

Oil and Gas News Briefs

Compiled by Larry Persily

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Shell and partners will go ahead with LNG Canada, sources say

(Bloomberg; Sept. 30) – Shell and its partners have agreed to invest in a multibillion-dollar liquefied natural gas project in British Columbia — the largest LNG commitment in the world in years — providing the fastest route to Asia for North American gas. LNG Canada, which is comprised of Shell, Malaysia’s Petronas, Mitsubishi, PetroChina, and Korea Gas, is set to announce a final investment decision on the C\$40 billion (US\$31 billion) project as early as Oct. 1, said people with direct knowledge of the plans.

The exact timing still hasn’t been decided. PetroChina and Korea Gas announced their investments Sept. 28; the other partners declined comment. The project marks a turning point for Canada and the global LNG industry. As the nation’s largest infrastructure project ever, LNG Canada augurs a new wave of investments in major gas export projects after a hiatus forced by a global supply glut. LNG Canada will be able to send gas from Kitimat, B.C., to Tokyo in about eight days versus 20 days from the U.S. Gulf.

The project also promises better prices for Canada, whose energy exports are sold almost exclusively to the U.S. at depressed prices for lack of a coastal export facility. LNG Canada proposes to eventually export as much as 26 million tonnes per year. The investment approval covers only the initial two LNG trains at 13 million tonnes annual capacity. If built, the chances that it will double capacity in a second phase "is all but an inevitability" due to economies of scale, National Bank of Canada analysts said in May.

The green light marks the end of a seven-year effort, including two postponements in 2016 at the depths of the industry’s downturn. Shell holds 40 percent, with Petronas at 25 percent, 15 percent each for PetroChina and Mitsubishi, and KOGAS with 5 percent.

Wood Mackenzie says 2019 could be ‘biggest year ever’ for LNG

(Bloomberg; Sept. 27) - The next LNG investment cycle may be primed for liftoff. Shell and its partners are set to announce a final investment decision on their C\$40 billion liquefied natural gas terminal in British Columbia as early as next week. This would be the first FID for a greenfield, onshore project since Russia’s Yamal LNG in December 2013, said Bloomberg analyst Fauziah Marzuki. “We think 2019 could be the biggest year of LNG FIDs ever,” said Wood Mackenzie analyst Nicholas Browne.

The Shell decision may be the start of an investment wave for major export projects after a supply glut and price collapse forced the nearly five-year hiatus. Booming demand growth means that 11 projects, including Shell's LNG Canada, are likely to receive FID by the end of 2019, said Bloomberg New Energy Finance. "The sanctioning of LNG Canada would mark a potential turning point in the LNG market, signaling the industry's appetite to invest has returned," Saul Kavonic, Credit Suisse Group's director of Asia energy research, said by email.

The market is seen flipping to a deficit as soon as 2022 absent new projects, according to Sanford C. Bernstein & Co. The progress in Canada contrasts with speed bumps in the U.S., as a growing trade war with China could potentially choke off investments from the Asian nation, the world's fastest-growing gas consumer. Beijing earlier this month slapped a 10 percent tariff on U.S. LNG, which is seen shifting China's investments to projects in other countries including Canada, Australia, Qatar, and Russia.

Domestic production can't meet rising demand; China needs LNG

(Forbes columnist; Sept. 27) - One of the great energy questions in the coming years and even decades is: How much natural gas will China produce? Companies and nations are basing their export businesses on supplying huge amounts of gas to China. If China can somehow produce lots more gas, some market players could see sunken investments, and the LNG business might not boom as fast as expected.

With gas meeting just 7 percent of China's total energy supply, well below the nearly 30 percent share in developed economies, China's potential gas demand is massive. China is moving to gas to clean its polluted skies and the short-term goal is for gas to reach 10 percent of energy in the next few years and eventually at least 15 percent. At the same time, China's gas output is growing — up 9 percent per year over the past decade.

Over the past 20 years China's proven gas reserves have almost quintupled to 195 trillion cubic feet, and its shale opportunities are solid. With nearly 700 new wells set to come online 2018-2020, shale gas production could double by then. A decade ago China's domestic gas output mostly met its needs, but the country is now dependent on imports for 40 percent of supply. That should jump to 65 percent in the years ahead, ensuring bright skies for U.S. LNG exports if we don't let bad policies screw it up.

