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Shorter-term, more flexible LNG deals are the future, analyst says

(S&P Global Platts columnist; Sept. 17) - Global LNG procurement trends are shifting toward shorter contracts with smaller volumes and increasingly flexible commercial terms. With many long-term sales contracts set to expire in the coming years, renewals are likely to be for shorter timeframes. The traditional 15- to 20-year agreements that underpin LNG projects will be much harder to come by with only long-term core suppliers like Qatar maintaining such deals.

The contours of long-term contracting activity will also change with sellers capitulating on most major contractual conditions like destination flexibility, resale rights, price indexation, take-or-pay clauses, and volume flexibility. On the supply side, new liquefaction capacity and offtake is shifting toward portfolio players with deep pockets, including oil majors and trading houses, which means that a large number of project sponsors will no longer need traditional long-term contracts to obtain project financing.

For buyers a supply-driven market will further reduce their appetite for long-term contracts at a time when demand projections are constrained by uncertainties, the emergence of competitive fuel sources and geopolitics. With the primary drivers behind long-term LNG contracts eliminated — financing for projects and security of supply for consumers — the need for long-term contracting in the future is significantly diminished. The future LNG market "will be a mix of short-term/spot contracts, 5- to 10-year deals with a few 20-year contracts," said Jonathan Stern, distinguished research fellow and founder of the natural gas research program at the Oxford Institute for Energy Studies.

Rising oil prices widen spread between contract and spot LNG rates

(S&P Global Platts; Sept. 18) - Any sustained increase in oil prices following the attacks on Saudi oil facilities over the weekend could amplify the pain for long-term liquefied natural gas buyers holding oil-price linked contracts, already concerned by the significant premiums they have been paying over spot LNG. The widening differential between spot and contracted LNG supply is expected to result in a stronger pushback from buyers with markets bracing for tough contract renegotiations and price disputes.

The S&P Global Platts Japan Korea Marker for November was assessed at \$6.183 per million Btu on Sept. 16, up from \$5.20 on Sept. 13, while the oil-linked LNG price could be as much as \$10 under long-term contracts entirely liked to oil. For buyers of term LNG, every \$5-per-barrel jump in oil prices equates roughly to a \$1.5 million increase

for a standard LNG cargo. At current spot and term contract prices, a spot LNG cargo might cost \$18 million to \$21 million versus \$30 million at the higher oil-linked price.

The lower spot prices have led to many long-term buyers questioning whether they are paying, in some cases, a significant premium over the prevailing market price in order to achieve security of supply, Dan Perera, a partner on the energy and natural resources team at attorneys Reed Smith, said Sept. 17. "With traders now entering the market en masse and the oversupplied market conditions we are now seeing, we are expecting to see an increase in price reviews and potentially disputes across the board," he said.

India has said it will renegotiate its long-term LNG contracts, while other South Asian buyers are seeking to diversify into spot markets and Singapore has become a hub for arbitration for an increasing number of price disputes in the region, especially since spot prices went into a slump. Some sellers are agreeing to look at more flexible contract terms, and pressure on them is likely to mount in a higher-price oil environment.

LNG investor says U.S. expansion projects have competitive edge

(Reuters; Sept. 18) - The next wave of U.S. liquefied natural gas export projects will be "tougher" to bring online, as companies with existing facilities take advantage of lower costs to expand capacity in coming years, the chief executive of Blackstone Energy Partners said Sept. 18. Blackstone CEO David Foley said at the Gastech Energy Conference in Houston that only one or two new start-up projects may reach a final investment decision in the next wave of U.S. LNG export ventures.

"In terms of liquefaction capacity that gets FID from the U.S., the hit rate will be a lot higher on projects either sponsored by major oil companies or expansions of existing facilities," Foley said. The energy-focused private equity group, a unit of Blackstone Group, has owned a stake in Cheniere Energy, the nation's biggest LNG exporter, since 2012. Cheniere was the first company to build a large LNG export terminal in the Lower 48 states. Its Sabine Pass, Louisiana, terminal started shipments in February 2016.

