

# Oil and Gas News Briefs

## Compiled by Larry Persily

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#### **U.S. LNG providers hope to win share of expiring supply contracts**

(Bloomberg; Nov. 2) - The \$90 billion-a-year liquefied natural gas market will be reshaped in 2018 as several large, long-term contracts start to expire. Growing supplies from the U.S., higher demand in Europe and Asia, and geopolitical tension surrounding Russia and Qatar, the world's top suppliers, promise to shift long-time trading patterns. For decades the majority of LNG bought and sold around the world was governed by long-term contracts of up to 20 years. A fifth of those will expire from 2018 to 2020.

Over the next decade, contracts governing 80 percent of all global LNG trade will be rewritten. For now, the LNG market is in the midst of an enormous supply glut, in part because of the advent of U.S. exports the past two years. That glut is likely to persist until at least 2020, keeping prices low. Most LNG contracts expiring next year involve buyers in Europe, where countries are trying to reduce their reliance on Russian pipeline gas. Europe's quest for more LNG could offer an opening for U.S. exporters.

Meanwhile, the world's top LNG exporter, Qatar, is looking to expand its market share. It recently announced plans to boost LNG production by 30 percent over the next several years. One of the key advantages for the U.S. is its vast shale reserves, along with a pipeline network that allows exporters to bring gas from all over the country to export facilities being developed along the Gulf Coast, ensuring a steady supply. U.S. LNG providers hope to sign big deals in 2018, which could shave billions of dollars off the trade deficit with Japan, South Korea and China. "(It's) going to be a pivotal year," said Kathleen Eisbrenner, CEO of NextDecade, which proposes a terminal in Texas.

#### **China's winter demand pushes up spot-market price for LNG**

(Reuters; Nov. 3) - China is hoovering up liquefied natural gas cargoes worldwide, pushing spot prices for the fuel above those for oil-indexed cargoes, as the country's energy providers scramble to avoid a looming winter supply crunch. China has moved millions of households from burning dirty coal to cleaner gas this year, pushing up import demand amid an already tightening overall Asian market. Most Asian LNG supplies are delivered under long-term contracts with prices linked to crude oil.

But with the upcoming winter heating season, Chinese utilities and gas importers have turned to the LNG spot market in desperation to cover themselves to meet surging demand, chartering tankers from as far away as Norway. "We expect China National

Offshore Oil Corp., PetroChina and Sinopec to buy 30 percent more on the spot market in the next three months compared with last year to help boost supplies," said Jiang Jin, a gas analyst at JLC Energy. "LNG terminals are running at full capacity."

"The Chinese are in panic mode. They clearly underestimated the push in demand from their gasification program. Now they are soaking up LNG spot cargoes where they can. And suppliers are happy to deliver at a premium," said a trader with a major commodity merchant. Asian spot LNG prices have soared by more than two-thirds since May to \$9 per million Btu, above oil-linked prices of about \$8. "I'm fairly certain China will break a new import record very soon and spot prices will break through \$10," the trader said.

### **Japan wants to build power plants in countries that buy U.S. LNG**

(Yomiuri Shimbun; Nov. 3) - The Japanese and U.S. governments plan to conclude a memorandum to strengthen bilateral cooperation in the energy field during President Donald Trump's summit with Prime Minister Shinzo Abe, the Yomiuri Shimbun has learned. Trump and Abe will meet Nov. 6. The cooperation will include joint efforts to boost U.S. natural gas exports to developing nations in Asia, Africa, and elsewhere, and to expand Japanese infrastructure exports, such as power plant equipment.

The government plans to use about ¥1 trillion (just under \$9 billion) in financial support through joint public-private projects for emerging economies that import liquefied natural gas, sources said. The government has made expanding exports of Japanese-made "high-quality infrastructure" one of its economic growth strategies. The government expects that U.S. efforts to build the LNG industry would help increase the number of overseas infrastructure orders placed with Japanese companies.

