# Oil and Gas News Briefs Compiled by Larry Persily November 9, 2017

### China plans to reduce gas supply to industrial users this winter

(Reuters; Nov. 5) - China National Petroleum Corp. plans to reduce natural gas supplies to industrial users as it expects shortages this winter after millions of residential households were switched to gas for heating under a government program to reduce pollution. CNPC, one of China's top three gas producers, said it will cut supplies to industrial clients by 3 to 10 percent, the state-run China Youth Daily reported Nov. 6, citing several sources. The article was also posted on CNPC's main website.

CNPC expects a 12 percent jump in gas consumption from a year ago because of the residential switch. The oil and gas producer and importer will boost spot purchases of liquefied natural gas cargoes and increase the capacity of LNG receiving terminals. The company will also try to increase imports of pipeline gas from Central Asian countries, such as Kazakhstan. CNPC is the first gas producer to reduce its deliveries as China faces a potential supply crisis. Residential users will have priority over industrial users.

Analysts expect Kazakhstan to supply an additional 35 billion cubic feet of gas before the end of the year as part of a supply deal through the Central Asia-China pipeline network operated by CNPC and local partners. CNPC said it can only provide about 2.7 trillion cubic feet of gas even if it runs its gas fields and LNG import terminals at full capacity and fully stocks its underground storage. This is below its expected demand of 2.87 tcf — creating a need for more pipeline gas imports.

## Politics complicate U.S. LNG sales to China, says global consultancy

(Verisk Maplecroft; UK; Nov. 8) - Global risk consultancy Verisk Maplecroft has teamed up with its sister company, energy advisers Wood Mackenzie, to analyze the political, commercial and strategic factors that will influence the prospect of U.S. liquefied natural gas exports to China. Rising U.S. LNG capacity, demand growth in China and political cheerleading underpin the uptick in spot-trade LNG sales to China this year — although China's importers have yet to commit to long-term supplies directly from U.S. projects.

Chinese President Xi Jinping may well calculate that it is in Beijing's wider interest to allow President Donald Trump tweetable trade "wins" during his state visit to China this week. A headline-grabbing LNG deal or two would provide Beijing with leverage when negotiating more contentious issues — such as North Korea and the South China Sea — and deflect from a lack of progress in areas such as access to China for U.S. firms.

Although gas deals are usually signed between commercial entities, Xi has the power to cajole China's big oil and gas companies into aligning with his political objectives. But any deals this week will most likely be a memorandum of understating rather than a concrete sales-and-purchase agreement. Such an arrangement would be politically expedient, yet give Chinese buyers the flexibility to later back away from the deal.

And China might find cheaper deals elsewhere. The U.S. faces stiff competition from Russia. Sino-Russian ties have warmed considerably, and energy is a central plank of the relationship. China National Petroleum Corp. (CNPC) has signed with Russian gas producer Novatek to develop a second LNG export terminal in the Arctic, though the bigger threat to U.S. suppliers comes from Russia's pipeline gas. In July, Gazprom and CNPC agreed on an accelerated timeline for first gas to China via the Power of Siberia pipeline, now set for 2019. The massive project means that China's LNG demand could slow to single-digit growth post-2020. This doesn't close the door on U.S. LNG exports to China, but it is a sign of the fierce competition that American operators will face.

#### Offshore Louisiana LNG developer signs preliminary deal in China

(Reuters; Nov. 9) - Delfin Midstream, which wants to develop the first floating facility to liquefy and export U.S. natural gas, has sealed a preliminary 15-year sales deal with city gas distributor China Gas Holdings, Delfin CEO Frederick Jones said. Delfin is also looking to tap unnamed Chinese banks to fund its \$8 billion project as the current global LNG supply overhang, along with bumper exports expected from Australia and Qatar, makes Delfin's target of a final investment decision in 2018 economically challenging.

