

## LNG Review November 2017 - Recent issues and events - Hiroshi Hashimoto\*

### **Introduction**

Asian spot LNG prices, assessed by price reporting agencies rose from low USD 9s at the beginning of November 2017 to almost the highest during the last three years, just shy of USD 10 at the end of the month, as China's winter demand and its drive to replace coal with gas for heating, also a lack of coal in India, problems at some LNG producing plants, higher crude oil prices, European spot gas prices and some tender awards provided supports. The expected increases in global LNG production in 2017 so far have been lower than expected.

China nearly doubled LNG imports in October 2017, compared to the same month a year ago, while Japan and Korea reduced their LNG imports in October. Japan's LNG imports amounted to 6.137 million tonnes in October, the third significant year-on-year decline in a row.

There have been increasing arguments that the anticipated oversupply of LNG is realising more slowly and in much smaller scale than previously expected. Some people even argue that they do not expect supply glut at all.

During the month, another Australian LNG production project completed its first delivery of an LNG cargo.

### **[Asia Pacific]**

According to China's NDRC (National Development and Reform Commission), the country's natural gas production during the first ten months of 2017 was up 11.2% year on year at 121.2 bcm. Total natural gas imports during the period were 72.2 bcm, up 27.5%, with total natural gas consumption stood at 186.5 bcm, also increasing year on year by 18.7%. China's LNG imports in October 2017 were 3.567 million tonnes, second only to a record 3.733 million tonnes in December 2016, an increase of 94% from the 1.838 million tonnes in the same month in 2016. In the first ten months of 2017 China imported 29.201 million tonnes, 48% or 9.439 million tonnes more than the same period in 2016.

PetroChina and Beijing Enterprises Group are expanding LNG storage capacity at their Caofeidian terminal in Tangshan, Hebei province, each adding two 160,000 m<sup>3</sup> tanks to double the site's storage capacity to 1.28 million cubic meters by the end of 2019.

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The first phase of the Zhangzhou LNG receiving terminal project in Fujian province was approved by the National Development and Reform Commission (NDRC). This will be CNOOC's tenth LNG receiving terminal. CNOOC Fujian Zhangzhou Natural Gas Company owns 60% of the project, with Fujian Investment and Development Group owning the remaining 40%. The first phase capacity of 3 million tonnes per year will be completed by early 2022, with two 160,000 m<sup>3</sup> tanks to be installed.

ENGIE renewed the regasification and storage services contract with CNOOC for the coming winter season, provided by the *FSRU GDF SUEZ Cape Ann* in Tianjin. The FSRU arrived in Tianjin fully loaded with LNG and started operations on 28 October 2017, remaining in the port until Spring 2018. Cape Ann previously provided similar services to CNOOC, from November 2013 to January 2017.

GAIL India reportedly received notification from Gazprom that it plans to start deliveries of LNG from April 2018 under a 2.5 million-tonne-per-year contract that was signed in 2012 and GAIL is trying to renegotiate.

Philippines-based AG&P plans to set up an LNG import terminal on India's east coast at Karaikal Port by the middle of 2019. Built using Lego-like modules to allow easy expansion, tankers will unload into the project's floating offshore storage tanks, with the LNG converted back into gas onshore.

According to the company's Managing Director, Petronet LNG has initiated talks for buying a minority stake in Indian Oil Corporation's (IOC) under-construction terminal at Ennore, Tamil Nadu. Besides, Petronet signed agreements with Petrobangla for the construction of a terminal in Bangladesh. The company will also partner with Mitsubishi and Sojitz to set up a terminal in Sri Lanka.

Mitsui & Co. entered into an agreement with BW Group to form a joint venture, and to acquire a 49% stake in the JV to jointly own the Floating Storage and Regasification Unit (FSRU) BW Integrity. The deal is the first FSRU project for Mitsui, and the first project for a Japanese company to participate in the LNG receiving infrastructure business in Pakistan. The JV will lease the FSRU to PGP Consortium which will provide LNG regasification services to Pakistan LNG Terminals Limited (PLTL), a state-owned company.

Soon thereafter, Pakistan's second LNG terminal, set up by a consortium including Pakistan GasPort, BW Group / Mitsui & Co., Fauji Oil Terminal and Distribution Company Limited (FOTCO), and Trafigura, was inaugurated. Pakistan GasPort also plans to build another LNG terminal. Engro, which built Pakistan's first LNG terminal in 2015, is working out plans with Shell, Fatima Group and Gunvor for a terminal. Trafigura plans to develop its second LNG import terminal in Pakistan, alongside the above-mentioned second project of the country in which it has a minority stake.