Hammering out cooperation in the energy field is also aimed at deflecting the Trump administration's displeasure over the U.S. trade deficit with Tokyo. The memorandum reportedly says that Japan will tap private-public cooperation to establish LNG-related facilities and other plants in emerging economies that will lead to increased U.S. gas exports. Such infrastructure likely will include construction of gas pipelines and highly efficient thermal power plants that use LNG — fields in which Japan excels.

### **Japanese, Chinese shipowners partner up on Russian LNG charters**

(World Maritime News; Nov. 2) - Japanese shipping major Mitsui O.S.K. Lines said Nov. 2 that China COSCO Shipping Corp. will take an equity stake in MOL's wholly owned subsidiary that will own four liquefied natural gas carriers serving Russia's Yamal LNG project under long-term charter contracts. MOL said ownership will be split 50-50 between MOL and China COSCO.

The ships are intended for delivery and deployment for Yamal in 2019 and 2020, and will transport LNG from the Russian Arctic project to Europe. This is the fourth joint LNG project involving MOL and COSCO Shipping. Other deals involved ExxonMobil, China oil and gas company Sinopec, and ice-class LNG carriers for the Yamal LNG project. The number of vessels co-owned by MOL and COSCO Shipping will total 17 by 2020.

### **India's oil and gas minister says LNG suppliers need to adjust**

(The Hindu Business Line; India; Nov. 2) - The global natural gas market is undergoing a major transformation driven by new supplies, said India's Minister for Petroleum and Natural Gas Dharmendra Pradhan. "All industry players will need to adjust their operating models. They should expect softer prices, more short-term trades, and demands for contractual flexibility," Pradhan said addressing the seventh Asian Ministerial Energy Roundtable in Bangkok.

In addition to the U.S., Australia and Qatar ramping up their liquefied natural gas output, he said, "new suppliers such as Mozambique, Tanzania, Egypt, Israel, Canada, and Cyprus are expected to enter the LNG market in the coming years." The minister added, "It is expected that more than 100 million tonnes per year of new liquefaction capacity is expected to come onstream 2017-2020, mainly from Australia and the U.S."

Indian companies have signed long-term contracts for about 22 million tonnes per year from different supply sources around the world such as Qatar, Australia, Russia, and the U.S., Pradhan said. "They have signed contracts linked to different (price) indices. ... In order to reduce the delivered cost of LNG to the Indian market, Indian importers have adopted innovative approaches."

### **Chinese company wants to export gas from Ethiopia**

(Bloomberg; Nov. 2) - China Poly Group plans to start exporting natural gas from Ethiopia's eastern Ogaden basin by mid-2019 as it continues to explore near the border with Somalia, Petroleum Minister Motuma Mekassa said. Gas from the Calub and Hilala fields will be transported along a 435-mile pipeline to a port complex being built in neighboring Djibouti, Motuma said. "They want to export the gas to Asia," Motuma said.

Ethiopia is developing gas finds to diversify its economy, the fastest-growing in Africa over the past decade. POLY-GCL Petroleum, a partnership between China Poly and closely held Hong Kong-based Golden Concord, signed five production-sharing agreements with Ethiopia in 2013 to explore a 45,000-square-mile area in the Ogaden basin. The project is being financed by the China Development Bank. Ethiopian

soldiers are providing security around the acreage owned by POLY-GCL, the minister said.

POLY-GCL's first exports of LNG are planned to start within 30 months when the new port in Djibouti is expected to be operational, he said. The port will include a small-volume gas liquefaction plant. Djibouti has secured \$4 billion in financing "from different sources" that will enable work on the project to start, the minister added. Gas reserves were first discovered in the Ogaden basin in 1972 by a U.S. company, Tenneco, which was expelled from the country five years later by a Marxist military junta.

