# Oil and Gas News Briefs Compiled by Larry Persily November 16, 2017

#### IEA forecasts China's natural gas demand to triple by 2040

(Platts; Nov. 14) - China's natural gas demand is estimated to triple between 2016 and 2040 to more than 21 trillion cubic feet a year as the country shifts its focus to cleaner and more efficient sources of energy, the International Energy Agency said in a report Nov.14. "Policies encouraging greater natural gas consumption are being accompanied by a more open and market-oriented structure for gas supply, with reforms both in the upstream and network regulation," the IEA said in its 2017 World Energy Outlook.

The demand growth is being driven mostly by the industrial sector (particularly light industries) and the power sector, which together account for two-thirds of the growth, the IEA said. The residential sector is the third-largest contributor to demand growth, as residential gas use expands primarily for space and water heating in the eastern parts of China. The IEA also noted that the extent to which China develops its large shale gas resources is a key uncertainty factor in its consumption-and-demand outlook.

The agency forecasts China's shale gas production will reach 3.5 tcf a year by 2040, boosting the country's total domestic output to almost 12 tcf — still far short of projected demand. The IEA projects China's gas imports at almost 10 tcf in 2040, second only to the European Union, making China a "linchpin of global gas trade." China was the world's fourth-largest gas importer in 2016. Just under half was delivered as liquefied natural gas from 16 countries with a little more than half coming by pipeline from Turkmenistan, Uzbekistan, Myanmar, and Kazakhstan.

# China will lead global conversion to renewable energy, says IEA

(Bloomberg; Nov. 14) - The world's worst polluter is leading the clean energy revolution, according to the International Energy Agency. China will account for a third of the world's new wind and solar power installations and 40 percent of electric vehicle investments through 2040, the Paris-based agency said Nov. 14 in its World Energy Outlook. Meanwhile, the country's coal use peaked four years ago, and China will cede its role as the driver of global oil demand to India after 2025.

Underscoring China's shift is a maturing economy that is moving away from energy-intensive industry, along with government policies aimed at cleaning up air pollution that causes almost 2 million premature deaths a year, the agency said. Falling costs of renewables also play a role, as solar is expected to become China's cheapest source of new electricity supply, surpassing natural gas by 2020 and coal by 2030.

"China is entering a new phase ... with the emphasis in energy policy now firmly on electricity, gas, and cleaner high-efficiency and digital technologies," the report said. Until recently, China's export-oriented industries were coal- and oil-intensive. But new government policies aiming to improve air quality are proving to be a boom for natural gas, the most environmentally benign of fossil fuels, and renewables. China is already ranked first in the world in renewables by installed capacity of wind, solar and hydro.

#### Villagers in China worry about higher cost of gas over coal

(Reuters; Nov. 15) - For 53-year-old Wang Ying, a rural village resident near Beijing, cleaner-burning fuel has finally arrived, but it comes at a higher cost. Wang is one of millions of residents across northeast China to have their households converted from coal to gas for heating this winter, which officially began Nov. 15. A group of Beijing Gas engineers connected her new gas boiler to the city grid at 9 a.m. and tested her cooking and heating equipment, before moving on to the rest of Xiaozhangwan village, which will see its first-ever winter without coal as the main source of heat and fuel.

At noon Wang cooked her son the first meal on their new gas cooker — eggs and dumplings. "This is the first time I used natural gas for cooking and heating. Indeed, it is much cleaner," Wang said, pointing to her courtyard, previously tainted by coal dust but now covered by white ceramic tiles. "My only concern is that the gas heating is so much more expensive," she said. Wang said the family will pay about 8,000 yuan (\$1,200) in gas bills this winter. Last winter, the family paid about 5,000 yuan (\$755) for coal.

That's the price residents like Wang Ying will have to pay for cleaner air as coal is phased out in a major environmental cleanup directed by Beijing. Other residents said they worry that gas heating is not as stable and effective as coal. Gao Decai said his house was not as warm with gas as it was with coal. "The gas cooker cannot reach the temperature of the old coal cooker," Gao said. "We cannot boil the porridge because the temperature is not high enough. ... The policy (of switching to gas) could backfire if gas is not as effective as coal."

# Columnist asks if LNG oversupply forecasts are too pessimistic

(Reuters' columnist; Nov. 13) - Liquefied natural gas is supposed to be a deeply oversupplied market, but it doesn't appear to be behaving as such in the major consuming region of Asia with strongly rising prices amid robust demand growth. In fact, LNG currently looks much more like an undersupplied market, where spot buyers are forced to bid more for increasingly difficult to source cargoes ahead of the peak winter demand period in the northern hemisphere.

