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Construction starts at another Louisiana LNG export terminal

(Reuters; April 4) - Venture Global has started construction at its \$4.5 billion Calcasieu Pass liquefied natural gas terminal in Louisiana, a senior company executive said April 4. The terminal is designed to produce about 10 million tonnes of LNG per year, said Michael Sabel, co-chief executive and co-chairman of the developer, Venture Global, based in a suburb of Washington, D.C. It joins three U.S. LNG export projects already in operation, three under construction, and one more ready to start construction this year. It will be the third in Louisiana with three in Texas and the other two on the East Coast.

"We received our final FERC authorization and DOE export authorization," Sabel said at the LNG2019 conference in Shanghai, referring to approvals from the Federal Energy Regulatory Commission and the U.S. Department of Energy. The company has 20-year offtake agreements for much of the project's output with Shell, BP, Italian energy company Edison, Portuguese energy company Galp Energia, Spanish energy company Repsol, and Polish oil and gas company Polskie Górnictwo Naftowe i Gazownictwo. Venture Global has said it expects Calcasieu Pass to enter service in 2022.

Louisiana LNG developer cuts prices to attract customers

(S&P Global Platts; April 2) - Australia's LNG Ltd. is offering capacity from its proposed Louisiana export project at a relative bargain as it tries to sign its first long-term contract and revive market enthusiasm about its prospects. The company is willing to take as little as \$2.35 per million Btu for liquefaction services, plus 13 percent additional feed gas to cover its energy needs at the liquefaction plant — essentially charging 113 percent of whatever the LNG customer has to pay for gas on the market — CEO Greg Vesey said April 2 in an interview of the LNG2019 conference in China.

The offer reflects the urgency to secure buyers to advance the Magnolia LNG project to a final investment decision, already delayed from last year now to the second half of this year. The plant would produce 8.8 million tonnes per year at an estimated construction cost of \$6 billion. The company has approval from U.S. regulators and a fully wrapped engineering, procurement, and construction contract. What it does not have is any buyer of its LNG. "It's very tough right now on the commercial front," Vesey told S&P Platts.

The Magnolia LNG project offering appears to be quite competitive. Cheniere Energy sold initial capacity at its terminal in Sabine Pass, Louisiana, with liquefaction fees ranging from \$2.25 to \$3 per million Btu and supply gas indexed to 115 percent of the U.S. benchmark Henry Hub price. Assuming a \$3 Henry Hub gas price, a Magnolia LNG cargo would load for around \$5.74 per million Btu with the buyer paying shipping.

Total invests \$700 million in Louisiana LNG hopeful

(Reuters; April 3) - French oil and gas major Total and U.S. LNG hopeful Tellurian have signed deals supporting development of the proposed \$30 billion Driftwood liquefied natural gas project, the two firms said April 3. Under a non-binding heads of agreement, Total will invest \$500 million in Driftwood Holdings, buy \$200 million in Tellurian stock, and take up to 2.5 million tonnes of LNG per year from the Louisiana terminal for 15 years. The gas would be priced against the Platts' Japan-Korea Marker of Asian prices.

Adding the new stock purchase and \$500 million investment to Total's original \$207 million investment in Tellurian in 2017, the company's aggregate stake in Tellurian and Driftwood will amount to \$907 million. After the transactions Total will hold a 20 percent stake in Tellurian and a 3.34 percent stake in Driftwood Holdings, the entity that includes the terminal and feeder gas pipelines. The agreements are subject a final investment decision on Driftwood LNG, which is expected in the first half of this year.

The \$500 million investment gives Total the right to take 1 million tonnes of LNG per year for the life of the project. Tellurian has been offering long-term LNG offtake in exchange for investors bankrolling the company upfront. Total also would buy 1.5 million tonnes per year from Tellurian. It will be Total's first LNG deal priced off the Japan-Korea Marker, a fast-developing spot-market benchmark.

