# Oil and Gas News Briefs Compiled by Larry Persily June 7, 2018

# Exxon, Rosneft continue with plans for Far East LNG project

(Reuters; June 7) - U.S. major ExxonMobil and Russian energy company Rosneft expect their future joint project to produce more than 6.2 million tonnes of liquefied natural gas per year, Interfax news agency quoted an ExxonMobil manager as saying June 7. ExxonMobil is pushing ahead with efforts to develop its \$15 billion Far East LNG project with Rosneft, despite being forced to exit some joint ventures in Russia due to Western sanctions. The LNG plant would be built on Sakhalin Island, north of Japan.

The plant's capacity also could be increased from planned initial volumes, Interfax reported, citing James Grable, a manager at the Sakhalin-1 joint venture with Rosneft. Earlier this year, Exxon invited companies including China National Petroleum Corp.'s engineering arm to bid for construction contracts by October, sources with knowledge of the matter said. A final investment decision is due in 2019, they said.

Exxon and Rosneft have also held discussions — as an alternative to building their own LNG plant — about feeding gas from their Sakhalin-1 fields into a planned third production unit at the liquefaction plant run by Gazprom and Shell, also on Sakhalin Island. That project, Sakhalin-2, started producing LNG in 2009, with capacity of 9.6 million tonnes per year. The Exxon-Rosneft Sakhalin-1 development has been producing oil since 2005. It's current output is about 200,000 barrels a day, as the companies work toward an investment decision for the gas reserves.

# India receives first Russian LNG, priced at close to \$7

(News 19; India; June 4) - India on June 3 received its cheapest LNG under a long-term deal as Russia's Gazprom began delivering liquefied natural gas at a landed price of close to \$7 per million Btu. At current oil prices, the rate is \$1.50 less than the price at which Qatar, India's oldest LNG supplier, delivered its recent cargoes. Russian supplies also are \$1 to \$1.50 per million Btu less than LNG imported from Australia and the U.S.

State-owned gas utility GAIL India in January renegotiated its 20-year contract with Gazprom, deferring cargoes in the first three years, taking more LNG later in the contract, and changing the pricing formula. At full volume, the contract calls for Gazprom to deliver 2.5 million tonnes per year of LNG.

Sources said the reworked, oil-linked contract at current oil prices comes close to \$7 per million Btu. India is looking to diversify its suppliers as it boosts its use of gas in the

country's energy mix. The country has been making the most of its position as the world's fourth-largest buyer of LNG to strike better deals with suppliers. Last year India got ExxonMobil to lower the price of LNG from the Gorgon project in Australia. And the country was able to renegotiate its supply contract with Qatar in late 2015, resulting in substantial savings.

#### Ongoing violence could threaten LNG plans in Mozambique

(Bloomberg; June 6) - When a group of suspected Islamist militants beheaded 10 villagers in Mozambique's gas-rich north last month, it ratcheted up concerns that attacks in the remote region could threaten \$30 billion in potential investment. Eni and Anadarko, which are developing separate offshore gas projects near the Tanzanian border, say they haven't been affected by the violence in Cabo Delgado province.

"This problem is not going to go away and is increasingly becoming a regional problem," said Nigel Morgan, director of Rhula Intelligent Solutions in the capital, Maputo. "This is a risk issue for the oil and gas investors in Cabo Delgado." The assaults began in October, when a group of men armed with guns, knives, and machetes targeted police stations in Mocimboa da Praia, leaving five policemen and 12 assailants dead.

Since then, there have been 20 attacks in the area in the first four months of this year, according to the Terrorism Research & Analysis Consortium. Those figures don't include the May 27 beheadings in which two of the victims were children. Mocimboa da Praia, where the attacks started, is 1,100 miles northeast of Maputo. The offshore gas reserves held by Eni, ExxonMobil, and Anadarko are about 50 miles north of that. The companies are looking at significant investment to develop the gas and build liquefied natural gas plants to export the fuel to a growing overseas market.

