

APEC Workshop on LNG Trade Facilitation

SUMMARY REPORT

*December 6-7, 2018
Taipei, Chinese Taipei*



Chinese Taipei and the United States cohosted the APEC Workshop on LNG Trade Facilitation (EWG07 2018S) in Taipei, Chinese Taipei from July 6-7, 2018. The two-day workshop convened APEC officials from energy and industry ministries, and representatives from international organizations, industry, and academia to explore specific strategies for facilitating LNG trade from different angles, such as policy, market, infrastructure, and technology development. Participants shared and provided valuable information and analysis on the status of the global and regional LNG trade as well as the challenges that lie ahead and possible solutions to help ensure continued healthy development of the APEC region. Key recommendations resulting from the workshop are noted below.

Background

LNG continues to play an increasingly important role in the region's stable energy supply and economic development. To maximize the positive effects, it is imperative to establish a flexible and transparent LNG trading system. Therefore, since 2014, Chinese Taipei has been promoting the "APEC LNG Trade Facilitation Initiative," aiming at greater facilitation and liberalization of the regional LNG trade environment. As an important step under the initiative, the first "Conference on APEC Regional LNG Trade Facilitation" was held in 2015. The 2018 Workshop is the second event held under this initiative and it is also a continuation of the work of the APEC Energy Work Group on implementation of the recommendations of the "APEC Energy Ministers-CEO Dialogue on LNG Development and Trade" held in Washington, D.C. June, 2018. It is hoped that through the implementation of this initiative, the APEC economies will be able to promote the common interests of LNG producers and consumers in the region, respond to the energy needs brought about by economic growth, and ensure regional energy security.

Global LNG Trade Development

With increasing energy needs, natural gas has become an important source of energy in the world primary energy mix. LNG industry has been growing rapidly in term of the market, the number of participants, trade, and capacity. In the next 5 years, China becoming the world's largest natural gas importer, and US gas production and LNG exports rising dramatically. LNG trade passes 500 bcm by 2023. Qatar, Australia and the US will supply 60% of the world's LNG by 2023.

LNG producers face main challenges; including: (1) Financing for new LNG projects; (2) Insufficient natural gas import, storage and local transmission and distribution infrastructure in some importing countries; (3) Low income developing countries, which have a great potential for natural gas, require foreign direct investment to import LNG; (4) Lack of government support and poor policy to promote natural gas consumption in importing countries; (5) Timid global advocacy on the environmental and other benefits of natural gas as a fuel of choice for sustainable development.

There are some way to cope with challenges; including: (1) Securing financing for LNG projects is vital to keep LNG supply and demand balance in the future; (2) Investment in the gas industry facilities in gas importing countries; (3) Enhance the cost competitiveness of natural gas with alternative fuels through cost optimization technology and innovation across the entire natural gas value chain; (4) Advocate the role of natural gas as a fuel of choice for sustainable development through participation at international events.

Facilitating APEC LNG Trade: Policy Perspective

Speakers from Chinese Taipei, United States, Japan, and Korea introduced the domestic situations of LNG supply and demand as well as the facilitation policies in their economy. Mr. Chen noted that Chinese Taipei adopted goal by 2025 to shift the share of gas-fired power by 50%. To facilitate LNG trade, Chinese Taipei ensured the infrastructure adequacy, sources and contract diversity, and introduced the cooperation. Mr. Rob Smith introduced the natural gas supply and trade situation in the United States and highlighted that with the diverse reserve of tight/shale gas and other resources there were abundant U.S. natural gas resources for decades to come. Mr. Kato noted that the future of LNG trade needed to increase short-term and spot contracts and optimize the procurement terms, abolish or relax the destination clause, utilize reselling and arbitrage trading, as well as construct a pricing reflecting system. He also suggested that it should get the enhancement of tradability, set creation of a proper price discovery mechanism, and build open and sufficient infrastructure to promote an internationally recognized hub in Japan. Mr. Park introduced the LNG situation and policies in Korea. According to Korea's energy transition agenda, the new energy policy focused on reducing the dependence on nuclear and coal in the power sector, while it intends to increase the use of natural gas and renewable sources in power mix. Hence, Government announced LNG import policy directions which emphasized the supply security, diversification of import source, and preparation against sudden changes of the global LNG market.

Facilitating APEC LNG Trade: Market Perspective

Participants discussed the main obstacles, trading hub and the government's role in the LNG market. LNG market is still at premature stage, and the transition direction and pricing mechanisms should be focused. The LNG trading hub should be established to provide price information, but the development of the operation model and the participation from stakeholders are still need time. The government mainly play the support role in LNG market, but there are individual differences among each economy. Strong and steady government policies will support LNG trade diffusion.

Several presenters stressed that role of governments in addressing barriers to LNG trade including building of infrastructure and help create transparency, stability and long-term policy commitments to secure long-term LNG projects. Government policies, legal framework and institutional capacity required for developing APEC economies to create environment for LNG investment. LNG trading hub could be the combination of physical trading hub for spot transactions and the exchange-based futures market where price signals can be generated and disseminated based on a larger number of transactions by a diverse set of market participants. Ultimately LNG trade must be subject to transparent rules of trade which are mutually beneficial to producers and consumers. The LNG business model needs to evolve to address the challenges of the energy trilemma-energy security, affordability and environment. More dialogue on LNG development will be necessary to agree on what is of common interest, including costs of and benefits from LNG trade to producers and consumers.

