

## **Future Scenarios for Northeast Asian Energy and Nuclear Problems**

Ken Koyama, PhD

Chief Economist, Managing Director

The Institute of Energy Economics, Japan

On July 28-29 in Washington DC, I had an opportunity to exchange views with American and Northeast Asian experts on energy and nuclear problems in Northeast Asia including Japan, China, South Korea and Russia. Based on the present Northeast Asian situation, we discussed various future scenarios for energy and nuclear problems and their potential impacts. In the following, I would like to summarize impressive points of the discussions.

First, one focus of the discussions was nuclear energy or nuclear power generation as indicated by the theme. Primarily, participants in the discussions were interested in how the Fukushima nuclear plant accident in Japan has affected and will continue to affect Japan's energy policy and choices. At the same time, we discussed how the Fukushima accident impacted other Northeast Asian nuclear energy using countries, including South Korea and China, beyond the scope of Japan. Particularly, we had heated discussions on scenarios for some problems or accidents arising in China that plans to expand nuclear power generation most substantially and rapidly in the world. There were intense discussions on how the problems or accidents would (adversely) impact China's nuclear program and energy policies in Japan and South Korea.

The impacts, though depending on the severity of the problems or accidents, the Chinese government's response to them and their causes, could develop into grave ones. They may affect nuclear power generation development that China views as important for diversifying electricity sources away from dominant coal, in response to growing energy and electricity demand. At the same time, they may exert spillover effects on energy policy discussions in Japan and South Korea, where people are still sensitive to nuclear safety in the wake of the Fukushima accident. In this sense, the enhancement of the three nuclear S's (safety, security and safeguards) is a common challenge for Northeast Asian countries (and the whole of Asia). They are in the same boat. Cooperation in sharing information and securing transparency regarding accidents and in responding to emergency situations may also be an important challenge for Northeast Asia.

Second, the relationship between Northeast Asia and Russia, as one of the major matters of concern to us, attracted attention by becoming one of the topics of the discussions. As international tensions were growing over the Ukraine situation, we discussed whether Russia would enhance its

approach to Northeast Asia to sharply expand oil and gas supply to the region and how such development would impact Northeast Asian energy policy and Japan-China-South Korea relations. As indicated by a large China-Russia gas deal cut earlier this year, the scenario for Russia's enhanced approach to Northeast Asia has become more plausible. Therefore, the scenario became a major topic of interest in the discussions. It was noted that China, Japan and South Korea have different relations with Russia. China is enhancing its strategic relationship with Russia, while Japan must go along with its Group of Seven partners. A pipeline for oil and gas supply from Russia to South Korea would have to pass through North Korea. In spite of such differences, it was noted that massive Russian gas (and oil) flow into Northeast Asia would make great contributions to easing the supply-demand balance and diversifying supply sources for the region and would be very significant for the region's gas procurement at competitive prices. As a result, it was pointed out that gas's greater competitiveness would exert some impacts on energy policies and choices in Northeast Asia and on plans for other energy sources like nuclear, coal and renewable energy.

Third, discussions were heated on Northeast Asian environmental problems including how the growing air pollution issue in China would affect its energy choices. Given the urgency of the issue, the Chinese government is expected to take measures that would produce effects as early as possible. In this respect, discussion was made that the government would give priority to accelerating energy conservation measures and the introduction of natural gas. Even if the Chinese government immediately decides to promote energy conservation and natural gas, however, visible effects of such decision may emerge over a medium term. In the discussions, substantial acceleration of the nuclear power generation program was cited as a possible long-term option to sharply reduce coal consumption in China. But China has already been developing nuclear power generation at an unprecedented pace. If its nuclear program is further accelerated, its feasibility and safety measures may become a major challenge. As another problem, it was cited in the discussions that the impact of a sharp expansion in Chinese natural gas demand over a medium to long term on the supply-demand balance in Asian and international gas markets and on gas procurement competition.

The discussions also covered how nuclear (non-proliferation) problems and strategies would develop in major Northeast Asian countries including Japan in the presence of complicated international relations involving tensions between major players in the region, Russian policies and the United States' Asian engagement policy, as well as growing geopolitical tensions. The discussions, though based on scenario approaches, led me to recognize anew that the nuclear (non-proliferation) problem is an important real and existing challenge for all countries in the region at a time when international and geopolitical tensions remain high.

In Northeast Asia, there are various problems regarding energy and geopolitics. Japan, which is geographically located in the region, must strive to solve these Northeast Asian problems through dialogue and cooperation with other countries in the region and with its key ally, the United States.

Contact: [report@tky.ieej.or.jp](mailto:report@tky.ieej.or.jp)

The back issues are available at the following URL

[http://eneken.ieej.or.jp/en/special\\_bulletin.html](http://eneken.ieej.or.jp/en/special_bulletin.html)