Oil and Gas News Briefs Compiled by Larry Persily June 24, 2019

Analyst warns of pricing pressure in LNG contract reviews

(Australian Financial Review; June 20) - Billions of dollars of Australia's export revenues are at risk over the next two years as LNG sales contracts come up for price review just as a slump in spot-market prices is adding to pressure to cut contract rates, said Credit Suisse's head of energy research. Saul Kavonic told the bank's Australian Energy Conference on June 20 that some Japanese buyers locked into expensive long-term contracts are paying twice as much for LNG as those buying from the spot market.

"We can see ... that divergence could persist for the next couple of years," Kavonic said. Increasing oversupply in the LNG market also has put pressure on the pricing formula typically used in Asian long-term contracts that link the price to crude oil. That "slope" — the price per million Btu of liquefied natural gas as a percentage of the cost of a barrel of oil — which was as high as 15 percent in legacy contracts with LNG importers in Japan, has slid and more recently has fallen to between 11 and 12 percent.

Kavonic said the lower index used in new contracts would add to pressure to reduce prices in existing contracts as they come up for review. In particular, Japanese buyers are expected to press for lower prices because the country's more liberalized power and gas market has made it difficult for them to pass on higher prices to customers. "It's a question of how much they are going to come down," he said of contract renegotiations. Kavonic said he expects pricing tensions to lead to an increase in arbitration cases.

Venezuela grants tax breaks for Rosneft to develop gas fields

(Bloomberg; June 19) - Russia's state-controlled oil giant Rosneft is extracting concessions from crisis-ridden Venezuela to enter the natural gas market on the cheap, a potential headache for the U.S. and Europe. An accord signed by Russia and Venezuela earlier this month will give Rosneft tax breaks to produce and export gas from the Patao and Mejillones fields off Venezuela's east coast. The document makes changes to a 2009 bilateral agreement, according to a filing by the Russian government.

The fields are estimated to hold 6.4 trillion cubic feet of gas. Venezuela, however, doesn't have any liquefied natural gas facilities, though nearby Trinidad does. Rosneft could pipe its gas to Trinidad for liquefaction and export. The deal underscores how Russia is both propping up and gaining from the Nicolas Maduro regime at a time when the U.S. is sanctioning Maduro and as China has cut its support. Venezuelan gas could eventually offer Russia new entry points into Asia and Europe.

"The Russians ... they've kind of doubled down and see this as an opportunistic plan," said Andrew Stanley, an associate fellow at the Center for Strategic and International Studies in Washington, D.C. Since 2014, Rosneft has loaned about \$6.5 billion to Venezuela in exchange for oil, according to data compiled by Bloomberg. As a result of the changes signed by Russian President Vladimir Putin, Rosneft and its suppliers will be exempt from value-added and import taxes to develop the gas fields, which are near to where ExxonMobil is rushing to extract oil in neighboring Guyana.

Disruption through Strait of Hormuz could hurt LNG more than oil

(Bloomberg; June 21) - A potential conflict between the U.S. and Iran could be far more disruptive for liquefied natural gas markets than for the world's oil shipments. About a quarter of the world's LNG goes through the Strait of Hormuz, the narrow sea lane that borders Iran and through which tankers carrying about one-fifth of the world's oil move, according to the U.S. Energy Information Administration. Importers are less prepared for LNG supply disruptions because they hold a fraction of the inventories they do for oil.

"Whatever spike you get in oil, you will likely get twice the spike in spot-market LNG," said David Hewitt, a Macquarie Capital oil and gas analyst. "The market would be unable" to make up the full amount of gas shipments if deliveries through the strait were halted, he said. Most of Qatar's LNG heads to Asian nations — Japan, South Korea, and India are among its top buyers, according to the International Gas Union. Inventory levels and seasonal demand could also affect any disruption of global markets.

While most major importers don't have as much storage for gas as they do for oil — Japan had about 19 days of LNG imports on hand at the end of March versus enough oil in strategic reserves to cover 133 days of deliveries — the start-up of new export production capacity in Australia and the U.S. along with mild weather have curbed LNG demand in Asia, leaving the market oversupplied. The benchmark LNG Japan/Korea Marker has hovered this month around three-year lows of about \$4.50 per million Btu.

Russia's Arctic gas development changes life for Indigenous people

(CBC; Canada; June 19) - The reindeer herder took a deep breath in the Arctic air as he pondered the question: Has the unprecedented push to unlock oil and gas in Russia's Arctic helped or harmed his people? "For humans, it's been good," said 19-year-old Maxime Okotetto, whose last name means "many deer" in the indigenous language of the Nenets, a nomadic ethnic group native to the region." But for the reindeer, it's bad." Reindeer herding is the main livelihood of the 14,000 Nenets of the Yamal Peninsula, a vast tundra that protrudes into the Arctic Ocean some 1,500 miles northeast of Moscow.

