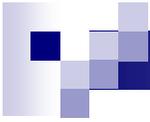
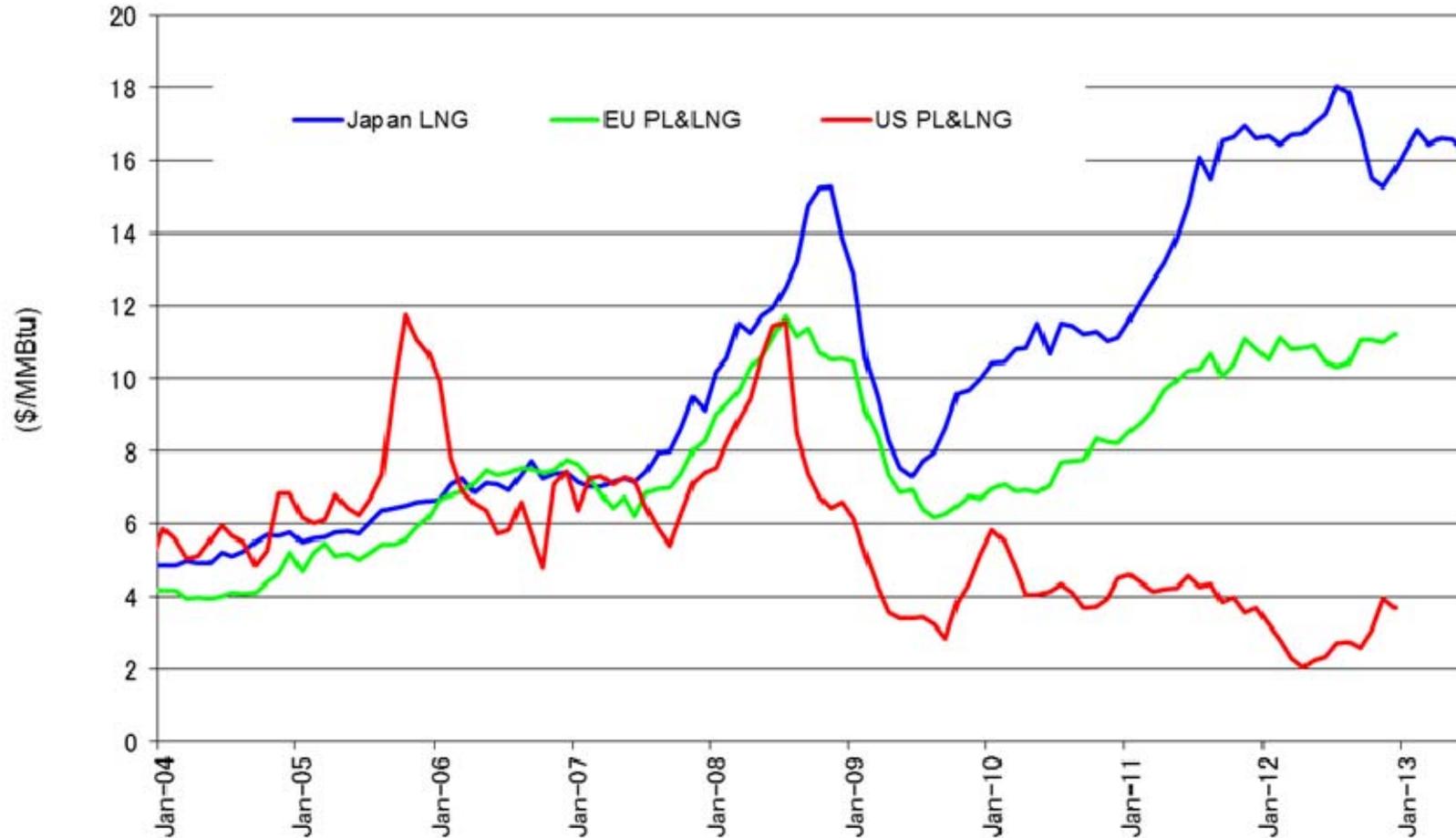


# The LNG Price Issue: Tokyo Gas Response and Proposals

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TOKYO GAS Co., Ltd.  
Sept. 10, 2013



## Natural Gas Import Price Trends in Japan, US, and Europe



Note: EU and US prices are weighted averages of LNG and pipeline natural gas prices calculated by annual import volume.