It may well be the case that the current increase in the Asian LNG spot price is the last hurrah before new supply does indeed swamp demand growth. However, it's worth noting that so far the LNG market has proved remarkably resilient to forecasts of a supply-driven price slump, as demand growth has surprised to the upside. Asian spot prices ended last week at \$9.45 per million Btu, up 75 percent since the 2017 low of \$5.40 in mid-April. That is not far below the \$9.75 peak from last winter.

The strength of Chinese demand, coupled with other emerging markets in Asia, may mean that expectations for sustained oversupply are too pessimistic — although there is still a substantial amount of additional LNG capacity to come on line in the next couple of years, mainly in Australia and the U.S. The expectation up until now is that all this new supply will outweigh demand growth, which may well still be the case. But it may also be time to start asking the question as to whether expectations of demand growth have been too modest, especially with the appetite of China and other Asian countries.

## Qatar has all but sold out its winter spare capacity to deliver LNG

(Reuters Nov. 15) – Gas-exporting giant Qatar has all but sold out of winter supply after committing its spare output to China and South Korea, a development that could tighten Asia's gas markets as peak-demand season hits. Qatar's sales will also ring alarm bells for other regions reliant on Qatari liquefied natural gas such as Europe and may further boost Asian spot prices, which have already surged 55 percent this fall, traders said.

But some traders are split on the sustainability of the price rally, citing weather, oil market movements and the degree of residual demand left in China as big unknowns that could potentially weaken prices. Normally Qatar plays the role of swing supplier, churning out cargoes to cover demand spikes. "If the winter is harsh, then Asia will have to pay up to secure supplies, and with new projects in Russia and the U.S. too delayed to provide much relief, prices will rise again," an LNG analyst at a major supplier said.

Qatar's absence from spot markets may be felt in higher LNG prices which some traders predict may hit three-year highs above \$11 per million Btu this winter. The shift in sentiment has some wondering whether forecasts of global LNG markets not rebalancing until the early 2020s may be wrong, given the fast pace of China's demand growth. Others urge caution, however, ahead of imminent start-ups of new liquefaction plants in the U.S., Russia and Australia, and China's alternatives to LNG supply. For example, China's piped gas imports from Central Asia and Myanmar soared to a record 3.4 million tonnes in September, well ahead of the 2.5 million tonnes of LNG imports.

## <u>Dispute with neighbors adds risk to Qatar LNG business, analyst says</u>

(Arab News; Nov. 15) - Qatar's decision to significantly expand output from its massive North Field carries significant risk, said U.S.-based analysts Rapidan Energy Group. Even though maritime routes through the Persian Gulf, Strait of Hormuz and Suez Canal have remained open to tankers carrying Qatari LNG in the wake of the dispute between Qatar and some of its Arab neighbors, fears they could be closed will not be lost on potential buyers, said the consultancy's New York director Leslie Palti-Guzman.

Speaking to the Arab News, she said buyers could lobby for a "risk discount" on price as the standoff had exposed Qatar's geopolitical and geographic vulnerability. "At the end of the day, the LNG business relies on the safety of shipping lanes but there is diminished market confidence in Qatar," Palti-Guzman said. Qatar's decision to lift a 2005 moratorium on additional production was made before the standoff with other Gulf states, which erupted in June. But since then, Qatar has detailed an aggressive gas expansion strategy — one that is likely to be only "half successful," said Palti-Guzman.

"These days, buyers want flexibility and they want short-term. They are not looking for 20-year, long-term supply contracts; buyers will want to hedge in order to have energy security," Palti-Guzman said. The LNG market has become ferociously competitive, with multiple new suppliers looking for customers. Qatar's decision earlier this year to boost its liquefied natural gas capacity to 100 million tonnes a year by 2022 would mean oversupplying an already glutted market — something that would probably push down spot-market prices to about \$6 per million Btu, or perhaps even \$5, she said.

## Chinese gas distributor looks to build its own LNG import terminal

(Reuters; Nov. 13) - China Gas Holdings, one of the country's largest natural gas distributors, expects sales to rise 30 to 45 percent this fiscal year, with "high growth" the next few years due to Beijing's clean-air push, the company's founder said. China Gas, which counts South Korea's SK Group and India's GAIL among its investors, plans to expand its pipeline network and is talking with potential partners to build its first liquefied natural gas import terminal, said Liu Minghui, the company's founder and president.

