

# Oil and Gas News Briefs

## Compiled by Larry Persily

### March 21, 2019

#### [Papua New Guinea moves closer to LNG expansion](#)

(S&P Global Platts; March 19) - The Papua New Guinea government and the joint-venture participants in a Total-led natural gas development project are set to announce a deal April 5 for an 8-million-tonne-per-year expansion of the country's liquefied natural gas export plant, Prime Minister Peter O'Neill said March 19 at the Papua New Guinea Petroleum and Energy Summit in Port Moresby. The plan is to add three liquefaction trains at the site of the existing ExxonMobil-led LNG project that started up in 2014.

The cost of the expansion is estimated at about \$13 billion, lower than the initial cost projection of \$19.5 billion, according to analyst reports. The partners intend to reach a final investment decision this year with engineering and design work to start in the second half of 2019. They plan to start up production from the new trains around 2023 or 2024, according to analyst reports.

Two of the three trains are to be supplied with gas from the to-be-developed Total-managed Elk-Antelope fields, while one train is to be supported with gas from Exxon-led fields, S&P Global Platts previously reported. The project will more than double the country's export capacity, adding to PNG LNG's 6.9 million tonnes per year nameplate production. The agreement between the government and the LNG partners follows a memorandum of understanding announced Nov. 16, which provided the key terms and conditions, including tax rates and obligations to supply the domestic market with gas.

#### [Exxon may start FEED work for Russian gas project this year](#)

(Reuters; March 20) - ExxonMobil's Russia unit may take a decision this year to start front-end engineering and design work for its natural gas project with partner Rosneft, Alexander Popov, vice president at Exxon Neftegaz, said March 20. The companies are continuing to hold talks on sending gas from their Sakhalin-1 oil and gas development to the Sakhalin-2 liquefied natural gas terminal, which needs additional supply if it is to expand production, Popov said at an LNG conference organized by Vostock Capital.

Sakhalin-1 has been producing oil since 2005 — currently averaging around 300,000 barrels per day — while reinjecting the gas as Exxon and Rosneft have been reviewing whether to build their own LNG plant or send or sell their gas to the nearby Gazprom-led Sakhalin-2 liquefaction plant. The companies have not announced their decision.

Gazprom wants to expand Sakhalin-2, which started up in 2009 at 9.6 million tonnes of LNG per year, but the development lacks sufficient proven reserves and has been trying to reach a deal with Rosneft/Exxon to process gas from their Sakhalin-1 fields.

### **Shell sees Russian LNG well-positioned in the marketplace**

(S&P Global Platts; March 20) - Russian liquefied natural gas is well-positioned to compete with North American projects to reach new markets in Asia and the Atlantic Basin, a Shell executive said March 20 at an LNG conference in Moscow. Russian LNG could come from three regions, said Stuart Bradford, Shell's senior deal lead: The Arctic, the Far East and the Baltic Sea. Shell is a partner in the 10-year-old Sakhalin Island LNG plant in the Far East and also the proposed Baltic LNG project.

The Baltic terminal would be near the port of Ust-Luga in Russia's northern Leningrad region with capacity of 10 million tonnes per year. The plant would get feed gas from West Siberia. The cost is projected slightly above \$11 billion. Start-up is tentatively planned for 2023, depending on a timely investment decision. The Sakhalin-2 terminal has a total nameplate capacity of 9.6 million tonnes per year. The two main partners, Gazprom and Shell, are planning to build a third train at 5.4 million tonnes per year at a cost of \$5 billion to \$6 billion, but need to resolve issues with the source of gas supply.

And Novatek, operator of the Yamal LNG project, at 16.5 million tonnes per year, is close to making an investment decision on its Arctic LNG-2 project, at almost 20 million tonnes annual capacity. Chinese interests, which hold a stake in Yamal and helped finance the \$27 billion development, also are looking at Arctic LNG-2, as are Saudi Arabian and Japanese companies. France's Total already has signed on as a partner.

### **Novatek says it is talking with Saudis about Arctic LNG-2 project**

(Reuters; March 17) - Leonid Mikhelson, chief executive of Russian gas giant Novatek, said March 17 that he has discussed the company's Arctic LNG-2 project with Saudi Arabia Oil Minister Khalid al-Falih and that a deal could be expected soon. "We are in talks with Saudi Aramco (on the Arctic LNG-2 project). I think we will get something concrete in the coming months," Mikhelson said.