# Issues remain before LNG Canada investment decision

(Vancouver Sun columnist; June 1) - Just in time for the end of the spring session of the British Columbia legislature, there was more encouraging news May 31 for Premier John Horgan on a multibillion-dollar liquefied natural gas project for the northwest coast. "Petronas to join LNG Canada project," read the press release announcing that the Malaysian government-owned company was joining Shell and its partners from China, Korea, and Japan in the proposal to build a major LNG terminal in Kitimat, B.C.

However, obstacles need to be cleared before the LNG Canada partners reach the threshold for a final investment decision expected later this year. Still pending is an application for remission of hefty federal import duties on the modular components for the LNG terminal, which will be built overseas and transported to British Columbia. Approval is expected, but it hasn't happened yet.

Plus, there remain outstanding issues with First Nations on both the terminal and the 415-mile pipeline that would transport natural gas from Dawson Creek to Kitimat. Though 19 of 20 First Nations directly affect by the project have signed benefit agreements, the one that has yet to sign is the Haisla First Nation, based in and around Kitimat. In addition, a holdout group has established a gated encampment directly in the path of the proposed pipeline.

# First shipment leaves Cameroon LNG, a plant built on 1970s' tanker

(Reuters; June 4) - Golar LNG has started commercial operations at its pioneering floating liquefied natural gas (FLNG) production platform in Cameroon, \$70 million under budget. It is the first vessel of its kind and is likely to boost demand for Golar's shipboard technology in Africa and beyond. The Hilli Episeyo vessel, converted from an aging LNG tanker for \$1.2 billion, produced the first LNG on March 12 but only exported its first cargo in May, to China, after technical issues delayed a ramp-up in production.

After continuously producing LNG for more 16 days, Golar's clients have contractually accepted the facility, marking its commercial start, Golar said in a statement. Golar is in talks to develop similar projects in Senegal-Mauritania with BP and with Ophir Energy in Equatorial Guinea. The successful start-up removes uncertainty about the risks associated with squeezing a liquefaction plant typically spanning hundreds of acres on land into a single, 1970s-built ship with four liquefaction units bolted onto its sides.

Golar, a global LNG shipping company, provides the liquefaction facility and services under a production tolling agreement with independent Anglo-French oil and gas company Perenco and Cameroon's state-run Societe Nationale Des Hydrocarbures. All of the plant's annual capacity of 1.2 million tonnes was sold to Gazprom Marketing & Trading for eight years.

# Japanese contractors ready for LNG projects in U.S., Africa, Canada

(Nikkei Asian Review; June 3) – Investment in new liquefied natural gas plants in the United States is making a comeback, with rising demand in China providing a big boost. It is also providing a tailwind for Japanese companies that specialize in LNG plant construction. "The LNG market is recovering faster than we expected. We have our eye on construction orders for large-scale projects in the U.S. and Africa," said Masaji Santo, CEO of Japanese engineering company Chiyoda.

Chiyoda has set its construction order target for fiscal 2018 at 800 billion yen (about US \$7 billion), more than double the previous year. Among its projects are major orders for the Golden Pass LNG terminal in Texas planned by Qatar Petroleum and ExxonMobil,

and an LNG project in Mozambique under development by U.S.-based Anadarko Petroleum and Japan's Mitsui & Co.

Japanese engineering company JGC has set its fiscal 2018 construction order target at 1 trillion yen (\$9 billion), among the highest in its history. In April, Shell and Mitsubishi Corp. began issuing preliminary construction orders for their planned LNG Canada project in Kitimat, British Columbia, in which JGC's share is about 600 billion yen (\$5.5 billion). The company is awaiting a final investment decision within the year.

#### Polish gas producer explores equity stake in small U.S. LNG projects

(Platts; June 4) - Poland's dominant natural gas producer and distributor PGNiG is holding preliminary talks with U.S. companies about taking equity stakes in LNG export facilities as a way to gain access to U.S. LNG supplies, the Polish government's energy infrastructure adviser, Piotr Naimski, said June 4. "PGNiG is exploring such opportunities. ... it's a matter of finding the right partner," Naimski told reporters.

