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Sustainable resource management:

**Groups of Experts on Cleaner Electricity Systems and gas and Expert Group on Resource Management:
Mandates and work plans.**

Work plan of the Group of Experts on Gas for 2020-2021

Prepared by the Group of Experts on Gas

I. Introduction

1. The mandate of the Group of Experts on Gas (hereinafter: Group of Experts) is to provide a forum for multi-stakeholder dialogue on promoting the 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. Concrete activities of the Group of Experts on Gas are intended to help ECE member States deliver on key political commitments, such as the 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, and the Paris Agreement on climate change.

II. Concrete activities

3. Following successful implementation of the work plan for 2018-2019 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 the goals of the United Nations 2030 agenda. Among these activities, some 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.
4. The proposed activity A: Role of gas in attaining Sustainable Development Goals (SDGs) represents a bird's-eye view of the role of gas in achieving the overarching 2030 Agenda, with a strong focus on SDG 5 (Achieve gender equality and empower all women and girls) and SDG 8 (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all). Other activities of this work plan (such



as gas and air quality, methane emissions, synergies with renewable energy, or use of gas in transportation) could be considered as deep dives into specific, more focused topics covered by an individual SDG or a subset of SDGs.

5. In addition to implementing its core mandate, the Group of Experts stands ready to assist, together with other subsidiary bodies, the implementation of cross-cutting and nexus activities under the Committee on Sustainable Energy, such as the Pathways to Sustainable Energy project and the work on the transition of the energy sector.

6. The Group of Experts notes that under the current resource constraints successful implementation of this rather extensive work plan would require strong commitment of dedicated gas experts. Consequently, as one of the key selection criteria when deciding on priorities for the 2020-2021 work cycle, the Group of Experts has taken in account the willingness of experts to take an active role in the Group of Experts' work between sessions. The depth of impact of some activities will depend on availability of resources.

A. Role of gas in attaining Sustainable Development Goals

Description:

7. As gas continues to play an increasingly important role in improving access to affordable, reliable, sustainable and modern energy, and in achieving other targets of SDG 7, this activity is a continuation of the work done in the previous work cycles.

8. The Group of Experts has recognized that under certain circumstances and in some ECE member States gas may represent the shortest and least-cost path towards decarbonizing the energy sector and increasing its overall efficiency. From a developmental perspective, gas is relevant to attaining many other SDGs, such as: SDG 1 (no poverty), SDG 2 (zero hunger), SDG 5 (gender), SDG 6 (clean water and sanitation), SDG 8 (decent work and economic growth), SDG 9 (industry, innovation and infrastructure), SDG 11 (inclusive, safe, resilient and sustainable cities), SDG 12 (sustainable consumption and production patterns), and SDG 13 (climate action).

9. The Group of Experts on Gas strongly supports the notion that providing women and girls with, inter alia, equal access to education, decent work, and representation in decision-making processes in the gas value chain would enable ECE member States to reap significant social, economic and environmental benefits. Likewise, the Group of Experts is committed to explore how the gas industry could facilitate the transition towards a climate-resilient and low-carbon economy while taking into account social concerns such as job creation ("Just Transition"). With this in mind, this activity will particularly focus on how gas and liquefied natural gas (LNG) can help attain two SDGs – SDG 5 (Achieve gender equality and empower all women and girls) and SDG 8 (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all).

Work to be undertaken:

(a) The Group of Experts will continue to explore and promote the role of gas and LNG in attaining all SDGs, and particularly SDG 7 (Access to affordable, reliable, sustainable and modern energy for all), SDG 5 and SDG 8 in the ECE region and beyond;

(b) The Group of Experts will prepare and select evidence—case studies, position papers, and other material—that highlight the impact of gas and LNG on achieving the SDGs under various geopolitical and economic circumstances.

Deliverables and timeline:

(a) Policy dialogues on: the enabling role of gas in attaining SDG 5, on gender participation in decision-making along the gas value chain and on SDG 8, on decent work and economic growth, by December 2021;

(b) Dissemination of selected materials, case studies, position papers, and proceedings from the policy dialogues on the role of gas in attaining the SDGs, by December 2021;

(c) Creation of a network of experts to promote gender diversity in development and financing of gas projects and policy recommendations on mainstreaming gender in decision-making along the gas value chain (pending available resources), by December 2021.

B. Dissemination of Best Practice Guidance for Methane Management in the Oil and Gas Sector

Description:

10. During the 2018-2019 work cycle, the Group of Experts successfully developed and published the principles-based Best Practice Guidance for Methane Management in the Oil and Gas Sector (BPG). The work on BPG was supported by the United States Environmental Protection Agency (USEPA) on behalf of the Global Methane Initiative (GMI), as part of an extrabudgetary project on reducing methane emissions from the extractive industries.