Tellurian has said Driftwood LNG could start production in 2023 with full operations in 2026. The first phase would be about 13.5 million tonnes per year with full output planned for double that volume. A final investment decision for the second phase would come about 12 to 18 months after construction starts on Phase 1, Tellurian said.

Developer signs up Shell as customer for LNG project in Texas

(Reuters; April 1) – Developer NextDecade said April 2 it has signed the first long-term contract for U.S. LNG indexed to Brent oil prices. The 20-year binding agreement with Shell covers 2 million tonnes per year from NextDecade's proposed Rio Grande LNG export project in Brownsville, Texas, with full destination flexibility. Though NextDecade has yet to take a final investment decision, plans call for commercial start-up in 2023, the company said in a press release issued at an LNG conference in Shanghai.

Three-quarters of the LNG to Shell will be indexed to Brent crude oil prices, and the rest will be indexed to domestic U.S. gas price markers, NextDecade said. "We look forward to finalizing additional commercial agreements and proceeding with the development," said NextDecade CEO Matt Schatzman. Rio Grande has an estimated cost of \$17.3 billion for 27 million tonnes of LNG a year. Houston-based NextDecade was founded in 2010 and now has 36 employees. It has no operations and is funded by investors.

Many LNG projects are now vying for financing amid an already crowded market, with developers competing to offer flexible pricing options to potential offtakers. With most Asian LNG contracts priced off oil, U.S. projects that can offer a diversity of price indexation beyond U.S. gas prices may be able to capture more market, said Saul Kavonic, an analyst with Credit Suisse.

However, Total CEO Patrick Pouyanne said he doesn't understand the logic of linking U.S. LNG to oil prices. "Continuing to price gas linked to oil is somewhat the old world," Pouyanne told Bloomberg News. "I was most surprised to see new contracts linked to Brent, especially from the U.S. Someone will have to explain this to me."

Spot and short-term trade at 32% of global LNG market in 2018

(Reuters; March 31) - Spot trades and other short-term deals are making up more of the transactions in the global liquefied natural gas market as producers in the United States and Russia offer more flexible volumes and commodity traders increasingly handle cargoes. Spot and short-term LNG trades of four years or less totaled 32 percent of overall import volumes in 2018, up from 27 percent of imports in 2017, the Paris-based International Group of LNG Importers said April 1 in its annual report.

Cargoes delivered in less than three months from the transaction date increased to 25 percent of the market in 2018, compared with 20 percent in 2017, the report said. Australia was the biggest exporter of spot and short-term volumes in 2018 as new projects in the country started up, followed by the United States and Qatar. The three biggest LNG importing countries — Japan, China, and South Korea — absorbed just over half of the global spot volumes traded, while India's spot purchases increased as its gas demand growth exceeded domestic production, the group said.

Overall, the global LNG market grew by 8.3 percent from 2017 to nearly 314 million tonnes in 2018, more than three times the size of the market in 2000, the report said. It was the third-largest annual increase other than 2010 and 2017. The market is likely to reach a tipping point this year with many long-term contracts starting to expire and as new supply comes on stream, adding competitive pressure. "The LNG market is coming of age," said Andrew Smart at management consultant firm Accenture.

Novatek signs up potential buyers for Arctic LNG-2 output

(S&P Global Platts; April 2) - Russia's Novatek has signed two non-binding 15-year sales deals — each for 1 million tonnes per year — with trading firm Vitol and Spain's Repsol from its proposed Arctic LNG-2 terminal and other projects, it said April 2. According to the heads of agreement (HOA) signed with Repsol, the LNG will be delivered primarily to markets in Spain and Portugal.

The HOA with Vitol specifies that cargoes will be shipped to Novatek's transshipment terminals in the Murmansk region and in Kamchatka. Novatek is planning the transfer sites near Scandinavia and the Russian Far East to optimize shipping. The Murmansk terminal will cut costs for transporting LNG to Europe from the Arctic via the Northern Sea Route. Work has started and the commissioning is expected in the first half of 2019. The Kamchatka transshipment terminal is expected to be launched in 2022.