Liu did not give the company's gas sales volume for the financial year to end March 2018, but estimated his company supplies 8 to 9 percent of China's gas consumption. China, the world's third-biggest gas consumer, will burn 8.5 trillion cubic feet of the cleaner-burning fuel this year, up 15 percent from 2016, according to consultancy SIA Energy. The growth is fueled by Beijing's program to heat millions of homes with gas this winter in some 30 northern cities.

Liu, who set up China Gas in 2002 and holds the second-largest block of shares after state-run Beijing Enterprises, said the company plans to lay 12,000 to 18,000 miles of distribution pipeline every year over the next three to five years. To meet rising

demand, China Gas, which has relied on state energy firms for its gas supplies, last week signed an agreement with Delfin Midstream to explore the possibility of taking LNG from Delfin's proposed export terminal offshore Louisiana.

#### Alaska LNG effort signs memorandum with Vietnam

(Natural Gas Intelligence; Nov. 13) – The Alaska Gasline Development Corp. picked up more potential backing for its proposed liquefied natural gas export project after PetroVietnam Gas signaled its interest Nov. 12. In a memorandum of understanding, AGDC and PetroVietnam set forth basic principles to collaborate on potential opportunities to supply LNG to Vietnam and to evaluate the possibility of upstream resource investment in Alaska.

The agreement with the subsidiary of state-owned PetroVietnam was signed in Hanoi after the state-owned Alaska LNG project developer reached similar agreements with Chinese companies to pursue opportunities in that country, too. PetroVietnam is developing LNG receiving and regasification terminals to supply gas to newly built and proposed power plants and existing gas users. The first LNG receiving terminal in Vietnam is under construction.

## Vietnam works with U.S. and Japan on LNG potential

(Platts; Nov. 13) - Vietnam's LNG ambitions moved closer to reality last week, following preliminary agreements with U.S. and Japanese entities, aimed at securing LNG supplies, building regasification infrastructure and developing downstream markets in the country. For the U.S., the emerging demand presents an opportunity to secure buyers for multibillion-dollar LNG export projects and reduce trade deficits. For Japan, opening new demand centers in the region is a key priority. The deals were signed as Vietnam held the 2017 Asia Pacific Economic Cooperation Summit.

Vietnam plans to import 1 million tonnes of LNG per year by 2021, about 4 million tonnes by 2025 and between 6 million and 10 million per year from 2026 to 2035, according to the government's gas market development master plan. The country's first LNG import facility is under construction and due to commence operations in 2020.

PetroVietnam Gas signed a memorandum of understanding with Virginia-based AES Group to evaluate participating in the construction of a proposed LNG import terminal. PetroVietnam also signed an agreement to possibly collaborate on potential Alaska LNG supplies into Vietnam. And the country inked agreements with Japanese entities to explore opportunities in LNG supply and construction of gas-fired power plants.

## Japanese firms go after work to build, operate LNG import terminals

(Nikkei Asian Review; Nov. 14) - Japanese energy companies are going after contracts to develop and run liquefied natural gas terminals in Asian markets. JFE Engineering is set to participate in a project to run an LNG receiving terminal in Indonesia. It will partner with a local company to invest over 20 billion yen (\$176 million) in the facility. Tokyo Gas, meanwhile, has set up an office in Bangladesh to pursue an order there.

Demand for LNG is expected to soar as Asia's economies grow. Japan is the world's biggest importer of the gas, and its energy companies hope to leverage their expertise to provide infrastructure across the region. JFE Engineering has built 30 percent of the LNG terminals in Japan, but this will be its first experience operating one. Reckoning that building the terminal in Indonesia would be expensive, the company decided to contract out the construction and only provide technology, such as for regasification.

Aging gas fields on the Indonesian island of Sumatra are in decline, and the island is expected to need to import LNG around 2022 or 2023. Tokyo Gas is eager to provide LNG terminals in the region, including Bangladesh, the Philippines, and Vietnam.

#### Total could control 10 percent of global LNG trade by 2020

(Bloomberg; Nov. 12) - Total's billion-dollar deal to buy LNG assets from French energy provider Engie shows how much size matters. Consultancy Wood Mackenzie said it's evidence that the biggest energy companies with access to large volumes of diverse LNG supplies will continue to dominate, even as commodity traders are expanding their stake in the trade. Engie is exiting LNG to trim its exposure to commodity price swings, focus on downstream gas operations, energy-efficiency services and renewables.