Höegh LNG informed Global Energy Infrastructure Limited (GEI) that it has concluded to terminate the FSRU charter agreement signed on 15 December 2016.

Pakistan's Engro Corporation expects to complete building its second LNG terminal in early 2019, a senior company official said. Engro built Pakistan's first LNG terminal in 2015 and is finalising plans with Shell, Fatima Group and Gunvor for another terminal. A rival LNG terminal project by a six-member consortium that included ExxonMobil and Qatar Petroleum, appears to be in trouble after the American company pulled out. Unlike Pakistan's first two terminals where the government guaranteed to buy all the gas due to be imported, the subsequent terminals are going to be entirely private ventures with no government off-take guarantees.

Pakistan LNG Limited decided against awarding in a tender three LNG cargoes due to be delivered by Trafigura and Gunvor between December 2017 and January 2018, sources said. A source said Pakistan LNG likely did not favour the price levels.

A unit of Singapore-based Summit Power International awarded a USD 100 million contract to a marine contractor consortium to design, build and install the fixed infrastructure for an LNG floating storage and regasification terminal in Bangladesh. The project in Moheskhalia is expected to be completed in early 2019. North-West Power Generation Company (NWPGL) and Germany based Siemens signed a Memorandum of Understanding (MoU) to set up a 3,600 MW power plant based on LNG at Payra in Patuakhali. The companies will also construct the LNG receiving terminal there.

Australia's AGL Energy is seeking LNG supply proposals for its LNG import terminal project in Victoria. Construction will begin in 2019 bringing the terminal into operation by 2020/2021.

The first cargo from Australia's Wheatstone Project arrived at TEPCO Fuel & Power Futtsu LNG Terminal in Japan on 12 November 2017.

Beach Energy entered into binding agreements with Cue Exploration to acquire minority equity in exploration permits WA-359-P and WA-409-P in the Carnarvon Basin, offshore Western Australia. The adjoining permits contain the Ironbark gas prospect. Exploration success could provide volumes to feed nearby LNG plants.

Workers returned to the Inpex Bladin Point construction site, following the death of a 56-year-old worker at the end of November 2017.

Petronas Gas received its first commercial LNG cargo at its newly-commissioned Regasification Terminal Pengerang (RGTP) in Johor. RGTP is PetGas' second regasification facility, in which PetGas owns a 65% stake while the remaining shares are held by Dialog LNG Sdn Bhd (25%) and Permodalan Darul Takzim (10%). It is built to provide primary gas supply to the refinery and petrochemical plants, as well as the Pengerang Cogeneration

Plant, and to the Peninsular Gas Utilisation (PGU) system.

Wison Offshore & Marine signed a memorandum (MOU) with KBR for cooperation on a 1.5 million tonne per year Floating LNG project of Kumul Petroleum. In August 2017, KBR was awarded a contract by Kumul Petroleum for the conceptual development and feasibility study services for an energy hub in the Kikori region of the Gulf Province of Papua New Guinea.

### **[North America]**

In September 2017, for the fourth consecutive month, dry natural gas production in the United States increased from the same month a year ago. The preliminary level for dry natural gas production in September 2017 was 2,250 billion cubic feet (Bcf), or 75.0 Bcf/day, the highest for the month since EIA began tracking monthly dry production in 1973. Total imports were 7.7 Bcf/day, a decrease of 3.8% from September 2016. Total exports were 8.3 Bcf/day, an increase of 23.0% from September 2016. The increase in exports continues to be driven by LNG. LNG exports in September 2017 were 225.6% higher than in September 2016. In September 2017, the United States exported 1.8 Bcf/day of LNG to nine countries.

GAIL India will skip medium-term LNG purchasing deals for 2018 as it starts getting supplies from its United States portfolio from February, its head of finance said, adding that in 2018 GAIL expects to obtain close to 80 cargoes from the United States. The company currently sells close to 35 million cubic metres per day (mcmd), of which close to 17 mcmd is procured through medium-term and spot purchases.

The Polish Oil and Gas Company (PGNiG) signed a five-year contract for LNG supply with Centrica LNG, on a DES delivery basis beginning in 2018. Up to 9 cargoes will be delivered during the term of contract to the LNG Terminal in Świnoujście. The primary source under this contract shall be Sabine Pass.

Cheniere Energy signed a memorandum of understanding (MOU) with China National Petroleum Corporation (CNPC) for long-term LNG sales and purchase cooperation, the United States State Department said.