Operators are racing to reach FID on new U.S. export projects that would sell into a global market where excess supply is expected to shrink within five years. Cheniere reached FID on an expansion of its 3-year-old Sabine Pass LNG facility in June. "You have a cost advantage because you may not need to fit that next unit of capacity, build that new dock, build that new storage tank, build that new pipeline," Foley said. Several U.S. projects have said they expect to take FID in coming months.

U.S. gas industry warned to reduce emissions

(S&P Global Platts; Sept. 13) – Liquefied natural gas from the U.S. can fuel power plants and help cut carbon emissions globally by displacing coal, but the gas industry needs to address its own emissions issue — methane — the head of the International Energy Agency warned. Such investments, even those driven by stringent regulations, would have a nominal impact on the average cost of gas production, IEA Executive Director Fatih Birol said at an industry event in Washington, D.C., on Sept. 12.

Birol estimated the average cost of U.S. gas production would increase by a maximum 7 percent in the most difficult case. "In my view, companies should not be so greedy," Birol said. "The Achilles' heel of the gas industry is the methane emissions. And the good news for the industry is this can be fixed by existing technology only using the best practices. And I can tell you that many companies are taking this seriously."

The U.S. LNG industry also zeroed in at the event on the importance of cutting methane and carbon emissions. Representatives of LNG pioneer Cheniere Energy, fellow exporter Sempra Energy and export hopefuls Tellurian, NextDecade and LNG Ltd. said the sector needs to step up reducing carbon emissions as it promotes climate benefits of gas. U.S. LNG veteran Octavio Simoes advocated for measures to end the extensive flaring of gas. "We cannot afford to be saying gas is a great fuel for lowering CO2 emissions and then burning 1 bcf of gas in the basins. It just doesn't make any sense."

Industry anxious to hear what India says about U.S. LNG

(Bloomberg; Sept. 15) - Indian Prime Minister Narendra Modi's visit to the U.S. energy capital is fueling speculation that the world's second most-populous nation will further tap America's shale gas bonanza. Modi is scheduled to address upwards of 50,000 people at a sold-out event at Houston's NRG Stadium on Sept. 22 that's billed by organizers as the largest-ever turnout for a foreign elected leader on U.S. soil.

Energy investors, however, are keenly focused on what happens behind the scenes. A long-running trade war between Washington and Beijing has meant China hasn't imported any U.S. liquefied natural gas since February. The dispute also has put plans for new U.S. LNG export terminals at risk. By contrast, India is open to making purchases, and the nation is already the sixth-largest buyer of U.S. LNG.

The gathering — branded as "Howdy Modi!" — at the home of the Houston NFL team, is scheduled to include a "cultural program" followed by a speech by the Indian leader. It comes just weeks after Modi sat with Russia's Vladimir Putin to explore shipping Arctic LNG to India. Still, India has been slower than other nations to divorce itself from coal, and that may be a hindrance to gas imports, said Madeline Jowdy, an S&P Global Platts analyst. "I am so skeptical of India," Jowdy said. "I'm not saying that Indian

companies can't and won't invest" in gas imports, but coal is entrenched and supports a lot of jobs.

Proposed Louisiana LNG project says it has first customer

(Reuters; Sept. 16) - Australia-listed Liquefied Natural Gas Ltd. said Sept. 16 it had signed a deal with a province in Vietnam to take LNG from its proposed Magnolia project in Louisiana. The buyer would take 2 million tonnes of LNG per year, which would be 25 percent of the project's output. Vietnam-based Delta Offshore Energy would use the gas to generate electricity at its proposed combined-cycle power plant in the coastal province of Bac Lieu.

The deal comes at a time when LNG Ltd. has been struggling to lock in contracts for its project due to the U.S. trade dispute with China and other factors. Shareholders have expressed concern that the company — which has been trying for most of this decade to develop the project — will run out of money before reaching a final investment decision. While watching competitors sign up buyers over the past year, Magnolia has been offering LNG at a relative bargain price in a push to secure its first long-term deal.

