

10th International Forum on Energy for Sustainable Development (IFESD)
7-8 October 2019, UN Conference Centre, Bangkok, Thailand
From Targets to Action

**Workshop on the Role of Natural Gas in Achieving SDG7
and the Paris Agreement**

09:00-17:15, Tuesday 8 October 2019
Venue: UN Conference Centre

In conjunction with ESCAP Expert Working Group on Universal Access to Modern Energy Services,
Renewable Energy, Energy Efficiency and Cleaner Use of Fossil Fuels

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Background and Rationale

Sustainable Development Goal 7 (SDG7) to ensure access to affordable, reliable, sustainable and modern energy for all together with the Paris Agreement set a very clear target for countries towards clean energy future. Renewables are the fastest growing energy source in the world, but fossil fuels remain their space in energy forecasts. Natural gas produces 25–30% and 40–45% less carbon dioxide per joule delivered than oil and coal respectively. Reducing CO₂ emissions through a shift from coal to natural gas power plants is a key strategy to support pathways for climate stabilization. Natural gas is considered to serve as a bridge fuel towards achieving SDG7 and the Paris Agreement.

IEA reports that global energy demand grew by 2.3% in 2018, natural gas consumption was the main contributor to this increase, accounting for nearly 45% of total energy demand growth. In 2018 natural gas demand grew by 4.6%. Nowadays natural gas share in global energy mix is about 22% and according to GECF will reach 26% in 2040.

Natural gas plays a major role across multiple sectors of the modern economy — including power generation, industrial, commercial, and residential applications. Also, gas is becoming increasingly accessible to consumers in different regions due to increasing LNG capacities and small-scale LNG. Today's technologies enable innovations such as floating gas-fueled power stations, and floating terminals for the liquefaction and regasification of natural gas. All this makes connecting to on-shore infrastructure significantly easier and accelerates the development of LNG. According to GECF estimations the share of LNG trade will reach about 45% of global gas trade by 2040.

Asia-Pacific region is considered as a main source of growth in demand for natural gas due to booming population and GDP growth, leading to energy demand accompanied by an increasing focus on air quality and environmental issues. According to IEA estimations Asia-Pacific region accounts for over half of total growth in natural gas consumption over the next five years where

China alone accounts for 42% of global demand growth and 74% of growth in Asia. There are opportunities for both pipeline and LNG expansion in the Asian region depending on geographical, political, economic and environmental factors. A growing number of countries in Asia have expressed interest in developing LNG facilities to increase the share of gas in their energy mix. And there is even a potential for Asia to become a modern gas hub.

Objectives:

The workshop will bring together government representatives, business and academic society to discuss the role of natural gas in building sustainable and cleaner energy systems and, in particular, in providing access to clean fuels and technologies in power, industry, transport and residential sectors for power generation, renewable energy integration and clean cooking to improve energy efficiency, and reduce emissions.

Tentative Agenda:

9.00 – 10.15	
Session 1. Natural gas in power, industry and residential sectors	
<p>Power and industrial sectors are the main drivers of rapid growth of natural gas demand. The share of the power sector was 40% of total in 2018 and continues to be the main source of natural gas consumption in the future. In the power generation sector, gas as a flexible and rapidly dispatchable energy resource can also play a role in integrating high penetrations of variable renewable energy such as wind and solar. Natural gas in the residential sector may become a solution for both heating and clean cooking. As well as new household connections there is a coal-to-gas switching trend especially visible in China. What is also important, use of gas reduces household air pollution emissions to the safe level for health compared to traditional types of cooking fuels such as wood.</p> <p>Questions for the discussion:</p> <ul style="list-style-type: none"> • Role of natural gas in energy transition • Challenges and best practices from different regions • Synergy between natural gas and renewables • Cost effectiveness of natural gas in the power sector • Switching from traditional biomass to gas: environmental and health benefits • Possibilities of future development of natural gas in cities and rural areas <p>Moderator: Mr. Sergey Tulinov, Economic Affairs Officer, ESCAP</p>	
9.00 – 9.10	<p>Welcome remarks</p> <p>The Role of Natural Gas in Achieving SDG7 and the Paris Agreement</p> <p>Mr. Liu Hongpeng, Director, Energy Division, ESCAP</p>