### **New owner of proposed LNG project in Oregon still hopeful**

(Platts; Nov. 3) - The new developer of the proposed Jordan Cove LNG terminal in Oregon said Nov. 3 it is positive about the project's potential and interest it continues to receive from prospective customers. But Calgary-based Pembina Pipeline cautioned that construction costs would play into its decisions about future budgeting. Pembina, which operates a network of oil and gas pipelines in Canada, took over the venture in Coos Bay, Ore., when it bought fellow Canadian pipeline operator Veresen last month.

"It is a huge project and we're looking at it carefully," Pembina CEO Mick Dilger said during a call to discuss third-quarter results. Jordan Cove LNG would provide an outlet for Western Canadian and Rockies gas, but U.S. LNG export developers have been struggling amid fears of a global supply glut as they try sign long-term agreements with buyers to help raise the billions of dollars they need to build the terminals.

The Federal Energy Regulatory Commission cited Jordan Cove's failure to show sufficient demand for its \$10 billion project — to outweigh negative impacts from its pipeline through Oregon — as a key reason for the agency's March 2016 denial of the application. Veresen later reported it had signed preliminary agreements with customers and submitted a new application to FERC this year. Pembina said Nov. 3 it is targeting a final investment decision for 2019 and a potential 2024 in-service date.

### **Rising spot price for LNG reduces its competitive edge against oil**

(Bloomberg; Nov. 3) - A shrinking discount for liquefied natural gas vs. oil will stoke competition for buyers in some markets heading into the winter heating season, said Madeline Jowdy, senior director of global gas and LNG at Pira Energy Group in New York. Rising winter demand has driven up spot-market prices for LNG, making some cargoes less competitive against oil for power generation and industrial use.

WGI Northeast Asia Spot LNG, a regional benchmark, was recently assessed at \$9.20 per million Btu, \$1.37 less than what December Brent crude oil would cost Nov. 2 on an

energy-equivalent basis. The spread in favor of LNG was more than \$3 in June. “When LNG reaches or surpasses oil parity, it means that some more price-sensitive utilities or industrial users will switch to oil,” Jowdy said. India is one example where industries would switch. Japanese and Korean utilities may follow if the narrow discount holds.

### **Bangladesh grants 10-year tax holiday to LNG import terminal**

(The Daily Star; Bangladesh; Nov. 3) – Bangladesh’s National Board of Revenue has granted a 10-year tax exemption to the builder and owner of the country’s first liquefied natural gas import terminal to help facilitate the import of gas to help overcome a growing energy crisis. Excelerate Energy Bangladesh, a subsidiary of U.S.-based Excelerate Energy, will build the floating storage and regasification terminal with capacity to send 500 million cubic feet of gas per day into the national distribution grid.

The Revenue Board said the builder and owner of the terminal will be exempt from income taxes on the project. Excelerate Energy will hand over the \$180 million terminal to state-run Petrobangla after 15 years of operations, as per its contract. The LNG import terminal at Moheshkhali is expected to be in service by the middle of 2018, Excelerate Energy said in July. It will enable Petrobangla to increase the country’s gas supply by up to 20 percent, sufficient to generate up to 3,000 megawatts of power.

The government in 2010 decided to import LNG against a backdrop of growing local demand and falling domestic reserves of gas. A second import operation is due for commissioning by next October.

### **Gas is plentiful and affordable, but its clean energy is debatable**

(Financial Times; UK; Oct. 30) - Burning natural gas to generate electricity has often seemed like an expensive luxury. Convenient and (relatively) clean, gas-fired plants have always been an attractive option, but have been limited by the availability and cost of fuel. So much so that the U.S. Powerplant and Industrial Fuel Use Act of 1978 banned the construction of gas-fired or oil-fired power plants that did not also have the ability to burn coal or another alternative fuel, because of fears of gas shortages.