The Nenets have followed the reindeer migration across the region for thousands of years. "We have less and less land — they took quite a big territory for the gas plant, and where there's gas [development], there's nothing [for the reindeer] to eat," Okotetto said. The \$27 billion Yamal liquefied natural gas plant started operations in December 2017 after years of construction with at least one more Arctic LNG project on its way.

The Nenets and the Sami are two Indigenous groups native to Russia's High Arctic whose lives have been disrupted by the development boom. Human activity destroys the thin layer of moss and lichen that the reindeer graze on, Okotetto said. The Nenets lost grazing land not only to construction projects but also to the infrastructure network that comes with them — roads, pipelines, and rail terminals that now cross the territory.

Some 250 miles to the south, Salekhard, which services the growing LNG operations, has quickly become one of the most prosperous communities in Russia. The former outpost, which 70 years ago was part of Stalin's gulag penal system, has been transformed in the past decade into a modern commercial and residential hub with 45,000 residents.

LNG developers warn of possible contractor shortage

(Reuters; June 17) - Construction delays and cost overruns could hit the next wave of liquefied natural gas projects as there are a limited number of contractors able to handle the huge projects, three developers said June 19. About \$200 billion in projects across the globe from Australia to the U.S. are racing to be approved over the next two years, vying to provide about 65 million tonnes a year of new supplies needed by 2025, according to estimates by consultants Wood Mackenzie.

The race isn't just to make final investment decisions but to enter front-end engineering and design (FEED) work to lock in contractors before others snap them up, developers said at Credit Suisse's Australian Energy Conference. "Unless you're in FEED in the next six to nine months, unless you're in FID (final investment decision) in the next two years, there's going to be no one to build your project," Oil Search Executive General Manager Ian Munro said. Oil Search aims to enter FEED in the next few months with its partners ExxonMobil and Total on a \$13 billion LNG expansion in Papua New Guinea.

Martin Houston, co-founder of Tellurian, which wants to make FID this year on a \$30 billion LNG project in Louisiana, said developers that fail to sign major contractors that can offer fixed-price construction contracts are likely to struggle to make much profit. Tellurian has lined up Bechtel with a lump-sum contract. "We can say to our customers, this is exactly the price you're going to pay. We're competing with second-wave projects that have absolutely no idea how they're pricing anything," Houston said.

LNG analyst says politics will not delay Papua New Guinea projects

(Australian Financial Review; June 18) - Fears of a multi-year delay to a US\$12 billion to US\$14 billion expansion of liquefied natural gas production in Papua New Guinea under the nation's new government are overblown and a go-ahead for construction is still likely in the second half of 2020, according to a global LNG expert. FACTS Global Energy Chairman Fereidun Fesharaki, who is in in close contact with the government, has told clients that new Prime Minister James Marape is well aware of LNG's importance to the future of the economy and is not looking to chase away investors.

While Marape may oversee "small tweaks" to boost the value to the country of natural resource development, "they will not be deal breakers," Fesharaki said. "Politics in PNG is complicated and politicians come and go, but no one will kill the golden goose and hurt the reputation of PNG in the business world." His comments come as senior oil company representatives are due to meet with the country's new petroleum minister on June 19 in what are regarded as important talks to discuss LNG expansion projects.

The exit of Prime Minister Peter O'Neill last month amid an upheaval in PNG's political leadership — partly driven by dissatisfaction over local benefits from the LNG industry — triggered worries of delays in LNG expansion plans. A Total-led venture signed an agreement with the government in April to add LNG capacity, and an ExxonMobil-led venture is looking at adding more capacity at its 5-year-old plant. The government realizes any changes could lead to substantial sovereign risk in PNG, Fesharaki said. He believes the Exxon-led project can still reach a final investment decision in 2020.

Darwin LNG may close 1 or 2 years as new gas supply is developed

(Australian Financial Review; June 18) - The Darwin LNG plant faces up to two years of interruption to exports as operator ConocoPhillips and partners including Australia-based Santos bring replacement gas supply online and prepare for a further 20 years of operation. The downtime was "always inevitable" given the work needed to refit the plant to extend its life, said Chris Wilson, president of Conoco's operations in Western Australia. The plant is Australia's second-oldest liquefied natural gas operation.

Conoco and Santos are targeting a final go-ahead in the March quarter of 2020 for development of the offshore Barossa gas field to replace the maturing Bayu-Undan field in the Timor Sea, the current source of supply for Darwin LNG, which went online in 2006 at 3.6 million tonnes annual capacity. Wilson said Conoco expected Bayu-Undan gas to run out at about the end of 2022, plus or minus a year, while Barossa gas would not start up until later. "We expect about a year, perhaps to two years or downtime."

