

[This document was annexed to the report of the Group of Experts on Gas on its first session, ECE/ENERGY/GE.8/2014/2]

## Work Plan of the Group of Experts on Gas for 2014–2015

### I. Introduction

1. Annex VII of the Executive Committee's decision on Terms of Reference of the Committee on Sustainable Energy and Mandates and Terms of Reference of its subsidiary bodies (ECE/EX/2013/L.15) mandates the Group of Experts on Gas to provide a forum for multi-stakeholder dialogue on ways to promote the sustainable and clean production, distribution, and consumption of gas in the United Nations Economic Commission for Europe (ECE) region. The areas of work of the Group of Experts are policy dialogue and exchange of information and experiences among ECE member countries on gas-related issues of regional relevance, including the role of gas in the global energy mix, and the relation between natural gas and the environment. Concrete activities that member States agreed for the Group of Experts included studies, delivered in a timely way, on the sustainable and clean production, transport, and use of gas, including on issues that emerge from natural gas market studies carried out in the past, and methods of preventing gas losses and leakages during production and distribution. The mandate is approved until December 2017, with the possibility of extension.

2. In accordance with the agreed mandates and terms of reference, the Bureau of the Group of Experts on Gas recognized the need for concrete, results-oriented activities that meet the needs of member States, and that build on issues that have emerged from natural gas market studies carried out in the past. The Group of Experts recommended the following concrete activities be included in its work plan.

### II. Concrete activities

3. At its first session<sup>1</sup> held in April 2014, the Group of Experts agreed to concentrate on the following four activities in 2014–15 (see paragraph 31 of the Meeting Report ECE/ENERGY/GE.8/2014/2):

#### A. Best Practice Guidance to Reduce Gas Leaks in the Gas Value Chain

**Description:** In many ECE member States, there is an opportunity to improve efficiency in the gas supply chain from source to use. The differences between the volumes of gas produced at the source and the volumes delivered to end users show significant variances across ECE member States. Reducing the differences by improving the performance among laggards will improve the overall energy efficiency, gas affordability and producers' competitiveness. It will also reduce methane emissions from leaks in the gas value chain. Since methane is a potent greenhouse gas, reducing emissions will have a significant positive impact on the environment. The proposed activity is therefore to prepare the building blocks for developing Best Practice Guidance on reducing gas leaks in the gas value chain.

#### Work to be undertaken:

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<sup>1</sup> The Group of Experts on Gas held its first meeting in Geneva, 14–15 April 2014.

- Prepare a systematic assessment of gas leakage rates across the full value chain, i.e., in gas production, transport, distribution, and use in ECE member States. The assessment will also include a review of approaches to measuring, monitoring, and reporting leakage rates. This work, will be undertaken by a task force of experts in collaboration with international organisations such as the International Energy Agency (IEA), national governments of the ECE member States and all other relevant stakeholders, including organizations of producers, transporters and distributors of gas such as the International Gas Union (IGU), and associations of system operators, and academia, and will be based both on any available sources including on statistics from the system of national accounts that are reported through national and international organizations (such as IEA or the World Bank) and on collaboration with producers and transport and distribution system operators and regulators, and, if needed, on a questionnaire.
- Review the range of gas technology, pipelines, and infrastructure construction and maintenance techniques deployed across the ECE region, with special focus on the best and worst performers, to explain the differences in leakage rates and to identify opportunities for improvement.
- Review the different options and techniques that exist and costs associated with reducing leakages throughout the gas chain; and
- Prepare Best Practice Guidance on Reducing Gas Leakage Rates throughout the gas chain, taking into account the local conditions for use by industry, regulators, and policy-setters.

**Deliverables:**

- Performance benchmarking on gas leakage rates across the ECE region.
- Draft Best Practice Guidance on Reducing Gas Leakage Rates.

**Work Methods:** This work will require the engagement of experts as national and corporate representatives, and is expected to involve all stakeholders.

