

## Major issues and events in the LNG industry in 2016

Hiroshi Hashimoto and Takeshi Yoshiyasu \*  
Gas Group, Fossil Fuels and Electric Power Industry Unit  
The Institute of Energy Economics, Japan

### Introduction

While the year 2016 in the LNG industry was expected to be one featured by ample supply and rather weak demand, it turned out to be more turbulent than observers previously anticipated. While in the year as a whole prices stayed low in both LNG sales contracts and spot purchases, the first half of December witnessed one of the steepest rises of spot LNG prices in the history (USD 2 / million Btu in two weeks), assessed by several price reporting agencies. The causes include an unplanned outage of a big liquefaction unit in Australia. While investment activities for new LNG projects are not necessarily vibrant during the year, commissioning and construction activities are continuing, including four major liquefaction units in Australia. The Sabine Pass project started LNG exports, marking the first exports of commercial LNG from the lower 48 of the United States in the 50 year history of the global LNG industry.

This paper looks at the following eleven items which the authors think will have significant implications on the future of the LNG market:

1. Major LNG production capacity expansion
2. Low and volatile LNG prices
3. The United States as an LNG exporter
4. Construction of 2017 - 2018 start-ups
5. Subdued investment decisions on production projects
6. Revival of growth in LNG imports into China and India
7. Newly emerging markets and demand sectors of LNG
8. Japan's LNG strategy and call for more flexibility
9. More optimization deals and changes in business models
10. Assets changing hands to facilitate LNG development
11. LNG, a focus of dialogues between Japan and Russia

---

\* The authors belong to Gas Group, Fossil Fuels and Electric Power Industry Unit.

### **1. Major LNG production capacity expansion**

Expansion of liquefaction capacity continues in Australia, with a few major production trains each starting up in the east (two trains at APLNG (Australia Pacific LNG) and the second train at GLNG) and west (two trains at Gorgon) of the country, albeit delays and initial production outages in the latter. As well as new projects, strong performances from existing projects should lead to almost 50% increase of LNG exports from that country to estimated 45 million tonnes for the year. This, in turn, contributes to the expected growth of the total volumes of LNG produced in the world to another record high of 260 million tonnes in 2016. Part of the increase in Australia was offset by some sluggish performance of other existing LNG exporting countries, including Nigeria and Trinidad and Tobago.

### **2. Low and volatile LNG prices**

LNG prices around the world continue being low and volatile, even though the industry is undergoing an unprecedented expansion in its history. Thanks to low crude oil prices, especially those of the first half of the year, long-term contract prices in Asia stayed in the lowest level in ten years. Japan paid only USD 5.84 / million Btu in June, lowest since 2005. The notorious Asian (and Japanese) premium has apparently eased at least for the moment. The low prices have significant implications on both producing and consuming sides of the business, including subdued new development activities on the one hand and stimulating new LNG consumers to emerge on the other hand. However, the first half of December witnessed one of the steepest rises of spot LNG prices in the history (USD 2 in two weeks), assessed by several price reporting agencies. Although the absolute level is not necessarily high compared to the levels seen until two years ago, the market seems to have acquired new types of volatility. Hence, market players further recognise importance of reliability of LNG supply closely looking at operational performance of both new and existing LNG projects, including Gorgon and Angola LNG. The latter resumed production in the middle of 2016 after two years of absence.

### **3. The United States as an LNG exporter**

The United States has exported LNG for the first time in the history from a major liquefaction project in the lower 48. Since the first cargo was exported from the Sabine Pass plant in Louisiana in February, three-fifth of the bulk exports in the year went to Americas destinations. As the expansion was completed to allow LNG vessels to transit at the Panama Canal in July 2016, some LNG cargoes have already sent to Asia from the Atlantic through this route. The traffic is expected to increase in the next couple of years as contracts kick in to supply LNG from the United States to Asia.

