

LNG Producer-Consumer Conference 2015

Developments of the LNG Futures Market

16 September, 2015

Takayuki Sumita

Director-General

For Commerce, Distribution and Industrial Safety Policy



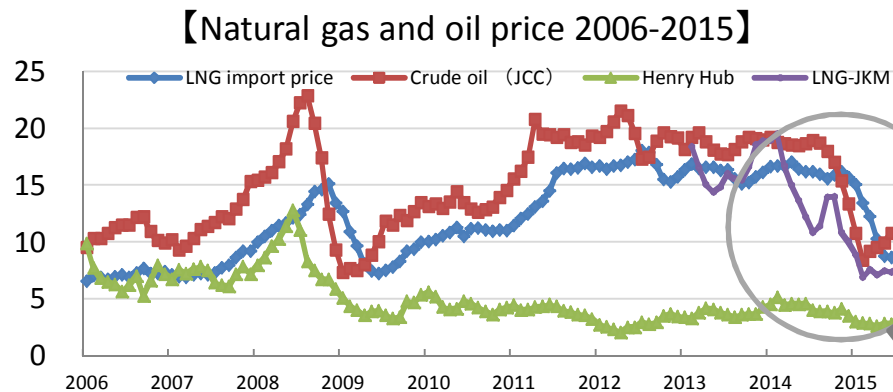
1. Fundamental changes happening in LNG landscape (1)

Fundamental and structural changes are happening in both sides of LNG supply and demand

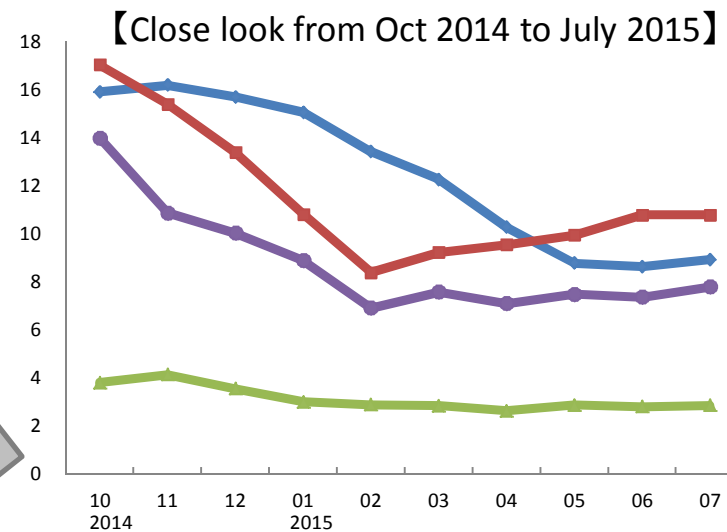
Supply side

(A) Shale gas revolution

Due to the shale gas revolution, the gas price has been moving separately from crude oil, namely more stabilized.



Source: Trade statistics of Japan, Ministry of Finance, Platts etc. Unit: \$/MMBTU



(B) Relaxation of destination clause

Relaxation of destination clause has been facilitated by:

- Shale gas export from US to Asia will start in 2016, followed by export from Canada
- Payback has been and will be completed in many traditional gas producing countries

1. Fundamental changes happening in LNG landscape (2)

Demand side

(A) Increasing needs for flexible procurement caused by other energy sources

- Expected increase of renewable energy use
- Uncertainty of reoperation of nuclear plants

(B) Geopolitical risks and diversification of supply sources

- Consumers in the world are trying to diversify their supply sources against geopolitical risks.

(C) Deregulation of energy market in Japan

- Increase of competition among power providers and gas companies by the unbundling of transmission / distribution sector
- No more passing-on of fuel cost to retail rate by the abolishment of retail electricity and gas tariff regulation

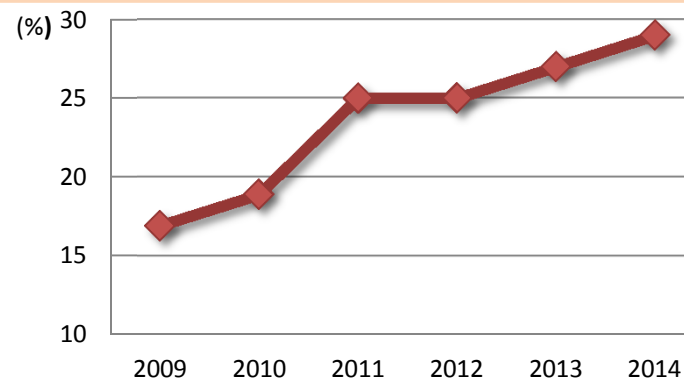
2. Changes of LNG physical trade caused by the new landscape

Factors including forementioned issues have been leading to significant changes in LNG trading

(A) From long-term only to utilization of spot and short-term contracts

Spot and short-term trading ratio has almost reached 30% in 2014.

Source: GIIGNL "THE LNG INDUSTRY" 2009-2014



(B) From crude oil linked term contracts to gas linked term contracts

Long-term contracts have traditionally fully linked to crude oil. Now hybrid contracts including gas linked pricing have been adopted.

(C) Linkage with European and US markets and gas security

Asian market has been separated from European and US markets. Due to the landscape changes, needs and effectiveness of arbitrage with European and US markets are increasing. **Linkage of market across the areas is useful for gas security.**

3. Changes of hedging needs responding to today's physical trades

Changes in trading have been increasing the necessity of hedging and creating the necessity of a new hedging vehicle

(A) Deregulation and management of the cost movement

Due to deregulation of electricity and gas market in Japan, Japanese gas and electricity companies need to manage future price movement through a futures market rather than simply passing on the cost to their customers.

(B) Not appropriate for hedging by crude oil futures

Crude oil futures are not suitable for hedging new types of contracts, such as spot trades as well as gas linked contracts.

Need to have an LNG futures market for Asia which reflects the demand and supply of LNG in this region!

4. Developments of JOE LNG market

LNG market of Japan OTC Exchange (JOE) established in Sep 2014, has made a substantial step during its first year.

(A) Increase of members

Sep 2014: 17 firms  **Today: 23 firms**

(B) Internationalization

➤ Number of non-Japanese members Sep 2014: 1 firm  **Today: 4 firms**

➤ Recently two Taiwanese firms joined the market. By this, over 40% of global LNG import is made by JOE members.

 **The market is now targeting East Asia's LNG benchmark.**

(C) Deal

 **The first deal was made on July 31.**

Following the fundamental changes of the LNG trading, hedging needs for LNG in Asia are expanding, which can encourage more orders and deals on the JOE market for its next year.

We welcome your attention and participation to the market!