Oil and Gas News Briefs Compiled by Larry Persily April 23, 2018

Cheniere goes after financing for 3rd train at Corpus Christi LNG

(Platts; April 20) – Cheniere Energy said April 20 it had engaged more than two dozen banks and financial institutions to help it finance a third liquefaction train at its Corpus Christi LNG export facility in Texas, and it expects to make a final investment decision by the end of June. Arranging and closing on financing reflects the last major step before Cheniere makes a formal decision whether to move forward with construction of the third production unit at the terminal, spokesman Eben Burnham-Snyder said.

The first two trains are under construction, and the market believes Cheniere will build the third based on the strong signals sent by the company after securing long-term agreements with buyers taking about two-thirds of the unit's output capacity of 4.5 million tonnes per year. Though fears of a global LNG supply glut have eased, some U.S. export developers have delayed investment decisions as they struggle to secure firm long-term contracts with buyers.

Cheniere became the first U.S. exporter of LNG produced from shale gas when its Sabine Pass, La., terminal shipped its initial cargo in February 2016. Dominion Energy was the second when its Cove Point, Md., terminal exported its first cargo in March.

A Cheniere affiliate has engaged banks and financial institutions to assist in structuring up to \$6.4 billion of financing for the third train at Corpus Christi. Bank of America, Bank of China, Goldman Sachs, JPMorgan Chase, and Societe Generale are among the institutions working with Cheniere, which has long-term contracts with China National Petroleum Corp., commodity trader Trafigura and a Portuguese utility for the third train.

Shell has contractors lined up if it goes ahead with B.C. LNG project

(Nikkei Asian Review; April 21) - An international consortium led by Shell and including China National Petroleum Corp., Korea Gas, and Japanese trading house Mitsubishi Corp. may be moving ahead on a long-stalled liquefied natural gas plant in Canada, as environmental concerns drive Asia toward cleaner energy sources. Japanese plant engineering company JGC and American counterpart Fluor jointly won orders to design and build the LNG Canada project in Kitimat, B.C., for an estimated \$14 billion.

Lower oil prices have shelved LNG projects worldwide since 2014, including the Shell-led venture. But the project now is awaiting a final investment decision, possibly this year with a rebound in oil and gas prices. The plant could begin liquefying gas by 2024

for shipments to China, South Korea, and other Asian markets with annual capacity for the first phase at 13 million tonnes.

The resumption of interest in large LNG projects reflects soaring demand in Asia, which is turning to the energy source and away from coal and oil in efforts to combat global warming. Factories in emerging economies are adopting LNG in place of fuel oil to heat boilers. Imports for power generation are increasing too. Demand growth has sparked concerns of a global LNG shortage by 2022-2023 if investment remains in the doldrums.

Canal says U.S. LNG traffic could reach 30 million tonnes by 2020

(Reuters; April 19) - The Panama Canal may carry five times as much liquefied natural gas in 2020 as it did last year as LNG production expands in the United States and Asian demand rises, the head of the canal's governing agency said. LNG volumes traversing the canal could hit 30 million tonnes a year before the end of 2020, said Jorge Quijano, head of the Panama Canal Authority, up from 6 million tonnes last year.

Demand for LNG has risen significantly in the past three years as new supply — especially from U.S. shale fields and offshore reserves in Australia — has made it more price competitive. Many countries including China have also been switching to gas more rapidly than expected away from dirtier coal for environmental reasons. "Right now on average we're running six (LNG) vessels per week, but in the very near future, you will have several (U.S.) plants exporting and that starts to add up," Quijano said April 19.

The U.S. has only one LNG export facility, at Sabine Pass, La., which exports via the Panama Canal mostly to North Asia and the Pacific coast of Latin America. But cargoes are expected to surge over the next few years as several U.S. Gulf Coast LNG projects are under construction with total U.S. capacity slated to reach nearly 70 million tonnes a year, up from 18 million tonnes in 2017. A \$5 billion canal expansion completed in 2016 allows the waterway to accommodate all but the world's largest LNG carriers.