Novatek, which started operations at its Yamal LNG plant in the Russian Arctic in December 2017, is planning a second liquefied natural gas export terminal nearby, Arctic LNG-2. It expects to make an investment decision later this year. France's Total already has signed on as a partner. In addition to talking with Saudi Aramco, Novatek is pursuing partnership talks with Chinese and Japanese companies. Arctic LNG-2 is estimated at as much as \$25 billion for 19.8 million tonnes of annual capacity.

## **FERC gives OK to start site work at Louisiana LNG project**

(Reuters; March 19) - The Federal Energy Regulatory Commission on March 19 approved Venture Global LNG's request to proceed with full site preparation at its proposed \$4.5 billion Calcasieu Pass liquefied natural gas export terminal in Louisiana. Calcasieu Pass is designed to produce about 10 million tonnes per year. FERC authorized the project last month; the approval to begin site work is a separate order.

Venture Global, however, has not announced a start date for construction. The company has 20-year offtake agreements for much of the project's output with units of Shell, BP, Italian energy company Edison, Portuguese energy company Galp Energia, Spanish energy company Repsol, and Polish oil and gas company Polskie Górnictwo Naftowe i Gazownictwo.

Venture Global, based in a Virginia suburb of Washington, D.C., has said it expects Calcasieu Pass to enter service in 2022, which would be a quick construction period for a greenfield LNG project. Calcasieu Pass would be the company's first project. Most U.S. Gulf Coast export terminals were built as additions to unused LNG import terminals, saving the time and cost of building storage tanks and berths.

## **Start-up of Georgia LNG terminal delayed to April**

(S&P Global Platts; March 20) - Kinder Morgan said March 20 it was pushing back start-up of its \$2 billion Elba LNG export terminal in Georgia to April because of construction delays, and in an updated timeline suggested completion of all 10 liquefaction trains may not occur until early 2020. The export project, adding to an LNG import terminal built in the 1970s, is among three U.S. liquefaction plants set to begin service this year.

The start-up of Elba, Freeport LNG in Texas and Sempra Energy's Cameron LNG in Louisiana would double the number of U.S. LNG export terminals in operation. All three have faced construction delays. For Elba LNG, the operator had most recently said it expected in-service of the first train by the end of March with the remaining trains online by the end of 2019. Start-up had previously been expected by the end of 2018. Shell has a 20-year contract to take all of Elba's 2.5 million tonnes per year.

While the Elba Island facility near Savannah is the smallest of the U.S. LNG export projects, its completion will be a major milestone for Shell, marking the first application of its Movable Modular Liquefaction System (MMLS) design for liquefaction facilities. Shell eventually plans to have these small-scale MMLS units deployed across North America, liquefying stranded or otherwise flared gas for use as vehicle and marine fuel.

## **Next wave of U.S. LNG projects faces price, schedule certainty issues**

(S&P Global Platts; March 18) - As they face competitive pressure to lower the price for their offtake, developers of the second wave of U.S. liquefaction projects are being increasingly pressed by buyers to provide project certainty and offer flexible terms. The three export terminals preparing to start up in the coming weeks and months — Sempra Energy's Cameron LNG in Louisiana, Freeport LNG in Texas and Kinder Morgan's Elba Liquefaction in Georgia — have all been beset by construction delays.

The snags often mean higher construction costs, and the delays can affect supply and prices. That history, and concerns over the pace of U.S. regulatory approval of projects, has led buyers in Asia, Europe, and Latin America to be more selective in signing long-term contracts. For example, none of the three projects proposed for Brownsville, Texas, has announced any firm offtake deals. "When we're talking to buyers, what's important to them is (contract) flexibility," said NextDecade CEO Matt Schatzman.

NextDecade, which proposes to build an LNG terminal in Louisiana, expects to receive a decision from the Federal Energy Regulatory Commission in July. Commercial start-up is targeted for 2023. In the meantime, it is looking to secure a new construction contractor and to prove the venture's commercial viability. Keeping costs down will be key to NextDecade's success, especially as it continues to work to sign up a contractor to build its terminal after a previous deal fell through. Bids are due next month.

## **Major gas investments expected by Qatar and UAE**

(The Peninsula; Qatar; March 18) - The global oil and gas industry's investments in new projects are set to double in 2019 with Qatar, the United Arab Emirates, and Saudi Arabia fueling growth. Qatar, which has plans to boost its LNG capacity to 110 million tonnes per year, will require more than \$35 billion in greenfield investments over the next several years, making it one of the biggest projects in the region, according to Oslo-based Rystad Energy, an independent research company.

Rystad forecasts that more than \$240 billion in greenfield oil and gas investments worldwide will be sanctioned in 2019, with almost 25 percent expected in the Middle East — where the industry is aiming to ramp up gas production in order to meet rising regional demand while also increasing oil output. Middle East investments are seen at about \$56 billion in 2019, more than six times the level in 2018. Investments in gas alone are expected to jump to \$30 billion this year from around \$1.7 billion in 2018.

