrogen will be structured under the Group of Experts on Gas and could be further complemented through the Hydrogen Task Force.

Work to be undertaken:

16. In collaboration with other Groups of Experts as relevant, discuss, develop, and promote good practices and recommendations on:

- The build-up of a resilient hydrogen supply chains, finding an equilibrium between environmental sustainability and affordability for the rapid ramp up of a nascent industry
- The business case for blending hydrogen with natural gas
- The business case for hydrogen derivatives, including ammonia and methanol
- Hydrogen gas asset readiness (H2GAR) in the ECE region
- Hydrogen purity requirements for its production, transmission, and use
- The role of gas infrastructure in accelerating development of hydrogen projects
- The financing of hydrogen projects
- Issues related to hydrogen emissions in the context of climate change.

17. In collaboration with the Expert Group on Resource Management:

- Develop specifications for the application of the United Nations Framework Classification for Resources (UNFC) and the United Nations Resource Management System (UNRMS) to hydrogen projects and production technologies
- Work towards developing a classification for hydrogen that accounts for the full life cycle impact of the hydrogen value chain, considering all production factors
- Assist in developing pilot hydrogen production projects applying UNRMS principles.

18. In collaboration with the Group of Expert on Coal Mine Methane and Just Transition:

- Engage, within the scope of the Group's mandate and expertise, and under the leadership of the Committee on Sustainable Energy, in facilitating transformation and greening of ECE member States' industries along the coal value chain and of coal-dependent regions in accordance with the principles of just transition. In particular, explore how development of hydrogen-based economy can facilitate the process of just transition towards the green economy of the regions currently dependent on legacy industries based on coal.

Deliverables and Timeline:

(a) Good practices and recommendations on blending hydrogen with natural gas, hydrogen gas asset readiness, hydrogen purity requirements, and the role of gas infrastructure to accelerating hydrogen projects, by December 2025;

(b) Specifications for the application of the United Nations Framework Classification for Resources (UNFC) and the United Nations Resource Management System (UNRMS) to hydrogen projects, by December 2025;

(c) Classification for hydrogen that accounts for the full life cycle impact of the hydrogen value chain, considering all production factors, by December 2025;

(d) Contribution, within the scope of the Group's mandate and expertise, to a study on how development of hydrogen-based economy can help with facilitating the process of just transition towards the green economy of the regions currently dependent on legacy industries based on coal, by December 2025 (under the lead of the Group of Expert on Coal Mine Methane and just Transition).

E. System resilience and security of supply

Description:

19. The Committee on Sustainable Energy at its thirty-first session held in September 2022 discussed how to simultaneously achieve greater energy security, affordability, and net-zero emissions. To assist the Committee in this endeavour, the Group of Experts will host a series of dialogues on the role of natural gas in building resilient energy systems in Europe.

Work to be undertaken:

20. Contribute, as requested by the Committee on Sustainable Energy and within the scope of the Group of Experts' mandate and expertise, to work on building resilient energy systems in the ECE region.

21. The activity stems from the core mandate of the Group of Experts on Gas – to provide a forum for multi-stakeholder dialogue on sustainable and clean production, distribution, and consumption of gas in the ECE region. To this end, this activity will focus on:

- Evaluating a possibility of interruptions in natural gas supply to Europe, their potential consequences, and the ways of preventing them
- Rebalancing Europe's gas supplies
- Mapping alternative gas supplies for Europe; and
- Security of gas supply and climate agenda.

Deliverables and Timeline:

(a) Contribution, within the scope of the Group of Experts' expertise and upon the Committee on Sustainable Energy's request indicating the expected input, to the work on building resilient energy systems in the ECE region undertaken under the umbrella and leadership of the Committee, by December 2025 in accordance with the Committee's request;

(b) Policy dialogues on the role of gas in improving system resilience and security of supply, by December 2025;

(c) Development and dissemination of case studies and best practices on system resilience and security of supply, by December 2025;

(d) Established working engagement with the other Group of Experts operating under the umbrella of the Committee on Sustainable Energy ensuring that the just transition angle is properly reflected in their respective work on building resilient energy systems in the ECE region, by December 2025.

F. Carbon capture, utilisation, and storage: the role of gas infrastructure

Description:

22. To meet the objectives of the Paris Agreement and deliver on the 2030 Agenda for Sustainable Development, ECE member States need to capture 90Gt of CO2 by 2050. The Committee on Sustainable Energy, through its Group of Experts on Cleaner Electricity Systems has for several years been engaged in a work on carbon capture and storage (CCS), as a process of capturing CO2 emissions from fossil-based power generation and industrial processes, and for its re-use or subsequent storage in underground formations.

23. Today, over 80 per cent of primary energy in the ECE region come from fossil fuels. Achieving carbon neutrality will require a rapid deployment of CCS. Gas infrastructure, including underground gas storage and the possible use of depleted gas fields, on- and off-shore, may accelerate the development of technologies needed to transport and sequester CO_2. Undertaken in collaboration with the Group of Experts on Cleaner Electricity Systems, this activity will complement activities of that Group, which will continue to be the ECE lead on CCS.

Work to be undertaken:

24. This work will focus on the role of gas and gas infrastructure in pilot and commercial scale CCS projects. It will deal mostly with the downstream aspects of CCS – namely, sequestration.

Deliverables and Timeline:

(a) Policy dialogues on the role of gas and gas infrastructure in CCS, by December 2025;

(b) Presentations of case studies on the use of gas infrastructure, depleted gas fields, and underground storage for carbon sequestration, by December 2025.