As recently as 2008, Fulvio Conti, then CEO of the Italian electricity group Enel, said using gas to fuel power plants is like “burning champagne” — appealing in many ways, but ruinous if you try to do it for too long. Since the U.S. shale revolution, however, gas has become increasingly plentiful. There are shale gas plays worldwide, and countries are attempting to emulate the boom that lifted U.S. output by 50 percent over 2005-15.

The world is now awash with gas, and lower prices are boosting demand. Yet as price and supply concerns have eased, questions about its environmental credentials have

started to pile up. Gas-fired power is generally much cleaner than coal in terms of fine particulates and the nitrogen and sulfur oxides that cause smog and acid rain, but the net impact is muted if gas displaces zero-emissions renewables and nuclear.

And although gas emits much less carbon dioxide per megawatt hour than coal, it is a potent greenhouse gas. Leaks from production, processing, and transport, by some counts, mean there is little or no net emissions benefit from switching from coal to gas. Other studies, however, show there are “robust climate benefits” from switching to gas.

### **Fracking set to resume in U.K. 6 years after tremors shut down work**

(Reuters; Nov. 2) - Six years after Britain's first fracking effort was stymied by tremors, its shale gas industry is ready to try again to transform the U.K. gas market and cut its reliance on imports. While environmental concerns over fracking have not gone away, changes to the energy landscape since 2011 have added more complexity to the effort to exploit Britain's shale gas. Liquefied natural gas imports are cheaper, and last year's vote to exit the European Union stoked fears of the security of Britain's energy supplies.

Gas is used to heat as much as 80 percent of British homes, which make up 35 percent of demand, with power plants at 33 percent. About 60 percent of that gas is imported, up from 40 percent less than 10 years ago. The figure could reach almost 95 percent by 2040 as North Sea reserves run out. Weaning Britain off imports is one of the driving forces behind government support for hydraulic fracturing to free gas from shale rock.

The British Geological Survey estimates shale resources in northern England could contain 1,300 trillion cubic feet of gas. Shortly after fracking started in Blackpool in April 2011, a tremor registering 2.3 on the Richter scale woke residents. It was followed by a 1.4 magnitude tremor a month later, prompting an 18-month ban on fracking nationwide while more research was carried out. The government has since introduced a traffic-light system that suspends work if any seismic activity of 0.5 or above is detected.

Cuadrilla, the first company to attempt fracking in the U.K., expects to begin fracking in Lancashire by early next year. Third Energy wants to begin fracking before the end of the year in Yorkshire. Explorers are anxious to see how estimates match up to reality.

### **Shale gas helps fuel boom in U.S. petrochemical investment**

(Bloomberg; Nov. 3) - A decade ago, chemicals were just another fading U.S. manufacturing business. Companies were reluctant to invest in factories because of soaring prices for the oil and gas that serve as both raw materials and power sources. They were closing plants and moving production to the Mideast to save money. “The

conventional wisdom was we are not going to produce a lot of petrochemicals here,” said Kevin Swift, chief economist at the American Chemistry Council, an industry group.

Today, Dow, ExxonMobil and Chevron Phillips Chemical are putting the finishing touches on multibillion-dollar plants along the Texas Gulf Coast. They are part of \$185 billion in proposed and recently completed investments, the chemistry council said. Credit fracking. A torrent of cheap gas has made the U.S. among the most profitable places to produce chemicals, beating out the Middle East in attracting projects. U.S. exports of polyethylene plastic to Asia will rise more than five-fold by 2020, with China as the primary destination, said research company IHS Markit.

Almost 20 factories are being built or expanded to convert gas liquids such as ethane and propane into ethylene, the most used petrochemical and the main ingredient in polyethylene plastic. The investment is not limited to the Gulf Coast. Shell has started building an ethylene complex outside Pittsburgh that will begin production in the early 2020s. Shell sees an advantage in being closer to Appalachian shale gas as well as to customers that turn plastic pellets into goods such as packaging, trash bags and bottles.