Source: IEA Natural Gas Information 2013, Trade Statistics of Japan

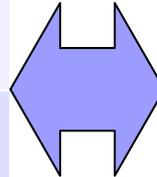
# Initiatives for Expanding Natural Gas Demand



## Japan Gas Association, Gas Vision 2030

### Targets for 2030

- (1) CHP  
4,600MW → 30,000MW
- (2) Gas air conditioning  
13,000,000 RT → 26,000,000 RT
- (3) Percent of industrial heating demand met by natural gas  
10.7% → 25.0%
- (4) Home-use fuel cells (including LPG)  
20,000 → 5,000,000
- (5) Natural gas vehicles  
40,000 vehicles → 500,000 vehicles



## Expanding Natural Gas Demand in Japan

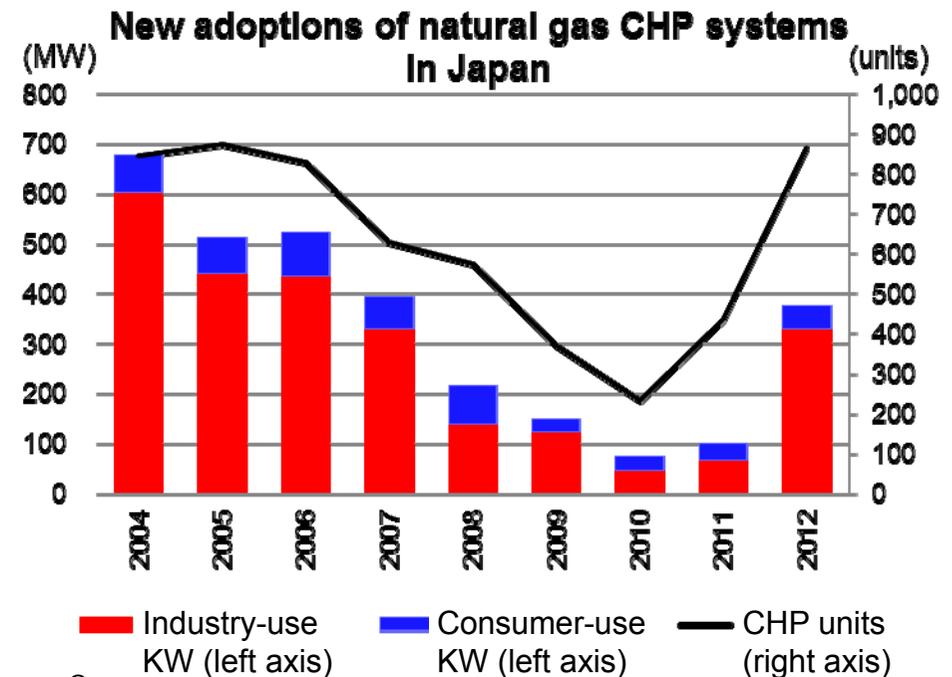
- We are working to expand demand, but the high price of natural gas is an obstacle.
- In Japan as a whole, annual rate of increase in natural gas sales volume is declining.

FY2010 +4.3% YoY  
FY2011 +1.8% YoY  
FY2012 +1.1% YoY

## Tokyo Gas, Challenge 2020 Vision

### Targets for 2020

- (1) Natural gas-fired power generation  
Approx. 2,000MW→3,000 to 5,000MW



3

Source: ACEJ

# Natural Gas Procurement Initiatives



## Three Kinds of Diversification Aimed for by Tokyo Gas

### 1. Diversification of supply sources

- North America, Africa, Russia, etc. in addition to Asia-Pacific and Mideast
- Pipeline use also being considered

### 2. Diversification of contract conditions

- Adoption of Hub price linked formula in addition to crude oil price linked formula
- Destination flexibility, etc., for greater market liquidity

### 3. Globalization and diversification of LNG network

- Considering entry in Atlantic market and inter-market trading, toward three-market integration



HOA executed for procurement of 1.4 million tons/year of LNG from **Cove Point LNG in US** (April 1, 2013)

- Procurement from new regions and players (diversification of supply sources)
- Henry Hub pricing and full destination flexibility (diversification of contract conditions)
- Ease of investment in US upstream and access to Atlantic LNG market (diversification of LNG network)

→Acquisition of 25% share of shale gas development project of Quicksilver Resources Inc. in Barnett Shale assets (Texas) (equivalent to 350,000 tons LNG/year)



Open the door widely to projects throughout the world, and pursue competitive contracts with other new and existing projects as well.

# Summary of Our Proposals

Rising expectations for LNG

Satisfying both conditions is essential.

Supply stability

Price competitiveness

- Elimination of S curve, high crude oil price sensitivity
  - High crude oil prices
- Globally, Asian LNG prices are highest.

The following efforts are necessary from a long-term perspective in order for LNG to continually be selected by end users as the fuel, for the sustained growth of the LNG industry.

## 1. Efforts by Tokyo Gas as buyer

(1) Efforts to promote development of gas demand (including technology development and capital investment)

(2) Competitive LNG procurement through diversification

## 2. Seller cooperation

(1) Efforts by sellers to achieve Asian LNG price levels that are reasonably fair in comparison with the global LNG market