Evolutions and Revolutions in the Global Gas and LNG Markets

DAY ONE: TUESDAY 4 JUNE 2013
Ayodya Resort Nusa Dua, Grand Ballroom
Hiroshi Hashimoto (Facebook, LinkedIn)
hiroshi.hashimoto@tky.ieej.or.jp
Outline

1. Price convergence and divergence
   - Interaction between regions leads to some convergence
   - Whereas regional price differences are widening
   - Different pricings coexist within the same markets

2. What have happened in recent years
   - Shifts in gas and LNG business (Asia and LNG)
   - Shift to natural gas and LNG in markets around the world
   - Increasing shares of the Asia Pacific markets and Japan

3. Impacts of the revolutions
   - Changing world gas powers
   - Changing prospects
The biggest problem: widening gaps

From 2003 to 2007, prices in the United States were often more expensive than prices of Japanese imports. Since 2008, price gaps have been much wider.

(Sources) Compiled by the author, based on data from Japan’s custom statistics, Department of Energy (United States), Energy Intelligence
Japanese LNG buyers’ dilemma: misinterpreted both in and outside of the country

• Ordinary people in Japan tend to think that “Japan buys the most expensive LNG because it is supplied as LNG and because the utility buyers do not work hard to reduce prices.”

• Some external experts describe “Asian buyers are willing to pay higher prices for security of supply” and “Utility companies can easily pass incremental fuel costs onto customers.”

• Anti-nuclear and pro-nuclear discussions in Japan tend to dismiss global implications of Japanese policy, including those on global LNG supply/demand and pricing.
Asia has the most transparent LNG price data

(Sources) Compiled by the author, based on data from custom statistics of the importers
Global LNG trades declines in 2012, whereas share of Asia (Japan) increases.

(Data source) GIIGNL, customs statistics, etc.
LNG trades grow faster than natural gas as a whole, natural gas grows faster than energy in general

Changing LNG supply sources to Japan

(million tonnes)

United States (Alaska)  Brunei  Indonesia  Malaysia  Australia  Russia  Abu Dhabi  Qatar  Oman  Yemen  Egypt  Algeria  Nigeria  Equatorial Guinea  Norway  Belgium  France  Spain  Trinidad and Tobago  Brazil  Peru

2010  2011  2012

(note) Figures are for fiscal years. (Date source) Japan’s customs statistics.
Changing flows of LNG trade

2012 (major shifts of products from the Atlantic to the Pacific)
Changing flows of LNG trade

1997 (before major Atlantic sources began exports)
Evolving short-term procurement
Share of short-term volume in the total imports in Japan

(Data sources) compiled from customs statistics and GIIGNL data
Evolving short-term procurement

Trading patterns tend to shift back from spot/short-term to term contracts.

Japan’s monthly spot cargo purchase in 2011-2012

(Number of cargoes)

(Data sources) compiled from ICIS Heren, Argus, Platts information
World natural gas powers (2012)

(Source) Compiled by the author based on data from 2012 Natural Gas Year in Review, CEDIGAZ' First Estimates, April 2013.

United States

Japan

China

Malaysia

Indonesia

Australia

Russia

Qatar

Iran

Europe

Gas production in the two biggest producers

Emerging markets in the Asia Pacific region

(Source) Compiled by the author based on data from Natural Gas Information 2012, International Energy Agency, August 2012, and other information sources
Proven reserves are concentrated

54% of reserves are found in just 3 countries

- Qatar: 30%
- Iran: 24%
- Russia: 24%

(Note) As of January 2012
(Source) Compiled by the author based on data from NATURAL GAS IN THE WORLD – 2012 EDITION CEDIGAZ, October 2012 17
Technically recoverable resources

(Note) Blue = conventional, red = tight gas, green = shale gas, purple = CBM
Thank you for your attention.

Further changes are on the horizon. . .

1. New supply sources (Australia, North America, East Africa, Russia, more unconventional sources in Southeast Asia);
2. Market dynamics (interaction with other energy sources, business activities, policy decisions, lifestyle changes)

Contact: Hiroshi Hashimoto
hiroshi.hashimoto@tky.ieej.or.jp