The growth is primarily driven by offshore gas developments in Qatar and the UAE, as well as oil developments in Saudi Arabia. Gas development projects in Qatar and the UAE account for almost a third of the resources expected to be sanctioned next year, while Saudi Arabia's oil expansion projects at Berri, Marian, and Zuluf account for more

than half. The UAE is prioritizing offshore gas projects to increase gas availability for domestic consumption and reduce its dependence on imported pipeline gas and LNG.

### **Canadian gas producers look for new markets to boost prices**

(Bloomberg; March 19) - As Canada's oil producers limp along hamstrung by pipeline bottlenecks that have hurt prices for their crude, the nation's natural gas industry is working on a flurry of export and chemicals projects to avoid the same fate. Canada's gas has long sold at a discount to the U.S. benchmark, due largely to transportation costs to distant markets in the south. But in recent years, growing output from the prolific Montney formation has swamped pipelines, causing the discount to widen.

"The Montney has got a great resource with no easy way to access markets," said Jen Snyder, a director at RS Energy Group in Calgary. Until some of the plans to help reach markets come to fruition, the gas industry in Alberta is "kind of stuck." The spot price of gas traded at the AECO hub in Alberta averaged about \$2.04 per million Btu lower than the U.S. Henry Hub benchmark last year. To help, 10 producers have teamed up to promote construction of another liquefied natural gas export facility on the Pacific Coast.

Producers are getting some help closer to home as well. Nautical Energy is building a C\$2 billion facility in the heart of Alberta's gas fields that will use 300 million cubic feet of gas a day to produce methanol, starting in 2022. Inter Pipeline is working on a C\$3.5 billion petrochemical facility near Edmonton to turn propane into polypropylene, used in packaging and labeling. That plant is scheduled to enter service in 2021. Pembina Pipeline said last month it's moving ahead on a C\$4.5 billion propane-dehydrogenation plant in a venture with Kuwait's Petrochemical Industries, with start-up in 2023.

### **Booming gas production drives growth in Southeast Texas**

(Beaumont Enterprise; Texas; March 19) - With at least \$23.6 billion in new industrial projects announced so far this year, Southeast Texas is in the right place at the right time. Gas production in Texas grew by almost 1 trillion cubic feet last year, the Texas Independent Producers and Royalty Owners Association reports, driven by advances in fracking and horizontal drilling. The state leads the country in gas production.

That production has meant a wealth of feedstock gases for chemical companies and manufacturers — and that growth hasn't been limited to domestic markets. Hector Rivero, president of the Texas Chemical Council, said his association has watched the U.S. change from the most expensive place to manufacture to one of the cheapest thanks to increased gas production, and now companies are betting on export projects.

Thanks in part to its access to some of the largest producing shale fields and existing transportation infrastructure, Southeast Texas could become a gas export hub, Rivero said. American Ethane announced in January an ethane terminal aimed at supplying about \$72 billion in gas to China for its plastics and chemical industry. If its permits are granted by China, it would be the first U.S. company to export ethane to that country.

ExxonMobil and Qatar Petroleum in February approved the \$10 billion Golden Pass LNG export project in Texas. Sempra Energy recently got a step closer to building an LNG export terminal in Port Arthur after receiving the final federal environmental impact statement in January. And Chevron Phillips has confirmed that Orange County, Texas, is a finalist for the site of a future ethylene plant.

### **North Dakota flared 19% of record gas production in January**

(Bismarck Tribune; ND; March 15) - North Dakota oil production held steady in January at 1.4 million barrels per day while natural gas production reached a new record high, the state Department of Mineral Resources said March 15. The state produced 2.7 billion cubic feet per day of gas in January, an increase of 2.6 percent, according to preliminary figures. Operators focused activity on the core of the Bakken Shale, where wells produce the most gas associated with oil production, said Director Lynn Helms.

“We’re back to that pattern where gas is increasing much faster than crude oil and putting pressure on the gas gathering and processing,” Helms said. Companies captured a record volume of gas in January at 2.2 bcf per day. The volume of gas flared in January decreased slightly to 507 million cubic feet per day, staying at 19 percent statewide. The North Dakota Industrial Commission gas-capture goal calls for operators to limit their Bakken flaring to 12 percent.

Several gas processing plants are under construction in northwestern North Dakota, but are not expected to catch up with growing volumes of gas until late this year or early 2020, said Justin Kringstad, director of the North Dakota Pipeline Authority. A shortage of pipeline capacity also is an issue for crude oil producers in the state. About 75 percent of the state’s crude oil production was transported by pipeline in January while 18 percent was transported by rail, Kringstad said.