"We are a bit frustrated, the board is a bit frustrated, and you our shareholders are frustrated," CEO Greg Vesey said during a conference call with investors in May. If the lack of progress "drags out," LNG Ltd. may have to raise cash in the market to fund operations, he said. The company has no income-producing properties. LNG Ltd.'s March 31 cash balance was A\$28.7 million (US\$20 million).

Cheniere signs deal to buy gas for Corpus Christi expansion

(S&P Global Platts; Sept. 16) - Cheniere Energy reached a deal with shale producer EOG Resources to market LNG made with its gas. The supply will support Cheniere's proposed midscale expansion at its liquefaction terminal near Corpus Christi, Texas, the companies said Sept. 16. The deal is similar to an agreement Cheniere struck in June with Permian producer Apache that marked a new kind of supply agreement for the U.S. LNG sector because it sees an upstream company take more exposure to global prices.

As with the Apache agreement, Cheniere plans to use the EOG deal to help obtain financing for the expansion at its Corpus Christi LNG facility — a project the company expects to commercially sanction in 2020. EOG will sell gas to Cheniere over about 15 years beginning in early 2020, starting at about 140 million cubic feet per day and increasing to about 440 million cubic feet. The first 140 million cubic feet will be owned by Cheniere, which will pay EOG based on Asian spot-market LNG prices. EOG will sell the next 300 million cubic feet at a price indexed to the U.S. gas market.

The transaction is subject to conditions, including a positive final investment decision on the expansion at Corpus Christi. The project is being developed to include up to seven liquefaction trains with a total capacity of about 9.5 million tonnes per year of LNG. Market observers have said the Apache and EOG deals could mark a paradigm shift in the way LNG export developers commercialize projects by buying feed gas at prices linked to the global LNG market. "With U.S. producers flaring export-sized quantities of gas in the Permian alone, there is a push to find any market outlet, even if it entails taking on some spot LNG price risk," said Saul Kavonic, an analyst with Credit Suisse.

FERC plans to staff up new LNG office in Houston by spring 2020

(S&P Global Platts; Sept. 16) - The Federal Energy Regulatory Commission could have new staff in place in Houston by as early as next spring to review LNG export terminal applications, as it looks to keep up with developers' growth plans amid personnel challenges and two vacant commission seats, Chairman Neil Chatterjee said during a sit-down meeting with reporters at the Gastech conference in Houston on Sept. 16.

So far this year FERC has authorized five new liquefaction terminals or production units. More than a dozen other projects have applications pending. Most of the facilities are targeted to come online in the early to mid-2020s. FERC, in an effort to handle the heavy workload of applications and overseeing LNG export projects, said in July it planned to add eight staff members in a new office in Houston. The staff would be part of a new division within the Office of Energy Projects focused on LNG facility review and inspection. The division would also include 20 existing staff members in Washington.

The current complement of commissioners favors Republicans by a 2-1 margin, after Democrat Cheryl LaFleur stepped down Aug. 31. The chairman said he believes that any permit decisions with only three commission members will withstand legal scrutiny. LaFleur's departure spurred concern by some market observers that commission decisions could be more vulnerable to legal challenges.

Attacks on Saudi Arabia unlikely to have major impact on LNG market

(S&P Global Platts; Sept. 16) – The attack on major oil infrastructure in Saudi Arabia on Sept. 14 is unlikely to have a significant impact on the global LNG market, analysts and market players said Sept. 16, though any possible disruption to LNG shipping in the key Strait of Hormuz would likely have a major effect on prices. The immediate reaction to the attacks was a bump in the spot Asian LNG price, with the S&P Global Platts Japan Korea Marker for November at \$6.183 per million Btu, up from \$5.925 on Sept. 13.

