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Asian buyers start talks with LNG suppliers for lower-priced contracts

(Reuters; Dec. 5) – Asia's liquefied natural gas buyers are starting talks with producers to renew long-term contracts due to expire over the next few years, aiming to secure all-time low prices in deals likely to set new industry benchmarks. A record volume of new LNG supply entered the market in 2019, driving spot prices to record lows for this time of the year and widening the gap with contracted supplies that are linked to oil prices.

The abundant supply has toughened buyers' bargaining stance, forcing producers to lower their asking prices and discuss exit clauses in new contracts, said industry sources. Most Asian buyers purchase LNG priced against Brent crude expressed as a percentage of the per-barrel oil price. Discussions of this price slope for new contracts have dropped to close to 11 percent, industry sources familiar with LNG contract negotiations told Reuters. This compares with 13 to 15 percent about 10 years ago.

"The main drivers ... are low spot prices, oversupply and intense competition," said Nicholas Browne, an analyst at Wood Mackenzie. Most potential projects can achieve a satisfactory rate of return delivering LNG into Asia at 11.5 percent of \$60 per barrel oil, he said. Brent is currently at about \$63 a barrel. All eyes are focused on Qatargas and Korea Gas, which are locked in talks to renew their long-term contract, sources said. KOGAS' 20-year deal to buy 4.92 million tonnes a year of Qatari LNG expires in 2024. The new deal could become a benchmark for others, as Japanese buyers are also expected to start negotiating contract renewals over the next few years, sources said.

China's demand for imported gas expected to weaken

(Bloomberg; Dec. 4) - A slowdown in gas demand growth in China is expected to slacken further, adding to investor concern as global gas supply continues to build. Consumption in 2021-2025 will grow at a slower pace than in recent years, a researcher at China's economic planning department said at a Bloomberg summit in Shanghai on Dec. 4. Furthermore, a weaker economy and rising gas imports by pipeline could shrink LNG's share in the overall Chinese market, according to utility ENN Energy Holdings.

The country's gas use has expanded 9.5 percent this year, down from 18 percent growth in 2018, amid concerns that a slower economy has prompted the government to focus less on pollution control, which had earlier helped spur demand for gas. China's LNG imports gained 14 percent this year through October after rising over 40 percent in each of the previous two years. Increased domestic gas production amid the nation's

efforts to bolster energy security will also erode imports, said Daniela Li, a Bloomberg analyst.

The demand slowdown has pushed LNG prices in Asia lower by almost 40 percent this year, a slump also aided by China's rising domestic output. Japan-Korea Marker LNG futures traded at \$5.635 per million Btu on Dec. 4, down from \$9.67 at this time last year. A sharp deceleration in China's economic growth, coupled with rising pipeline imports following start-up of the Power of Siberia line from Russia, could cut LNG's market share in China and lower import growth, said Mark Lay, ENN's deputy general manager.

South Texas LNG developer willing to lower price to attract customers

(S&P Global Platts; Dec. 6) - Annova LNG's backers, who said they will sanction the proposed \$4.5 billion South Texas export project after two-thirds of the capacity is sold, are offering potential customers a lower price than what has been typical for existing U.S. terminals, CEO Omar Khayum said. The pitch reflects the realities of a crowded marketplace in which more than a dozen developers of U.S. liquefaction facilities looking to start up during the early to middle part of next decade have persistently struggled to secure enough long-term offtake contracts to finance construction.

What was supposed to be a breakout year for final investment decisions has largely not been as it draws to a close. Only two new U.S. projects and an additional liquefaction train at an existing facility have advanced to construction in 2019. With pressure building, several developers, including Annova, have pushed off their final investment decision until 2020 or later. Some have stopped talking about FID timing altogether.

Annova LNG has set its threshold for advancing to FID at securing commercial contracts covering 4 million tonnes per year out of the 6-million-tonne capacity of the terminal. That's a lower bar than what some other developers, which are proposing larger facilities, must reach. The liquefaction fee Annova is pitching is in the range of \$2 to \$2.50 per million Btu, toward the lower end of peer offerings. Where it sees room to be extra competitive is on the gas charge. It is willing to come down from the traditional 115 percent of the cost of feed gas, though it wants to maintain some premium.

FERC grants Louisiana LNG project more time to start work

(Natural Gas Intelligence; Dec. 5) – The Federal Energy Regulatory Commission on Dec. 5 granted the developers of a liquefied natural gas terminal in Calcasieu Parish, Louisiana, a five-year extension to 2025 to construct and start operations at the project. Joint-venture partners Energy Transfer and Shell US LNG now have more time to make

a final investment decision on their proposal to add liquefaction and export services to the 37-year-old, unused Lake Charles LNG import terminal.