Naimski said PGNiG was thinking of partnering with a medium- or even small-scale U.S. shale gas producer. "Each of them has its own gas and is trying to sell this gas. They also think about having shares in terminals or sometimes building their own small-capacity terminal. These are undertakings whose scale is acceptable to our potential investors," he said.

PGNiG wants to increase its LNG imports to diversify away from its dependence on Russian gas. Its long-term supply contract with Gazprom is due to expire in 2022 and PGNiG is not planning to extend it. PGNiG has a long-term LNG supply contract with Qatargas as well as a five-year deal with Centrica for U.S. LNG supplies.

#### Demand drives up Asian spot LNG price to \$9.60

(Reuters; June 4) - Asian liquefied natural gas prices have risen to their highest since 2014 for this time of the year as demand from China, India, and South Korea has surged at the same time several production issues are curbing spot supply. LNG prices typically peak during the Northern Hemisphere winter amid heating demand and during the summer for power generation, but this year prices have climbed 32 percent since mid-April to \$9.60 per million Btu last week.

Asian demand has strengthened this year led by stricter environmental standards, rising economic growth and a colder-than-usual winter. But the higher prices could reduce LNG demand as industrial customers may consider alternative fuel sources. "This is driven mainly by three factors: lower domestic production due to gas field maintenance,

industrial demand due to fuel switching from oil, and early stock building to prepare for the coming winter," said Kittithat Promthaveepong, a senior analyst at consultancy FGE.

Trade flow data show Asian LNG imports in January to May are up 14 percent from last year. Imports to China and Pakistan during the first five months of 2018 increased over 50 percent from last year, while shipments to India, South Korea, Taiwan, and Singapore jumped 15 to 30 percent. Asian LNG prices could end the year at nearly \$12 per million Btu, though higher spot prices could discourage industrial coal to gas switching, said consultancy Wood Mackenzie.

#### Australian LNG plant operator to cut gas consumption

(The West Australian; June 4) - Two of the biggest players in Western Australia's natural gas-propelled economy, Woodside Petroleum and Alcoa, are starting to look to renewables to slash their gas use as doubts rise about how big a role the fossil fuel will play in the transition to clean energy. The Woodside-operated Karratha liquefaction plant consumes 7 percent of the gas it gets from offshore fields to generate power to run itself, and this creates about 70 percent of the plant's carbon emissions.

CEO Peter Coleman told the oil and gas industry last month that cutting the amount of gas used for fuel by combining solar panels and batteries with gas generation would increase LNG exports and makes environmental and economic sense. Coleman expects power generation at the Woodside-operated five-train North West Shelf LNG plant and its single-train Pluto LNG project will be significantly different by the mid-2020s.

Concentrating solar thermal (CST) generation, where mirrors allow the sun to heat a liquid that produces steam 24 hours a day to generate power, could eventually be used at the facilities. Alcoa, the Western Australia state's biggest gas consumer, is a partner in a \$15 million research effort at the University of Adelaide into the use of CST in alumina production. The first stage is looking to use waste heat from the CST steam turbine for the required heating that currently comes from burning gas.

#### Australian state expects LNG imports will drive gas prices lower

(Reuters; June 3) - A consortium including Japan's JERA Co. and Marubeni Corp. planning to ship liquefied natural gas to Australia's east coast has chosen a site south of Sydney at Port Kembla for an import terminal, the venture said June 4. The project will allow access to a new gas supply for industries in New South Wales state by 2020, the consortium, Australian Industrial Energy, said in a statement.

The nation, despite being the world's no. 2 LNG exporter, is grappling with a gas supply gap, partly due to restrictions on exploration and production and partly due to producers selling their output as liquefied natural gas to Japan, China and South Korea under long-term contracts. The Port Kembla terminal would have the capacity to meet more than 70 percent of New South Wales' gas needs. Construction is estimated at between A\$200 million and A\$300 million (US\$152 million and \$228 million).

The New South Wales government has thrown its support behind the LNG terminal, saying it will lead to lower power prices for households and businesses. "They are going to bring gas in to this terminal ... at a price that is going to disrupt the market and drive down gas prices in New South Wales," said Trade and Industry Minister Niall Blair. "This sends a clear message to the broader industry in New South Wales that there is a new player coming into the market that is going to drive competition and underpin supply."