Freeport LNG export start-up in Texas delayed nine months

(Reuters; April 19) – Privately held Freeport LNG said April 19 it has pushed back the projected start date for its \$13 billion export terminal under construction in Texas by about nine months. Freeport now expects the first liquefaction train to enter service around Sept. 1, 2019, with the second and third trains in service around Jan. 1 and May 1, 2020, respectively, said Zdenek Gerych, a company spokesman. Freeport is adding liquefaction and export services to its underused 10-year-old LNG import terminal.

Previously, the three liquefaction trains had been expected to enter service between the fourth quarter of 2018 and the final quarter of 2019. Each train will have the capacity to liquefy about 700 million cubic feet of gas per day, totaling about 16 million tonnes of LNG per year. S&P Global Platts said the delay stemmed from flooding of yards where equipment was stored during Hurricane Harvey, which triggered massive flooding in the Houston area in August 2017.

Freeport is building its facility on Quintana Island, about 67 miles south of Houston. A consortium of Chicago Bridge & Iron, Zachry Group, and Chiyoda are building the plant, with CB&I leading the project. Freeport has 20-year use-or-pay contracts to supply liquefaction services for Osaka Gas and JERA — an alliance between Japanese companies Tokyo Electric and Chubu Electric — from Train 1, BP from Train 2 and Toshiba and South Korea's SK from Train 3. In addition, Freeport is still looking at a fourth train at the facility for 2023 or 2024 if marketing efforts go well, Gerych said.

Sabine Pass terminal sent out 312 LNG cargoes in its first two years

(LNG Global; April 17) – Mexico, South Korea and China were the No. 1, 2 and 3 recipients of U.S. liquefied natural gas in the first two years of operations of the country's first Gulf Coast export terminal. Cheniere Energy's Sabine Pass, La., terminal shipped its first cargo in February 2016, and through February 2018 it sent 193 billion cubic feet of gas as LNG to Mexico, according to U.S. Department of Energy data. Next was South Korea at 190 bcf over the two years followed by China at 141 bcf of gas.

The deliveries to Mexico totaled 57 cargoes; South Korea received 55 deliveries; 42 went to China. Next was Japan at 21 LNG cargoes, then Chile, Jordan, India, Turkey, Argentina, Spain, and 15 other countries, though some of those were partial cargoes. In total 312 cargoes from Sabine Pass went to 25 countries totaling just over 1 trillion cubic feet of gas, according to the Energy Department numbers released April 16.

The nation's second new LNG export facility — Cove Point LNG in Maryland — shipped its first cargo last month. An additional four liquefaction and export terminals are under construction in Texas, Louisiana, and Georgia as the industry builds its export capacity.

U.S. should focus on clean energy trade over LNG, critics say

(EnergyWire; April 18) - The Trump administration should avoid improving the U.S. trade balance with China through increased liquefied natural gas exports, says a new report that warns any benefits would likely be short-lived. The paper, published April 18 by the left-leaning Center for American Progress, argues that focusing on LNG in U.S.-China trade could take the focus off how Chinese trade practices hurt the U.S. on clean-energy technology, which will be central to world economics over the coming decades.

The paper takes issue with the administration's efforts to promote LNG export deals in China. Melanie Hart, lead author of the report, said China is using LNG, for which it has a big short-term need until it can produce more of its own gas, as a sideshow to distract the White House from energy competition that will matter more in the future. "While Beijing is launching an all-out effort to dominate global clean-energy markets, the Trump administration is undercutting U.S. clean-tech innovation on multiple fronts," Hart said.

"Beijing views that dynamic as an unparalleled opportunity to gain a substantial edge [over] the U.S. in the energy technologies of the future," she said. That could undercut future U.S. competitiveness, she added. Part of the paper's argument hinges on a view that U.S.-China LNG deals will not lead to long-lived trade, because U.S. gas supplies are not very competitive on price in China. Industry boosters, however, have welcomed the Trump administration's support for LNG exports, as U.S. suppliers seek contracts.