- A Task Force will be assembled under the direction of either the Chair or one of the Vice Chairs of the Bureau of the Group of Experts. The Task Force will include all stakeholders in the gas value chain, including a range of gas producers and transporters, system operators, distribution companies, academics, regulators, and ministry officials from member States;
- Experts from IGU, IEA, the United Nations Framework Convention on Climate Change (UNFCCC) bodies, national administrations, and the range of gas associations will be invited to join the Task Force;
- The work to be undertaken, as listed above, will be laid out in a project management plan developed and agreed by the Task Force;
- It is expected that the Task Force will work independently, supported both substantively and logistically by the secretariat, using electronic means of communication and meetings as needed in informal settings; and
- The Task Force will provide quarterly updates on progress to the Bureau of the Group of Experts (which the secretariat will post to the website and circulate to the Permanent Missions in Geneva), and will report to the annual meeting of the Group of Experts.

**Timeline:**

- Endorsement of this activity in the work plan by the Group of Experts and the Bureau of the Committee on Sustainable Energy and approval by the Executive Committee: April/May 2014
- Establishment of Task Force: May 2014
- Development of detailed project plan by Task Force: June 2014
- Systematic assessment of gas leakage rates in ECE member States: December 2014
- Review of techniques deployed across the ECE region: June 2015
- Preparation of Draft Best Practice Guidance on Reducing Gas Leakage Rates: December 2015
- Approval of Best Practice Guidance on Reducing Gas Leakage Rates: April 2016
- Publication of Best Practice Guidance on Reducing Gas Leakage Rates: October 2016.

## **B. Best Policy Practices on the Role of Natural Gas in Significantly Increasing the Uptake of Renewable Energy in the ECE Region and Helping Achieve the Objective of Access to Energy for All in the ECE Region**

**Description:** In order to increase the uptake of renewable energy sources, there is a need to have a reliable source of energy and capacity when the renewable energy sources are not available. There is also a need for rapid-response capacity to maintain balance in power networks in light of oscillations in the output of intermittent energy sources. Gas could be such a source. This activity would be based on a policy dialogue and exchange of experiences and practices on the role of natural gas in enabling renewable energy policies. That dialogue could lead to development of guidance on best practices and policies on the role of natural gas in significantly increasing the uptake of renewable energy in the ECE region and helping achieve the objective of access to energy for all in the ECE region. This work, undertaken from the perspective of the natural gas industry and gas-fired power plant operators, would complement and take into account the work to be undertaken by the Group of Experts on Renewable Energy in developing best policy practices for renewable energy. Relevant lessons could be learned from the development policies carried out by a majority of ECE countries in the past years.

**Work to be undertaken:**

- One of the activities of the Group of Experts on Renewable Energy will be to identify those communities in the ECE region that, at present, have no access to energy, and suggest ways to ensure that these communities have access to renewable or alternative sources of energy as soon as possible. Energy companies could be asked to help to achieve that objective as part of that work. The Group of Experts on Gas will assess the role that natural gas could play in providing that access in supporting renewable energy uptake (which in no way means that natural gas could not provide access in its own right);
- Review the range of technology options for improving energy access, including an assessment of commercial feasibility;
- Prepare a systematic assessment of the consequences of renewables uptake in the energy mix for the amount of back-up capacity and energy that is required. The

assessment will include an analysis of utilization rates of gas-fired power plants vis-à-vis renewables in ECE member States;

- Conduct an analysis of the economics of gas-fired power in the context of green policies on renewables and gas. The analysis should include an assessment of the impacts of support schemes on the gas sector and on system management;
- Prepare a Best Practice Policy Guidance on the Role of Natural Gas in Significantly Increasing the Uptake of Renewable Energy in the ECE Region and Helping Achieve the Objective of Access to Energy for All in the ECE region; and

**Deliverables:**

- Assessment of the economic and technical feasibility for natural gas to support renewables providing energy access throughout the ECE region;
- Assessment of the systemic consequences of renewable energy uptake;
- Economic analysis of natural gas in a context of green policies; and
- Best Policy Practices on the Role of Natural Gas in Significantly Increasing the Uptake of Renewable Energy in the ECE Region and Helping Achieve the Objective of Access to Energy for All in the ECE region.