# U.S. asks OPEC to boost output to help constrain prices

(Bloomberg; June 5) - The U.S. government has quietly asked Saudi Arabia and some other OPEC producers to increase oil production by about 1 million barrels a day, according to people familiar with the matter. The rare request came after U.S. retail gasoline prices surged to their highest in more than three years and President Donald Trump publicly complained about OPEC policy and rising oil prices on Twitter.

It also follows Washington's decision to reimpose sanctions on Iran's crude exports that had previously displaced about 1 million barrels a day, or just over 1 percent of global production. While U.S. lawmakers have habitually criticized the Organization of Petroleum Exporting Countries at times of high oil prices, and the government has on occasion encouraged the cartel to pump more, it's unusual for Washington to ask for a specific output hike, the sources said.

Raising production was discussed at a meeting of some Arab oil ministers over the weekend in Kuwait City. Saudi Arabia and Russia last month proposed a gradual production increase, although other members of the group have yet to agree. OPEC and its allies will discuss their production policy for the second half of the year in meetings scheduled on June 22 and 23 in Vienna.

# U.S. shale oil producers lower costs and boost output

(Wall Street Journal; June 1) - Two years ago, it looked like Saudi Arabia was winning its fight against the U.S. shale oil industry by furiously pumping crude to drive down prices. Some drillers went bust and many more flirted with bankruptcy while oil drilling in places like western Texas and North Dakota collapsed. The Saudi effort backfired.

Instead of killing shale it spurred a wave of innovation that transformed drilling in the U.S. into a highly efficient industrial process, dramatically lowering costs and boosting output.

"High prices tend to create sloppiness in this industry because people focus only on growth," says Doug Suttles, CEO of shale driller Encana. "Downturns make you focus on cost because it's the only thing you can control — the oil price is out of your hands." With booming shale oil output, the U.S., where production was once thought to have peaked nearly 50 years ago, will become the world's largest oil producer by next year.

One region alone, the prolific Permian Basin, recently passed 3.1 million barrels a day of output. Stretching from western Texas to New Mexico, it would now rank no. 4 of the 14 members of the Organization of Petroleum Exporting Countries and may soon produce more than no. 3, Iran. But what should really frighten OPEC is how that oil is produced. The number of drilling rigs now active in the Permian is the same as back in October 2011, yet the region is producing three times as much crude. The efficiency gains mean that even an epic price decline won't halt activity at the best fields.

#### Permian basin has lots of oil, not enough workers

(Bloomberg; June 6) - Jerry Morales, the mayor of Midland, Texas, and a local restaurateur, is being whipsawed by the latest Permian shale oil boom. It's fueling the region and starving it at the same time. Sales tax revenue hit a record high, allowing the city to fix busted roads. But the crazy-low 2.1 percent unemployment rate is a bear. As the proprietor of Mulberry Cafe and Gerardo's Casita, Morales is working hard to retain cooks. As mayor, he oversees a government payroll that is 200 employees short of what it needs to fully function. "This economy is on fire," he said.

In the country's busiest oil patch, where the rig count has climbed by nearly one third in the past year, drillers, service providers and trucking companies have been poaching in all corners, recruiting everyone from police officers to grocery clerks. So many school bus drivers in nearby Odessa quit for the shale fields that kids were sometimes late to class. The oil industry has such a ferocious appetite for workers that it'll hire just about anyone with the most basic skills.

"It is crazy," said Jazmin Jimenez, 24, who zipped through a two-week training program at New Mexico Junior College, about 100 miles north of Midland, and was hired by Chevron as a well-pump checker. The \$28 an hour she makes is double what she was earning as a guard at a county correctional facility in Hobbs. When the boom goes bust, as history suggests they all do, shale oil businesses won't be able to out-pay other employers anymore. Jimenez said she'll take the money as long as it lasts.