China's switch from coal to gas costs villagers

(The Sydney Morning Herald; Sept. 29) - In a simple kitchen in their farmhouse in Landong village, a couple in their 70s are cooking with gas. They have no choice. Village authorities have banned the sale of coal and taken away any farm refuse that

could be burned in the traditional pot stove that now sits unused in the corner. The family of five gathered in one heated room during their first coal-free winter last year to save money — gas is more expensive than coal.

In its war on pollution the Chinese government directed that 4 million households in northern China stop using coal and switch to gas for heating and cooking last year. Overzealous officials converted 5 million households. But as the freezing winter hit, gas supplies ran short. Chinese media reported on schools in Hebei province where children developed frostbite in the classroom. Beijing's massive Huaneng Thermal Power Plant was hurriedly switched back to coal in December to ease the demand on gas in the city.

As winter approaches, China doesn't want a repeat of last winter's backlash against the clean energy policy. Imported gas has been stockpiled at an unprecedented rate. The impact in Australia, the world's second biggest LNG exporter, is that gas is forecast to overtake the coal used in steel production to become the country's second biggest export. Back in Landong village, price matters. The government offers a small gas subsidy for each family, but it isn't enough to provide the same heat as the coal stove that warmed the floor for the family with a baby and two grandparents in their 70s.

South Korea largest buyer of U.S. LNG in first half of year

(Business Korea; Sept. 27) - South Korea has emerged as a major importer of U.S. energy resources amid the Trump administration's strong push for resource exports such as liquefied natural gas. The U.S. Energy Information Administration said the U.S. exported 110.4 billion cubic feet of natural gas as LNG to South Korea in the first half of this year, supplying 22.5 percent of Korea's total LNG imports. In that period South Korea was the largest importer of U.S. LNG. Mexico was second at 105.5 billion cubic feet. Mexico was followed by China (61.9 bcf), Japan (44.2 bcf), and India (31.5 bcf).

Korea Gas signed a long-term contract in 2012 to import 2.8 million tonnes of LNG a year (about 135 bcf of gas) from Cheniere Energy's Sabine Pass terminal in Louisiana; deliveries started last year. Starting in 2019, two privately owned companies in South Korea also will start taking U.S. LNG cargoes.

Likewise, crude oil imports from the U.S. are on the rise. According to the Korea National Oil Corp., 9.7 percent of the crude oil imported by eight South Korean oil refining companies, such as SK Energy and GS Caltex, came from the United States in July this year. In part, this has to do with the price competitiveness of U.S. shale oil, which is several dollars per barrel cheaper than international oil prices.

[Japan sees benefit of U.S. LNG for diversified supply](#)

(S&P Global Platts; Sept. 27) - Japan views U.S. LNG imports as a source of diversity as it looks to expand its supply routes beyond a dominant path from the south, a top Japanese official said Sept. 26. "The biggest concern we have in terms of energy security is the fact that much of the energy comes from the southern route," said Minister of Economy, Trade and Industry Hiroshige Seko in an interview with S&P Global Platts, discussing the outlook for Japanese LNG supplies.

The southern route entails traffic from the Middle East through the Suez Canal and Strait of Malacca or South China Sea to East Asia. "From the viewpoint of diversifying our sources ... LNG imports from the United States will be important," Seko said. Over the past five years, Japanese companies have been a major supporter of U.S. LNG export capacity, booking over 18.7 million tonnes per year, either through long-term offtake contracts or direct investment in U.S. facilities.

One question is how much more gas Japanese buyers might take up as a second wave of U.S. projects seeks to get off the ground — Japan's LNG demand is expected to remain flat to declining through the mid-2020s. Seko said he was encouraged by improvements in the Panama Canal that will allow larger tanker traffic from U.S. Gulf Coast LNG terminals. "In the final analysis, it would be the impact upon the cost — so we are always looking for procurement of the resource at the lowest cost possible."

[Argentina looks to start LNG exports for its surplus shale gas](#)

(S&P Global Platts; Sept. 28) - Argentina's government wants construction of the country's first natural gas liquefaction terminal to start in the second half of 2019, making it possible to export an increasing surplus of production from the giant Vaca Muerta shale play, an official said Sept. 27. "We are confident that the decision to push the button on this project will come after the next presidential election in October 2019," said Daniel Dreizzen, the country's secretary of energy planning.