Facilitating APEC LNG Trade: Infrastructures, Technology Advancement, and Corporate Perspective

Presentation showed that LNG has big advantages for its low carbon emission nature and flexibility in storage, distribution, and application. Participants exchanged observations and discussed issues in promoting LNG trade. Experts observed that government is transforming from an energy security role into a role that supports and monitors LNG industry in terms of energy security aspect. To develop LNG market, innovation is the key. However, challenges of LNG trade is not only in LNG pricing, but also in current procurement process, which does not allow much collaboration with LNG contractors. Cost and schedule of LNG project may be improved if there are ways for early participation and more collaboration among industries. For financial institution to invest LNG market, challenges are liquidity, new product development and ability to forecast trends in LNG market in the next 10 to 20 years. Finally, to promote use of LNG in small islands in APEC region, experts advised that innovations in ISO tank and LNG truck are needed for distribution because space and financial resource are limited for huge LNG infrastructures.

Cooperation Prospect in APEC LNG Trade

Before panel discussion, a presentation, titled "An Overview of Natural Gas in the APEC Region", was given to participants. With about 60% of the world's gas demand, more than 50% production, and around 60% global LNG imports, APEC economy members' gas demand and supply dynamics are at center of the global stage. APERC estimates that

APEC's non-OECD economies increase their share of renewables and gas in total primary energy supply by 2050 and that power generation, industry and building will be the three main gas-consuming sectors in APEC region. Although LNG presents 53% in APEC gas import and about 10% in global gas trade currently, China, Korea, Chinese Taipei, Thailand, Viet Nam, and Indonesia can play an important role on the LNG demand side. Challenges related to financing, LNG infrastructure, lack of regulation, and policy support may hinder broader LNG demand growth in APEC. Therefore, it is important to study LNG dynamics and decision-making process with an integrated approach, considering factors such as pipelines, decarbonization policy, nuclear policy, power transmission networks etc. It is also worthy to note that gas market dynamic can be changed by innovative technologies such as FRSU, small-scale LNG and breakbulk and increasing uses as fuel in bunkering and heavy trucking.

In panel discussion, participants agreed that creating a sound environment for LNG development, facilitating regional LNG market transparency in terms of flexibility, liquidity, and adoption of benchmark physical and financial LNG price index in Asian market, and promoting multilateral cooperation for synergy on LNG trade issues in APEC region and sharing of best practices are essential to boost LNG trade.

**Summary of Conclusions from the
APEC Workshop on LNG Trade Facilitation
December 7th, 2018, Taipei, Chinese Taipei**

**Toward a diversified, flexible, and integrated liquefied natural gas market in the
Asia Pacific region**

The use of liquefied natural gas (LNG) has been dramatically increasing these years. The global LNG market will be expanded much further, and above 70% of this projected increase will come from the Asian market. The Asian market will continuously play a more dominant role in driving LNG demand and in the global LNG market toward 2030.

Chinese Taipei and the United States co-hosted the APEC Workshop on LNG Trade Facilitation on December 6th and 7th in Taipei. This Workshop is the second event held under the “APEC LNG Trade Facilitation Initiative”. During the 2015 APEC Regional LNG Trade Facilitation Conference, consensus was reached that energy policy and supportive regulations are essential to the LNG market development and projects. And APEC economies agreed on the need for further cooperation on LNG trade facilitation, including strengthening the exchange of market information and facilitating market transparency. The 2018 Workshop is also a continuation of the work of the APEC Energy Work Group on implementation of the recommendations of the “APEC Energy Ministers-CEO Dialogue on LNG Development and Trade” held in Washington, D.C. this June. Based on the past contributions, the following recommendations are derived from the 2018 Workshop:

1. Create a sound environment for LNG development

- (1) Member economies are encouraged to develop sustainable and viable energy policies, as well as supportive regulations that help mobilize steady and balanced LNG supply and demand in the Asia-Pacific region.
- (2) Economies could introduce long-term, firm, consistent policies to reduce the uncertainty and risk associated with the development of markets and to support LNG trade.
- (3) Policy makers could identify and address barriers to LNG trade and development, support in building necessary infrastructure, and create a favorable and competitive fiscal environment to attract investment and LNG market development projects.
- (4) Member economies are encouraged to promote the development of innovative technologies as well as opportunities to increase the role of natural gas as a transportation fuel.

2. Facilitate regional LNG market transparency

- (1) LNG industries could raise the flexibility of LNG contracts and the liquidity of the market and improve the accessibility of infrastructure.
- (2) An LNG trading hub could be the combination of a physical trading hub for spot transactions and an exchange-based futures market, where price signals can be generated and disseminated based on a larger number of transactions by a diverse set of market participants.

- (3) LNG industries could increasingly participate in and adopt a benchmark physical and financial LNG price index into the Asian market.

3. Promote Multilateral Cooperation

- (1) Under the framework of APEC, it is encouraged to pursue cross fora cooperation with other international organizations to enhance synergy on LNG trade issues among all policy bodies of APEC.
- (2) It is encouraged to expedite sharing of best practices to shorten the learning curve of market participants in each member economy and to facilitate LNG trade.