### **Small operators in Oklahoma say large horizontals damage their wells**

(EnergyWire; Oct. 31) - A unique set of rules has evolved in Oklahoma that allows two companies to pump oil from the same patch of dirt, sometimes in the same formation. But it's not going smoothly. Instead, it has left a trail of older wells damaged by "frack hits," flummoxed state regulators and started a civil war within the state's oil industry. The fallout has roiled a state where the small wildcatter is as revered as the family farmer. Most of those wells were drilled when wells went one direction — straight down.

But state leaders have allowed large independent producers, like Newfield Exploration, Devon Energy and Chesapeake Energy, to drill long horizontal wells for up to 2 miles through those old oil fields. Small producers complain the larger companies are siphoning off their oil and damaging their older, vertical wells with high-pressure hydraulic fracturing. They say state officials are allowing it, even encouraging it.

The horizontal wells are allowed as close as 600 feet to the vertical wells, sometimes closer. The underground fractures sometimes reach vertical wellbores and flood them with sand and fluid. A small drillers' group commissioned a study estimating more than 400 wells have been damaged by such "frack hits" in just one county. State oil and gas regulators say they've confirmed 20 such incidents, which sometimes lead to surface spills. Larger drillers say their smaller rivals are exaggerating the problem. But they say if state rules favor horizontal drillers, it's because they have the same interests as the state — pumping as much oil out of the ground as quickly and efficiently as possible.

## **TransCanada's pipeline capacity plan upsets Alberta gas producers**

(Calgary Herald; Oct. 31) – Some natural gas producers in Alberta are frustrated with TransCanada for changing the way it operates its gas pipeline network, which has led to massive commodity price swings. TransCanada operates the largest and most far-reaching network of gas pipelines in Alberta and is the sole outlet for many producers to transport their gas to markets.

TransCanada now gives producers that have firm-service contracts on its gas pipelines priority over shippers that use the service intermittently. Previously, TransCanada would scale back service for firm-service shippers to around 80 percent of contracted capacity during maintenance to make allowances for spot shippers. The uninterrupted, 100 percent service benefit for fixed-service shippers now means at times of maintenance or outages that TransCanada entirely cuts service to shippers with interruptible contracts.

Many gas producers have had to shut in production at some of their wells in response to swings in gas prices to avoid selling their gas for virtually nothing in the spot market. Some producers believe the change in service should have been communicated much earlier to allow them to prepare. Natural gas prices at Alberta's pricing hub have been extremely volatile in September and October — jumping from a closing-day average spot price of about \$2 per thousand cubic feet to a negative 35 cents on some days.

## **Exxon leaves one but may join other LNG import project in Pakistan**

(Reuters; Oct. 30) - ExxonMobil has pulled out of a major LNG import terminal project in Pakistan, in a potential blow to plans to boost imports of liquefied natural gas after years of winter shortages. Differences among the six-member group behind the project in Port Qasim in Karachi mean that French oil major Total and Japan's Mitsubishi may also quit and join Exxon in a rival project, government officials and industry sources told Reuters.

A senior Pakistani government official put the chances of success for the Port Qasim project, set to be Pakistan's third and biggest by import capacity, at 10 to 20 percent due to the partner disagreements. The project that Exxon is leaving would include a floating receiving, storage, and regasification unit, where the LNG will be converted back into gas and fed into the country's grid. Exxon is pulling out because it had "issues with partners," particularly the Turkish developer, one Pakistani energy official said.

Qatar Petroleum, the world's biggest LNG producer, Turkish developer Global Energy Infrastructure and Norway's Hoegh LNG, which will provide the floating facility, are the other partners. While Exxon has pulled out, it is now negotiating to join a separate project, said Hasil Bizenjo, Pakistan's maritime affairs minister in charge of ports. "They



are thinking to build a new terminal,” Bizenjo told Reuters, adding that Mitsubishi and Total were also in talks about taking stakes with Exxon in the other consortium.