

At the 2016 Pacific Energy Summit

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

On June 22 through 24, the 2016 Pacific Energy Summit took place in Singapore. The annual conference has been organized by the U.S. think tank National Bureau of Asian Research since the first one held in Tokyo in 2009. The Singapore conference was the seventh following those in Tokyo, Jakarta, Hanoi, Vancouver, Seoul and Beijing. Under the theme of “Sustainable Future: Energy and Environmental Security in Times of Transition,” participants in the Singapore conference discussed Asia Pacific energy challenges under the new situation including crude oil price plunges, energy market oversupply and the Paris Agreement at the 21st Conference of Parties to the U.N. Framework Convention on Climate Change. The conference consisted of six sessions and two roundtable meetings, with about 120 people participating from Western, Asian and other countries on a registration basis. In the following, I would like to summarize particularly impressive points in the vigorous discussions at the Singapore conference.

Focuses of the discussions at the Summit included how to select energy under the abovementioned new situation. A particularly interesting topic in this regard was how to position gas or liquefied natural gas. While some years have passed since the International Energy Agency came up with the concept of “a Golden Age of Gas,” we have not seen the realization of the Golden Age. Gas is the cleanest among fossil fuels, featuring stable supply and abundant resources under the ongoing shale revolution. Therefore, gas was globally expected to play a greater role in the future energy mix. Nevertheless, the United States, where gas prices have substantially dropped to around \$2 per million British thermal unit under the shale gas revolution, remains the only energy market where gas demand has continued rising robustly with a bright future seen for gas. Asia and Europe are plagued with various challenges regarding future gas demand.

What are the challenges regarding present and future gas demand? Discussions at the conference covered various problems that can be roughly divided into those related to the price competitiveness of gas and those involving the future courses of energy sources competing with gas. Since crude oil prices plunged in the second half of 2014, Asian LNG prices linked to crude oil prices started to drop sharply. For example, the average LNG import price for Japan in May stood at \$5.89/MMBtu. Amid the globally loose supply-demand balance for gas and LNG, spot LNG prices reflecting the supply-demand balance have declined further. The latest benchmark spot LNG price for Northeast Asia was around \$5/MMBtu. Such low prices are usually expected to increase gas’s competitiveness and stimulate gas demand. However, the actual situation has not necessarily met such expectations. One of the largest reasons for the current situation is a substantial price drop for coal that competes directly with gas. Another problem is that low carbon prices seen typically in the

European Union market have made it difficult for gas to take advantage of its environmental characteristics to become more competitive. These problems differ depending on regional conditions, but are almost common for Europe and Asia.

Another important point is that multiple energy sources have emerged as competitors against gas due to various fundamental, policy and institutional factors. The first factor is Asia's rich endowment of coal that now has very strong price competitiveness. In many Asian countries where electricity demand is expected to increase in line with economic growth, great expectations are placed on coal as a competitive base-load electricity source. As a matter of course, moves to restrict coal consumption under measures against climate change and air pollution are growing in the world including Asia. However, market realities are not necessarily advantageous for gas exposed to competition from coal. In countries where electricity market deregulation is implemented, an urgent challenge is to secure competitive power generation sources. In this respect, coal is often selected as a major source to generate electricity in many countries including Japan.

In Asia, nuclear energy cannot be ignored. In Japan as the world's largest LNG importer, the restart of nuclear power plants greatly affects gas demand. In Asia, China, India and other countries are proceeding with numerous nuclear power generation plans. Progress in these plans may also affect gas demand growth. If nuclear plans fail to make progress on schedule or some nuclear troubles come, however, demand may grow for gas or LNG as an alternative to make up for the reduced electricity supply from nuclear energy. We must take note of this possibility.

Another interesting point in discussions at the conference was the relationship between renewable energy and gas. In many Asian developing countries other than China, solar and wind energy development has just begun. However, each Asian country has plans to use proactive policy support for promoting renewable energy. There had been a view that gas power plants with excellent capacity to adjust supply and demand in flexible manner may be well combined with intermittent renewable energy electricity sources. However, European and other cases indicate that renewable power generation's massive flow into a competitive wholesale electricity market lowers wholesale electricity prices, pushing out gas power generation according to the system of "merit order". As a result, gas demand declines. Participants in the conference argued that renewable energy's spread in Asia has potential to lead renewable energy to compete with gas. While competition conditions differ from country to country, an interesting point is that coal, nuclear and renewable energy meet the abovementioned competition conditions in Japan, making future gas/LNG demand uncertain.

What is required for gas with excellent characteristics to play greater roles to enter a golden age? The basic problem is how to improve gas's price competitiveness. In this respect, how to use carbon prices to this end may be considered in many countries. An argument made at the conference was that a flexible and well-functioning gas market should be developed to enhance gas's convenience and overall competitiveness. There is a view that such development may also contribute to improving gas supply security. Another possible view is that market system designs, regulations and other policy initiatives may be ultimately required to contribute to sound gas market development and expansion. This may mean that appropriate policy intervention as well as market dynamics may be required for achieving the best energy mix including gas.

Contact: report@tky.ieej.or.jp

The back issues are available at the following URL

http://eneken.ieej.or.jp/en/special_bulletin.html