

Asian LNG Spot Prices Top \$15 on Tightening Supply-Demand Balance

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

Asian LNG spot prices are rising. When LNG demand rapidly increased due to cold waves hitting Northeast Asia including Japan early this year, Asian LNG spot prices rose above \$30 per million British thermal units temporarily. As cold waves ended, however, they fell back below \$6/MMBtu in late February. Since April, however, they have increased gradually, rising above \$10/MMBtu in May, above \$12/MMBtu in June and above \$14/MMBtu in July. In late July, they surpassed \$15/MMBtu. Before the temporary hike early this year, Asian LNG spot prices stood around \$15/MMBtu between 2011 and 2014. Then, LNG demand expanded rapidly in the wake of the Great East Japan Earthquake and the Fukushima nuclear power plant accident in a manner to boost Asian LNG spot prices, with LNG procurement becoming an urgent challenge. As these prices have been rising again, challenges regarding LNG procurement have become a great matter of concern.

Since early 2021, not only LNG prices but also other fuel prices have risen and remained high. Brent and West Texas Intermediate crude oil futures prices have risen above \$70 per barrel. They were once expected to increase further in the second half of this year. Thanks to a production adjustment by the OPEC-plus group comprising the Organization of the Petroleum Exporting Countries and non-OPEC oil-producing countries, Brent and WTI prices still stay above \$70/bbl. However, their future movements remain unpredictable. Coal prices have also soared due to robust Asian demand and stagnation in China's domestic production. Australian coal spot prices for power generation have exceeded \$130 per ton. Amid the general fuel price uptrend, however, the LNG spot price hike has been remarkable. Levels early this year above \$30/MMBtu amount to a crude oil price of some \$200/bbl that is abnormally high. Spot prices at \$15/MMBtu amount to a crude oil price of about 90/bbl, far above the current crude oil futures prices. What are the background factors behind the LNG price hike?

There are some important background factors. The most fundamental one is a tightening supply-demand balance amid growing Asian demand. While the above focuses on Asian LNG spot prices, the linkage between natural gas and LNG prices in the world is growing closer in line with the rising liquidity of LNG flow. This structural market factor is also important for the Asian LNG spot price increase. A key point is that natural gas prices have been rising on a tightening supply-demand balance in the European market that adjusts LNG supply and demand with the Asian market. The following analyzes the Asian market before considering the European market.

Asian LNG demand has been increasing robustly. Symbolizing the robust increase is a rapid LNG demand expansion in China. As noted in "A Japanese Perspective on the International Energy Landscape (542)," China's LNG imports in the first half of 2021 rose by 8.3 million tons or 27% year on year to 39.78 million tons. If this pace of growth is sustained, China will undoubtedly become the largest LNG importer in the world. Japan's LNG imports also rose by 2.5 million tons or

7%, indicating a steady increase in LNG demand. As demand for power for air-conditioning rose on heat waves in July, LNG demand continue to increase. LNG demand and imports have been growing in South Korea and Taiwan as well. LNG demand has been expanding substantially in the entire Northeast Asian market, the world's LNG import center. While LNG demand has been growing robustly, however, new LNG project launches (and the marginal supply growth) have been limited. LNG procurement trends reflecting a summer demand increase and next winter's electricity demand have worked to tighten the LNG supply-demand balance, bringing about the current price hike.

The natural gas supply-demand balance is tight in the European market as well. As temperatures early last spring were lower than usual, gas demand was robust. As gas demand has remained strong, European gas inventories have remained below the average for the past five years since around March. In June, inventories were more than 10% less than the five-year average. On the supply side, LNG supply has been flowing to Asia where LNG demand has been robust. Furthermore, Russian pipeline gas supply to Europe has remained low, contributing to the decline in gas inventories. Particularly, Russian gas supply via Ukraine has been sluggish due apparently to (1) Russia's strategic intent to hold down Ukraine's gas transit revenue amid their confrontation, (2) the Russian need for maintaining high gas prices in Europe as a key market for Russia and (3) the strategic promotion of the Nord Stream 2 pipeline project pending between Russia, and Europe and the United States. As the gas supply-demand balance has been tightening under low inventory levels, European gas prices have risen along with Asian LNG spot prices.

Another interesting problem has arisen in the European market. That is the impact of CO₂ price hikes on the European market. CO₂ prices in the European Union Emissions Trading System have retained an uptrend since 2018 following a long stagnation from its startup. Since May, those prices have remained above 50 euros per ton. There is an argument that CO₂ price hikes might have been combined with the abovementioned coal price increase to exert some impact on natural gas prices. The relationship between CO₂ and coal price hikes and the gas price increase may not be so simple. As far as gas competes with coal in the European power generation sector, CO₂ and coal price hikes as a ceiling could lead natural gas prices to shift upward depending on gas supply-demand balances. If the gas supply-demand balance tightens, CO₂ and coal price hikes could become a factor to support a gas price rise.

As natural gas and LNG markets in the world have been increasingly linked, global supply and demand factors have sustained the LNG spot price hike. While the LNG spot price hike reflects the supply-demand relationship in the LNG market, its impact on overall LNG procurement prices is limited. This is because LNG prices under long-term contracts accounting for most of LNG procurement in Asia are still indexed to crude oil prices. Prices of rapidly increasing LNG imports from the United States are indexed to U.S. Henry Hub natural gas prices with some fixed cost elements including liquefaction and transportation costs. LNG prices indexed to crude oil prices under long-term contracts have risen in line with crude oil price hikes, but their rise has not been as sharp as the Asian LNG spot price hike. In the Asian LNG market, LNG supply has been susceptible to changes in crude oil, LNG spot and Henry Hub prices. Amid an overall price increase, LNG imports under long-term contracts, spot transactions and contracts with the United States are put into a complex competitive relationship. LNG producers and consumers are required to strategically consider how to interpret the impact of the present LNG price hike, how future LNG pricing should be and what would be required to lead LNG to be selected in the marketplace and play a key role in Japan and Asia, while watching the current market conditions closely.

In order to be selected in Asia and play roles in contributing to Asian energy security and stable supply, and the resolution of climate change and other environmental problems, LNG must be supplied stably at reasonable or affordable prices according to market conditions. LNG supply capacity must be expanded in response to a demand increase. Investment in the expansion must be secured. Natural gas and LNG are expected to play a key role in Asia's transition to decarbonization. There are numerous challenges for LNG to overcome to meet the high expectations. In line with new realities in the current LNG market and future prospects based on the new realities, Japan and other LNG stakeholders must combine their wisdom to tackle these challenges.

Contact: report@tky.ieej.or.jp

The back issues are available at the following URL

http://eneken.ieej.or.jp/en/special_bulletin.html