He said several companies have brought forward proposals for building the terminal, which will be evaluated. The terminal could start operations by 2023, Dreizzen told S&P Global Platts. The likely spot for the terminal will be in Bahia Blanca, a deep-water port in southern Buenos Aires province, where it will be fed with gas from Vaca Muerta in the southwestern Neuquen Basin, he said. The gas for export will be delivered under a contract that guarantees it can't be redirected to meet domestic demand, providing more confidence about gas supply stability for the project's investors, Dreizzen said.

In the mid to late 2000s, Argentina reneged on its gas export contracts with Brazil, Chile, and Uruguay to meet domestic demand as dwindling production led to shortages. Now with development of Vaca Muerta, one of the world's largest shale plays, shortages are becoming a thing of the past, Dreizzen said. His department forecasts Vaca Muerta

will lead to a tripling of the country's total gas output to 14 billion cubic feet per day in 2030, far above demand, making it possible to phase out gas imports and start exports.

More LNG import terminals give Europe option to Russian gas

(Wall Street Journal; Sept. 26) - European efforts to import more liquefied natural gas are starting to pay off, moving the region further away from Russia's energy orbit and potentially creating more opportunities for U.S. producers. Shifting to LNG has been a significant turning point for countries such as Lithuania and Poland, whose energy bills have fallen since they built LNG import terminals in 2014 and 2016, respectively.

The new LNG import terminals on the Baltic Sea, Russia's former backyard, are expected to prompt the opening of other European facilities that can turn to shipments of natural gas from places like the United States and Qatar, industry experts said. There are currently about six LNG import projects in development or on the drawing board in Europe, most of them in countries that are in Russia's former sphere of influence.

More European LNG import terminals also would be welcome news for U.S. energy companies, as they have been eagerly awaiting new projects abroad to eat into a glut of natural gas that has kept the U.S. benchmark price below \$4 per million Btu for years. For Europe, seaborne LNG has become an alternative to the dominance of Russia's piped gas. "We have had many historical challenges with Russia, but now gas supply has been depoliticized," said Zygimantas Vaiciunas, Lithuania's energy minister. The LNG terminal is "the key card in our negotiations" with Gazprom, he said.

Growing U.S. LNG exports provide market for Appalachian gas

(Pennsylvania Business Central; Sept. 21) - Liquefied natural gas is the fastest growing segment in the country's energy business. LNG exports will start up late this year from two more terminals (Texas and Georgia), with an additional two projects going online next year (Texas and Louisiana), bringing to six the number of U.S. export terminals in operation. "Growing LNG exports will provide support for increasing (shale) production in the Appalachian Basin," said Victoria Zaretskaya, an economist in the U.S. Energy Information Administration's Office of Petroleum, Natural Gas and Biofuels Analysis.

"LNG exports will create an estimated 5 billion to 6 billion cubic feet per day of additional demand for Marcellus [and] Utica production in the near term, and if other LNG terminals are sanctioned post-2020 they may also draw on Marcellus production," Zaretskaya said. "The U.S. is on track to become the third-largest LNG exporter by 2020, and the second-largest natural gas exporter in the world (LNG and pipeline gas) behind Russia by 2022, once all proposed U.S. LNG facilities are fully operational."

Draft EIS for LNG project in Texas out for public comment

(S&P Global Platts; Sept. 28) - The Sempra Energy-led Port Arthur natural gas liquefaction and export project in Texas has cleared an environmental review with the Federal Energy Regulatory Commission. A draft environmental impact statement issued by FERC staff Sept. 28 found that the LNG plant and related pipeline would do some harm to the environment, "but these impacts would be reduced to less-than-significant levels" by mitigation measures. A comment period on the document closes Nov. 19.

The EIS covers the Port Arthur LNG terminal in Jefferson County, Texas, planned for 13.5 million tonnes per year capacity, and 165 miles of new 42-inch-diameter gas pipelines to serve the plant. The terminal in an area zoned for industrial use on the Calcasieu Ship Channel would hold two liquefaction trains, each with an LNG production capacity of about 6.73 million tonnes. It would also include three LNG storage tanks, truck loading facilities, and a marine slip with two vessel berths.