The downtime "is not really a big problem in so far as we have a lot of work to do in Darwin to extend the life of the facility. ... You can always work more effectively, efficiently and safely when you don't have a live facility," Wilson said. The Darwin LNG

venture has yet to formally decide to use Barossa gas as its replacement supply, with Eni's Evans Shoal field also in the running. The Barossa field, almost 200 miles north of Darwin, may cost US\$4 billion to develop, according to consultants at Wood Mackenzie.

Proposed offshore Louisiana LNG project says it needs more time

(Reuters; June 21) - Delfin LNG has asked federal regulators for a 3½-year extension, until March 2023, to build and put into operation its floating liquefied natural gas production and storage facility offshore Louisiana. Federal regulators approved the project in September 2017, giving Delfin two years to get underway. The company this week said it needs more time. If the Dallas-based company backing Delfin succeeds in putting together a commercial project, it would be its first venture as an LNG operator.

"Due to the detailed nature of the engineering design of the offshore facilities, which include floating liquefaction technology, and the complexity of developing the necessary commercial arrangements, progress on the project ... has been slower than originally anticipated," Delfin said. The company said in March that it planned to have the liquefaction vessel built in China, which may also provide funding and buy part of the project's output. Delfin LNG is designed to produce up to 13 million tonnes per year. The company said it hopes to make a final investment decision later this year.

Bangladesh attracts 12 potential builders of LNG import terminal

(Reuters; June 23) - A joint venture of Qatar Petroleum and Exxon Mobil is among 12 firms that have indicated interest in building Bangladesh's first onshore liquefied natural gas import terminal, according to an official document reviewed by Reuters. Also on the list are units of Shell, France's Total and South Korea's Samsung, as well as major Japanese trading houses. Bangladesh, with a population of over 160 million, is turning to onshore LNG terminals after problems and delays with floating import operations.

The strong interest underlines how builders of new LNG export projects are looking for potential buyers like Bangladesh to mop up a significant long-term surplus expected in the market — such as Qatar and Exxon, which are looking for customers for the Golden Pass LNG project they are building in Texas. Rupantarita Prakritik Gas Co., part of state-owned oil and gas company Petrobangla, earlier this year had requested expressions of interest from potential terminal developers for a land-based LNG regasification terminal at Matarbari in the southern Bangladesh.

The expression of interest is for the design, engineering, procurement, construction and commissioning of an onshore terminal that can handle 7.5 million tonnes a year of LNG. Another company on the list is Poly-GCL Petroleum Group Holdings, an overseas umbrella of China's privately owned GCL Group Holding, which operates at least three

power plants in China. The Bangladesh project is on a build-own-operate basis for 20 years with ownership to then be transferred at no cost to the Bangladeshi government.

Hong Kong power companies sign deal for first LNG imports

(Reuters; June 21) - Hong Kong's Castle Peak Power and Hong Kong Electric said June 21 they have signed a supply deal for the nation's first import of liquefied natural gas and to lease an import vessel. Hong Kong is undertaking a massive shift to use more gas to fuel its electric power generation instead of coal, potentially creating a steady and lucrative new demand in the Asian LNG market. The companies said they have signed an agreement with a Shell subsidiary for a long-term LNG supply for the import terminal.

The companies did not specify the supply details, but Reuters previously has reported the contract is for 1.2 million tonnes per year for 10 years starting after 2020. Castle Peak Power and Hong Kong Electric said their joint venture has signed an agreement with Mitsui O.S.K. Lines for the charter of a floating LNG storage and regasification unit. Hong Kong currently produces power using imported oil products in domestic power plants or from gas imported by pipeline from the mainland. The country's coal-fired plants will reach the end of their useful life in the next decade.

East Timor wants to start LNG production in 2026

(Reuters; June 19) - East Timor's national oil company aims to reach a final investment decision on developing the Greater Sunrise gas field by 2022 and start producing about four years later, its chief executive said June 19. The promising gas project is seen as crucial to the impoverished nation's economy but had long been held up by a maritime border dispute between East Timor and Australia, which was resolved last year.

East Timor had also disagreed with the project's owners, led by Australia's Woodside Petroleum, over whether to pipe gas from the offshore field to an existing liquefied natural gas plant in Australia or building a new plant in East Timor. Looking to jump start the project and ensure that a new plant is built in East Timor, the country's state oil company TimorGap recently bought out two of the major partners, Shell and ConocoPhillips, for \$650 million, giving it majority ownership of Greater Sunrise.

East Timor is working on lining up a new partner, aiming to start shipping LNG by 2025 or 2026, TimorGap CEO Francisco Monteiro said at the Credit Suisse Australia Energy Conference. "As it stands now, we think progress toward a final investment decision in two, three years is reasonable," he said. A potential obstacle to that timing is Woodside, which is operator of Greater Sunrise and is only interested in running the

offshore gas production, not an LNG plant, and envisions the project coming online only after 2027.

