Special Bulletin

A Japanese Perspective on the International Energy Landscape (571) February 9, 2022

Reconsidering Strategic Significance of U.S. LNG and Natural Gas

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As the world focuses interest on the Ukraine crisis, the future relevant developments of the crisis and their impacts on international energy markets are attracting attention. This is because concerns over Russian energy supply as an energy geopolitical risk are jolting the world. However, this issue has become a serious one that should be considered not only as a grave risk factor regarding the stabilization of international energy markets, but also as a high-level one that could exert influence on international order, security and the global economy.

When energy prices spike with the supply-demand balance tightening, energy suppliers usually sit in the driver's seat to exert leading influence on energy markets. Russia now sits in the driver's seat. European countries that heavily depend on Russia for energy supply have no choice but to become conscious of their vulnerability regarding energy security. As international energy markets are linked closer, the issue now affects energy security not only in Europe but also in the world. Russia may be fully aware of the current situation and take maximum advantage of its energy resources for implementing its strategy against Western countries. Energy geopolitics now holds the key to international politics and security.

In such situation, Western and other major energy-consuming countries have no choice but to enhance their energy security. They are promoting energy efficiency improvements and renewable energy and taking a new look at nuclear energy. Naturally, however, the most critical energy security enhancement measure is to secure stable gas and LNG supply. In fact, the United States has reportedly consulted with Qatar, one of the world's largest LNG exporters, on how to stabilize the gas/LNG market and with major Asian LNG importers such as Japan and South Korea on LNG sharing/cargo diversion in emergencies. The consultations represent initiatives to secure alternative LNG supply sources in preparations for every contingency.

In such situation, the strategic significance of U.S. LNG is attracting attention. The biggest reason for this is that U.S. LNG features its unique supply flexibility that plays a key role in supply and demand adjustments. U.S. LNG is highly flexible regarding export destinations and more excellent than LNG subjected to traditional long-term contracts in responding to short-term market changes. U.S. LNG supply flows can change flexibly according to supply-demand balance changes and subsequent price fluctuations in the global gas market. This is the reason LNG and natural gas markets in the world have been linked closer through U.S. LNG flows as U.S. LNG supply has expanded substantially since 2016. Now that the European gas supply-demand balance has tightened under growing tensions over Ukraine, U.S. LNG exports have shifted from Asia to Europe. If Russian gas supply to Europe is disrupted in emergencies, European gas prices may spike, leading more U.S. LNG to be destined to Europe. In response, Asian LNG spot prices may shoot up. In emergencies, natural gas and LNG spot price hikes may be inevitable. This is because the global natural gas and LNG market has no major surplus supply sources. Any major supply disruption may immediately lead to a supply decline and a race to obtain flexible LNG supply.

Even if so, however, U.S. LNG's supply flexibility is very valuable and significant. This is because the flexible, timely supply and demand adjustments can allow supply to be distributed optimally through the pricing mechanism to a market where supply is the shortest with prices shooting up. This means that if there is no such flexible U.S. LNG supply, and a serious supply disruption occurs in some regional market, physical energy shortages may come out as the gravest energy security problem in the market, affecting regional civic life and economic activities seriously. As a matter of course, spot price hikes themselves may be a grave problem, exerting negative social and economic impacts. However, physical shortages in which supply is not available to meet demand are clearly the biggest energy security problem. The strategic significance of U.S. LNG that can timely respond to market needs has naturally attracted attention amid growing tensions over the Ukraine situation.

It is also important that the United States has rapidly expanded LNG exports since 2016, plans to boost LNG exports to some 90 million tons and has the potential to further increase supply in the future. This means that the United States could provide highly flexible LNG further to the international market in response to global demand growth, contribute to improving the market's flexibility and supply and demand adjustment capacity and continue to allow LNG importers to distribute and diversify supply sources. At a time when energy geopolitics grows important amid simultaneous price hikes for fossil fuels including gas and LNG, U.S. LNG is expected to contribute to stabilizing the international market in various ways through its supply expansion.

However, U.S. LNG is strategically significant not only for contributing to energy security that has been rapidly highlighted amid growing tensions over Ukraine, but also for promoting steady CO_2 emission cuts in Asia. U.S. LNG is expected to become a major supply source for the Asian LNG market that is likely to expand further in the future. In Asia that will drive global energy demand growth in the future, coal accounts for a major share of fossil fuel supply, indicating that how to cut CO_2 emissions from coal consumption will become a key challenge. In the United States, substantial CO_2 emission cuts in the past two decades have depended heavily on the rapid switch from coal to gas under the shale revolution. Given this point, the utilization of natural gas and LNG is an extremely pragmatic method to substantially reduce CO_2 emissions while supporting future economic growth in Asia. An increase in U.S. LNG exports to Asia will become a key support for decarbonization in Asia. Over a long term, the United States is also expected to become a major blue hydrogen/ammonia exporter rivaling Saudi Arabia and Russia. An analysis by the Institute of Energy Economics, Japan, indicates that U.S. blue hydrogen/ammonia production from natural gas could far exceed 100 million tons of oil equivalent. U.S. blue hydrogen/ammonia may be exported mainly to Asia, becoming a key clean energy source to support decarbonization in Asia. U.S. LNG and natural gas are thus strategically significant for supporting decarbonization in Asia.

U.S. LNG exports will be useful not only for stabilizing international energy markets and supporting decarbonization in Asia, but also for enhancing U.S. national interests. The abovementioned strategic significance of U.S. LNG, if recognized widely in the world, will become an advantage for diplomacy, national security and geopolitics. Furthermore, an increase in U.S. LNG exports will make a great contribution to the U.S. economy. The IEEJ analysis indicates that U.S. LNG exports would increase by up to $28 billion from 2020 to 2030, contributing $38 billion to U.S. GDP in 2030 and 58,000 new jobs. Over the decade to 2030, a cumulative GDP increase through LNG exports would reach $208 billion, making a great contribution to the U.S. economy. Another estimate indicates that blue hydrogen/ammonia exports would reach some $80 billion in 2050, contributing much to the U.S. economy as is the case with LNG exports.

The Ukraine crisis will lead the roles and strategic significance of U.S. LNG and blue hydrogen/ammonia to attract attention anew from the world including the United States.

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