

Discussion on U.S. Natural Gas/LNG, Electrification, Japan-U.S. Cooperation

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In Tokyo in the second half of the week before last and in Pittsburgh in the second half of last week, I had opportunities to discuss the U.S. energy situation and policies, and Japan-U.S. energy cooperation with people deeply involved in U.S. energy and climate change policies, energy industry officials, and academic stakeholders. Among various topics that came to the forefront of discussion, I here would like to comment on the following three: (1) natural gas and LNG, (2) progress in and response to electrification, and (3) challenges for Japan-U.S. energy and climate cooperation.

As for the first topic, I had talks in Pittsburgh with people involved in the upstream shale oil and gas business in North America. Then, it was interesting for me to feel their solid confidence in the future potential of the U.S. oil and gas business, although there are various relevant challenges. Amid the global hype of scenarios in which global oil and gas demand will peak soon as efforts are enhanced to achieve carbon neutrality, uncertainties about the future of the oil and gas business have risen to unprecedented levels. However, the realities of the international energy market after the outbreak of the Ukraine crisis indicate a growing expectation that demand for fossil fuels will not decline so easily.

In such a situation, U.S. oil and natural gas production continues to expand, increasing the United States' presence in the international energy market. U.S. oil production is among the most important influences on the international oil market and crude oil prices. The other factors include China's demand, production policy of the OPEC-plus group of oil-producing countries, and geopolitical risks. With regard to gas, the expansion of U.S. gas production and LNG supply has become the biggest influence on the global gas and LNG market, as growing U.S. LNG supply's pivotal role since the outbreak of the Ukraine crisis has been recognized. Apart from the impact of the LNG export licensing pause to be discussed below, it is certain that the significant expansion of U.S. LNG supply supported by growing domestic gas production will continue in the foreseeable future.

I felt that businesspeople involved in the U.S. oil and gas business are becoming more confident about their future under these circumstances. Given abundant U.S. oil and gas resources and their accumulated efforts and experiences, they seemed confident of their competitiveness, as well as their survival and growth in the future business environment. It is difficult to predict what kind of policies the next and subsequent U.S. administrations will implement, while constraints exist on the development of energy infrastructure including pipelines. Despite such uncertainties about the future business environment, I felt resilient U.S. confidence in the oil, gas, and LNG business. As energy transition is promoted, demand is expected to grow for hydrogen, ammonia, e-methane, synthetic fuels, and other fuels derived from fossil fuels, as well as carbon capture and storage and other systems, providing new business chances for oil and gas companies that are closely involved in these areas.

Regarding the LNG export licensing pause announced by the U.S. government recently, U.S. LNG business operators positioned the measure as one of the political moves towards the presidential

elections and seemed concerned about the measure's potential hindrance to LNG investment promotion, a consequential decline in confidence in U.S. LNG, and a shift of interest to competing LNG suppliers. The prospect of LNG demand growth, the need for new investment to cover a capacity decline for existing LNG projects, and relevant hopes placed on U.S. LNG, as noted in an analysis by the Institute of Energy Economics, Japan, resonated with U.S. LNG business operators who were highly interested in growing LNG demand mainly in Asia.

On the second topic, we discussed the current status of the U.S. energy market in which the progress of a new information revolution symbolized by the rapidly expanding use of generative artificial intelligence and other technologies has led to a significant expansion of data centers as infrastructure and a subsequent substantial increase in electricity demand. The rapid expansion of data centers will increase not only the demand for electricity but also the importance of a stable power supply. In this respect, the importance is growing of various initiatives, including the development of infrastructure for so-called "uninterruptible power supplies."

As the importance of and expectations on energy storage systems increase, interest is growing in nuclear power as a stable power source and in small modular reactors as a nuclear option. In addition, expectations are growing on the enhancement of power supply networks to address the intermittency and uneven distribution of renewable energy supplies, at a time when renewable energy is expanding significantly amid the promotion of the energy transition. In particular, it was extremely interesting to see the frequent presentation of the view that the expansion of the power grid would accelerate in order to respond to the uneven distribution of renewable energy resources. Ahead of Japan, the United States has addressed the acceleration of electricity demand amid the progress of the new information revolution, faced new challenges for the stable supply of electricity, and tried to strengthen the power grid. I feel that Japan will be forced to deal with these challenges in the future.

With regard to the acceleration of electrification and the subsequent promotion of decarbonization efforts, I was reminded of the voices pointing out the great effects and impacts of the U.S. Inflation Reduction Act (IRA) during talks in the United States. I felt that my U.S. discussion partners were aware that the trend would be resilient and have to be addressed by the energy industry, while whether this trend would be affected by the presidential election results is an important matter of concern. Regarding the promotion of the energy transition, a trend of enhancing economic security to strengthen the national economy will grow amid the deepening division of the world.

On the importance of Japan-U.S. energy and climate cooperation as the third topic, we exchanged views from various viewpoints. Again, the keywords were "the deepening division of the world" and "the importance of industrial policy." Potential Japan-U.S. cooperation related closely to the two keywords includes the enhancement of cooperation and complementary relations between the U.S. IRA and Japan's green transformation (GX) initiative. Since both the IRA and GX cover an extremely wide range of fields, there is a wide range of possibilities for Japan-U.S. cooperation. However, I felt that the first important initiative would be to promote and strengthen the development of supply chains for clean energy under Japan-U.S. cooperation. While Japanese and U.S. companies are expected to launch extremely competitive supply projects for hydrogen, ammonia, e-methane, etc. under the IRA, while the GX is expected to develop markets and demand for these clean energy sources through CfD to fill the price gap between the cost of clean energy products and competing traditional energy sources. By combining the IRA and GX, the United States and Japan may realize clean energy supply chain development. This will not only promote the two countries' investment in the clean energy sector and contribute to the promotion of the energy transition but also serve as the basis and trigger of Japan-U.S. cooperation to promote the energy transition in Asia and the rest of the

world. In an increasingly divided world, the promotion of U.S.-Japan cooperation in this area should be emphasized as having strategic implications not only from the viewpoint of energy and climate change but also from a broader geopolitical perspective. This point should be regarded as having unchanging strategic importance, regardless of the outcome of the U.S. presidential election.

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