The proposed Arctic LNG-2 project, at 19.8 million tonnes per year, would be built on the Gydan Peninsula in northern Siberia, east of Novatek's Yamal LNG terminal, which opened in December 2017. A final investment decision on Arctic LNG-2 is expected in the second half of 2019 with commissioning in 2023 before reaching full capacity in 2026. Vitol's agreement with Novatek comes shortly after a meeting in Moscow last month between Russian President Vladimir Putin and leading U.K.-linked executives including Vitol chairman Ian Taylor as well as BP chief Bob Dudley.

LNG imports to China have to compete against Russian pipeline gas

(Reuters; April 3) - China's imports of liquefied natural gas could climb 50 percent to almost 3.9 trillion cubic feet of gas by 2025, about 81 million tonnes a year, a senior executive from China National Petroleum Corp. said April 3. The growth will be driven by the government's stringent environmental policy and an accelerated restructuring of China's energy mix, among other factors, Ling Xiao said at LNG2019 in Shanghai.

China's LNG imports last year were about 54 million tonnes. CNPC accounts for about 60 percent of China's overall gas imports and 70 percent of its domestic production, Ling said. "Price will become one of the decisive factors for the amount of LNG imports," he said in his presentation. And that will become even more important with the start-up of a major gas pipeline between China and Russia — expected later this year — that could threaten LNG imports, he said.

"LNG import prices are not competitive with pipeline gas now, and the opening of the Russia pipeline will pose further threat to LNG imports," he said. "We are hoping for cheaper and shorter-term LNG contracts and only in that way can LNG be truly competitive." Deliveries of gas to China via the Power of Siberia pipeline are due to begin at the end of December 2019, reaching full capacity in 2025 at 3.6 billion cubic feet per day, about 1.3 trillion cubic feet per year.

Papua New Guinea LNG signs up customer in China

(Reuters; April 1) - The ExxonMobil-operated Papua New Guinea liquefied natural gas project has agreed to a four-year deal to supply LNG to a unit of China Petroleum & Chemical Corp., Australia's Santos, a partner in the project, said April 2. The contract is for about 0.45 million tonnes of LNG a year to Unipec Singapore, according to Santos, which holds a 13.5 percent stake in the PNG LNG project.

"The supply-and-purchase (SPA) agreement with Unipec ... is the final mid-term LNG SPA that the project has been seeking to secure," said Peter Botten, managing director at Oil Search, which has a 29 percent interest in PNG LNG. The deal will take the \$19 billion project's total contracted LNG volume to about 7.9 million tonnes per year, Santos said. The liquefaction plant's nameplate capacity is 6.9 million tonnes, but the efficient facility has consistently produced above capacity since it opened in 2014.

The PNG LNG venture signed similar LNG supply deals with PetroChina and BP last year. Meanwhile, the partners are looking to add liquefaction capacity at the facility to more than double the plant's capacity. A final investment decision on the \$13 billion expansion is anticipated this year.

China finds alternatives to U.S. soybeans and LNG

(Nikkei Asian Review; April 1) - International flows of commodities have been reshaped by the U.S.-China trade war with Brazil seizing on the opportunity to satisfy Chinese demand for soybeans while Australia does likewise for liquefied natural gas. A year on from the first volleys of tariffs, the world's top two economies remain at the negotiating table for a deal to end their trade conflict. China said March 31 it will continue to hold off imposing additional duties on U.S.-made autos to create "a good atmosphere" for talks.

But the changes in commodity purchases may last even after bilateral relations improve. "Unlike industrial products that need large manufacturing facilities, such as automobiles and semiconductors, it's easy to find new trading partners for resources," said Daisuke Yamamoto, a senior economist with the Sojitz Research Institute in Tokyo. Signs of the shift appeared last year at a grain export facility in southern Brazil owned by Japanese trading house Marubeni. Autumn brought a surge in soybean shipments to China.

