

Oil and Gas News Briefs

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Russia's Novatek signs up two Chinese partners for Arctic LNG-2

(Financial Times; London; April 25) - Novatek, Russia's top independent gas producer, on April 25 signed binding deals to sell a 20 percent stake in its second Arctic gas liquefaction project to Chinese partners, equally split between a subsidiary of China National Petroleum Corp. (CNPC) and China National Offshore Oil Corp. (CNOOC). The deals add two more foreign shareholders to the Arctic LNG-2 project, joining France's Total which took a 10 percent stake in the \$25 billion venture earlier this year.

CNPC already owns a 20 percent stake in Novatek's first Arctic LNG plant at Yamal, with China's Silk Road Fund holding 9.9 percent. "China represents one of the key consuming markets for our LNG sales," said Leonid Mikhelson, chairman of Novatek's management board. Novatek and its partners are expected to make a final investment decision later this year on Arctic LNG-2, at 19.8 million tonnes annual capacity with a 2023 start-up. The venture has attracted other potential suitors, including Saudi Arabia.

Novatek gave no financial details of the agreements with its Chinese partners. Russia, one of the world's top gas producers, aims to be a major player in LNG markets. So far Russia has two large-volume LNG plants in operation: The 10-year-old Gazprom-led Sakhalin-2 plant in the Far East and Novatek's 18-month-old Yamal LNG on the remote Yamal Peninsula near the site of the proposed Arctic LNG-2 development.

Though the volume is small, Exxon's LNG sale to China 'significant'

(CNN; April 25) - China is turning to ExxonMobil to help meet its insatiable appetite for cleaner energy as the country moves away from coal. Exxon on April 22 announced a 20-year agreement to sell 1 million tonnes of liquefied natural gas to China's Zhejiang Provincial Energy Group. Even though the deal is relatively small, Exxon hailed it as an "important milestone," and the company emphasized its "long-term commitment to China." Ira Joseph, global head of gas and power analytics at S&P Global Platts, said: "The new Exxon contract is more significant because of the buyer than the volume."

Offtake agreements, like the one with Zhejiang, are typically supplied by LNG projects still in development. "It's safe to say it will be from one of the projects that have not yet materialized," said Pavel Molchanov, an energy analyst at Raymond James. Exxon did not say where the gas will come from. "From the standpoint of Chinese importers, it makes no difference where it comes from," Molchanov said. Exxon is building an LNG

export terminal in Texas, is likely to expand its output in Papua New Guinea, and is looking to develop an LNG project in Mozambique among its multiple options.

Saudis make first LNG trade as they start moving into the business

(Bloomberg; April 25) - Saudi Aramco, the world's biggest oil exporter, has dipped a toe into the natural gas business by selling its first cargo of liquefied natural gas, CEO Amin Nasser said without giving further details. Aramco's trading subsidiary sold the cargo last month to an Indian buyer, according to a source. Saudi Arabia does not produce any LNG but is interested in getting into the market and plans to almost double its own gas production over the next 10 years to 23 billion cubic feet per day, Nasser said.

State-run Aramco seeks to become a "major player" in the gas industry and is looking for potential joint ventures and partnerships, Nasser said in Riyadh. "There is a lot of potential to grow our gas in the kingdom. At the same time we are looking at international gas." The LNG deal is the latest example of Aramco's effort to expand outside its historical business of pumping and selling crude. The company plans to buy a controlling stake in the Middle East's largest petrochemicals maker, Saudi Basic Industries Corp., and is investing in refineries in Asia and beyond.

Aramco has been looking at gas assets in the Russian Arctic and Africa, Saudi Energy Minister Khalid Al-Falih said April 24 in Riyadh. In January it hired an employee from Singapore's Pavilion Energy to develop its LNG business, focusing on trading and marketing. "For the first time ever, we will be exporting gas either by pipeline or as LNG from Saudi Arabia," he said. "For gas, we will be a major player."

Oil-linked LNG costs about twice the spot-market price in Asia

(Reuters; April 25) - Asia's liquefied natural gas market is being distorted as the cost of LNG bought under long-term contracts linked to oil prices has jumped to double the spot-market price amid rising oil prices. The price gap between LNG traded in the spot market and long-term cargoes linked to benchmark Brent crude has stretched to its widest in about eight years, driving some buyers locked into term deals to try to delay shipments or adjust their contracts.