11. In 2020-2021, the Group of Experts will focus on dissemination and expansion of BPG by identifying relevant case studies that demonstrate the principles outlined in it.

12. The scope and extent of this activity will depend on the availability of resources.

Work to be undertaken:

(a) In collaboration with the USEPA, GMI, and other stakeholders the Group of Experts will solicit, collect, edit, publish and disseminate illustrative case studies on reporting, measuring and reducing methane emissions;

(b) The Group of Experts will identify other potential partners, such as the Oil and Gas Climate Initiative (OGCI), the Climate & Clean Air Coalition (CCAC), IPIECA, Gas Infrastructure Europe (GIE) and MARCOGAZ, and together with them organize capacity-building workshops in the ECE region and beyond.

Deliverables:

(a) Case studies on reducing methane emissions from the gas sector in the ECE region, by December 2021;

(b) Capacity-building workshops in selected member States to disseminate principles of the Best Practices, by December 2021;

(c) If the initiative “2020 - the International Year of Methane” is endorsed by the Economic and Social Council of the United Nations, support its activities, by December 2020.

C. Renewable energy and gas: synergies and low-carbon gases (biogas, biomethane and hydrogen)

Description:

13. In its previous work the Group of Experts argued that gas and LNG could play a key role in accelerating deployment of renewable energy sources. At its sixth session, the Group of Experts recognized that a solution to achieving a sustainable energy future could be found within the triangle “gas-renewable-energy efficiency”. The Group of Experts concluded that the least-cost and fastest path to creating a sustainable energy system of the future requires: (1) increasing energy efficiency to reduce energy requirements, and then (2) meeting the remaining energy requirements through a combination of gas and renewable energy.

14. The Group of Experts has lately recognized that gaseous fuels—whether conventional natural gas or renewable/decarbonized/low-/zero-carbon gases (i.e., biogas, biomethane, mixtures of natural gas and hydrogen, and green or blue hydrogen)—will continue to serve as an energy vector in a foreseeable future. With that in mind, the Group of Experts offers its support to ECE member States in developing policies needed to accelerate development, demonstration and deployment of renewable, decarbonized and low- and zero-carbon gas projects.

15. Through this activity the Group of Experts will explore several pathways that lead to gas decarbonization through concrete steps that accelerate the exchange of technological expertise, data, results and best practices in this field, from the gas industry's perspective.

16. The scope and extent of this activity will depend on the availability of resources.

Work to be undertaken:

(a) In close collaboration with the Group of Experts on Renewable Energy, compile a review of existing documentation and literature on how to overcome key obstacles and identify opportunities for synergies between gas and renewable energy (Co-leaders: Group of Experts on Renewable Energy and Group of Experts on Gas);

(b) The Group of Experts will explore how gas infrastructure could accelerate development of renewable, decarbonized and low-carbon gas projects;

(c) In the light of the latest scientific results, the Group of Experts will analyse whether, when and how the existing pipeline construction, operation and safety regulations might be updated to improve the potential for hydrogen to decarbonize the economy.

Deliverables:

(a) Policy dialogues on synergies between renewable energy and gas and on the role of renewable/decarbonized/low-carbon gases in the future energy system, by December 2021;

(b) Pending available resources, dissemination of good practices and policies on the role of renewable/decarbonized/low-carbon gases in the future energy systems in ECE member States;

(c) Pending available resources, recommendations on how to update the gas infrastructure to accept an increased fraction of hydrogen, by December 2021.

D. Gas and gas infrastructure as the backbone of a low-carbon electricity and energy system

Description:

17. While preparing this work plan the secretariat conducted a survey that offered a choice of 15 potential activities, as defined by the Group of Experts at its sixth session. Some of the activities offered in the survey, namely: (1) Use of gas infrastructure to enable the transition to a low emission economy; (2) Role of gas in sectoral integration and decarbonization of the economy; (3) Role for gas in the transition of electricity systems; and (4) Smart gas grids to maximize efficiency of energy transmission and usage, appear to be closely related.

18. In its current work cycle the Group of Experts has noted that:

(a) The existing gas infrastructure can deliver high storage and transmission capacity in a very efficient and cost-effective way,

(b) The overall efficiency of energy transmission, usage and storage could be further improved through a better management of the existing gas assets,

(c) More and more ECE member States are committing to phasing out coal, lignite or nuclear energy within the next 15-20 years.

19. This activity represents the Group of Experts' contribution to policy conversations on all these closely related concepts. Its scope and extent will depend on the availability of resources.