A similar pattern is playing out in energy exports. In December 2018, three months after Beijing slapped a 10 percent tariff on U.S. LNG, America's China-bound exports of the fuel tumbled 80 percent year-on-year. The full-year tally slipped 9 percent in 2018 after rising six-fold the year before. With its LNG import volumes on track to quadruple by 2040, China is turning increasingly to spot trading with long-time gas exporters like Australia to meet demand. China is also locking in a stable long-term supply of fuel with state-run PetroChina last year inking a 22-year deal to buy LNG from Qatar.

Federal review delays Toshiba's sale to China of U.S. LNG business

(Reuters; April 4) - The transfer of Toshiba's U.S. liquefied natural gas business to China's ENN Ecological Holdings Co. has been delayed because a U.S. panel that monitors foreign investments has not yet approved the deal. Toshiba in November agreed to pay ENN more than \$800 million to take over its contractual obligations at a U.S. LNG export terminal as part of a plan to shed money-losing assets. Approval by the Committee on Foreign Investment in the United States has been delayed because of the U.S. government shutdown earlier this year, a Toshiba spokesman said April 4.

The spokesman said he was not aware the holdup was due to any issues from the investment. The committee has blocked or delayed investments from China in the past due to concerns about security or transfers of U.S. technology. Toshiba said earlier it expects to complete the transfer this month or "shortly thereafter." Exiting the U.S. LNG business was the disappointing culmination of a multibillion-dollar venture to take and then resell U.S. LNG that puzzled analysts when it was announced in 2013.

Under the deal, Toshiba will sell its Toshiba America LNG unit to ENN Ecological, a unit of ENN Group, for \$15 million, the Japanese company said in November. Once the sale is complete, Toshiba will then make a one-time payment of \$821 million to ENN to take over Toshiba's \$7 billion, 20-year commitment, starting in 2020, to purchase 2.2 million tonnes per year of LNG from Freeport LNG in Texas. Toshiba had decided it did not want to carry the long-term risk of possibly losing money during market downturns.

U.S. LNG sales to China will grow after trade deal, executive says

(Reuters; April 3) - Liquefied natural gas will become a big part of China-U.S. trade once tensions are resolved between the two countries, a senior executive from China National Offshore Oil Corp. said April 3. LNG will continue to dominate China's gas imports, already accounting for 60 percent of its gas imports last year, said CNOOC Vice President Li Hui on the sidelines of the LNG2019 conference in Shanghai. Pipeline gas from Central Asia and Myanmar supplies the rest of the imports.

CNOOC is China's largest investor in LNG facilities and its largest buyer of the fuel. China in 2017 become the world's second-largest LNG buyer after Japan as the country's gas demand surges under a government push to switch users from coal to cleaner-burning gas. China and the U.S. are moving closer to a final trade deal after months of tough negotiations. If the trade spat is resolved, China could increase U.S. LNG, crude oil, and soybean purchases to help ease its trade surplus over the U.S.

"For China-U.S. LNG trade you have to look at the big trends and at the trade frictions. If this problem can be solved appropriately, LNG trade could be very big," Li said. Sinopec, China's No. 2 oil and gas firm, is ready to sign a 20-year LNG supply agreement with Cheniere Energy once the two countries end their trade dispute,

Reuters has reported. Cheniere operates LNG export terminals in Louisiana and Texas.

LNG demand to grow 2% a year for 15 years, Qatar CEO says

(Reuters; April 2) - Global demand for liquefied natural gas will grow at 2 percent a year for the next 15 years, the chief executive of Qatar Petroleum said at the LNG2019 conference in Shanghai on April 2. Growth in developed markets such as Japan and South Korea will be moderate, while there will be some growth in Europe after years of stagnation, said Saad Al-Kaabi, Qatar's minister of state for energy affairs as well as president and chief executive of Qatar Petroleum.

