Special Bulletin

A Japanese Perspective on the International Energy Landscape (265) March 31, 2016

Energy Challenges for Japan, China and South Korea and Their Future Cooperation

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

On March 30, the Institute of Energy Economics, Japan, hosted the third China-Japan-South Korea joint energy workshop in Tokyo, following the first one in Seoul in 2014 and the second in Beijing in 2015. At the workshop, top management and other representatives from China's Energy Research Institute, the Korea Energy Economic Institute and the IEEJ discussed energy challenges for the three countries, initiatives to solve them and their cooperation in such initiatives. As cherry blossoms just before full bloom in Tokyo welcomed the Chinese and Korean representatives, the participants in the workshop had active discussions amid a friendly atmosphere.

Following opening addresses by the heads of the three institutes, the participants made presentations and discussions in four sessions on the three countries' overall energy policy challenges, oil and gas market problems, nuclear policy challenges, and climate change and environmental problems. Finally, they exchanged views about how the three countries should cooperate in addressing these challenges and problems. In the following, I would like to summarize particularly impressive points regarding major discussion in each session.

In the first session on overall energy policy, presentations and discussions were made on major Chinese energy policy targets in the 13th five-year development program adopted at the National People's Congress ended on March 16, Japan's various policy initiatives to realize its target energy mix and South Korean energy initiatives including the development of new energy-related industries. An interesting point for me in the discussions was that Chinese and South Korean participants indicated their great interests in the feasibility of Japan's target energy mix including nuclear energy and energy conservation targets. Particularly, they questioned how a failure to achieve the target energy mix would affect demand and markets for fossil fuels such as gas and oil. It was also interesting that Chinese and South Korean participants expressed considerable interest in the background and fate of Japan's electricity and gas system reform including the full deregulation of the electricity retail market on April 1.

In the session on oil and gas problems, the discussions focused on how best to increase the liquefied natural gas market liquidity and improve market functions. Given that Japan, China and

South Korea are major LNG consumers and importers, discussions were made from the viewpoint of what would be required to allow LNG to play a greater role while the LNG supply-demand balance is assumed to remain loose for the immediate future. In an active exchange of views, the participants noted that initiatives were urgently required to remove or relax the destination clause affecting LNG trading flexibility and that a major challenge is to form an LNG trading hub reflecting Asian supply and demand fundamentals. Regarding oil problems, an interesting point for me was that Japan, China and South Korea commonly face the problem of oil refining overcapacity that has become a grave oil policy and industry challenge. I felt that the three countries would have to consider the oil refining overcapacity as a common problem for the entire Northeastern oil refining market, although details of the problem might differ from country to country.

In the session on nuclear energy, the participants in the workshop discussed safety improvement initiatives, public acceptance and backend challenges as problems common to the three countries. Depending on actual severe accidents, degrees of seriousness about nuclear energy problems differ from country to country. Gaps in electricity demand growth and the present electricity mixes have also brought about differences in their nuclear energy situations. After hearing Chinese and South Korean presentations, I felt anew that the Fukushima accident has variously affected Chinese and South Korean nuclear energy problems. Basically, the three countries have a common energy policy stance that nuclear energy is important from the viewpoint of the so-called three Es -- energy security, economic efficiency and environmental protection. However, the three countries have their respective nuclear energy problems. Japan faces uncertainties about the restart of nuclear power plants and various challenges regarding how to achieve nuclear energy's target share of 20-22% in the electricity mix, while China and South Korea have their own public acceptance and other problems. While it is natural for the three countries to enhance their respective initiatives to improve the safety and public acceptance of nuclear power generation, they may have to share lessons learned from the Fukushima accident and consider how to cooperate in the field of nuclear power generation.

On climate change and environmental problems, the participants in the workshop discussed the details and assessments of the three countries' respective Intended Nationally Determined Contributions (INDC) in response to the Paris Agreement. They reported the three countries' respective energy supply and demand structure reform initiatives to achieve greenhouse gas emission reduction targets in their INDCs and noted that relevant future initiatives would be important but not easy. They also discussed arguments and assessments regarding emissions trading and carbon tax measures to reduce GHG emissions, demonstrating the three countries' gaps in these arguments and assessments. Interestingly, China made detailed reports on initiatives to address PM2.5 and other air pollution problems. In the face of serious air pollution, China's 13th five-year development program has included the introduction of binding targets and regulations in Beijing, Shanghai and other cities, indicating the Chinese government's serious ambition to improve the situation. Given that progress in climate change and air pollution measures is expected to hold down coal consumption in China as the world's largest energy consumer and increase demand for renewable energy, nuclear and other

non-fossil energy, and natural gas, future efforts in China will attract attention.

In discussions on China-Japan-South Korea energy cooperation, the participants cited various areas for trilateral cooperation and agreed that relevant measures should be prioritized for implementation. They indicated a basic policy to focus on cooperation in initiatives for improving the LNG market liquidity and functions and deepen discussions on the cooperation as a medium- to long-term challenge in a run-up to the next trilateral workshop. Given that future China-Japan-South Korea energy cooperation will grow even more important as the gravity center of the international energy market shifts to Asia, future progress in specific trilateral cooperation will be very important.

Contact: report@tky.ieej.or.jp
The back issues are available at the following URL
http://eneken.ieej.or.jp/en/special_bulletin.html