### **South Korea reduces levies on LNG imports**

(Maeil Business; South Korea; March 19) - The South Korean government will sharply ease its fees on liquefied natural gas imports in addition to a sales tax cut, cutting taxes to spur the country’s migration to the cleaner fuel in a push to reduce coal-fired air pollution. The Ministry of Trade, Industry and Energy proposed to axe the surcharge on

LNG imports to fuel power generators from the current 24.2 won (\$0.02) to 3.8 won per kilogram. The move was approved by the state council and will go into effect April 1.

The move is expected to boost the use of LNG, which had so far been hit with heavier taxes than coal. Its total tax levies, including a special consumption tax, import surcharge and tariffs, had been 91.4 won, more than double the 36 won of bituminous coal. The cut in LNG's import surcharge on top of the reduced special tax in July last year will bring the total levy of LNG to 23 won from the previous 91.4 won, while that of thermal coal will go up to 46 won from 36 won.

LNG used in cogeneration plants (combined heat and power plants) would enjoy full tax reimbursement as they operate at significantly higher energy efficiency, about 30 percentage points higher than traditional power plants. Korea currently relies on coal for 40 percent of its electricity. LNG accounts for less than 20 percent. Nuclear reactors make up 30 percent, and renewables like solar, wind, and fuel cell about 10 percent.

## **Oil majors have spent \$10 billion buying acreage in Permian**

(Reuters; March 19) - In New Mexico's Chihuahuan Desert, ExxonMobil is building a massive shale oil project. Workers near Carlsbad — part of a staff of 5,000 spread across New Mexico and Texas — are drilling wells, operating hydraulic pumps and digging pipeline trenches. The sprawling site reflects the massive commitment to the Permian Basin by oil majors that have spent an estimated \$10 billion buying acreage in the top U.S. shale field since a year ago, according to research firm Drillinginfo.

The rising investment also reflects a recognition that Exxon, Chevron, Shell, and BP largely missed out on the first phase of the Permian shale bonanza while more nimble independent producers, who pioneered shale drilling technology, leased Permian acreage on the cheap. The majors are moving aggressively to dominate the Permian and use the oil to feed their sprawling pipeline, trading, refining, and chemicals ventures. The majors have 75 drilling rigs here this month, up from 31 in 2017, according to Drillinginfo. Exxon operates 48 of those rigs and plans to add seven more this year.

CEO Darren Woods said March 6 that Exxon would change "the way that game is played" in shale. Its size could allow it to earn double-digit percentage returns in the Permian even if oil prices crash below \$35, said Senior Vice President Neil Chapman. The industry's total Permian production is expected to reach 5.4 million barrels per day by 2023, up from about 4 million now. Chevron CEO Mike Wirth called the Permian its best bet for profits "north of 30 percent at low oil prices." He said at an investor meeting this month: "There's nothing we can invest in that delivers higher rates of return."

## **Morgan Stanley ups oil-price forecast to \$75**

(CNBC; March 20) - OPEC's supply cuts and U.S. sanctions against Venezuela and Iran will push the global oil market into undersupply and boost the cost of crude in the coming months, Morgan Stanley forecasts. The investment bank previously said prices were more likely to fall after Brent crude topped \$65 a barrel last month. But Morgan Stanley now sees the international benchmark for oil rising to \$75 by the third quarter.

Analysts said they changed their minds after last week's CERAWEEK energy conference in Houston. They are now convinced that OPEC has the determination and capability to drain oversupply from the oil market. "Conversations with several OPEC officials left us with the impression that Brent in the mid-\$60s is not where the cartel would like to see it," Morgan Stanley global oil strategists Martijn Rats and Amy Sergeant said in a research note March 19.

"We assume that OPEC will extend – or even deepen – production cuts to support the oil market at the next meeting in June," the analysts said. OPEC and its partners aim to keep 1.2 million barrels per day off the market. On March 18, the alliance canceled an April meeting intended to review the supply deal, leaving the output cuts in place until the June gathering. Members of the pact believe the market will remain oversupplied through the first half of the year, making the April meeting unnecessary.

## **Court hears argument over B.C.'s ability to block oil pipeline**

(Calgary Herald columnist; March 19) - An issue with immense consequences for Alberta's energy industry was in the British Columbia Court of Appeal on March 18: Does the B.C. government have the power to limit heavy oil moving into the province, despite federal authority to regulate cross-border railways and pipelines? "Obviously that is a critical case," Alberta Premier Rachel Notley said. British Columbia contends it does have the authority to stop expansion of a pipeline from Alberta to the B.C. coast.