The export facility would include three liquefaction trains with a combined capacity of 16.45 million tonnes per year, about 2.2 billion cubic feet of gas per day. Energy Transfer originally partnered with BG Group, which was acquired by Shell three years ago. In August the companies asked FERC for a five-year extension to complete the project, citing the "complex international merger" requiring renegotiation of agreements.

The companies are still targeting an FID next year. The partners also announced this week that a commercial tender package has been issued to engineering, procurement and construction (EPC) contractors to submit final bids for Lake Charles LNG. Those bids, the developers said, are expected in the second quarter of 2020. More than \$300 million has been spent on EPC work, with an additional \$150 million still to be spent before a final investment decision is reached, Energy Transfer said earlier this year.

Regulator boosts volume for Chevron-led LNG project in Canada

(The Canadian Press; Dec. 5) - An application from Chevron Canada for a 40-year license to export natural gas from the proposed Kitimat LNG project has been approved despite environmental opposition, said the Canada Energy Regulator. The application filed last spring with the National Energy Board, the CER's predecessor, aimed to double the previously approved export license duration and increase the potential output of the facility to almost 1 trillion feet of gas per year.

That's about 18 million tonnes of liquefied natural gas a year, a substantial increase over the previous export license for 10 million tonnes per year for 20 years. The new license "reflects the revised Kitimat LNG plant design to one that includes up to three LNG trains to deliver up to 18 million tonnes per year of LNG," said Chevron spokesman Leif Sollid. The project is in its pre-front-end engineering and design phase. Chevron is looking at 2029 for a possible start-up at the terminal, if the project gets the go-ahead.

In its decision letter the CER notes that it rejected an application last summer from B.C. environmentalist Michael Sawyer to restart the regulatory process and hold a public hearing. It also rejected his argument that an adequate natural gas supply hadn't been proven. Chevron's expert estimated Canadian and North American gas resources of 1,000 tcf and 4,000 tcf, respectively. Chevron has said the volume and duration increase is intended to improve the project's "cost of supply competitiveness."

Second LNG unit starts up at Freeport LNG in Texas

(LNG Global; Dec. 6) – Contractors McDermott International with its partners Chiyoda International and Zachry Group announced Dec. 6 that Train 2 of the Freeport LNG project on Quintana Island in Texas has started producing LNG. The export terminal's first liquefaction train started production in August, with the first cargo leaving the dock in September. Initial production at Train 3 is scheduled for the first quarter of 2020.

Privately owned Freeport LNG has received approval from the Federal Energy Regulatory Commission to add a fourth liquefaction train at the site. The fourth train would bring the facility's capacity to 20 million tonnes per year. There are six operating LNG export terminals in the U.S. with four on the Gulf Coast and two on the East Coast, with two more under construction.

U.S. flared or vented 1.28 bcf a day of gas in 2018

(U.S. Energy Information Administration; Dec. 6) - The volume of U.S. natural gas that was reported as vented and flared reached a record-setting average annual rate of 1.28 billion cubic feet a day in 2018, according to the U.S. Energy Information Administration. In 2018 the percentage that was vented and flared increased to 1.25 percent of gross withdrawals, up from 0.84 percent in 2017. Two states, North Dakota and Texas, accounted for 1.1 bcf per day, or 82 percent of the reported vented and flared gas.

Flaring is the process of burning gas at the wellhead. Venting is the direct release of gas into the atmosphere and is often banned or restricted in some states. Flaring is generally preferred because methane, the main component of natural gas, is a potent greenhouse gas, more potent than the carbon dioxide produced by flaring. As oil production has outpaced the buildout of infrastructure to handle gas, associated gas — or natural gas that is extracted during oil production — has been increasingly vented and flared in order to manage the undeliverable gas production from flowing oil wells.

State agencies are largely responsible for regulating venting and flaring by imposing restrictions and gas-capture requirements. In 2018 Texas and North Dakota accounted for 51 percent and 31 percent, respectively, of the total U.S. vented and flared gas. Both states are working with producers to limit the need for flaring without shutting down or affecting oil production. Venting is banned in North Dakota and restricted in Texas.

Africa on track to become a much larger LNG supplier

(International Business Times; Dec. 3) - Africa could supply as much a fifth of global demand for liquefied natural gas by 2025, up from 10 percent in 2018, due to huge investments in the sector and recent major discoveries. The African Energy Chamber,

a group of energy and mining companies in Africa, reported recently that discoveries in Mozambique, Tanzania, Senegal, and Mauritania have aggregate reserves of 200 trillion cubic feet of gas. In addition, Nigeria alone has 200 tcf of proven reserves.