Saudi Arabia is neither an exporter nor importer of gas, with its production of some 395 billion cubic feet of gas last year used entirely for domestic consumption. But the

world's biggest LNG exporter, Qatar, shares a land border with Saudi Arabia and — together with the United Arab Emirates — depends on the Strait of Hormuz for sending LNG cargoes to market. A total of 82 million tonnes of LNG was exported from Qatar and the UAE last year — 26 percent of global LNG supplies — so any disruption to shipping in the strait would likely have a significant market impact.

David Ledesma, leading LNG analyst at the South Court consultancy, said that technically the attacks on oil infrastructure in Saudi Arabia should have "little or no impact" on the LNG market. But he said, "tensions in one sector can spill over to another," He added, "Certainly, if LNG shipping gets disrupted and Qatari shipping is disrupted then there could be major LNG price impact."

Egypt's growing gas production adds to LNG exports

(S&P Global Platts; Sept. 17) - Italy's Eni has started gas production from the Baltim South West field offshore Egypt at an initial rate of 100 million cubic feet a day, the company said Sept. 17. The start-up comes just 19 months after Eni took the final investment decision on the project and further boosts the company's production in Egypt, where it operates the supergiant Zohr field. The new production will help the country continue its reentry into the liquefied natural gas export trade.

Eni said volumes produced by Baltim South West would "further contribute to Egypt's gas export capacity," which could average as much as 1.5 billion cubic feet per day by the start of 2020. The program for Baltim South West foresees drilling five more wells, targeting 500 million cubic feet of gas per day by the second quarter of 2020. Baltim South West is located in shallow waters about eight miles off the Mediterranean coast.

Eni has a 50 percent interest in Baltim South West, while BP holds 50 percent. The start-up comes as Eni last month increased production at the Zohr field to 2.7 bcf per day five months ahead of schedule. The company said output could rise to a plateau of 3.2 bcf a day by year-end. Zohr started production in December 2017, helping Egypt to become self-sufficient in gas and resume regular LNG exports. Since the start of 2019, the ldku LNG export facility has shipped around 30 cargoes, up 50 percent from 2018. Egypt's other LNG export plant, Damietta, is expected to restart toward the end of 2019.

San Jose, Calif., bans natural gas in new homes starting next year

(Reuters; Sept. 17) - San Jose, the 10th most populous U.S. city and political center of Silicon Valley, on Sept. 17 moved to ban natural gas in most new residential buildings beginning next year. With a unanimous vote by the 10-member city council and Mayor Sam Liccardo, San Jose became the largest U.S. city so far to seek to reduce

greenhouse gas emissions by favoring appliances that run on renewable electricity sources over those powered by natural gas.

The council also adopted new building codes that favor electrification over gas. Mayor Liccardo had pushed for the stricter rules in recent days. The move by San Jose and others comes amid rising local and state opposition to the use of gas in buildings because of the fuel's contribution to climate-warming emissions.

San Jose's measure falls short of an outright ban on gas in new buildings such as the one passed by nearby Berkeley, California, earlier this year, but the council voted to study in the coming months whether to include buildings up to seven stories in the ban. The cities adopting new building codes or gas bans want buildings switched to electricity from a grid that is powered by renewable energy. The San Jose ban would prohibit gas in new single-family and low-rise multi-family buildings beginning in 2020.

Former CEO touts new technology to move U.S. gas overseas

(Wall Street Journal; Sept. 16) - An oil-industry stalwart is hoping to undercut the way most U.S. natural gas is shipped abroad, using a newly patented method that he says is cheaper because it requires less upfront investment than the dominant technology, liquefied natural gas. Forrest Hoglund, the 86-year-old former chief executive of shale giant EOG Resources, has patented a method of transporting gas called compressed gas liquids, or CGL, with his new company, SeaOne Holdings.

The technique allows the gas to be shipped without first separating out byproducts such as propane and butane, allowing importers to strip them out and sell them individually, Hoglund said. While LNG will likely remain the primary method for transporting gas over long distances, Hoglund believes he has an advantage in short-distance shipments and is pushing to establish a market sending gas from the U.S. Gulf Coast to the Caribbean.