FERC opens review of gas pipeline approval process

(Bloomberg; April 19) - U.S. energy regulators have embarked upon a wide-ranging review of how interstate natural gas pipelines are approved, amid concerns that current guidelines have become outdated with the shale boom. The Federal Energy Regulatory Commission will examine the use of eminent domain, how a pipeline's need is assessed, and how greenhouse-gas emissions should be considered in pipeline approvals.

"Given the changes in landscape since it was first put into place, reviewing our certificate policy statement for any possible improvement is good regulatory practice," Republican Commissioner Neil Chatterjee said at a commission meeting April 19. The commission was among more than a dozen federal agencies that signed a memorandum of understanding earlier this month aimed at cutting the time needed for environmental reviews and permitting on major infrastructure projects.

The timing of FERC's review is "quite coincidental but perhaps fortuitous," Chairman Kevin McIntyre said. It comes as divisions have emerged among the five-member commission over pipeline projects. Democratic Commissioner Cheryl LaFleur last fall dissented on approvals of the Mountain Valley Pipeline and Atlantic Coast Pipeline. She has criticized the agency for basing assessments of economic need solely on contracts between developers and customers signed before applications are submitted.

LaFLeur said April 19 she wants FERC to take a "hard look" at whether and how it could consider the social cost of carbon in its decisions. Democratic Commissioner Richard Glick dissented over the PennEast gas pipeline in January. He questioned the need, since many of the capacity contracts were signed with the developer's own affiliates.

First Nations' lawsuits over oil pipeline 'potential showstoppers'

(Vancouver Sun; April 19) - First Nations' court challenges that allege inadequate consultation and seek to overturn federal and provincial approval of the C\$7.4 billion Trans Mountain oil pipeline expansion from Alberta to a coastal export terminal in British Columbia have been overshadowed by more recent debate on federal and provincial powers to regulate oil transport. But legal experts say the First Nations' cases have real implications that should not be overlooked or forgotten.

When the Federal Court of Appeal in 2016 overturned approval of Enbridge's \$7.9 billion Northern Gateway oil pipeline to the coast — finding that Ottawa had failed to properly consult First Nations — it all but signaled the end for the project. "A lot of the (Trans Mountain) focus the last week and a half has come about the federal/provincial issue and that's obviously a major issue. But the indigenous rights issue is a major legal issue as well," said University of Saskatchewan law professor Dwight Newman.

University of B.C. law professor Margot Young said the indigenous rights' question is a critical one not yet answered. Jack Woodward, a B.C. lawyer and author of "Native Law," said the constitutionally protected rights and title of First Nations is a hurdle for the Trans Mountain project, separate from the dispute between Alberta, which supports the line, and British Columbia, where the year-old coalition government doesn't. "These cases are potential showstoppers," Woodward said. Cases on adequate consultation at the Federal Court of Appeal involve several coastal and interior First Nations.

Alberta law to cut off oil shipments to B.C. worries industry

(Calgary Herald; April 19) - In the wrong hands, Alberta's law to cut off oil deliveries to British Columbia could be "very dangerous" even if it helps in the fight over the Trans Mountain oil pipeline expansion in the short term, Canadian oil and gas executives said April 19. While Alberta's Bill 12 (Preserving Canada's Economic Prosperity Act) takes aim at the B.C. government for obstructing construction of Kinder Morgan's C\$7.4 billion pipeline expansion, fears are growing in the oil patch over the broad powers in the law.

"It has a lot of power to it. In the wrong hands, that could be a very dangerous piece of legislation," Canadian Energy Pipelines Association CEO Chris Bloomer said of the Alberta government's proposed law — likely to pass — that would allow it to cut off oil, natural gas, and refined fuel shipments to B.C. and elsewhere. "All these interventions could create unintended consequences down the road," Bloomer said at a Canadian Senate meeting in Ottawa to study challenges to domestic exports of oil and gas.

