

Future Prospects for Natural Gas Market under the Prevailing New Situation

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The international energy market has entered a turbulent time since the beginning of 2011. It is no exaggeration to say that world-shaking events have been closely linked with energy problems to continuously produce great impacts. The first factor behind the turbulence is the growing tensions in the Middle Eastern and North African situation accompanied by crude oil price spikes. The second factor is the Great Eastern Japan Earthquake combined with the Fukushima Daiichi Nuclear Plant crisis. Particularly since March, most energy news headlines in the world have been related to either of the two big factors in various ways.

These two major factors are likely to remain very significant and continue attracting global attention. But I feel that a new attention-attracting problem will grow more significant in the international energy market. The problem is the expansion of natural gas demand that may lead to changes in market and supply/demand environments.

Natural gas has increased its presence in the international energy market, as indicated by the International Energy Agency's World Energy Outlook 2010 that described natural gas as entering "a golden age." Behind the growing presence has been the U.S. shale gas revolution that has heightened expectations on abundant unconventional gas resources throughout the world. Apparently, however, the growing tension in the Middle Eastern and North African situation and the Fukushima Daiichi Nuclear Plant crisis may work to further increase expectations on natural gas. The growing tension has destabilized the international oil market, prompting crude oil prices to shoot up and deviate from natural gas prices particularly in the United States. The nuclear crisis has stimulated antinuclear sentiment.

Of course, future developments in the international energy market under the new situation are very uncertain. Depending on future developments involving various uncertain factors, the world's energy supply/demand structure could deviate far from that was projected in the recent past. In pursuing balanced measures to solve complicating energy security and global warming problems while maintaining economic growth, the world may have to adopt all useful options, including the

enhancement of energy conservation, the increased use of renewable energies such as solar energy and wind power, the effective, intensive utilization of coal with advanced technologies, the efficient utilization of oil as a convenient, economically efficient energy source, and the use of nuclear energy based on safety enhancement and confidence restoration efforts. All of these options are important. Under the current international energy and environment situation, however, expectations may undoubtedly increase on gas as an energy source that can make significant quantitative contributions to satisfying global energy demand that is likely to expand substantially.

In a specific case expected for the immediate future, demand for natural gas, particularly LNG, is likely to expand by at least several million tons in Japan this year. Toward this summer when electricity demand will increase, Japan is required to expand electricity supply to cover power generation capacity losses on the disaster. Most of the expansion may depend on oil and LNG thermal power generation. Particularly, LNG thermal power generation may play a significant role in expanding electricity supply. In contrast, oil thermal power generation played a greater role in covering a capacity drop on the suspension of operations at the Kashiwazaki-Kariwa nuclear power station hit by the Chuetsu Earthquake in 2007. Reasons for the expected shift of emphasis to LNG include the larger LNG power generation capacity, skyrocketing crude oil prices which resulted in improved economic competitiveness in LNG prices because of the characteristics of LNG pricing and advantageous characteristics of LNG as a clean fossil fuel.

How will the world market react to the growing LNG demand? The answer to this question attracts attention next. My answer is that the world LNG market now has sufficient supply capacity and can absorb the expected demand increase. But any large demand expansion is expected to gradually affect the overall supply/demand balance. Tightening the focus, we may have to pay attention to how the supply/demand environment and prices would change in the spot LNG market as a last resort to cover the demand increase.

How will the world gas market develop or change over a medium to long term? This is also a major question asked under the new situation. As noted earlier, various scenarios are conceivable for the international energy market. Under the new situation, representative economic institutes may be required to pay attention to scenarios in which natural gas demand would increase faster than earlier expected. How will the world gas supply/demand balance change in the future? Will gas increase its economic efficiency advantages over rival energy sources under the changing supply/demand balance? Will the conversion or integration of the three major markets (Europe, the United States and Asia) make progress for natural gas that is expected to play a greater role than other energy sources? Thus, there are many problems or challenges for natural gas. In 2011, natural gas market under the new situation will inevitably become a very important topic in anticipating world energy supply/demand over a long term. I will definitely try my best to deepen information collection and analysis on natural gas market.

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