Trade in the \$90 billion LNG market is poised to double by 2040, underpinned by surging demand from Pakistan to China to generate power instead of burning coal. The biggest advantage for integrated companies is that they own the chain from gas fields to liquefaction terminals and ships traveling the oceans. "Because of their scale, scope and flexibility" such players are "best positioned to serve emerging-market buyers with complex needs," said Frank Harris, vice president for LNG at Wood Mackenzie.

"We're seizing the opportunity to grow at a time when prices are low," said Philippe Sauquet, head of Total's gas, renewables and power business. The capital-intensive nature of LNG also means international and national oil companies will dominate because they probably have an easier time financing multibillion-dollar projects than trading houses, said Claudio Steuer, director of SyEnergy, a U.K.-based energy consultant. With Engie's assets and its own growth strategy, Total will control as much as 10 percent of the global LNG market by 2020.

#### IEA expects little growth in European Union gas demand

(Platts; Nov. 14) – European Union natural gas demand is unlikely to rise from current levels in the coming years despite an expected boost in consumption from the power sector, the International Energy Agency said in its latest World Energy Outlook published Nov. 14. At the same time, the EU is set to become increasingly import-dependent as domestic production slides by as much as 50 percent from current levels.

"The power sector remains central to the long-term prospects of gas in the EU," the IEA said. The IEA said that with many coal plants in the EU being retired in the coming decade and a more downbeat outlook for nuclear power, gas stands to benefit alongside renewables. "As a result, gas use in the power sector expands slightly in the period to 2040," it said. But an expected precipitous fall in EU gas production will see the bloc becoming increasingly import-dependent. However, the IEA believes the EU can fill the import gap fairly easily.

"It has a well-functioning and efficient internal gas market, many underutilized (LNG) regasification terminals, and a wide portfolio of pipeline import routes." The emergence of the U.S. as a major LNG exporter with the "ability and ambition" to export to Europe could lead Gazprom to react. But will Gazprom choose to engage in a price war to keep U.S. LNG exports to Europe at bay? "It is reasonable to assume that Gazprom can comfortably supply gas at the level that matches U.S. imports and even undercuts them," the IEA said. Instead, the IEA believes the two sources will learn to co-exist.

## U.S. Gulf Coast hub benefits from abundant, cheap oil and gas

(Platts; Nov. 13) - The U.S. Gulf Coast is expected to be a crude oil, natural gas and LNG export hub for years to come even as supply, demand and geopolitical swings shift market dynamics, industry consultants said Nov. 13. At the heart of the forecast is the fact that U.S. oil and gas supplies are abundant and cheap, and billions of dollars of new infrastructure is being added to link those resources to overseas destinations, particularly in Asia, Europe, the Middle East and South America.

Mexico, too, has been heavily reliant on liquefied natural gas and pipeline gas from the U.S. Gulf Coast. During the International and U.S. Associations of Energy Economics' North American Ride the Energy Cycles Conference, government officials, analysts and bankers joined industry consultants to explore how shale technology is boosting the U.S. role in global energy markets, and how the Gulf is a focal point for those efforts.

While Saudi Arabia, Russia, Qatar and China are vying for market position, none looks likely to have the same market clout in terms of excess supply, the experts said. "While the U.S. may seem to be retreating geopolitically from the outside world, there has never been a hub like the U.S. Gulf Coast. In the future, it will be even bigger," said Edward Morse, global head of commodities research for Citigroup. There is ample gas

supply in the U.S., particularly from the Northeast, where the prolific and low-cost Marcellus and Utica shale plays will continue to supply much of the supply growth.

## FERC works through backlog of gas pipeline projects

(The Advocate; Baton Rouge, LA; Nov. 12) - After waiting several months for the Federal Energy Regulatory Commission to gain a quorum, a handful of Louisiana pipeline projects, including three related to proposed natural gas export facilities, are expected to easily win approval. FERC regained enough members for a voting quorum in mid-August. But the commission has a backlog of hundreds of applications, and the energy-related projects carry an estimated cost of \$50 billion.

David Dismukes, executive director of the LSU Center for Energy Studies, said the FERC quorum means the gas pipelines will continue to move forward. "I think right now FERC has a slate of commissioners that have marching orders to move infrastructure development. That's where the bias is," Dismukes said. He doesn't see any problems with getting the pipelines permitted. The only question is how hard the commissioners will push the staff to work through the backlog, Dismukes said.