9.10 – 9.50 (app. 6 min each)	World energy outlook: gas sector Mr. Sergey Kapitonov , Gas Analyst, SKOLKOVO Energy Centre
	Natural Gas and LNG as the Transitional Fuel in ASEAN countries Dr. Jun Arima , Senior Policy Fellow of Energy and Environment, Economic Research Institute of ASEAN and East Asia (ERIA), Professor, University of Tokyo
	Future of natural gas in Europe UNECE (tbc)
	Decarbonizing Energy Supply in Northeast Asia: Economic Impacts of a Coal-to-Gas Transition Policy Ms. Enkhbayar Shagdar , Senior Research Fellow, Research Division and Business Support Division, Economic Research Institute for Northeast Asia (ERINA)
9.50 – 10.15	Q and A session, discussion
10.15 – 10.30	Coffee break
10.30 – 12.00 Session 2. Natural gas in power, industry and residential sectors (cont.)	
10.30 – 10.35	Introduction from the moderator
10.35 – 10.50	Future of natural gas in West Asia Ms. Radia Sedaoui , Chief of the Energy Section in the Sustainable Development Policies Division, UNESCWA
10.50 – 11.40 (app. 6 min each)	Gas for clean cooking: best practices from West Asia region Dr. Syham Bentouati , Managing Director, NAFAS International LLC
	The Bridge Role of Natural Gas/LNG in Achieving SDG7 and the Paris Agreement—China's Clean Energy Pathway beyond 2050 Mr. Yang Yufeng , Honorary Research Fellow, Grantham Institute – Climate Change and the Environment, Imperial College London
	Case study: Turkmenistan Countries representative (tbc)
	Case study: Uzbekistan Mr. Rakhimjan Babakhodjaev , Head Chair "Thermal power engineering", Tashkent State Technical University
	Case study: Bangladesh Ms. Tahnia Rahman Chowdhury , Deputy Secretary, Power Division, Bangladesh Secretariat
Case study: Indonesia Countries representative (tbc)	

	<p>Future of natural gas in energy balance: private sector vision Mr. Paramate Hoisungwan, Manager, Upstream Business Group, Subsidiary Management Department, Executive Vice President, Upstream and Gas Business Group Planning, PTT Public Company Limited</p>
11.40 – 12.00	Q and A session, discussion
12.00 – 13.30	Lunch break
13.30 – 15.15	
Session 3. Opportunities for small-scale LNG: power, residential and transport sectors	
<p>Transport sector both road and marine have the smallest share of natural gas consumption, but even despite the development of e-vehicles has a great potential for future growth. The average consumption growth in transport sector is about 3% annually due to development of gas-powered vehicles and increasing interest in LNG in marine sector. Boosting population and urbanization levels, as well as economic growth rates and the corresponding increase in household wealth lead to the expanding consumption of private vehicles, public transport and heavy vehicles for goods transportation. In total transport sector is responsible for more than 20% of global emissions, so modern technologies with the use of natural gas has a potential to reduce this number.</p> <p>Questions for the discussion:</p> <ul style="list-style-type: none"> • How does the small-scale LNG shape the development of the sector • Future of natural gas in road transport sector • Technological issues: LNG, CNG, LPG • Infrastructure development and governmental support 	
13.30 – 13.35	Introduction from the moderator
13.35 – 14.30 (app. 6 min each)	<p>Small-scale LNG in Asia-Pacific Mr. Diego Rivera Rivota, Researcher, APERC</p>
	<p>Small – scale LNG: case study, Indonesia Mr. Alan Yogi Lau, President Director Pt. Anglo Euro Energi Indonesia</p>
	<p>LNG in transport sector: infrastructure development Rostech (tbc)</p>
	<p>LNG in transport sector: policy issues Countries representatives (tbc)</p>
14.30 – 15.15	Q and A session, discussion
15.15 – 15.30	Coffee break

<p>15.30 – 17.15</p> <p>Session 4. Natural gas emissions mitigation: technical, financial, and policy opportunities for countries and the oil & gas industry</p> <p>Organized by UNECE / UN-Environment / OGCI</p>	
<p>Questions for the discussion:</p> <ul style="list-style-type: none"> • Importance of addressing methane emissions from the O&G industry in the context of fighting climate change. • Key barriers & enablers to catalyse ambitious methane emission reductions in the O&G industry. • Best practices and explore multi sectorial, actionable options. 	
	<p>Introduction to the session (Tbc)</p>
	<p>Why it is crucial to address methane emissions EDF</p>
	<p>Policy action UN-Environment / CCAC</p>
	<p>Best practices UNECE</p>
	<p>Financing action ADB & CNPC</p>
	<p>Example of voluntary action from the industry OGCI</p>
	<p>Q and A session, discussion</p>

Expected outputs:

The workshop will contribute to a better understanding of the social, economic, and environmental impacts of expanding the use of natural gas, in particular LNG, in the fuel mix and the role of natural gas in achieving SDG7 and the Paris Agreement. It is expected to provide guidance and direction to identify priorities for enhanced international cooperation.