

## Outlook and Challenges for Gas Markets in 2015

### <Summary>

Tetsuo Morikawa

Manager

Gas Group, Fossil Fuels & Electric Power Industry Unit

The Institute of Energy Economics, Japan

#### Outlook for Gas Prices in 2015

1. The natural gas import price for Japan in September 2014 stood at \$15/MMBtu against \$7/MMBtu in the United Kingdom and \$4/MMBtu in the United States. The import price for Japan remained in a \$15-16/MMBtu range throughout 2014. Japan's liquefied natural gas (LNG) import value in the year is expected to increase by some JPY700 billion from the previous year to about JPY7.7 trillion due primarily to the weakening yen. The increase is a serious problem from the viewpoint of macro economy or national wealth outflow. The average LNG import price for Japan in FY2015 is expected to be around \$10/MMBtu reflecting declines in crude oil prices (the average crude oil import price in 2015 is projected at \$67/bbl) and in spot LNG prices.
2. The U.S. Henry Hub price is forecasted at \$3-5/MMBtu and the U.K. NBP price at \$7-9/MMBtu in 2015. While supply and demand are relatively stable, restriction on production of associated gas with U.S. shale oil is possible due to the crude oil price drop.
3. Natural gas pricing formulas for the Asian market are being diversified for new contracts, including Henry Hub indexation for the U.S. LNG as well as a hybrid pricing of European and U.S. hubs, Asian spot and crude oil prices. Desirable in the long-term will be Asian benchmark price reflecting Asian natural gas supply and demand. Benchmark price development includes two approaches -- the domestic approach in which domestic wholesale prices are applied to import prices as seen in European countries and the international approach in which spot LNG prices are made more credible through the elimination of destination clauses and the expansion of spot transactions and applied to term contracts. The latter approach is achievable in a relatively shorter time and thus more promising.

#### Natural gas situation in 2015

4. In the first eight months of 2014, U.S. and Northeast Asian natural gas demand posted respective firm year-on-year increases of 3% and 2%. Japan's natural gas demand remained at a record level as the restart of nuclear power plants was delayed. Meanwhile, European natural gas demand in the period logged a 9% plunge. European demand in 2014 is expected to drop from the previous year for the fourth straight year of decline. A delay in economic recovery and natural gas's weak

competitiveness for power generation against coal and policy-supported renewable are expected to remain as factors depressing natural gas demand in Europe 2015. Therefore, no recovery in European natural gas demand is anticipated for the year. In the U.S, unconventional natural gas production has been increasing. As noted above, however, production of associated gas with shale oil output could be restricted.

5. Global LNG demand in 2014 is projected to increase by 1% from the previous year to 240 million tonnes as Asian LNG demand is expected to expand with European demand continuing to decline. In 2015, global demand is forecast to rise by 5% from 2014 to 255 million tonnes, with European demand recovering slightly. On the supply side, Egypt and Angola will continue to suspend exports. New LNG projects including the Gassi Touil in Algeria, the PNG LNG in Papua New Guinea, the Donggi Senoro in Indonesia and the QC LNG in Australia will expand or start production in the year. LNG supply in 2015 is projected at 264 million tonnes, covering demand sufficiently.
6. Four U.S. LNG export projects (with a total annual capacity of about 53 million tonnes) have been approved by the Department of Energy (DOE) for exports for non-FTA countries and by the Federal Energy Regulatory Commission (FERC) for LNG plant construction. The DOE's and FERC's authorizations of LNG export applications have been rationalized, reducing regulatory risks regarding LNG exports.
7. China's natural gas demand, though having ended the extreme growth seen until 2012, still remains brisk. China's gas imports have increased as domestic gas output has failed to catch up with gas demand growth. But growth in cheaper pipeline gas imports from Central Asia has been more remarkable than LNG imports. State-run oil companies are losing money in their gas businesses, and seeking for cheaper sources of natural gas for their customers.
8. Spot LNG transactions have continued expanding. Spot transaction volume in 2014 is expected to reach more than 400 cargoes (equivalent to some 24 million tonnes in terms of standard LNG carriers), far exceeding 361 cargoes in the previous year. Buyers' shift to term contracts and new LNG project launches have led spot LNG prices for Northeast Asia to fall to around \$10/MMBtu. As Japan's spot LNG demand is expected to decline due to the restart of nuclear power plants, spot LNG prices are assumed to remain low in 2015.

#### Japan's gas market liberalization

9. The electricity market liberalization has triggered similar liberalization for gas market. Having conducted a series of public hearings, the government has outlined the basic direction for the future gas market in Japan, including full market opening, shared responsibility of gas safety between incumbents and new entrants, the elimination of retail price regulations through transitional measures (coexistence of regulated and liberalized prices), and the realignment and integration of business operator licenses (integrating categories into two – gas transporters and gas retailers). The past discussions on the reform have failed to produce consensus on the extent of unbundling of the incumbent gas companies and the relaxation of requirements for

third parties' access to gas facilities.

10. The government has four objectives for what they call “gas system reform”-- creating new services and businesses, promote competition to hold down gas prices, developing gas supply infrastructure, and protecting consumers' interests and securing safety. Regarding the promotion of competition to hold down prices, it should be noted that European and American liberalizations have not necessarily made any explicit achievements. As for the objective of gas supply infrastructure development, it is important that pipeline development depends on the profitability of individual pipeline project.
11. The government has mainly discussed the domestic gas regulation. However, discussions should cover natural gas imports since the most effective way to decrease retail prices and develop domestic gas infrastructure is the improvement of natural gas's competitiveness through import price cuts. Although crude oil price drops are destined to result in lower LNG procurement prices, there are strong needs for the diversification of supply sources and the exploration of pricing formulas for competitive procurement. Regarding domestic infrastructure development, pipeline gas imports as a medium to long-term option not only to contribute to diversifying supply sources and means but also domestic gas infrastructure development should be considered.

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