Work to be undertaken:

(a) The Group of Experts will offer to update policymakers on the benefits of gas- and LNG-based electricity and recent technological developments, resulting emission savings and increased efficiency and responsiveness;

(b) The Group of Experts will demonstrate how smart gas grids could maximize efficiency of energy transmission and usage;

(c) The Group of Experts will explore how the existing gas infrastructure could enable the transition to a low emission economy;

(d) The Group of Experts will attempt to define the economic, social geopolitical, and environmental circumstances under which gas can effectively replace solid and liquid fossil fuels in electricity generation, heating and transportation.

Deliverables:

(a) By December 2021, policy dialogues on:

(i) benefits of gas- and LNG-based electricity systems and how gas can effectively replace coal and lignite;

(ii) possibilities for the existing gas infrastructure to enable transition to a low-emission economy;

(iii) smart gas grids and their potential to increase efficiency of energy transmission and usage.

(b) Policy recommendations (pending available resources) on the economic and environmental benefits of gas-fired electricity systems, by December 2021.

E. Impact of gas on improving urban air quality

Description:

20. This activity is a continuation of the work done in the 2018-2019 work cycle. At its sixth session held in March 2019, the Group of Experts took note of the recent alarming reports on the worsening air quality and increased pollution in urban areas of some ECE member States. The Group of Experts concluded that replacing more polluting fuels with gas, especially in sectors such as electricity generation, heating and, as much as possible, transportation is an effective way to address air pollution. If the share of gas in the energy mix is increased, that would significantly and immediately reduce concentrations of airborne pollutants (nitrogen oxides, carbon monoxide, methane, volatile organic compounds, sulphur dioxide, and particulate matter) that impact health, the environment and the economy.

21. To reduce air pollution and improve air quality ECE member States already work closely through the ECE Convention on Long-range Transboundary Air Pollution and its eight protocols.

The scope and extent of this activity will depend on the availability of resources.

Work to be undertaken:

(a) In collaboration with relevant partners, the Group of Experts will offer its support to affected member States in addressing air quality concerns via promoting fuel switching to natural gas;

(b) The Group of Experts will offer its assistance to and coordinate activities with the secretariat of the ECE Convention on Long-range Transboundary Air Pollution and its principal stakeholders.

Deliverables:

(a) Policy dialogues on the impact of gas in improving urban air quality, by December 2021;

(b) Dissemination of case studies and best practices (pending available resources) on the impact of gas in improving urban air quality, by December 2021.

F. Use of gas in transportation – challenges and opportunities**Description:**

22. Compressed natural gas (CNG) and LNG provide significant environmental and economic advantages that make them a serious alternative to diesel and fuel oil in light- and heavy-duty road and maritime transportation. Yet, CNG and LNG currently command tiny shares of the transportation fuels market. Their use in transportation still face significant obstacles that need to be better understood.

23. This activity will be a continuation of the work that was successfully carried out in previous cycles. In 2017, the Group of Experts drafted a report on removing barriers to the use of natural gas as maritime transportation fuel. In 2018, the Group of Experts published a case study from Spain on small-scale LNG and truck-loading, with the hope that the 50-year Spanish experience in LNG truck-loading may provide some food for thought to countries such as Croatia, Greece, Italy, Lithuania, Poland, or any other ECE member State looking to decarbonise its transport by increasing LNG truck-loading capabilities.

24. The scope and extent of this activity will depend on the availability of resources.

Work to be undertaken:

(a) The Group of Experts will work closely with principal stakeholders, to disseminate its previous work on the use of gas in transportation;

(b) The Group of Experts will closely monitor technical, environmental and economic developments in the use of CNG and LNG in transportation and will bring attention of the interested ECE member States to these developments.

Deliverables and timeline:

(a) Policy dialogue on the barriers to and recent developments in the use of CNG and LNG in transportation, with a focus on maritime sector, by December 2021;

(b) Policy recommendations (pending available resources) on removing barriers to the use of CNG and LNG in transportation, with a focus on the maritime sector, by December 2021.

G. Promoting sustainable and clean production, distribution, and consumption of gas and LNG in the ECE region**Description:**

25. This activity stems from the Group of Experts' core mandate to provide a forum for multi-stakeholder dialogue on promoting the sustainable and clean production, distribution, and consumption of gas in the ECE region. This activity addresses a basket of topics that bring together producer, consumer and transit countries, the gas industry and other stakeholders, facilitating dialogue among them on transit and security of supply and demand for pipeline gas and LNG.

Work to be undertaken:

26. The Group of Experts, at its annual session and other occasional meetings and workshops held in the ECE region, will organize events to present and disseminate relevant policy papers on various gas topics on an ad hoc basis.

Deliverables:

(a) Policy dialogues on gas and LNG supply, transit and demand, by December 2021;

(b) Presentations at annual sessions of policy papers on topical issues, for in-depth consideration, by December 2021.