It comes as record supplies of LNG keep spot prices low, while prices under term contracts rise in tandem with oil prices. Brent this week hit new highs so far for 2019 after Washington stepped up sanctions on Iran and as the Organization of the Petroleum Exporting Countries continued to withhold crude supply to bolster markets. Brent traded at \$74.69 per barrel on April 25. Brent-indexed LNG costs around \$10.50 per million Btu at the moment, while the spot-market price is just above \$5.

“(The wide price spread) is a good example of the risks that are emerging as the LNG market becomes more globalized and commoditized,” said Jason Feer, global head of business intelligence at Poten & Partners, an LNG tanker brokerage and consultancy. Oil-linked term cargoes make up around two-thirds of supply in Asia, the world’s top LNG-consuming region. The price distortion is driving some buyers in China and Japan to request delays in term cargoes, several industry sources told Reuters, although they added that producers had so far resisted making large concessions.

Wood Mackenzie forecasts 2019-2025 LNG investment at \$200 billion

(Oil and Gas.com; April 25) - Over the next two years, projects totaling almost 90 million tonnes per year of liquefied natural gas production capacity are expected to take final investment decisions and start construction. New research from Wood Mackenzie shows that capital expenditures — for LNG plants and upstream infrastructure — will total more than \$200 billion between 2019 and 2025. This will provide a major boost to engineering, procurement and construction contractors and others in the supply chain.

However, the LNG industry is notorious for cost overruns and project delays — just 10 percent of all LNG projects have been constructed under budget, while 60 percent have experienced delays. Liam Kelleher, senior global LNG research analyst at Wood Mackenzie, said: “The many projects jostling for FID right now have low headline costs, but in light of the historical reality of LNG construction some project delays are likely.”

“In our high case, we anticipate that a further 70 million tonnes per year could be sanctioned in the next three years,” Kelleher said. But the pending construction rush does not necessarily mean a replay of cost overruns. “Developers are also being more cautious about LNG development solutions, opting for modularization and capex phasing. This coupled with renewed caution with investment programs across the upstream sector should help limit global upstream inflation.”

Australia’s LNG projects averaged 40% cost overruns

(Sydney Morning Herald; April 26) - Energy forecasters expect Australia's liquefied natural gas exports to reach US\$49 billion in value in the fiscal year 2019-20, overtaking Qatar as the world’s largest LNG exporter. That comes after an LNG construction boom in Australia that started in 2010, with companies investing US\$200 billion in seven major gas projects. Santos was spending \$10,000 a minute at its peak on its LNG venture.

But the next wave of LNG developments will focus outside Australia. Total industry capital expenditure is expected to reach more than US\$200 billion between 2019 and 2025. Much of it is likely to be spent in Canada, Mozambique, Qatar, and the United States. Wood Mackenzie's latest gas report forecasts about 90 million tonnes of LNG

development projects around the world will reach a final investment decision and start construction over the next two years.

“The LNG boom is back,” Wood Mackenzie global LNG supply research director Giles Farrer said. However, there are concerns of cost overruns, said Wood Mac analyst Liam Kelleher. Since 2010, construction overruns have averaged 33 percent. Just 10 percent of all projects were built under budget, and more than half were delayed. Australian projects typically performed even worse, averaging 40 percent overruns. The US\$54 billion Ichthys LNG project in Australia was delayed about two years. “The potential for operators and contractors to drop the ball on project delivery remains,” Kelleher said.

China’s LNG imports rising faster than pipeline gas imports

(S&P Global Platts; April 26) - China imported 6.94 million tonnes of natural gas in March, up 16.7 percent year on year, slightly less than the full first-quarter number, while liquefied natural gas imports are playing an increasingly vital role in the country's energy mix. Imports for the month comprised 4.06 million tonnes of LNG and 2.88 million tonnes of pipeline gas, up 25.2 percent and 6.5 percent, respectively, year on year, the latest General Administration of Customs data showed April 26.

Over January-March, China imported 24.27 million tonnes of gas, up 17.8 percent year on year. LNG imports for the period rose 21 percent to 14.95 million tonnes, while pipeline gas imports increased 13.2 percent year on year to 9.32 million tonnes, customs data showed. Australia overtook Turkmenistan to become the biggest supplier of gas to China in March, sending 2.042 million tonnes of LNG. Turkmenistan was the second largest supplier for the month, exporting around 2.037 million tonnes of gas to China through pipeline.