ExxonMobil and Total will together spend \$50 billion on Mozambique LNG projects by 2025, the energy chamber reported. GlobalData, a London data analytics and consulting company, reported Mozambique will become one of the 10 largest producers of LNG in the world in the next few years. "Within a few years, about 30 million tonnes (of LNG) per year will be produced, due to existing deposits in the Rovuma Basin, where 125 trillion cubic feet of gas have already been discovered," GlobalData said.

On the West Coast of Africa, BP and Kosmos Energy have poured \$10 billion into an offshore gas field project at Grand Tortue on the maritime border between Mauritania and Senegal. The target is to start production from a floating LNG unit by 2022. BP said the field has an estimated 15 trillion cubic feet of gas and a 30-year production potential. African nations currently exporting LNG include Nigeria, Algeria, Egypt, and Angola.

Despite coal shutdowns, Korea does not expect boost in LNG demand

(Reuters; Dec. 4) - South Korea's liquefied natural gas demand is set to slow over the next two years despite a number of coal plant closures, the boss of power company SK E&S said Dec. 4. CEO Jeong Joon Yu expects at least 10 coal plants to shut down by spring, but the drop in coal power production will be offset by weaker electricity demand and new nuclear output, he said on the sidelines of an LNG conference in Rome.

"Introduction of new nuclear production and the reduction of demand in the power sector is offsetting coal plant closures," he said, adding that domestic electricity demand fell by 1.5 percent in South Korea this year. South Korea's energy ministry last week said the country will idle up to one in four of its coal-fired power plants between December and February to combat air pollution.

Half of U.S. LNG cargoes went to Europe in November

(S&P Global Platts; Dec. 4) - About half of the liquefied natural gas cargoes delivered last month from U.S. export terminals landed in Europe, reflecting a shift in trade flows that appeared to favor proximity, liquidity and the ability to hedge over traditionally more robust markets in Asia, S&P Global Platts Analytics data show. That Europe has become a home for U.S. LNG beyond just a means to balance the global market has taken on added importance amid the ongoing trade war between the U.S. and China.

Heading into 2020, those trends are expected to continue with the U.K., France, Spain, Portugal, Poland, and the Netherlands absorbing more U.S. LNG, especially from the Gulf Coast, as China remains largely cut off because of tariffs and demand wanes in Japan because of increased nuclear power generation. And despite marginally better netbacks in Asia, European buyers may prefer to bring U.S. gas to their home markets, where they already have regasification capacity and downstream commitments.

Overall, 33 of 67 cargoes that landed in November from U.S. LNG facilities went to Europe, while 26 ended up in the Asia-Pacific region and eight went to the Americas. In October, the Asia-Pacific took 18 U.S. cargoes, versus 15 that landed in Europe, Platts Analytics data show. The difference between the two months showed not only the flip in preference toward Europe, but also the large increase in the number of cargoes delivered. There are now six LNG export terminals operating in the U.S.

Indian LNG importer looking to sell U.S. cargoes it does not need

(Reuters; Dec. 5) - GAIL (India) has offered up to 10 liquefied natural gas cargoes for loading in the United States over early 2020 to early 2021, two industry sources said Dec. 5. The cargoes are being offered through the company's Singapore subsidiary from the Sabine Pass, Louisiana, and Cove Point, Maryland, LNG plants and will be priced on a U.S. natural gas benchmark Henry Hub basis, one of the sources said.

Bids are due by early next week, a second source said. The Indian importer has 20year deals to buy 5.8 million tonnes a year of U.S. LNG, split between Dominion Energy's Cove Point plant and Cheniere Energy's Sabine Pass facility. GAIL has said it sells any gas in excess of its needs on the spot market, and eventually all of its contracted U.S. LNG will go to India when more pipelines and regasification terminals are completed.

Singapore plans more LNG imports to replace declining pipeline gas

(S&P Global Platts; Dec. 6) - Singapore is set to shift more toward LNG to meet the bulk of its gas demand in the coming years as piped natural gas supply contracts are discontinued and the country's LNG import capacity is expanded, with a new floating import and regasification plant planned in the next decade. The commodity trading hub's increasing reliance on LNG underscores the commoditization of seaborne gas and its development as a source of energy security for importers.

The new offshore terminal will also add Singapore to a growing list of Asian countries deploying floating infrastructure. Singapore in 2018 imported 9.96 million tonnes of oil equivalent of natural gas, of which 71.4 percent was pipeline gas from Indonesia and

Malaysia and 28.6 percent was LNG, according to data from Energy Market Authority, the country's energy regulator.

The share of LNG in Singapore's overall gas supply has grown from 11 percent in 2013 and is set to account for more than half by the middle of the next decade as piped gas suppliers back out, traders said. Indonesia's Ministry of Energy and Mineral Resources said late November it will halt natural gas supply to Singapore from the Suban Field in the country's Corridor Block, which is managed by ConocoPhillips, when the contract expires in 2023. Indonesia plans to use the gas supply to meet domestic demand.