Republican and Democratic FERC commissioners have disagreed in recent decisions about how far to take the analysis of a project's climate change impacts. Democrats want the commission to take a broad look at effects from production, transportation, and consumption. For Port Arthur, FERC staff stuck to the commission's limited approach, favored by Republicans. "Although climate change is a global concern, for this analysis, we focus on the potential cumulative impacts in the projects area," staff wrote.

FERC divided over how far to extend climate impact assessments

(S&P Global Platts; Sept. 27) – A senior adviser to the Federal Energy Regulatory Commission chairman said the way the agency assesses climate impacts in reviews of natural gas infrastructure projects has divided the commissioners. Travis Fisher, an adviser to Chairman Kevin McIntyre, a Republican, raised the potential sticking point as FERC tries to speed up reviews and resolve a backlog of LNG project applications. Lacking a fifth commissioner, the two Democrats and two Republicans have been split on interstate pipelines, primarily FERC's analysis of public need and climate impacts.

Fisher spoke Sept. 26 on a panel at the U.S. Association for Energy Economics conference in Arlington, Virginia. Peter Balash, senior economist for the Department of Energy's National Energy Technology Laboratory, asked Fisher about FERC's efforts to examine climate impacts in its evaluations of gas pipelines serving LNG export projects. Fisher responded: "You can see where the votes are coming down; this is a somewhat divisive issue within the FERC."

Fisher said he was not speaking on behalf of FERC, which is evaluating a 1999 policy on how it assesses pipelines. Climate analysis is "going to be, I would imagine, a very central piece of the policy statement review," he said. Environmental groups have

challenged FERC in its project impact statements to consider the overall climate impact of producing, transporting by pipeline, liquefying, exporting, and burning natural gas, not just running the LNG plant. The commission has so far declined to broaden its review.

Offshore producers buy into pipeline to send Israeli gas to Egypt

(Reuters; Sept. 27) – An Israeli gas producer, a U.S. explorer working in Israel and an Egyptian gas distribution company will pay \$518 million for a stake in a 56-mile undersea pipeline to send more than 2.25 trillion cubic feet of gas over 10 years from Israel's offshore Tamar and Leviathan fields to Egypt as part of a \$15 billion export deal signed in February. The line originally carried gas in the other direction, when Israel was buying from Egypt. That ended in 2012 after militants in Egypt's Sinai Peninsula carried out repeated attacks on the line and the owner sued Egypt's government for damages.

The pipeline again became an export option after the Tamar and Leviathan discoveries. Tamar began production in 2013 and Leviathan is due to come online in late 2019. Under the new deal, pipeline owner EMG agreed to end arbitration with Egypt and drop its claims against Cairo. The new partners are Israel's Delek Drilling and Texas-based Noble Energy, developers of the offshore gas reserves, and the Egyptian East Gas Co.

"The partnership intends to act to close the transaction and begin piping natural gas from Israel to Egypt as early as the beginning of 2019," Delek said in a statement. This comes against the backdrop of Egypt's efforts to liberalize its gas market and open it up to trading by private companies. To buy into EMG, the three partners formed a joint company called EMED. At start-up of the Leviathan field, Noble said it expects to sell at least 350 million cubic feet of gas per day to Egyptian customers.

Cruise lines among the first to convert to LNG

(Bloomberg; Sept. 27) - The cruise-ferry idling at the harbor in western Norway while picking up passengers spews none of the dirty smoke typical of ships at busy ports elsewhere. With a capacity of 1,500 passengers and 600 cars, the Bergensfjord is one of the growing number of ships running on liquefied natural gas, which emits a fraction of the pollutants of the heavy oil and diesel typically used. It's an example of how one of the dirtiest industries is responding to demands for cleaner air amid pristine coastlines.

It's also the latest opportunity for the gas industry, which is quickly expanding along with demand for greener energy. That demand may spur a five-fold surge in LNG-fueled ship construction over the next eight years. Carnival, the world's biggest cruise

operator, just added the first of 11 LNG-fueled ships to its fleet, and competitors are doing the same.

“You don’t want see the big black plumes of smoke at the beautiful locations that they go to,” said Paul Wogan, CEO of GasLog, an LNG carrier owner and operator whose entire fleet can run on the fuel. Diesel and ship oil create black carbon and are blamed for harming human health and the environment. The tiny particles settle in the lungs and on land and ice, where they speed melting by absorbing rather than reflecting the sun.