**Work Methods:** This work will require the engagement of experts as national and corporate representatives.

- A Task Force will be assembled under the direction of either the Chair or one of the Vice-Chairs of the Bureau of the Group of Experts. Members of the ECE Group of Experts on Renewable Energy will be invited to participate. The Task Force will include stakeholders from the gas industry, civil society, academia, regulators, and ministry officials from member States;
- Experts from relevant international actors such as the International Renewable Energy Agency (IRENA), IEA, IGU and gas associations will be invited to join the Task Force;
- The work to be undertaken will be laid out in a project management plan developed and agreed by the Task Force;
- It is expected that the Task Force will work independently, supported both substantively and logistically by the secretariat, using electronic means of communication and meetings as needed in informal settings; and
- The Task Force will provide quarterly updates on progress to the Bureau of the Group of Experts (that the secretariat will post to the ECE website and distribute to the Geneva delegations) and will report to the annual meeting of the Group of Experts.

**Timeline:**

- Endorsement of this activity in the work plan by the nominated bureau of the Group of Experts and the Bureau of the Committee on Sustainable Energy, and approval by the Executive Committee: April/May 2014
- Establishment of the Task Force: May 2014
- Development/approval of detailed project description/terms of reference by Task Force: June 2014
- Assessment of the systemic consequences of renewables uptake: April 2015
- Economic analysis of natural gas in a context of green policies: April 2015

- Initial Draft Best Policy Practices on the Role of Natural Gas to Support Renewables Uptake: November 2015
- Approve Best Policy Practices on the Role of Natural Gas to Support Renewables Uptake: November 2016
- Publish Best Policy Practices on the Role of Natural Gas to Support Renewables Uptake: June 2017.

### C. Best Practice Policy Guidance for Liquefied Natural Gas (LNG)

**Description:** This activity would engage a dialogue on the contribution that natural gas could make to the transition to a sustainable energy future. The dialogue will involve comprehensive analysis of the costs and cost trends through the whole gas and LNG value chains, and discussion of possible best practice guidance. The impact of LNG on security and diversification of supply, flexibility, liquidity, prices, and competition and market integration can be significant. There are opportunities for improvement in LNG specifications, liquefaction plants, receiving facilities, local operating procedures, LNG tankers designs, and so forth. Some harmonization of LNG quality specifications is needed to ensure it is acceptable at all LNG terminals and to a majority of end users. Players throughout the LNG chain, including regulators, will be encouraged to standardize and exchange information. Such efforts would improve compatibility and efficiencies and maintain safety levels throughout the industry. Attention should be paid as well to the development of small-scale LNG that is flexible, has lower capital costs, and can service smaller markets.

**Work to be undertaken:** Building upon the findings and recommendations of the recently published ECE study on LNG and taking into account recent data and trends, assess the potential for LNG in the ECE region under an optimal policy framework as described above in the description. The work will be undertaken in collaboration with other relevant organizations such as the IGU, the IEA, and associations of system operators. This work will take into account developments of new LNG terminals in ECE member States.

**Deliverables:**

- Comprehensive Assessment of Trends in Liquefied Natural Gas
- Best Practice Policy Guidance for Liquefied Natural Gas

**Work Methods:** This work will require the engagement of experts as national and corporate representatives.

- A Task Force will be assembled under the direction of either the Chair or one of the Vice Chairs of the Bureau of the Group of Experts. The Task Force will include the range of stakeholders in LNG as well as regulators and ministry officials from member States;
- Experts from IEA, IGU and gas associations will be invited to join the Task Force;
- The work to be undertaken will be laid out in a project management plan developed and agreed by the Task Force;
- It is expected that the Task Force will work independently, supported both substantively and logistically by the Secretariat, using electronic means of communication and meetings as needed in informal settings; and
- The Task Force will provide quarterly updates on progress to the Bureau of the Group of Experts (that the secretariat will post to the ECE website and distribute to

the Geneva delegations) and will report to the annual meeting of the Group of Experts.