#### **4. Construction of 2017 - 2018 start-ups**

Project construction activities continue in Russia, Australia, and the United States, leading to expected start ups in 2017 and 2018, including Yamal LNG in Russia, Ichthys, Prelude and Wheatstone in Australia, and Freeport LNG, Cameron LNG, and Cove Point LNG in the United States, as well as Cameroon's floating LNG project.

#### **5. Subdued investment decisions on production projects**

On the contrary to the ongoing construction activities, final investment decisions (FIDs) are few, creating concerns over future capacity expansions. Only the third train of Tangguh LNG in Indonesia, Canada's Woodfibre project were sanctioned in 2016. Projects in Canada except for Woodfibre and in Mozambique have not reached the milestone.

#### **6. Revival of growth in LNG imports into China and India**

China and India increase LNG imports again, after slower growth in 2015, by 5 and 4 million tonnes respectively, owing to ramp ups of new contracts for China and partly thanks to lower contract and spot prices for India.

#### **7. Newly emerging markets and demand sectors of LNG**

New markets in South Asia and the Middle East further attract attentions in the market as the incremental sources of LNG demand. Egypt and Pakistan are particularly active in purchase tenders for their FSRUs (floating storage and regasification vessels), importing 6 million and 2.5 million tonnes respectively in the year. On the contrary, Brazil and Argentina decreased LNG imports. Uruguay is still reviewing the need of its LNG receiving terminal. In addition to new markets in a geographical sense, a new sector of LNG demand is about to emerge as marine transport fuel, with players and maritime authorities around the world advancing cooperation in LNG bunkering.

#### **8. Japan's LNG Strategy and call for more flexibility**

The Japanese government announced the LNG strategy with goals of Tradability, Price Discovery, and Open Infrastructure. Japan and other Asian countries have hopes to create Asian LNG trading hubs to promote that policy direction. There has been some progress in that aspect including some cooperation agreements between entities (Platts, CME and Tocom). Japan is still struggling to restart reactors, and this continues being one of the most uncertain factors in the country's LNG demand, which makes the call for more flexibility in the LNG market even more important.

## **9. More optimization deals and changes in business models**

More optimization deals have been signed by major LNG buyers around the world including the ones between JERA and EDF, and JERA and Centrica, moving future LNG cargoes from the United States to Europe. In that sense, some traditional LNG buyers no longer remain as simple buyers, but sometimes play roles of sellers or traders. This is part of the structural shifts in the global LNG business, which the International Energy Agency (IEA) describes as "a second natural gas revolution driven by LNG".

## **10. Assets changing hands to facilitate LNG development**

Assets continue changing hands. JERA consolidated its position as the largest LNG purchasing entity in the world by officially taking over fuel and overseas power generation business from Tokyo Electric Power and Chubu Electric Power in June 2016. Shell completed its acquisition of BG in February 2016, creating the largest LNG portfolio in the world by a private sector company. Qatar Petroleum announced in December 2016 that it would integrate operations of Qatargas and RasGas in 2017. ExxonMobil plans to acquire Papua New Guinea focused InterOil, potentially leading to progress in additional LNG project development in the country. Eni has sold part of its upstream holdings in Egypt to strategic partners to facilitate development. BP has made strategic moves in Africa, including acquisitions of upstream holdings in Egypt, Mauritania and Senegal, as well as LNG purchasing commitment in Mozambique. Total is joining forces with Tellurian Investments to develop an LNG project in the United States.

## **11. LNG, a focus of dialogues between Japan and Russia**

LNG was among the focus in the Japan-Russo summit talks in December 2016. Companies have made announcements of cooperation deals. Potential projects of cooperation between companies of the two countries include a Sakhalin expansion project and the Arctic LNG -2 proposed by Novatek, which is currently constructing its first LNG project (Yamal LNG).

(Reference)

Company announcements, Reuters, Bloomberg, NHK, Cedigaz News Report, Cedigaz presentations, EnergyQuarterly report by EnergyQuest, and The LNG Industry GIIGNL Annual Report 2016 Edition.

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