LNG’s share of the world’s commercial shipping fleet is miniscule but growing. There are 261 such ships in service, according to DNV GL, which certifies ships for safety. That could reach 1,500 by 2026, said a Finnish engineering firm that provides marine LNG fuel systems. Still hurdles remain. LNG refueling facilities aren’t widespread, and the lack of them is a big obstacle for shipowners to commit to converting to the fuel.

Northern Sea Route offers direct — but complicated — path

(Wall Street Journal; Sept. 26) - When the Venta Maersk sailed out of Vladivostok in Russia’s Far East late last month, the container ship carried far more than just a load of seafood. With its progress across Russia’s Arctic coast, it also carried the promise of a new route that would shave time off major trade trips and cut the shipping industry’s rapidly rising fuel bills. Reality is more complicated, however, and the economic and operating barriers to scheduled services may be more difficult to break through.

Arctic routes are drawing greater attention as the global climate warms up and polar ice recedes, potentially opening new paths between Asia, Europe and North America. The Northern Sea Route, a mostly frozen seaway, is considered a likely lane because it already is used in warmer seasons to move part of Russia’s massive energy exports. The route runs from Alaska to the Baltic Sea and is open from July to November.

Cargo volumes along the route grew substantially this year as tankers with ice-breaking capability and liquefied natural gas carriers began to move through the region, carrying crude oil and natural gas from the Russian Far East to Western markets. Then Maersk Line, the world’s biggest container line, decided this summer to send its small, 3,600-container ship on the route from Vladivostok to St. Petersburg. Maersk said the trip’s goal was to collect data and that it doesn’t see it “as an alternative to our usual routes.”

The Northern Sea Route may be a more direct path, but that doesn’t make it smoother. The route has no transshipment ports to allow the efficient transfer of goods, parts of the route are too shallow for big container ships, and issues such as how to contain an oil spill on ice or where to evacuate the crew in an emergency are unresolved.

Interior Department rolls back offshore oil and gas safety rules

(Reuters; Sept. 27) - The Trump administration on Sept. 27 eased safety rules on offshore oil and gas production put in place after the 2010 BP Deepwater Horizon disaster, as part of its effort to cut regulations and boost the energy industry. The Interior Department revised the 2016 safety systems rule, part of a series of regulations enacted on offshore drilling and production after the drilling disaster that killed 11 oil rig workers, led to the worst environmental disaster in U.S. history and cost BP \$65 billion.

The new rule eliminates or changes some safety standards for when a well is producing oil or gas, such as requiring that independent third-parties certify safety devices. Other changes involve when operators have to notify the government about beginning oil and gas production and what they have to report about equipment failures.

The Interior Department said in the new rule that “certain provisions in that (2016) rulemaking created potentially unduly burdensome requirements for oil and natural gas production operators on the Outer Continental Shelf, without meaningfully increasing safety of the workers or protection of the environment.” The rule change supports the administration’s “objective of facilitating energy dominance” it said. The move was praised by industry but decried by environmentalists.

Canadian heavy oil trades at \$34 discount to U.S. benchmark

(Calgary Herald; Sept. 26) - Canadian oil producers are missing out on a recent rally in global oil prices as the discount for domestic crude flirts with all-time highs in recent weeks. “It has been ridiculous — it’s been outrageous, actually,” said Martin King, director of institutional research at GMP FirstEnergy, about the near-record discounts facing Canadian crude oil production.

While the West Texas Intermediate benchmark price has steadily climbed over US\$71.89 per barrel — drawing the ire of President Donald Trump, who blamed OPEC for high prices — the Canadian oil benchmark has at times traded for less than half that. King said Western Canada Select was trading at a discount of US\$34.50 per barrel at mid-day Sept. 26. “It maybe not quite a record, but it’s pretty damn close,” King said.

The spike can be attributed to Canada’s insufficient export pipeline capacity, combined with a slow uptake in crude oil-by-rail shipments and, recently, outages for maintenance at two U.S. refineries in Indiana and Michigan that use a lot of Canadian oil. Scotiabank expects differentials to return to the normal US\$18 to \$22 per barrel as the refineries wrap up their maintenance next month, and oil-by-rail picks up the slack for the remainder of 2018. Canadian oil-by-rail shipments reached an all-time high of 204,000 barrels per day in June. “We could very easily push about 400,000 barrels per day by the end of next year,” said Rory Johnston, a commodities analyst at Scotiabank.