U.K.’s shale gas commissioner resigns, says fracking rules too strict

(BBC News; April 28) - The U.K.'s shale gas commissioner resigned April 28 after just six months on the job, saying hydraulic fracturing of wells is being throttled by overly restrictive rules driven by “environmental lobbying rather than science.” Government rules require a halt to fracking after every 0.5 magnitude tremor. Natascha Engel, a former Labour member of Parliament, said the cautious approach to tremors had created a de facto ban on fracking and was wasting “a perfectly viable industry.”

In her resignation letter, Engel said government was "pandering to what we know to be myths and scare stories" about shale gas extraction. Engel said it had been her ideal job, but that "where you've got government in such terrible paralysis, you do have to do something as dramatic as this" in order to have your voice heard. A government

spokesperson said the fracking regulations "strike the right balance in ensuring the industry can develop, while ensuring operations are carried out safely and responsibly."

The key issue in this policy battle is a government rule that forces a driller to stop fracking every time there is a tremor of 0.5 magnitude. The overly strict regulations, Engel said, will lead to lower economic growth and less energy security as the U.K. will need to import more gas rather than produce its own. "A 0.5 tremor is much weaker than the rumble you might feel when walking above a Tube train. Yet if a frack unleashes a tremor rated 0.5, operators have to stop what they are doing for 18 hours."

Cuadrilla, the only company so far to frack in Britain, was unable to complete tests of an exploration well last year after triggering tremors above 0.5, forcing it to suspend work. The company said in February it's impossible to produce gas within the rules.

FERC issues final EIS for Rio Grande LNG

(Houston Chronicle; April 26) - Federal regulators on April 26 released the final environmental impact statement for NextDecade's proposed Rio Grande LNG project, the third of three liquefied natural gas terminals proposed in Brownsville, Texas. The Federal Energy Regulatory Commission said Rio Grande LNG, when combined with the other gas export terminals, could cause adverse impacts but that many of those significant impacts could be reduced through a mitigation plan.

As with its review of the other projects in Brownsville, FERC again expressed concern about how the LNG terminal would impact habitat for endangered wildcat species, the ocelot and the coastal Gulf Coast jaguarundi. Those conclusions come on top of another report released earlier this week about how the three proposed terminals together — Rio Grande LNG, Annova LNG and Texas LNG — could permanently cut off a wildlife corridor considered critical for the survival of the endangered cats.

NextDecade is looking at as much as 27 million tonnes per year of LNG exports at Rio Grande, with an estimated price tag of \$15 billion. FERC is scheduled to vote on the project application by July 25. The developer said it plans to make a final investment decision on the project by the end of the third quarter this year. Neither of the two other projects proposed for Brownsville — Annova LNG nor Texas LNG — have reached their final investment decision, and each would be smaller than Rio Grande LNG. All three face strong opposition from several local communities and environmentalists.

South Texas LNG terminals could cut off wildlife corridor, report says

(Houston Chronicle; April 23) – Ocelots have not been seen in the Port of Brownsville since the 1990s, but a new report says the three liquefied natural gas export terminals

proposed along the South Texas waterway would permanently cut off a wildlife corridor considered critical for the survival of the endangered cat. The corridor, running between Texas and Mexico, has taken decades and more than \$90 million to develop.

In a report issued April 23, Defenders of Wildlife estimated there are fewer than 60 ocelots left in Texas. The report warned that combined traffic, light, and noise that would accompany the LNG plants — if they are approved and constructed — would fragment ocelot habitat beyond repair. “The impacts of these plants would be so devastating to the future recovery of the ocelot that they should not be built there at all,” said Robert Peters, a Defenders of Wildlife biologist who co-wrote the report.

NextDecade and Texas LNG, both of Houston, and Exelon, of Chicago (as Annova LNG), are seeking permission from regulators to build LNG terminals in Brownsville. Federal environmental reports for Texas LNG and Annova gave the green light for the projects to advance in the permitting process, but regulators expressed concerns that the cumulative effects of the terminals and other industrial projects could threaten the ocelot, another endangered wild cat called the jaguarundi and the aplomado falcon.