Australia moves closer to approving new coal-seam gas project

(Australian Financial Review; June 21) - The controversial Narrabri coal-seam gas project in Australia's state of New South Wales is on track for approval before the end of the year in a move that gas company Santos said will take the heat off domestic gas prices. State and federal government sources told The Australian Financial Review that the \$3 billion project, which has been subject to an unofficial state moratorium on coal-seam gas for several years, should get the green light by Christmas.

The gas field is the biggest source of undeveloped gas in southeastern Australia, where gas prices have trebled from historical levels, crippling some industrial buyers. An onshore exploration ban in Victoria and development delays in New South Wales are preventing new fields coming online, prompting five separate ventures to consider projects to import liquefied natural gas, even as Australian gas that could help bring down electricity prices and spur a local manufacturing industry lies untapped.

Kevin Gallagher, CEO of Australian producer Santos, said the headwinds facing the Narrabri venture were "turning to tailwinds" as it gained traction among domestic customers. He is hopeful of state approval by year-end, committing to sell all the gas produced to domestic customers. The Narrabri project, which is fiercely opposed by environmentalists over worries to water and land resources, could supply up to half of the gas needs of New South Wales, which currently imports 96 percent of its supply.

Opponents promise legal challenges to Canadian oil pipeline

(The Canadian Press; June 20) - Opponents of the Trans Mountain oil pipeline expansion, which Ottawa approved June 18, are preparing for a long summer of legal challenges and protests aimed at blocking construction. Rueben George of the Tsleil-Waututh Nation said it will file a legal challenge in the Federal Court of Appeal. The First Nation in North Vancouver, B.C., was among the indigenous groups, environmental organizations and cities that won a challenge in the same court last August.

The court last year struck down the project's federal approval, citing the National Energy Board's inadequate indigenous consultation and failure to consider marine impacts. After a second NEB review, the Canadian Cabinet approved the project to almost triple the capacity of an existing line to move oil sands production to a coastal export terminal. An elected councillor of the Squamish Nation said his band also will file a challenge. It will argue the consultation was "shallow" and was rushed to meet an arbitrary deadline.

Tsleil-Waututh Chief Leah George-Wilson said the nation also will argue in court that consultation was not meaningful. The government has not addressed any of the nation's concerns about the way diluted bitumen responds in water or how much noise southern resident killer whales can tolerate, she said. British Columbia Premier John Horgan said he would have to look at the cases and if it was in province's best interest to join, it would. Vancouver Mayor Kennedy Stewart said the city would join any legal challenges.

Canada plans meetings to discuss pipeline equity with First Nations

(Calgary Herald; June 19) - Reapproval of the Trans Mountain oil sands pipeline expansion throws open the door for pro-pipeline First Nations to gain an ownership stake in the project, which could pose a public relations dilemma for opponents. Ottawa will start a series of meetings with interested First Nations starting July 22 in Vancouver, with stops in Victoria and Kamloops, British Columbia, and Edmonton, Alberta. Work to expand the pipeline capacity from Alberta to a B.C. export terminal could start this year.

The government is prepared to discuss equity ownership, revenue sharing and royalty agreements with 129 First Nations, according to Canada's Department of Finance. Interest from First Nations is considerable. The Indian Resource Council — which represents more than 130 First Nations with oil and gas resources on their territories — already has consulted with the federal government and led preliminary meetings with First Nations about making a bid for the federally owned Trans Mountain pipeline.

The federal government bought the pipeline for C\$4.5 billion last summer when Kinder Morgan threatened to cancel its planned C\$7.4 billion expansion due to delays in the approval process and legal challenges brought by some First Nations. "First Nations ownership would undercut the environmental movement, because many of the people who oppose the pipeline are likely to support self-determination for First Nations," said University of British Columbia sociology professor David Tindall.

European container ship owner adds to LNG fleet

(World Maritime News; June 20) - Hamburg-based Containerships, a subsidiary of the CMA CGM Group, a global ship operator headquartered in France, has taken delivery of its second container vessel powered by liquefied natural gas, the Containerships Polar. As the second LNG-fueled ship for Containerships and CMA CGM, the newbuild will be go into service in the Port of Rotterdam on June 23, linking northern Europe with the Baltic states and Russia.

The 558-foot-long vessel was built in China and can carry 1,380 20-foot-long containers. It will operate alongside its sister ship Containerships Nord. At the end of

June, Polar's first LNG bunkering will be carried out in Rotterdam, where it will take on almost 120,000 gallons of LNG via ship-to-ship bunkering. With its future sister ships Containerships Arctic and Containerships Aurora, two more LNG-powered vessels will join the fleet. CMA CGM will add a total of 20 LNG-fueled containerships by 2022, including nine larger-ships, each capable of carrying 22,000 20-foot containers.