Prime Minister Justin Trudeau has said federal legislation is coming to provide a clear path forward for Kinder Morgan to almost triple the Trans Mountain oil line's capacity to a B.C. marine terminal, and Alberta Premier Rachel Notley has introduced Bill 12 to put pressure on the coastal province. When in force, Alberta's new law would require

companies to obtain a license from the province's energy minister to send crude oil, gas, or refined products like gasoline out of the province on any form of transportation.

Lithuania uses LNG imports to get better prices from Russia

(Bloomberg; April 19) - One of Russia's European neighbors is fully embracing U.S. liquefied natural gas. Lithuania, the Baltic state that used to be completely dependent on gas piped in from Russia, is turning to LNG from Norway and the United States to help negotiate better prices from its former Soviet ruler. The country of just 2.8 million people is now the biggest European buyer of U.S. LNG after Spain and Portugal.

The U.S. has been trying to encourage Europeans to buy more of its gas and strongly opposes the expansion of a pipeline directly from Russia to Germany that bypasses Ukraine and other eastern European transit nations. Lithuania signed two agreements with the Freeport LNG project in Texas during a meeting with President Donald Trump earlier this month, deepening its ties with the U.S. and the rivalry with Russian gas.

"In the summer time, LNG from the U.S. was even cheaper than Russian pipeline gas," Lithuanian Energy Minister Zygimantas Vaiciunas said. "The competition is taking place." Lithuania secured half of its gas needs with LNG last year, including cargoes from Norway and Cheniere Energy's Sabine Pass, La., terminal. Freeport LNG is due to start up in September 2019. The parties have yet to fix the pricing and volumes of supplies, Vaiciunas said. Lithuania opened its LNG import terminal in 2014, giving it a tool to negotiate better prices from Russia's Gazprom.

Gazprom, Saudi Aramco agree to boost cooperation in gas sector

(OilPrice.com; April 19) - Russia's state-controlled gas giant Gazprom and Saudi Aramco have agreed to boost their cooperation in the natural gas sector, widening the possible areas of collaboration in the industry. The chairman of the Gazprom management committee, Alexey Miller, held working meetings April 18 in Saudi Arabia with Saudi Energy Minister Khalid al-Falih and Saudi Aramco's CEO Amin Nasser, at which the parties agreed to set up a joint coordinating committee to follow up on the memorandum of understanding on gas cooperation they signed last year.

In October 2017, Saudi Aramco and Gazprom signed an agreement to explore joint cooperation in the gas industry. Back then Aramco and Gazprom agreed to explore opportunities along the entire value chain from natural gas exploration, production, transmission, and storage to LNG projects. Since Saudi Arabia and Russia started cooperating in the OPEC/non-OPEC oil production cutback deal, the two countries have increased their energy ties.

Earlier this year, Russia and Saudi Arabia further boosted their energy ties with potential deals in LNG and reciprocal investments in the other's energy sector. Aramco also signed a memorandum of understanding in February with Russian gas producer Novatek to cooperate internationally on gas projects, including LNG supplies and market development, gas exploration and production, research, and technology.

Australia's Northern Territory lifts ban on fracking for oil and gas

(Bloomberg; April 17) - Australia's Northern Territory has ended its ban on hydraulic fracturing, boosting the prospects for energy explorers operating in some of the country's largest petroleum resources. The nation is home to the world's sixth-biggest reserves of shale oil and seventh-largest of shale gas, and the vast, remote Northern Territory remains in the early stages of exploration.

Australia, one of the world's biggest exporters of liquefied natural gas and coal, has struggled in recent years with fuel and power supplies as the nation tries to balance environmental concerns and domestic needs against revenue and jobs. The territory's fracking ban was established in September 2016 by Chief Minister Michael Gunner, who had called for a scientific study to assuage concern by some locals over the potential impact of the drilling practice on land, water, and environment.

The government on April 17 said it had accepted all 135 recommendations proposed by the independent inquiry. The "risk from fracking can be reduced to an acceptable level," Gunner said. A series of "strict new laws and regulations will be put in place to ensure that when fracking takes place, we protect the environment, the cultures and lifestyles that rely on it," he said. The announcement was welcomed by Australia's gas industry.