The federal government, along with the oil-producing provinces of Alberta and Saskatchewan, argue that British Columbia does not have such authority under Canada's constitution. "Quite honestly, if the government of B.C. were to be successful in this reference case — which, to be clear, I really don't think they will be — but if they were, then I think really all bets would be off in terms of provinces working together and trading with each other," Notley said.

B.C. maintains the proposed amendments to its environmental laws are designed to protect the province from the risks of a spill due to increased oil shipments. The overarching question in the case is "the extent to which our federal constitution will permit the province to protect its people, its land, its water," B.C.'s lawyer, Joseph Arvai, said in his opening remarks in court. "The province has no axe to grind against pipelines or rail — it's about the environmental harms of the bitumen."



## **China a leader in electric-powered buses**

(Bloomberg; March 19) - The oil industry needn't be too concerned — for now — about how Tesla's electric cars are denting demand. China and its bus fleet could be more of a worry. By the end of this year, a cumulative 270,000 barrels a day of diesel demand will have been displaced by electric buses, most of it in China, according to a report published March 19 by Bloomberg New Energy Finance. That's more than three times the displacement by all the world's passenger electric vehicles.

Despite rapid growth, the impact on the oil market from electric vehicles remains relatively small. Collectively, buses and electric vehicles account for about 3 percent of oil demand growth since 2011, and 0.3 percent of current global consumption, according to Bloomberg figures and data from the International Energy Agency. Buses matter more because of their size and constant use. For every 1,000 electric buses on the road, 500 barrels of diesel are displaced each day, Bloomberg estimates.

By comparison, 1,000 battery electric vehicles remove just 15 barrels of oil demand. Still, the electric vehicle market's impact on oil consumption is only going to grow. By 2040, electric vehicles could displace much as 6.4 million barrels a day of demand, while fuel efficiency improvements will erase another 7.5 million barrels a day, according to Bloomberg's May 2018 long-term EV outlook.

## **LNG among options for shipowners facing tight environmental rules**

(Reuters; March 19) - More ports around the world are banning ships from using a fuel-cleaning system that pumps its wastewater into the sea, one of the cheapest options for meeting tough new environmental rules. The growing number of ports with even stricter regulations than those set by the International Maritime Organization is expected to be costly for cruise and shipping firms as they face tough market conditions. They might have to pay for new equipment, different types of fuel or adjust their routes.

Several ports have already banned the use of the cleaning systems, called open-loop scrubbers, from the start of next year when the new rules come into force. The IMO rules prohibit ships from using fuels with sulfur content above 0.5 percent, unless they are equipped with exhaust-gas cleaning systems. The open-loop scrubbers wash out the sulfur and some industry experts believe they are the cheapest way to meet the new rules, but many companies that invested in such scrubbers may be unable to use them.

Ships with open-loop scrubbers docking or sailing through those ports would need to store waste in tanks until it could be discharged elsewhere or avoid the ports. The other option is to use a scrubber with a "closed loop," which stores the waste until it can be treated on land. There are also hybrid scrubbers with a loop that can be open or closed. All add to costs. Or else ship owners could choose another energy source such

as low-sulfur fuel or liquefied natural gas. LNG suppliers see a growth opportunity in the market.

### [Australia LNG developers caught in carbon dioxide clash](#)

(Forbes; March 18) – Australia’s plan to become the world's biggest exporter of liquefied natural gas is being threatened by another gas — carbon dioxide. The clash has come to a head in Western Australia, home to four LNG export plants, and potentially several more as global demand for the fuel rises because it is less polluting than coal and oil. But LNG's appeal as a relatively clean fuel does not save it from the Paris Agreement, intended to tackle climate change by cutting the emissions of carbon dioxide.

A solution might be found if LNG production could be offset by investment in carbon reduction projects such as tree planting and renewable energy like solar and wind farms. The immediate issue, however, is that two proposed new Australia gas projects are approaching a final investment decision, and they have run headlong into a recommendation of the Western Australian Environmental Protection Authority, which wants all big new projects to fully offset their carbon dioxide emissions.

For Woodside, which is leading the push to develop the Browse and Scarborough gas fields, the move came as a shock. It also came as a shock to the state government, which is keen to see both projects proceed. Western Australia Premier Mark McGowan has asked the environmental authority to withdraw its recommendations. The chairman of the authority is not backing down. With different layers of government uncertain about how to apply the Paris Agreement to the fast-growing Australian LNG industry, the situation has become confusing for companies planning multibillion-dollar investments.