The majority of the planned pipelines that still need FERC attention are slated for construction in late 2018 or early 2019, said Colette Breshears, product manager, Infrastructure Intelligence for energy analyst Genscape. The pipelines that lie further out, which include many of those intended to serve proposed LNG facilities, were not affected by FERC's inability to act, Breshears said. Those more speculative pipelines had not reached the stage in permitting where the lack of a quorum stalled anything.

# Nebraska regulators will decide Keystone pipeline next week

(The Canadian Press; Nov. 14) - A decision on the last major regulatory hurdle for TransCanada in its nine-year quest to complete the Keystone XL pipeline will be made next week. The Nebraska Public Service Commission said in a statement that a vote on the application will be held during its meeting Nov. 20. Approving the \$8 billion project would allow TransCanada to gain access to holdout landowners' property using Nebraska's eminent domain laws.

The pipeline would transport oil sands bitumen from Alberta through Montana and South Dakota to Nebraska, where it would connect with existing pipelines that feed Texas Gulf Coast refineries. Opponents say the pipeline would pass through the Sandhills, an ecologically fragile region of grass-covered sand dunes in Nebraska, and would cross the land of farmers and ranchers who don't want it. South Dakota and Montana regulators have already approved the project.

Environmental groups had persuaded former President Barack Obama to deny federal approval in November 2015. But President Donald Trump resuscitated the project in March. The Nebraska commission is required to make a decision by Nov. 23 and must decide whether the project serves the public's interests, based on the evidence presented by lawyers and through public hearings earlier this year. The elected commission is comprised of four Republicans and one Democrat.

#### IEA boosts its estimate of recoverable U.S. shale oil

(Bloomberg; Nov. 14) - The U.S. will be a dominant force in global oil and gas markets for many years to come as the shale boom becomes the biggest supply surge in world history, the International Energy Agency predicted. By 2025, the growth in U.S. oil production will equal that achieved by Saudi Arabia at the height of its expansion, and U.S. increases in natural gas will surpass those of the former Soviet Union, the agency said in its annual World Energy Outlook.

"The United States will be the undisputed leader of global oil and gas markets for decades to come," IEA Executive Director Fatih Birol said Nov. 14. "There's big growth coming from shale oil, and as such there'll be a big difference between the U.S. and other producers." The agency raised its estimates for the amount of shale oil that can be technically recovered by about 30 percent to 105 billion barrels. Forecasts for shale oil output in 2025 were bolstered by 34 percent to 9 million barrels a day.

The U.S. industry "has emerged from its trial-by-fire as a leaner and hungrier version of its former self, remarkably resilient and reacting to any sign of higher prices caused by OPEC's return to active market management," the IEA said. Meanwhile, lower prices are helping to boost oil demand and the IEA raised its projection for global consumption, despite the growing popularity of electric vehicles. The world will use over 100 million barrels a day by 2025. That will benefit the U.S. as it turns from imports to exports.

## Analyst warns oil prices could collapse if OPEC fails to extend curbs

(Bloomberg; Nov. 13) - The Saudi- and Russia-led supply limits that have lifted crude to a 2½-year high must continue for an extended period or prices will collapse, said Ed Morse, global head of commodities research at Citigroup. Investors already are assuming OPEC and its allied producers will agree at the end of this month to extend the output limits well past their March expiration, Morse said at a Nov. 13 event of energy economists in Houston. Benchmark Brent has traded above \$60 this week.

Morse characterized the historic 2016 rapprochement between Saudi Arabia and Russia that helped lead to the output limits as a "bromance," and said anything short of a decisive step moving forward will disappoint traders and trigger a massive unwinding

of long positions in the oil futures market. That includes adopting half-measures, such as extending the deal by just a few months or delaying a decision until next year, Morse said. For traders, "it's logical to do the extension ... otherwise, it'll trigger a selloff."

Morse's remarks came just hours after OPEC Secretary-General Mohammad Barkindo gave assurances that the worldwide oil market is rebalancing at a quickening pace and that production cuts are the "only viable option" to restore stability. OPEC should decide at its meeting later this month whether or not to extend the cuts, United Arab Emirates Energy Minister Suhail Al Mazrouei said in a speech in Abu Dhabi. Russia, Saudi Arabia and Iraq have already signaled they would be open to extending the curbs.