Tellurian and Bechtel entered into four fixed price, lump sum turnkey agreements for engineering, procurement and construction (EPC) of Driftwood LNG export facility proposed in Louisiana. Driftwood LNG includes 20 liquefaction units of up to 1.38 million tonnes per year capacity each, three 235,000 m<sup>3</sup> full containment LNG storage tanks, and three marine loading berths. Driftwood LNG will be constructed in four phases.

China Gas Holdings Limited entered into a non-legally binding memorandum of understanding (MOU) with Delfin LNG in Beijing in relation to the sale and purchase of 3

million tonnes per year of LNG.

Alaska Gasline Development Corporation (AGDC), the State of Alaska, China Petroleum and Chemical Corporation (Sinopec), CIC Capital Corporation, and Bank of China, announced a joint development agreement to advance Alaska LNG. AGDC and PetroVietnam Gas (PVGAS) signed a memorandum of understanding (MOU) setting forth the basic principles to collaborate on potential opportunities of LNG supply from AGDC to serve LNG import projects in Vietnam and to evaluate the possibility of upstream resource investment in Alaska.

Canada has sent its first shipment of LNG to China in a pilot project to determine long-term feasibility. LNG was supplied by FortisBC's Tilbury facility in Delta, logistics and equipment were provided by True North Energy Corporation and CIMC ENRIC Holdings Limited, and the cargo was shipped from Vancouver.

### **[Africa]**

Nigeria LNG is making steady progress towards achieving Final Investment Decision (FID) on its Train 7 Plus (7+) project during 2018, according to the company's Managing Director and Chief Executive Officer.

Ophir agreed a twelve-month extension to the Block R licence to the end of December 2018. The Company has been pursuing financing discussions with a group of Chinese banks. Concurrently, Ophir and its partners have been developing alternative funding sources. Ophir expects to be in a position to select one of these options and to finalise the financing arrangements by the middle of December 2017. The Final Investment Decision (FID) would be expected to take place during Q1 2018.

### **[Europe / Russia]**

Britain's energy companies SSE and Npower are in talks to spin off and combine their household energy supply businesses. A tie-up would reduce the "big six" providers to five and would create a company with just under 13 million customer accounts.

Shell announced it will partner with a charging network operator called Ionity, a joint venture between Ford Motor Company, Daimler AG, Bayerische Motoren Werke AG (BMW) and Volkswagen AG, to provide EV (electric vehicle) chargers at 80 of its biggest roadside filling stations in 10 European countries.

Shell and Anthony Veder have signed a contract to modify the LNG carrier Coral Methane into an LNG bunker vessel. The 7,500 m<sup>3</sup> vessel currently operates as a multipurpose vessel for Shell.

Container shipping giant CMA CGM would use LNG to power nine extra-large

container vessels it ordered in September 2017.

France will support the uptake of LNG as a cleaner fuel for ships by encouraging ports to develop the necessary infrastructure, its prime minister said.

Gasunie, Vopak and Oiltanking are advancing plans to build the Brunsbüttel LNG terminal on the shores of the River Elbe in Germany. The joint venture will gauge customer interest ahead of a final investment decision (FID) in 2019. Operations could start by the end of 2022.

Once completed in summer 2018, the Manga LNG import terminal will be the largest LNG terminal in the Nordic countries and the second LNG terminal in Finland. Wärtsilä is preparing the terminal for commissioning.

Teekay LNG Partners launched the Teekay Multigas Pool, a new in-house commercial management solution for ethylene-capable LPG and small-scale LNG vessels.

NOVATEK, Marubeni Corporation and Mitsui O.S.K. Lines (MOL) signed a trilateral Memorandum of Understanding (MOU) that defines the parties' intentions and includes an action plan to explore the opportunities to establish an LNG transshipment and marketing complex in the Kamchatka Region.

### **[Global issues]**

Total signed an agreement with Engie to acquire its portfolio of upstream LNG assets. This portfolio includes participating interests in liquefaction plants, notably in the Cameron LNG project in the United States, long term LNG sales and purchase agreements, an LNG tanker fleet as well as access to regasification capacities in Europe. Overall, combining its interests in liquefaction plants and its portfolio of third party supply contracts, the Group will manage a global volume of nearly 40 million tonnes per year.

Reference: Company announcements, Reuters, Bloomberg, The Hindu Business Line, Economic Times, Moneycontrol.com, India Today, The Straits Times, Dhaka Tribune, The Australian Financial Review, NT News, The Edge Markets, Independent Nigeria, Financial Times, Dow Jones, Marine Link, Cedigaz News Report.

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