Fracking approval risks political backlash in Australia, columnist says

(Reuters' columnist; April 18) - The decision by the government of Australia's Northern Territory to allow the resumption of fracking for natural gas will do little to immediately solve the country's energy woes but will likely sharpen political battle lines. The territory's government said April 17 that it has lifted a nearly two-year moratorium on hydraulic fracturing, accepting the recommendations of its own commission of inquiry.

The territory is a sparsely populated 540,000-square-mile part of central and northern Australia, home to two potentially rich basins of gas. The region is ruled by the center-left Labor Party. The decision to permit fracking, subject to rigorous regulation, came as a surprise to many observers, given the opposition of many Labor supporters to the method of gas production. The government was elected on a platform of a moratorium on fracking and holding an inquiry into the environmental risks and whether it is safe.

Currently, four states — New South Wales, Victoria, Tasmania, and Western Australia — have bans or moratoriums on at least some forms of gas exploration and production. It is uncertain whether the Northern Territory's decision on fracking will encourage other states to do the same, but any politician should be aware of the furious reaction it would generate from environmentalists. The territory's decision may create some additional gas supply, but it will certainly up the political temperature and raise the risks of populist policies triumphing over cheap energy supplies that are cleaner than coal power plants.

Permian basin oil boom creates pipeline, labor shortages

(Wall Street Journal; April 18) - The oil field at the heart of the U.S. shale boom appears to be choking on its own growth, a development with big ramifications for energy profits and global markets. The Permian basin of West Texas and New Mexico has been one of the few growth engines for oil production worldwide. The region's output is on track to rival that of Iran or Iraq and has lifted American oil production to all-time highs. Output is projected to climb from 3 million barrels a day to more than 4 million within two years.

But Permian producers are starting to encounter congested pipelines and shortages of materials and workers — bottlenecks that have caused some investors to sour on the region. Some energy executives question whether sky-high forecasts are achievable. "It makes sense that the basin with the lowest costs, seeing the biggest increase in growth would also see the most bottlenecks and the most challenges to that growth," said John Dowd, manager of the Fidelity Select Energy Portfolio.

As oil prices have climbed, the pace of work in the region has become frenetic with production rising by about 800,000 barrels a day in the past year. Pipeline capacity is emerging as a problem. Oil is starting to back up in West Texas and has recently sold at a \$6- to \$9-per-barrel discount to crude prices elsewhere in the U.S. That is a warning sign that some oil might have to travel by more expensive ways like trucks to market and that producers could be forced to take drastic measures such as a halt to drilling.

Many analysts expect prices in the region could tumble further before new pipelines arrive in 2019. And labor and supply scarcity are adding to the challenges. Operators are scrambling to acquire the sand and water needed for enormous fracking jobs.

No one applies for Saskatchewan's oil-processing incentive

(Regina Leader Post; Saskatchewan; April 19) – No companies have applied for an oil-processing investment incentive introduced last year by Saskatchewan's government. The incentive was promoted in March 2017 as: "Targeted to encourage more

processing of our oil resources in the province, this program has the added potential of supporting production growth without the need for further crude oil pipeline capacity."

It was touted by the province as a program that "encourages industry investment in value-added oil processing projects with a total output of less than 60,000 barrels per day." The offering said: "Eligible companies are provided with transferable royalty credits on new production worth up to 10 percent of approved capital expenditures to a maximum of \$75 million per project." But more than a year after being introduced, not one company has applied.

"The rationale as far as what was envisioned and why ... it wasn't about a general subsidy for oil and gas. ... It was about incentivizing the value-added oil processing projects that might come along and be a good fit," said Energy and Resources Minister Bronwyn Eyre. "It's just important to realize or to note if a company were to apply, there are regulatory steps that company would have to go through ... and that just hasn't happened yet," she said, adding she did not know if any company will apply.