"We'd like to make an FID next year, but we have to be realistic," Jones said. "The numbers don't add up." Jones was in Beijing as part of a trade mission with President Donald Trump — the same trade mission during which the Alaska Gasline Development Corp. also signed a preliminary deal with Chinese companies to help promote the proposed Alaska LNG project. A rapidly growing spot market for LNG, allied with global oversupply of the fuel for at least the next few years, is transforming an energy business that traditionally counts on 20- to 30-year purchase agreements to bankroll projects.

Jones' comments came as Delfin announced the signing of a memorandum of understanding to supply 3 million tonnes a year of LNG starting in 2021 to China Gas Holdings, one of China's most active city gas distributors. Delfin aims to start shipments from its first vessel 50 miles off the coast of Cameron Parish, La., with output eventually reaching 13 million tonnes a year from four liquefaction vessels. Jones said the liquefaction and storage vessels could cost \$2 billion each.

## Cheniere signs LNG cooperation memorandum in China

(Reuters; Nov. 9) - Cheniere Energy, owner/operator of the first liquefied natural gas export terminal on the U.S. Gulf Coast, has signed a memorandum of understanding with China National Petroleum Corp. for long-term LNG sales-and-purchase cooperation, the U.S. State Department said Nov. 9. Cheniere's agreement with CNPC says the companies will "continue in-depth discussions" regarding liquefied natural gas projects, according to a press release from the State Department.

The agreement was signed as part of President Donald Trump's visit to China this week. Cheniere's LNG terminal in Sabine Pass, La., started shipping gas in February 2016 and work continues to expand its capacity. Cheniere also is building a second LNG plant in Corpus Christi, Texas.

## China is building more LNG storage tanks to handle growing demand

(Reuters; Nov. 6) - PetroChina and Beijing Enterprises Group are expanding liquefied natural gas storage capacity at a main import facility in northern China as the country boosts infrastructure to meet surging demand for the cleaner fuel. China is facing a gas supply crunch this winter as an aggressive government push to heat millions of homes and fuel thousands of industrial boilers with gas for the first time is driving demand for the fuel faster than the country's infrastructure can cope.

PetroChina and Beijing Enterprises will each add two tanks at Caofeidian — an industrial landfilled zone in the northern city of Tangshan — to double the site's storage capacity to 1.28 million cubic meters, almost equal to the volume of eight standard-size LNG carriers. The terminal is a key supplier of imported LNG from Qatar, Australia and other producers and delivers the fuel via pipelines mainly to Beijing, the world's second-largest gas-consuming city, which burns about 9 percent of China's total consumption.

"The expansion is aimed at boosting the much-needed storage capacity, as gas demand from Beijing and nearby northern cities surges during winter," a PetroChina gas official said. Beijing has encouraged companies to build both underground storage for pipeline gas and above-ground tanks for LNG. Once the four new tanks are added, Caofeidian will have the largest gas storage space among PetroChina's three main terminals, the official said. The new tanks should be ready around the end of 2019.

## Trucked LNG could fill one-tenth of China's gas demand

(Reuters; Nov. 6) - Li Ruipeng's phone has been ringing off the hook with factories and hotels looking to get their hands on supplies of liquefied natural gas. "Orders started to shoot up in September. Some are asking for deliveries the very next day," said Li, a

manager with privately run Huapu Gas, which delivers domestically produced LNG by truck to customers within a 310-mile radius of its base in Tangshan, east of Beijing.

Huapu is one of a fast-growing band of trucking companies transforming China's oncesleepy domestic market for gas into a unique and bustling business as Beijing pushes to wean the country off coal. Hotels, hospitals, and factories have been forced to swap their coal-fired boilers for gas this year, creating thousands of new customers for the fuel.

But with inadequate pipelines and storage tanks, users are scrambling for supplies from dealers like Li. He is dispatching nearly 40 trailers a day, each with 20 tonnes of LNG (about 1 million cubic feet of gas). That's double the number six months ago. "Inflexible pricing for pipeline gas, insufficient grid network and lack of storage facilities ... make trucked LNG a unique business in China," said Chen Zhu, of consultancy SIA Energy.