SeaOne won an auction this year to build and supply two gas-fired power plants in Colombia. But his CGL technology faces a steep challenge competing against LNG. Importing countries and shippers have invested billions in infrastructure and vessels to transport LNG. SeaOne will need to persuade countries to invest in the infrastructure needed for CGL, which stays cool while kept in metal contraptions that loosely resemble massive radiators. SeaOne has spent \$125 million on the project so far, Hoglund said, mostly from family investment. He hopes to make a final decision by year-end.

Alberta may ease curtailment order on oil producers

(Bloomberg; Sept. 16) - Alberta Premier Jason Kenney said it's likely his government will allow oil producers to exceed their provincially imposed output caps if they can ship those extra barrels by rail. Energy Minister Sonya Savage is in "very serious discussions" with producers this week on the idea of exempting incremental rail shipments from curtailment, and the plan is tied to the province's sale of the crude-byrail contracts that were signed by the previous government, Kenney told Bloomberg.

The province is making progress in its effort to sell to the private sector the crude-by-rail leases the government took on in February. The new government, installed after an election in April, wants out of the almost C\$4 billion commitment. The province contracted to lease rail tank cars in an effort to move more oil to market by overcoming the shortage of pipeline capacity, which had led to Canadian oil selling at a steep discount to U.S. crude. Part of the plan to boost prices also included a provincial decision in January, instructing producers to curtail their output to reduce supply.

If the province can sell off its rail car leases, it's willing to let producers pump more oil. Under the right circumstances, Kenney said, Alberta producers could be shipping more than 300,000 barrels of crude by rail a day, up from the current 150,000 barrels a day.

U.S. shale oil likely to hit new record at 8.843 million barrels per day

(Reuters; Sept. 16) - U.S. oil output from seven major shale formations is expected to rise by 74,000 barrels per day in October to a record high 8.843 million, the U.S. Energy Information Administration said in its monthly drilling productivity report Sept. 16. The largest change is expected in the Permian Basin of Texas and New Mexico, where output is seen climbing by about 71,000 barrels per day to a record high 4.485 million in October. That would be the ninth consecutive month of increases in the basin.

Output in North Dakota and Montana's Bakken region is expected to edge higher by about 2,000 barrels to a record 1.471 million, the data showed, representing the smallest increase in the basin since May. Even though the number of rigs drilling new wells in both the Permian and Bakken has declined since the start of the year, output has increased in both basins because the productivity of those rigs — the amount of oil new wells produce per rig — has increased to record levels. Production increases in the Permian and Bakken have been at the forefront of a shale boom that helped make the United States the biggest oil producer in the world, ahead of Saudi Arabia and Russia.

B.C. court says province needs to review pipeline approval again

(The Canadian Press; Sept. 17) - The British Columbia government has been ordered by the province's highest court to reconsider its environmental assessment allowing expansion of the Trans Mountain oil pipeline. In challenges by the Squamish Nation and city of Vancouver, which oppose the project on environmental grounds, the B.C. Court of Appeal ruled the province's approval of the project was based on the original report from the National Energy Board (NEB), which was later quashed by a federal court.

After the National Energy Board reviewed the project for a second time, the federal government approved the pipeline expansion again. The B.C. Appeal Court said in its decision released Sept. 17 that in light of changes to the original NEB report when it reconsidered the project, provincial approval also needs to be reconsidered. The three-judge panel said in its unanimous decision that through no fault of the provincial government, what is now the federal environmental assessment of the pipeline is not the same assessment that British Columbia used when it approved its expansion.

The court dismissed other claims by the city and the Squamish Nation including that the province failed to sufficiently consult with Indigenous groups. The project would triple the capacity of an existing pipeline from Alberta's oil patch to a marine terminal in Burnaby, B.C. The federal government bought the existing pipeline and the unfinished expansion work for C\$4.5 billion last year, promising to get it past the political opposition and legal challenges that had scared off Kinder Morgan Canada from proceeding.