The labor shortage is inflamed by the real estate market: The supply of homes for sale is the lowest on record, said the Texas A&M Real Estate Center. The \$325,440

average price in Midland is the highest since June 2014, the last time the world saw oil above \$100 a barrel. Apartment rents in Midland and Odessa are up by more than a third from a year ago, with the average 863-square-foot unit commanding \$1,272 a month.

#### Protests build against Canadian purchase of oil line project

(The Canadian Press; June 4) - As opponents of the Trans Mountain pipeline expansion protested across the country June 4, Canada's environment minister said the project needs to move forward. Protesters have called for Prime Minister Justin Trudeau's government to pull its support for the controversial oil pipeline. The rallies follow Ottawa's announcement last week that it will spend C\$4.5 billion to buy the pipeline and ensure the expansion project is completed from Alberta to a coastal export terminal.

"The crazy buyout of this pipeline project has actually united people from the left and the right," said Peter McCartney, a climate campaigner for the Wilderness Committee, who led the rally outside Justice Minister Jody Wilson-Raybould's office in Vancouver. Jolan Bailey, a campaigner with advocacy group LeadNow, said more than 100 events were held in cities across the country, including Calgary, Regina, Toronto, and Halifax.

Outside the House of Commons, McKenna reiterated her government's support for the project, adding it's time to move on. "A (regulatory) decision was made ... by the federal government over a year ago. Also by the former government of British Columbia. We need to provide certainty to investors and we also need to bring people together. ... The environment and the economy go together and this project will go ahead."

# Canada's energy sector worried about investor confidence

(CBC news analysis; June 3) - When Canadian Finance Minister Bill Morneau said the federal government would spend C\$4.5 billion to buy Kinder Morgan's Trans Mountain pipeline assets and proceed with the contentious oil line expansion from Alberta to British Columbia, he was also making a statement about Canada as place to do business. "It means greater investor confidence," Morneau told reporters.

By riding to the pipeline's rescue, did Ottawa prove it has the conviction to see major projects over the finish line and bolster the investment climate? Or does such an extraordinary step merely highlight the problems that forced a very expensive salvage mission? It will be some time before we know for certain the impact of the government's decision, but the outcome is critical — and not just for Canada's energy sector.

The issue of investment confidence has been a sensitive one in the Canadian oil patch recently, heightened by opposition to pipelines and uncertainty surrounding an overhaul of the environmental assessment process. That uncertainty comes at a time when the United States is going all out to attract new investment by slashing taxes and regulations. Earlier this year, the Canadian Association of Petroleum Producers went to Ottawa to warn politicians that investment in the oil patch was being lured south.

"The fact that the government has to step in and buy a project from a private-sector company that could not have confidence does not give me confidence that other private-sector companies are going to have confidence. Maybe if the government buys all these projects we can have confidence," said former TransCanada CEO Hal Kvisle.

#### Largest of BC Ferries' ships converted to LNG

(CHEK TV; Vancouver; June 5) - BC Ferries' Spirit of British Columbia will return to work June 6 after being converted to operate on liquefied natural gas. The 547-foot-long, 2,100-passenger ship is the first of two vessels to be converted to gas. The Spirit of Vancouver Island will be upgraded by spring 2019. BC Ferries said it expects to reduce carbon dioxide emissions the equivalent of taking 2,500 vehicles off the road per year by using gas to fuel the two vessels. Fuel costs are also expected to go down.

"The Spirit of British Columbia returns to service with clean technology that reduces both our environmental footprint and cost of operations," BC Ferries' CEO Mark Collins said in the statement. "The conversion of our two largest ships in the fleet, along with the introduction of our three new gas-fueled Salish Class vessels last year, goes a long way to improving the sustainability of our operations and affordability for ferry users." The two Spirit-class ferries were built 25 years ago to serve the coastal province.

The two ferries are the first vessels in the fleet to undergo a conversion from marine diesel fuel to LNG. The newer Salish Class ships introduced last year were purposebuilt to run on gas. Deborah Marshall, BC Ferries spokesperson, says the Spirit-class vessels will run on both LNG and diesel, with the intent to operate on gas most of the time. The Spirit of British Columbia started its refit last September after sailing to Poland, where the work was done.