"China, along with India, will continue to lead Asia as the main drivers behind the growth of global LNG demand," Al-Kaabi said at the conference, according to a press release issued by Qatar Petroleum. Al-Kaabi said demand for gas will continue to rise due to growing concerns over the environment and climate change and to widespread moves toward using cleaner and more cost-effective fuels.

"While some see natural gas as a transition fuel, we believe it is a destination fuel. It is the cleanest of all fossil fuels. It is reliable, affordable, and the fuel of the future," he said. Qatar Petroleum also said it has awarded a number of contracts for its expansion project to boost its LNG production capacity from 77 million tonnes a year to 110 million tonnes by 2024. The major invitations for engineering, procurement, and construction contracts will be issued by the end of the month, according to the company's statement.

Australia to surpass Qatar this year as world's leading LNG exporter

(S&P Global Platts; April 2) - The Australian government has again lifted its forecast for the country's liquefied natural gas exports over the coming years and said it will take over the No. 1 spot as the world's leading exporter of the fuel in 2019 and hold the pole position until 2024. Exports will total 79 million tonnes in calendar year 2019, exceeding that of long-time leader Qatar, according to Australia's chief economist's Resources and Energy Quarterly report. The volume will increase to 82 million tonnes in 2020.

"While Australia is expected to remain the largest LNG exporter in the world until 2024, both Qatar and the U.S. should close the gap on Australia toward the end of the outlook period," the report said, citing Qatar's plans to increase its annual export capacity to 110 million tonnes by around 2024 and the 2024 start-up of the Golden Pass LNG facility in Texas as well as other potential new U.S. projects and expansions. "Australia seems likely to be surpassed as the world's largest LNG exporter by both Qatar and the U.S. sometime in the mid-2020s," the report said.

Though additional gas resources are available to develop in Australia, which could lead to expansion of a least a couple of the country's LNG export terminals, much of that gas will be needed to backfill supply to existing liquefaction plants, some of which face declining supplies in the years ahead as producing fields age.

Plans underway to send more gas to Equatorial Guinea LNG plant

(Reuters; April 1) – Houston-based Noble Energy and its partners will build a pipeline linking Equatorial Guinea's offshore gas fields to an onshore liquefied natural gas plant to boost exports, the African nation's government said April 1. Under the deal with the government, the 44-mile pipe will have capacity for 950 million cubic feet of gas per day from fields operated by Noble. The new line should be ready in the first quarter of 2021.

The export plant, at about 3.5 million tonnes annual capacity, has been run by Marathon Oil since 2007. The gas field that feeds the LNG plant is expected to start a steep decline by next year, creating a need for opening up new supply to maintain full LNG production. The government also has talked of expanding the LNG plant's output. Shell's exclusive deal to take all the plant's production winds down in 2020.

Japanese joint venture now the country's largest power generator

(Reuters; April 1) - Japan's JERA joint venture, the world's biggest buyer of liquefied natural gas, became a major electricity generator April 1 with the formal takeover of power stations owned by its two shareholders. The move, which proponents say should cut costs and boost efficiencies, is part of a broad restructuring of Japan's power industry in the wake of the 2011 Fukushima tsunami and nuclear disaster that exposed weaknesses in the structure of the country's electrical grid.

Owned by Tokyo Electric and Chubu Electric, JERA had earlier taken on fuel purchases for its two shareholders, Japan's biggest and third-biggest utilities. It has now assumed control of their fossil fuel power stations, giving it 68 gigawatts of mostly gas- and coal-fired power generation capacity, nearly half the country's power generation. Tokyo Electric and Chubu will continue to hold separately their transmission grids and retail businesses. Both companies also own nuclear power stations, currently in shutdown.

The government forced through more competition in Japan's highly regionalized power market in the wake of the Fukushima meltdowns by allowing new entrants, encouraging renewables and supporting market trading of power. JERA will control all aspects of the supply chain for power generation, including stakes in LNG projects, ships and an international fuel trading operation. It also plans to build one of the world's biggest hydrogen stations in Tokyo by mid-2020, supplying fuel cell vehicles and fuel cell buses.