[Tellurian says it has lined up financing for LNG start-up costs](#)

(S&P Global Platts; April 25) - Banks are prepared to offer financing for the debt portion of Tellurian's start-up costs at its proposed Driftwood LNG export terminal in Louisiana, Tellurian CEO Meg Gentle said in a podcast posted April 25 on the company website. The financing would come after the developer signs up enough partnerships for the equity piece of the \$27 billion development. The company said last week it may push its final investment decision to the second half of the year from a previous target of June.

Financing for Driftwood will rely on about \$7 billion in partners' capital, with about \$20 billion in project-finance debt. At full development, about half of Driftwood's 27.6 million tonnes annual capacity is expected to be taken by equity investment partners that Tellurian has been soliciting. The arrangements require the partners to make a minimum upfront \$500 million equity investment for the right to lift 1 million tonnes per year of LNG for the life of the project. France's Total signed a heads of agreement for the minimum \$500 million earlier this month — it is the only one so far to sign up.

Tellurian last week said it is finalizing equity partnerships with four to eight parties including state-owned oil companies and major Asian utilities, though it did not name any of the potential partners. Also last week, the Federal Energy Regulatory Commission granted a permit certificate to the Driftwood project. Tellurian continues to target start-up in 2023.

South Texas gas exports to grow 2.2 bcf a day this summer

(S&P Global Platts; April 24) - South Texas natural gas hubs could face an upside on prices during the summer months as rising export demand from Mexico and as feed gas for liquefied natural gas exports keep pressure on the region's supply. During the summer months, total Texas export demand for LNG feed gas and pipeline flows to Mexico is expected to grow some 2.2 billion cubic feet per day compared to the June-to-August average last year, according to S&P Global Platts Analytics.

Incremental export demand in South Texas this summer will come principally from increased production at Cheniere Energy's Corpus Christi LNG terminal in Texas and from the IEnova/TransCanada Sur de Texas-Tuxpan marine pipeline to Mexico. The Sur de Texas line is scheduled to enter service by June. According to Platts Analytics, Texas gas exports to Mexico alone should strengthen to about 5.1 bcf a day by later this summer, up from volumes that have averaged about 4 bcf a day so far in April.

Indian LNG importer looks to sell U.S. cargoes

(Reuters; April 24) - GAIL India is offering for sale 10 cargoes of U.S. liquefied natural gas it is obligated to take but expects it will not need or would rather not take, sources said. The cargoes are offered for loading between June 2019 and March 2020, with the buyers to arrange their own shipping. GAIL has 20-year deals to buy 5.8 million tonnes a year of U.S. LNG, split between Dominion Energy's Cove Point plant in Maryland and Cheniere Energy's Sabine Pass site in Louisiana. This is not the first time the Indian importer has turned to the market to sell or trade its U.S. LNG obligations.

Qatar front-runner for long-term LNG deal with Pakistan

(Reuters; April 26) - Qatar has emerged as the front-runner for a long-term gas supply deal with Pakistan, a senior Pakistani official said April 26. The cabinet of Prime Minister Imran Khan is set to decide in the coming weeks on an agreement. Pakistan, with 208 million people, is running out of domestic gas and has turned to liquefied natural gas imports to alleviate chronic energy shortages that have hindered its economy and led to a decade of electricity blackouts.

Qatar is already Pakistan's biggest gas supplier after signing a 15-year agreement to supply up to 3.75 million tonnes of LNG a year to the South Asian country. That 2016 deal supplied Pakistan's first LNG terminal. Emerging as one of the world's fastest-growing LNG markets, Pakistan is looking to secure long-term supply contracts for its second LNG terminal, which can take an average 600 million cubic feet per day of gas.

Pakistan has already signed a five-year import deal with commodity trader Gunvor and a 15-year agreement with Italy's Eni, but is seeking long-term agreements for about 400 million cubic feet per day on average. Pakistan has been negotiating with eight countries: Qatar, Russia, Turkey, Italy, Oman, Azerbaijan, Malaysia, and Indonesia. The Pakistani official told Reuters that state-run Qatargas put forward the lowest bid for a long-term LNG supply contract that would have a price review after five or 10 years.