Li and his peers are expected to play a big role in keeping China warm this winter as it embarks on a plan to heat homes in nearly 30 northern cities with gas. Trucked LNG could supply up to a tenth of China's gas consumption in 2017 vs. 5.6 percent in 2014.

#### Japanese developer says Australia LNG project will start up in March

(Reuters; Nov. 8) - Japan's top oil and gas explorer INPEX Corp. is on track to begin production at its offshore Ichthys liquefied natural gas project in Australia by the end of March next year, a senior company executive said Nov. 8. It will take about two years to reach full-scale production, said Masahiro Murayama, INPEX senior managing executive officer. The central processing facility and floating production, storage and offloading facility have been connected to the seabed and are undergoing tests, he said.

Tests are also being done on the onshore LNG plant. Start-up was previously planned for the third quarter of this year, but installation of offshore production facilities was delayed. At full output, the \$US34 billion project will be capable of producing 8.9 million tonnes of LNG per year and 100,000 barrels a day of condensate. INPEX holds a 62.245 percent stake, with France's Total at 30 percent, CPC Corp. of Taiwan 2.625 percent, Tokyo Gas at 1.575 percent, Kansai Electric and Osaka Gas at 1.2 percent each, Japan's utility joint-venture JERA at 0.735 percent and Toho Gas 0.420 percent.

#### Turkmenistan may ship gas through Russia to reach Eastern Europe

(Reuters; Nov. 2) - Turkmenistan may ship natural gas to Eastern Europe through Russia, a senior Turkmen energy official said Nov. 2, even after Moscow stopped buying gas from the Central Asian nation. Russia's halt to imports of Turkmenistan gas has effectively left the country with China as the only buyer of its gas, straining its economy due to a drop in revenue.

Myrat Archayev, chief executive of state energy firm Turkmengas, said at an energy conference in Ashgabat that using Russia as a transit route rather than a buyer was a possibility, but did not say if talks with Moscow were underway. "We have a working system of pipelines running in the northern direction through which Turkmenistan historically exported gas to Russia and other countries," he said.

"If mutually acceptable agreements are achieved with buyers and transit countries, this existing pipeline can be used to ship gas from Turkmenistan to Eastern Europe." Turkmenistan produces almost 2.5 trillion cubic feet of gas a year and Russia used to buy up to 1.4 tcf of that. Last year, however, Turkmen exports were just 1.3 tcf of gas, of which 80 percent went to China.

#### New pipelines will add 7.5 bcf a day capacity for U.S. shale gas

(Bloomberg; Nov. 2) - David Rheinlander used to dream of building a cabin in the woods behind his house in southwestern Pennsylvania. Now the 57-year-old looks across his backyard and sees a line of cut trees, piles of dirt and stacks of steel pipe where he once envisioned a cabin. For the past six months, crews carved their way through the back of his property. The roughly 100-foot-wide path they're cutting extends about 700 miles to the west, running through neighboring Ohio and all the way up into Michigan.

The pathway is for a pipeline that will bring huge amounts of natural gas out of sparsely populated Appalachia and into big cities across the Midwest. The pipeline, called Rover, is being built by Energy Transfer Partners, of Dallas, which has spent three years and a total \$4.2 billion on the painstaking process of winning permits, clearing miles of rugged terrain, and waging a pitched legal battle against environmental groups and landowners.

Rover is set to begin shipping as much as 3.25 billion cubic feet of gas a day in early 2018. It's one of several pipelines set to open next year that will begin moving gas from the massive Marcellus and Utica shale plays beneath parts of Pennsylvania, Ohio, West Virginia, and New York. The Marcellus and Utica are booming. In the past 10 years, their flow has jumped by a factor of 10, to about 25 bcf a day, roughly a third of U.S. output. But after an initial boost of investment and optimism, drilling had started to stall, mostly because there weren't enough pipelines to deliver the gas to large markets. The solution is several projects that will add 7.5 bcf a day of pipeline capacity to the region.

