

**Economic Commission for Europe  
Committee on Sustainable Energy  
Group of Experts on Gas**

**Second session**

Geneva, 20-21 January 2015

Item 8 of the provisional agenda:

Best practice guidance for liquefied natural gas

**Draft Terms of Reference of the Task Force on best practice  
guidance for liquefied natural gas**

**Note by the secretariat**

**I. Introduction**

This activity would engage a dialogue on the costs and cost trends through the whole gas and liquefied natural gas (LNG) value chains, and discussion of the benefits of possible best practice guidance. LNG can turn the world's regional natural gas markets into a truly global one. Natural gas could then play an effective transformative role in creating the energy system of the future. 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.

2. Following its first session in April 2014, the Group of Experts established a Task Force on best practice guidance for liquefied natural gas.

3. The Task Force held a meeting on 23 December in Madrid, Spain. The participants of the Madrid meeting agreed that UNECE provides an excellent platform to gather LNG experts and get their message through to the Governments and other institutions. The Task Force should take advantage of the expertise of participants, using the literature and work already developed by the different organisations participating in the Task Force. The participants also agreed that main focus of the group should be to develop policy guidelines about key topics for the LNG industry in order to remove trade barriers.

4. Some of the topics discussed in Madrid were:

- Technical specifications for LNG
- The economic impact of reducing the Wobbe Index
- Measures to foster the roll out of small scale LNG
- Complementarity between natural gas and LNG
- Good practices in LNG management
- Political sanctions as a mean to resolve a conflict in the energy sector

## **II. Work and deliverables of the Task Force on best practice guidance for liquefied natural gas**

5. Deliverables of the Task Force are:

- Comprehensive assessment of trends in liquefied natural gas,
- Best practice Guidance for liquefied natural gas.

6. 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.

## **III. Draft Best practice guidance for liquefied natural gas**

7. The Best Practice Guidance will comprise recommendations to governments and industry across the whole LNG value chain. Among other things, the Best Practice Guidance takes a look at the role of LNG in the transition to a sustainable energy future, on the impact of LNG on security and diversification of gas supply, flexibility, liquidity, gas prices, competition, and market integration.

8. Building upon the findings and recommendations of the recently published UNECE study on LNG and taking into account recent data and trends, the discussions on best practice guidance will assess the potential for LNG in the UNECE region and beyond under an optimal policy framework. In separate chapters are given the basic principles and best practices in: liquefaction plants and LNG export and import terminals, constructing LNG vessels and tankers, small-scale LNG plants, utilisation of LNG. Some recommendations on security and safety, as well as possible standards, are also outlined.

9. Below is an early draft of the outline of the best practice guidance in reducing gas leaks along the value chain.

## **Draft Best practice guidance for liquefied natural gas**

### **Executive summary**

### **Introduction**

#### **Chapter 1: Basic concepts**

- Physical and chemical properties of LNG
- The role of natural gas and LNG in the transition to a sustainable energy future

#### **Chapter 2: Assessment of Trends in Liquefied Natural Gas Markets**

- The role of LNG in providing diversification of supply, flexibility and market liquidity
- LNG versus pipeline gas
- Production costs and cost trends through the whole gas and LNG value chains
- Price and price trends in LNG market
- Market integration: towards a single global gas market
- Recommendations

#### **Chapter 3: Good practices in LNG management**

- Liquefaction plants and LNG export terminals
- Constructing LNG vessels and tankers
- Compatibility of LNG terminals and LNG vessels
- Regasification plants and LNG import terminals
- Utilisation of LNG as fuel and as chemical feedstock
- Recommendations
- Case studies

#### **Chapter 4: Development of small-scale LNG plants**

- Recommendations
- Case studies

#### **Chapter 5: Regulations and standards**

- Security and safety of LNG operations along the value chain
- Other technical regulations and standardisation
- Recommendations
- Case studies