Gas pipeline opponents vow to build new First Nation protest camp

(The Canadian Press; April 2) - Members of a First Nation in northern British Columbia who oppose a planned gas pipeline through their traditional territory said they will build a new camp to block its path. A statement posted on Facebook on April 2 said the Likhts'amisyu clan of the Wet'suwet'en First Nation is asserting its sovereignty by creating "a new, permanent land reclamation on their territory." It said the camp will be "strategically located in order to impede" construction of the Coastal GasLink pipeline.

The pipeline would move gas from northeastern B.C. to LNG Canada's export terminal that is under construction in Kitimat, B.C. The developer said it has signed agreements with all 20 elected First Nations councils along the route but the hereditary clan chiefs of the Wet'suwet'en First Nation said the project has no authority without their approval. In January, following a court injunction, police opened a road to a pipeline construction camp that had been blocked by a protest camp built by a different Wet'suwet'en clan.

"It's important that people realize this fight is far from over," the Facebook post said. "The events of December and January should be regarded as one phase in a struggle that has been going on for a decade. A new phase of struggle will begin in the spring of this year, and it may prove to be the decisive one." Preliminary pipeline construction activities are underway, and the project has permits and authorizations from British Columbia's environmental assessment office and the B.C. Oil and Gas Commission.

Natural gas prices go negative in West Texas, worst since 1994

(Financial Times; London; March 31) - In West Texas last week, you could not give gas away as prices dropped to record lows. Companies trying to offload natural gas at the Waha hub, in the booming shale oil region of the Permian Basin, found they had to pay operators with pipeline capacity to take it away. The gas price at Waha registered a low March 28 of minus \$2.50 per million Btu and closed at minus \$1.95, its lowest level since S&P Global Platts started collecting the data back in 1994.

The steep negative prices were in part caused by equipment failures on one pipeline system and planned maintenance on another, which made it harder to find outlets for gas. The fundamental problem, however, is that there is a growing oversupply of gas as a byproduct of booming crude output in the Permian Basin's shale oil fields. That surge of surplus gas, which could continue for years, is expected to have global implications with several companies developing projects for exporting it to world markets.

Companies with pipeline capacity available can make money both by being paid to take gas away, and by selling it to customers that want it. At the same time when prices were negative at Waha, gas at the Henry Hub 650 miles away in Erath, Louisiana, was being sold for a (positive) price of about \$2.67 per million Btu. Kinder Morgan, the

pipeline group, has identified building new lines for gas out of the Permian region as one of its strategic priorities, and has two projects under construction. The first, the \$1.75 billion Gulf Coast Express pipeline, is scheduled to come into operation in October.

Australian parliament will debate oil and gas tax credits

(Australian Broadcasting Corp.; April 1) - Oil and gas giants operating in Australia may not have to pay tax for years to come, as they accumulated \$324 billion worth of tax credits in 2017-2018 from large-dollar investments in new projects over the past decade. Australian Taxation Office statistics show that the amount of tax credits, which can be used to lower liabilities in future years, has risen from \$282 billion in 2016-2017. The accumulated credits have reignited calls by some groups for a 10 percent royalty to replace the petroleum resource rent tax (PPRT).

Of 138 returns filed in 2017-18, only six "profitable" projects paid the PRRT, a profits-based tax generated from the sale of oil and gas but not liquefaction services to make LNG. It provides generous tax concessions when capital spending is greater than a company's receipts. The credits can be carried over year to year. The tax, introduced in 1987 to apply to new offshore projects, has been the subject of debate in recent years. It was revised in 2012 to apply to all oil and gas output including coal-seam and shale.

Critics have claimed Australia is giving away its natural resources cheaply. They also point to companies, such as Shell and Chevron, in previous years not paying a cent in PRRT despite earning billions of dollars in sales. A bill, scheduled to be debated in Parliament this week, would raise about \$6 billion in additional revenue over 10 years by reducing the deductions that apply to future years.