**Timeline:**

- Endorsement of this activity in the work plan by the nominated bureau of the Group of Experts and the Bureau of the Committee on Sustainable Energy, and approval by the Executive Committee: April/May 2014
- Establishment of Task Force: May 2014
- Development/approval of detailed project description/terms of reference by Task Force: June 2014
- Draft Comprehensive Assessment of Trends in LNG: April 2015
- Best Practice Policy Guidance for LNG: April 2015
- Approve Comprehensive Assessment of Trends in LNG: January 2016
- Approve Best Practice Policy Guidance for LNG: January 2016
- Publish Comprehensive Assessment of Trends in LNG: October 2016
- Publish Best Practice Policy Guidance for LNG: October 2016.

## **D. Removing Barriers to the Use of Natural Gas as a Transportation Fuel**

**Description:** Natural gas and bio-methane represent the easiest, most practical, and most realistic way to reduce pollution coming from road transportation. Methane/hydrogen blends represent a huge potential for the transport sector, and represent an ideal bridge to more sustainable mobility using the existing natural gas/bio-methane distribution infrastructure. Natural gas—with its environmental, economic and availability advantages—will remain the only alternative to oil and diesel in the short and medium terms, and is the only primary fuel that is fully technically and economically applicable in any mode of transportation: on-road vehicles, scooters, heavy duty vehicles, ships, aircrafts, locomotives, and so forth. Using natural gas as a transportation fuel is a critical area for natural gas demand growth, with specific relevant benefits such as improving environmental impacts (CO<sub>2</sub>, SO<sub>2</sub>, and NO<sub>x</sub>). This activity would explore removing barriers to the use of natural gas as a transportation fuel in the ECE region.

**Work to be undertaken:**

- Analyze the use of natural gas as a transportation fuel from the perspective of energy infrastructure; and
- In collaboration with NGVA Europe, IGU, and the ECE Working Party on Pollution and Energy (GRPE), prepare Recommendations on Removing Barriers to the Use of Natural Gas as a Transportation Fuel.

**Deliverables:** Recommendations on Removing Barriers to the Use of Natural Gas as a Transportation Fuel.

**Work Methods:** This work will require the engagement of experts as national and corporate representatives.

- A Task Force will be assembled under the direction of either the Chair or one of the Vice-Chairs of the Bureau of the Group of Experts. The Task Force will include the

range of relevant stakeholders, regulators, and ministry officials from member States;

- Experts from the ECE Working Party on Pollution and Energy (GRPE) and its Task Force on Liquefied Natural Gas Vehicles (TF-LNG) will be invited to participate;
- Experts from IGU and relevant associations of system operators will be also invited to join the Task Force;
- The work to be undertaken will be laid out in a project management plan developed and agreed by the Task Force;
- It is expected that the Task Force will work independently, supported both substantively and logistically by the secretariat, using electronic means of communication and meetings as needed in informal settings; and
- The Task Force will provide quarterly updates on progress to the Bureau of the Group of Experts (which the secretariat will post to the ECE website make available to the Geneva Permanent Missions) and will report to the annual meeting of the Group of Experts.

**Timeline:**

- Approval of this activity in the work plan by the Group of Experts and the Committee on Sustainable Energy: April/May 2014
  - Establishment of Task Force: June 2014
  - Development/approval of detailed project description/terms of reference by Task Force: July 2015
  - Draft Recommendations on Removing Barriers to the Use of Natural Gas as a Transportation Fuel: April 2016
  - Approve Recommendations on Removing Barriers to the Use of Natural Gas as a Transportation Fuel: November 2016
  - Publish Recommendations on Removing Barriers to the Use of Natural Gas as a Transportation Fuel: April 2017.
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