Cheniere asks approval to resume use of damaged LNG storage tank

(Reuters; Dec. 4) - Cheniere Energy has asked U.S. energy and safety regulators to approve a process that would allow the company to return to service a storage tank that leaked at its Sabine Pass liquefied natural gas export plant in Louisiana. Cheniere, the biggest U.S. LNG exporter, said in a filing earlier this week that its proposed process would prioritize work on one tank, allowing that tank to return to service in the near term.

The U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration ordered Cheniere to shut two tanks at Sabine Pass on Feb. 8, 2018, after plant workers on Jan. 22, 2018, discovered a 1- to 6-foot-long crack at one tank that leaked fuel into an outer layer. During the investigation, PHMSA discovered a second tank had also experienced releases of LNG from an inner tank.

In July, PHMSA and the Federal Energy Regulatory Commission told Cheniere that it had to take several steps before the agencies would authorize the return to service of the two tanks. Some of the tasks the agencies said Cheniere would have to complete before allowing the tanks back into service include a structural re-inspection of all LNG tanks and installation of additional devices to detect leaks. There are five tanks at Sabine, each with the capacity to hold the equivalent of 3.4 billion cubic feet of gas.

Comments due Dec. 23 on federal rule to allow LNG in rail tank cars

(HazMat magazine; Dec. 5) - The U.S. Department of Transportation is proposing a change to its hazardous materials regulations to allow the transportation of liquefied natural gas on rail cars. Currently, LNG can only be moved by rail using a portable tank aboard a flatcar with prior approval from the Federal Railroad Administration, but not a full-size tank car. DOT's Pipeline and Hazardous Materials Safety Administration is seeking comment on changes that would allow LNG transport in tank cars.

Citing LNG's expanding role as a critical domestic and international energy resource, PHMSA proposes to permit the transport of LNG by rail tank car to meet the demand for

greater flexibility in the modes of transportation available to transport LNG. Comments are due by Dec. 23. Canada already allows LNG transport in rail tank cars.

B.C. challenge to Trans Mountain oil pipeline goes to Supreme Court

(Calgary Herald columnist; Dec. 4) - The B.C. government's legal fight against the Trans Mountain Pipeline expansion is — with one exception — all played out, Premier John Horgan told a national media audience Dec. 3. "We believe that the court cases, our participation in the litigation, has run its course ... except our reference case," Horgan said. That case has B.C. asking whether it has the legal authority to regulate increased interprovincial shipments of heavy oil and other hazardous substances via pipelines.

The B.C. Court of Appeal ruled unanimously against the province on constitutional grounds last spring. But the province has appealed that decision to the Supreme Court of Canada, which will hear the case early in 2020. "Those who believe the reference case is just about Trans Mountain are missing the point," Horgan said. "We believe B.C. and other provinces have the right to ... regulations to protect their communities and their people and their land, and we'll see what the Supreme Court has to say."

The Trans Mountain project will almost triple the capacity of the oil pipeline from Alberta to a coastal export terminal. In addition to the province's case, the other challenges to the project "are Indigenous peoples who are still in court with Trans Mountain," Horgan said. "We're not participating in those cases." In rejecting B.C.'s rules last spring, the Court of Appeal found that regulation of the interprovincial movement of oil and other goods is the responsibility of the federal government, not the provinces.

Canadian regulator forecasts 50% oil production growth by 2040

(S&P Global Platts; Dec. 5) - Canada's oil output will grow nearly 50 percent to more than 7 million barrels per day by 2040 even as growth in domestic demand shrinks, the Canada Energy Regulator said this week. In its 2019 energy outlook report, the first since the agency evolved from the National Energy Board, the CER said non-mined oil sands development will continue to lead the increase in crude production.

The report anticipates natural gas output will exceed 20 billion cubic feet per day by 2040, an increase of more than 30 percent above 2018. The regulator said the outlook assumes that oil export pipelines planned by TC Energy, Enbridge, and Trans Mountain — along with LNG projects capable of moving 3.7 bcf of gas a day — will be completed and in service by their forecast dates. The report assumes that over the long term, world crude prices will rise to the 2018 equivalent of US\$75 per barrel.

"The potential for LNG exports is an important driver of natural gas production, while oil production growth is led by new phases of existing in-situ [oil sands] projects," the CER said Dec. 3. In contrast to increased production, Canada's energy consumption is forecast to rise less than 5 percent over the period, even as the country's population grows by 20 percent and the economy expands by 40 percent, according to the report. That translates to a decrease in energy use per person of 15 percent.