Special Bulletin

A Japanese Perspective on the International Energy Landscape (83)

April 6, 2012

Alaskan Natural Gas Development Making Progress

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

A new move has emerged in regard to future natural gas markets of North America and the Asia-Pacific region. It involves a new idea on natural gas development and exports in Alaska.

On March 30, Alaska Governor Sean Parnell stated that he settled the state's long-pending dispute with such oil firms as ExxonMobil, BP and ConocoPhillips over leases on the Point Thomson gas fields in northern Alaska, paving the way for new gas development and export plans for Point Thomson and other Alaskan gas fields. The governor also said that the three major oil companies and TransCanada Corp. would cooperate in considering new pipeline plans. The four firms stated that they would consider plans to develop abundant gas resources in Alaska's North Slope and export LNG from the southwestern side of the state.

In the dispute, the Alaskan state government had tried to deprive the oil firms of leases on the Point Thomson gas fields, arguing that they had failed to develop the gas fields while retaining the leases over a long time. Under the settlement, however, the three major oil companies are set to maintain the leases and launch the first phase of the Point Thomson gas field development. At the gas fields located 60 miles east of Prudhoe Bay, known as a major oil/gas production area in Alaska, gas deposits are estimated at 8 trillion cubic feet. As the discovered gas deposits for the entire North Slope total 35 trillion cubic feet, the Point Thomson development is seen as a strategic investment target for Alaska's overall natural gas development.

Gas from the Thomson Point gas fields may be available not only for local consumption but also for exports. An important point is that natural gas there could be liquefied for exports to the Asian market. An original plan for North Slope gas development had envisaged pipelines that would cross Canada for gas supply to the lower 48 U.S. states. Given uncertainties about the economic efficiency of the long-distance pipelines subject to huge investment, however, the plan had failed to make progress and was shelved. Over recent years, the U.S. shale gas revolution has lowered U.S. natural gas prices to less than \$2 per million British thermal units (MBTU) and brought about an oversupply, forcing the plan for Alaskan gas sales in the United States to be fundamentally reconsidered.

What has been behind the new move involving Alaska gas development? How should we interpret the importance or implications of the new move?

First, it may be needless to note that structural changes in gas supply and demand in the entire United States are an important factor behind the new move. Until the first half of the 2000s,

the conventional wisdom had been that the United States would expand LNG imports as its domestic gas production is expected to decline gradually with no increase expected in pipeline gas supply from Canada. A long-term outlook published in 2007 by the U.S. Energy Information Administration had projected U.S. LNG imports to reach 100 million tons in 2030. But a sharp increase in shale gas production has resulted in a huge oversupply leading gas prices to slip below \$2/MBTU. The EIA outlook published in 2012 projects the United States to become a net LNG exporter by 2030. In the new environment where the revolutionary structural supply/demand change has come in the U.S. gas market, the Alaskan state government and relevant companies have been compelled to consider developing local resources.

Second, there have been expectations on a gas demand expansion in the Asian natural gas market. Demand for gas that has such advantages as cleanness, abundant resources and stable supply is expected to substantially increase in the world, particularly in Asia where overall energy demand is projected to sharply expand. LNG demand is likely to sharply grow in many Asian countries including not only such existing major LNG markets as Japan, South Korea and Taiwan but also such emerging markets as China and India and new markets like Singapore and Thailand. Due to differences between Western and Asian gas market structures including pricing formula, Asian gas prices, particularly LNG prices, are far higher than European and American levels (particularly U.S. levels). Latest data indicate that Asian LNG prices stand at around \$16/MBTU against some \$2/MBTU in the United States. Growing demand and far higher prices in Asia have naturally led Alaskan industry people to pay attention to the Asia market as a new opportunity or challenge.

Third, Alaska has its own reasons to develop energy resources. Alaska has become a major U.S. oil/gas producing state through the Prudhoe Bay development. In 1988, Alaska's oil output peaked at more than 2 million barrels per day, accounting for about a quarter of total U.S. oil production. But oil output has declined recently to 600,000 bpd or one-third of the peak. A further decline is projected. On the other hand, the lower 48 states are prospering with the expansion of shale gas and oil production. Alaska's position as a major oil/gas producing state has relatively declined. In this sense, Alaska has reasons to develop rich resources for expanding its economy and employment.

As a matter of course, Alaskan gas development would not be easy. Many factors might have existed behind the long failure to make progress in the development, including the priority given to environmental conservation, severe climate conditions, huge investment and technological challenges. In fact, the four companies undertaking the Point Thomson development might have understood their future challenges. For the Asian market, however, the progress in Alaskan gas development could be of great significance. Already, many plans have been made to export LNG based on shale gas production in the other U.S. states. Canada has also been proceeding with similar plans. Now Alaska is joining them. The Asia-Pacific region includes Australia with large-scale LNG projects and Russia that plans to enhance its engagement with the Asian natural gas/LNG market by hosting this year's summit of the Asia-Pacific Economic Cooperation forum. If necessary and sufficient gas supply is secured to meet growing demand and if gas/LNG is stably procured at more competitive prices, gas may play a greater role in the energy portfolio in Asia. We must pay attention to dynamic Asia-Pacific developments including the Alaskan move.

Contact: report@tky.ieej.or.jp