### Appalachian gas pipeline goes to court for eminent domain

(The Associated Press; Nov. 3) - Developers of a proposed gas pipeline are suing hundreds of landowners in two states for rights of way granted by federal regulations.
Mountain Valley Pipeline filed in federal court in Charleston, W.V., and Roanoke, Va., to obtain easements through eminent domain, The Charleston Gazette-Mail reported Nov.
2. The pipeline would extend for 195 miles in northcentral West Virginia through 11 counties to the Virginia state line, and nearly 110 miles through six counties in Virginia.

The venture said acquiring easements by condemnation is necessary, as developers have been unable to negotiate agreements with some landowners. The filings said developers are entitled to 50-foot-wide rights of way for the pipeline in addition to building access roads and clearing trees as necessary. The Virginia complaint lists more than 300 properties and the West Virginia one lists more than 140. The \$3.5 billion pipeline would move up to 2 billion cubic feet a day of Marcellus and Utica shale gas.

The lawyers asked the judge to schedule a hearing by Dec. 13 so that developers can access the properties by February and have the pipeline built and in operation by November or December 2018. A divided Federal Energy Regulatory Commission last month approved federal eminent domain powers allowing developers to take private property for the pipeline. Some landowners have opposed the pipeline project.

#### Fracking opponents call for full public inquiry in British Columbia

(Calgary Herald; Nov. 6) - A coalition of community, First Nation and environmental organizations wants the British Columbia government to expand a promised review of natural gas fracking operations into a full public inquiry. This year's election campaign promise to appoint a scientific panel to review fracking "won't be enough to fully address the true risks of deploying this brute-force technology," Ben Parfitt, an analyst with the Canadian Centre for Policy Alternatives, said of the victorious New Democratic Party.

"We need a wide-ranging public inquiry," he said in a Nov. 5 email. Fracking leads to higher rates of earthquakes, and the coalition said there are also concerns about how much water is being used in fracking operations. A 4.6 magnitude earthquake in northeastern B.C. in August 2015 was caused by 422 million gallons of water being pumped underground at one gas well, the B.C. Oil and Gas Commission confirmed at the time. That earthquake was the largest in B.C. caused by fracking.

Grand Chief Stewart Phillip, president of the Union of B.C. Indian Chiefs, alleged there have been "no substantive or meaningful opportunities to fully participate in decisions around how water resources are managed." The coalition wants the inquiry — which they want to be properly funded and authorized to compel testimony — to look at

whether there's enough provincial oversight of fracking operations when it comes to compliance with regulations for protecting public health and preserving the environment.

## TransCanada wants Alberta to commit royalty oil to Keystone pipeline

(Bloomberg; Nov. 2) - TransCanada is pressing the Alberta government to buy capacity in its proposed Keystone XL oil sands pipeline, seeking the same type of support the province had pledged for the company's canceled oil pipeline to the Atlantic coast, sources said. TransCanada is urging Alberta Premier Rachel Notley to commit to a similar "take-or-pay" agreement for the 1,180-mile Keystone line into the United States that the province gave TransCanada for its later abandoned Energy East pipeline.

The Calgary-based firm declined to comment. The request, which comes as TransCanada pushes for more private-sector shipping commitments for Keystone, puts Notley in a bind as she faces a fierce re-election fight in 2019 amid voter anxiety over slumping crude prices. While it's politically fraught to be seen as not fully supporting a pipeline in Canada's oil hub, she's also said to be under pressure from rival pipeline company Enbridge not to subsidize its competitor, sources said.