Japanese utility pulls out of venture to build coal-fired power plant

(Reuters; April 24) - Japan's Osaka Gas said April 24 it will pull out of a plan to build a coal-fired power plant in Yamaguchi in western Japan, citing changes in the electricity market and future business risk. Osaka Gas had planned to build a 1.2-gigawatt coal-fired power station in the city of Ube in Yamaguchi prefecture, aiming to start operations around 2026 with partners Electric Power Development and Ube Industries. The move by Osaka Gas comes after other Japanese companies have withdrawn from new coal-fired power projects amid growing global pressure for companies to divest coal assets due to environmental concerns.

Report predicts LNG-fueled ships to take 60% of newbuild market

(Pulse News; South Korea; April 22) - Ships powered by liquefied natural gas are expected to account for six out of 10 new vessel orders in the next six years due to toughened international environmental standards, according to a South Korean study. About 60.3 percent of the world's ship orders are projected to be for LNG-fueled vessels by 2025, according to a joint report released April 22 by the Korea Development Bank and Korea Trade-Investment Promotion Agency.

The study, based on data from the global shipping and shipbuilding research firm Clarksons and the U.K. marine industry classification society Lloyd's Register, projected that as many as 1,962 new LNG-fueled vessels would be built by 2025. Shipowners across the world are being forced to adopt cleaner vessels starting next year to meet the strengthened marine fuel standards of the International Maritime Organization.

The new rules have pushed up LNG's status as the marine fuel of the future. LNG delivers the same fuel efficiency as conventional oil but generates 20 percent less greenhouse-gas emissions. LNG is also cheaper than oil as a power generation fuel, making it a more efficient and economical alternative, according to the report.

Alberta's cuts to oil production have helped boost revenues

(Calgary Herald columnist; April 24) – As Canadian crude prices sank like a rock last fall, oil sands producer Cenovus Energy didn't pay a penny of royalties to the Alberta government. In fact, it ended up with a \$29 million royalty credit in the fourth quarter. But as the province's program to restrict oil production has helped boost prices, the company paid out \$191 million in royalties to the province in the first-quarter 2019.

Cenovus CEO Alex Pourbaix isn't complaining. He uses the situation as proof that Alberta's controversial curtailment plan is working. "We had a situation ... where heavy oil was selling in Alberta for zero. Basically, we were giving it away for free. And the overwhelming beneficiaries of that low-priced oil were U.S. refiners," Pourbaix told reporters April 24. "In a normal world, we would solve this problem by simply building pipelines. Right now, we've not been able to build pipelines."

The steep losses last year came as the discount on Western Canadian Select heavy oil compared to U.S. benchmark crude prices peaked above US\$50 a barrel. The provincial order to curtail oil production has helped narrow that gap, which has been around \$12 per barrel of late. While Cenovus supported the curtailment, integrated producers that operate refineries opposed it as government meddling.

First female CEO of major oil company leads takeover fight

(Reuters; April 24) - With a \$38 billion bid April 24 for rival oil producer Anadarko Petroleum, Occidental Petroleum CEO Vicki Hollub has again grabbed the spotlight, as the oil and gas industry trailblazer squares off against Chevron, a company four times Occidental's size. Hollub, the first woman to become CEO of a major oil company, rose through the ranks after earning a degree in mineral engineering. She turned around a business that lost \$1.09 billion in 2016 and last year tripled its profits to \$4.1 billion.

By challenging Chevron for a takeover of Anadarko, she is betting she can convince investors that she is able to run a much bigger business. Anadarko has deep-water fields and is moving into liquefied natural gas, two areas where Occidental has no experience. Chevron offered \$33 billion for Anadarko earlier this month. Anadarko's board said it would study the Occidental offer. Occidental and Chevron want Anadarko's nearly quarter-million acres in the Permian Basin, the top U.S. shale oil and gas field.

"She's staking a lot of the company's and her reputation on a potential Oxy-Anadarko merger," said Brian Kessens, portfolio manager at Tortoise Capital. He considers the Oxy-Anadarko deal a "merger of equals," compared to a potential takeover by the much larger Chevron. The deal would double Occidental's oil and gas output to 1.4 million barrels per day. Hollub, who became CEO in 2016 after leading Occidental's Permian Basin operations, has turned Oxy into one of the largest producers in the Permian.