IEEJ: August 2019©IEEJ 2019

Special Bulletin

A Japanese Perspective on the International Energy Landscape (442)

August 23, 2019

Considering Future Asian LNG Market on 50th Anniversary of Japan's 1st LNG Import

Ken Koyama, PhD Chief Economist, Managing Director The Institute of Energy Economics, Japan

The year 2019 marks the 50th anniversary of Japan's first liquefied natural gas (LNG) import that came from Alaska. About one month before the "LNG Producer Consumer Conference 2019" in Tokyo where ministers and relevant business leaders from both producing and consuming countries will participate, I would like to consider the future course of the global LNG market including the Asian market holding the key to future LNG demand growth.

Japan introduced LNG as air pollution grew serious in large cities and industrial zones in the wake of high economic growth since the 1960s. Japan began to use LNG as a clean energy source containing far less air pollutants by making massive investment in developing an LNG supply chain in which natural gas has been liquefied in remote production points for transportation with specialized tankers to Japan where LNG receiving terminals and gas utilization facilities were constructed . After the two oil crises in the 1970s, Japan saw LNG as an important option to hold down its dependence on oil and the Middle East from the viewpoint of energy security. In the 1990s when the climate change issue attracted global interest, priority began to be given to the expansion of LNG emitting less carbon dioxide than coal and oil as one of the climate change countermeasures.

Japan has thus greatly expanded LNG use, remaining the world's largest LNG importer. As South Korea and Taiwan have the same energy supply and demand and energy security situations as Japan, the three have formed the center of the global LNG market. China and India have also introduced LNG in the face of air pollution as serious as seen in Japan in the past after remarkable economic growth and begun to sharply expand LNG imports. LNG expansion is spreading to the Association of Southeast Asian Nations and South Asian countries. Europe is also a major LNG importer and will remain an important LNG consumer. However, LNG market participants and experts agree that given its future growth potential, the Asian market is the gravity center of the global LNG market and will grow even more important.

I also have no doubt about the future expansion and growth of the Asian LNG market. The question to ask is how fast it would grow or expand. Over a long term, the question would be how far the growth would continue. It is a fact that the Asian LNG market is expanding. By country, however, Japan as the world's largest LNG importer is now restoring a normal LNG demand level in the wake of a sharp import expansion under a special situation after the Great East Japan Earthquake, going in the direction of reducing LNG demand. LNG imports are also slackening in South Korea, the world's third largest LNG importer. Nevertheless, the Asian LNG market is continuing to expand due to a substantial demand increase in China and robust demand in other Asian emerging and developing countries. As a matter of course, LNG demand in Japan and South Korea would go in various directions depending on the restart and future use of nuclear power plants and the expansion of renewable energy in Japan and on energy choices in South Korea. However, LNG demand growth in emerging and developing countries may be decisively important for the Asian LNG market.

IEEJ: August 2019@IEEJ 2019

We now see key points linked closely to the speed and extent of Asian LNG market growth. First, economic growth is important as a matter of course. As far as energy is indispensable for economic activities and civil life, the expansion of demand for LNG among costlier energy sources depends on economic growth levels. In this sense, we must pay much attention to how the U.S.-China trade war would affect the Chinese or Asian economy after having remained serious and uncertain so far. Particularly, we must pay attention to the future economic trend of China that has attracted interest from LNG stakeholders by driving rapid global LNG demand growth since 2017.

Second, the LNG price trend is important. LNG import prices or prices that consumers pay for LNG will have great influence on LNG demand growth in Asian emerging and developing countries. Regarding LNG prices, two interactive viewpoints attract attention. One is the absolute price level. In the recent Northeast Asian spot LNG market, prices have slipped below \$5 per million British thermal units under the loosening supply-demand balance. If such price levels are available, LNG demand may be stimulated in emerging and developing countries where consumers' ability to pay is relatively limited. If the prices rise close to \$10/MMBtu, demand growth may decelerate, as noted by experts. The price problem is then complicated due to relative prices.

LNG faces severe competition from other energy sources in many Asian emerging and developing countries. They include coal as the most price competitive and abundant energy source, nuclear energy used as a baseload power source, renewable energy expected to expand thanks to recent drops in power generation costs, and liquefied petroleum gas and other petroleum products that are convenient and supported by their flexible international market. The competitive environment is severe for LNG. LNG also competes with natural gas. Frequently, LNG has no choice but to compete with natural gas that is produced domestically and imported via pipelines. Therefore, LNG's prices and affordability hold the key to the Asian LNG market's growth. Complicating the situation are the problem of affordability supporting market growth from the demand side and the issue of how best to promote the balanced and sound expansion of supply and demand by realizing investment that can expand supply while maintaining affordable prices. The abovementioned conference of LNG producing and consuming countries aims to pursue sound development of the LNG market that is significant for both LNG producers and consumers. If LNG were to play a more important role in Asia and the world, all LNG stakeholders would have to make innovative efforts to tackle the challenge of sound LNG market development.

Third, the degrees of the enhancement of national environmental measures and policies will exert influence on LNG demand growth in Asian emerging and developing countries. As mentioned above, the explosive growth in LNG demand in China in recent years has come on a strong policy of promoting switching from coal to counter air pollution. Future air pollution countermeasures in China, India and other Asian countries will continue to have great influence on LNG demand growth. On the other hand, we must pay attention to future climate change countermeasures among environmental measures. In the sense that switching from coal as a mainstay energy source to LNG in Asia can contribute to CO₂ emission cuts, LNG use may be promoted as a climate change countermeasure. If fundamental decarbonization initiatives as seen now in Europe are promoted, however, demand for LNG/natural gas as one of the fossil fuels may be affected. In Europe, even natural gas has become a target of decarbonization, being required to be replaced with hydrogen, biogas or synthetic gas. The future course of natural gas in Europe is now uncertain in various ways. As a matter of course, the Asian situation differs far from the European one. Over a long term, however, we will have to pay attention to how far climate change countermeasures would be enhanced in Asia. The two key words - affordability and sustainability - are important for considering the future course of the Asian LNG market.

IEEJ : August 2019©IEEJ 2019

Contact: report@tky.ieej.or.jp
The back issues are available at the following URL
http://eneken.ieej.or.jp/en/special_bulletin.html