The Alberta government has its own oil to sell because it collects barrels of sandy bitumen in lieu of cash royalties from some producers under the bitumen royalty-in-kind program. A take-or-pay agreement would commit the province to a minimum shipping requirement. The province sold about 70,000 barrels a day in 2014, according to the most recent data available on the Alberta Petroleum Marketing Commission's website. Government support would help TransCanada meet its target for building the line.

## **OPEC expects North American shale will fill market demand growth**

(Bloomberg; Nov. 7) - OPEC believes shale oil production will grow considerably faster than expected over the next four years after the group's output cuts triggered a price recovery that has helped U.S. producers. North American shale output will soar to 7.5 million barrels a day in 2021, the Organization of Petroleum Exporting Countries said in its World Oil Outlook Nov. 7. That's 56 percent higher than it forecast a year ago.

The revised outlook illustrates OPEC's dilemma: With supply curbs also helping its rivals, there will be little change in demand for the group's own crude until shale oil output peaks after 2025. U.S. shale oil "most strikingly" exceeds previous expectations after showing the "resilience and ability to bounce back," OPEC said. "This growth is heavily front-loaded, as drillers seek out and aggressively produce barrels from sweet spots in the Permian and other basins."

OPEC assumes shale oil production growth will mostly originate from the U.S. with some contribution from Canada, Argentina and Russia over the forecast period to 2022. North American shale production for 2017 is now seen at 5.1 million barrels a day, up by almost a quarter from last year's World Oil Outlook report. OPEC and its partners, including Russia, are meeting in Vienna on Nov. 30 to decide whether to extend their deal to curb production beyond the end of March.

## Russia has cut its oil production but increased its exports

(Wall Street Journal; Nov. 7) - Moscow says it is part of the solution to the global oil glut, but it could be part of the problem. Russia, the world's top oil producer, has ramped up its crude exports this year, potentially undermining a deal with OPEC that has helped raise oil prices. OPEC's agreement with Russia and nine other countries was meant to reduce global oil output by 2 percent and has helped to raise Brent crude prices by roughly 5 percent this year, to over \$60 a barrel.

"The Russians are putting more oil on the market and cashing in," said Georgi Slavov, head of research at commodity brokerage Marex Spectron. The scrutiny of Russia's actions highlights the growing importance that oil investors are giving to big producers' exports sold on the global market and to their production, which can be consumed domestically or even stored. Exports are likely to be discussed Nov. 30 when Russia and OPEC are expected to extend their production agreement through the end of 2018.

In the agreement, Russia committed to cut 300,000 barrels a day from its October 2016 high of 11.59 million barrels a day, including gas liquids. After a slow start, it has begun complying with its promise. However, Russian oil exports have risen by about 2 percent, or 160,000 barrels a day, from January through September compared with the same period last year. One reason Russia has been able to cut crude output while raising exports is because its domestic demand is still depressed following a deep recession.

## Total pays \$1.5 billion to buy LNG assets of French utility Engie

(Financial Times; UK; Nov. 8) - Oil and gas major Total has bought the upstream liquefied natural gas assets of state-backed French energy utility Engie for \$1.5 billion, pushing itself into second place in the sector globally. Total said the acquisition would allow it to hit an overall volume of about 40 million tonnes of LNG per year by 2020, making Total the second largest global player among the majors with a worldwide market share of 10 percent. Shell is currently the market leader.

Total said the portfolio includes participating interests in liquefaction plants, notably Cameron LNG under construction in Louisiana, long-term LNG sales-and-purchase

agreements, an LNG tanker fleet as well as access to regasification capacities in Europe. The transaction is expected to close by mid-2018. Investment in LNG has soared recently as part of a dash for gas among the biggest energy companies. France last year was the world's eighth-largest LNG importer, at almost 10 million tonnes.

Total's CEO last month confirmed his company was in talks with Engie, which will retain its downstream activities in power generation and infrastructure. Engie CEO Isabelle Kocher said the company will boost its investment in renewable power and emerging markets while scaling back in coal and nuclear power generation.