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Lack of Chinese contracts could make it harder on U.S. LNG financing

(CNBC; Aug. 9) - China's threat to slap tariffs on U.S. liquefied natural gas is injecting uncertainty into a construction boom for the multibillion-dollar facilities that ship American shale gas around the world. By the end of next year, six U.S. terminals are expected to be exporting LNG. In that same period, several companies are slated to decide whether they will move forward with another wave of U.S. export projects.

Many of the projects are looking to line up buyers in China, which is poised to surpass Japan as the world's largest LNG importer. But Beijing has threatened to impose a 25 percent tariff on U.S. LNG, firing back at the Trump administration's tariff threats. To be sure, tariffs would have to remain in place for months or years to spoil the deal-making, analysts said. But the threat comes at a time when some of the projects are already at risk of being shelved because there's too little capital to finance so many ventures.

"Even ignoring the politics with China, there are too many of these early stage projects," said Pavel Molchanov, energy analyst at Raymond James. "The vast majority of them will never get built, no matter what happens with China, because the scale of the demand is disconnected from the excessive, absurd number of early stage players that want to build an LNG plant." Long-term sales contracts are critical to securing financing to construct LNG terminals, which typically take about four years to build. The contracts show lenders that the builder has a steady source of income to pay off its debt.

'Geopolitical dynamics' will hit U.S. LNG sales to China, analyst warns

(CNBC; Aug. 9) - China's threats of new tariffs on U.S. imports will create shifts in the energy market, as liquefied natural gas now is on the list of goods targeted by Beijing, analysts said. Currently, most U.S. LNG exports are secured on long-term contacts, so the impact will be fairly limited until those deals expire. However, the spot LNG market — which has been growing steadily — will be hit. Longer-term contract negotiations could also be affected.

"A 25 percent import tariff, amid a backdrop of strong government rhetoric against U.S. energy imports, is likely to see U.S. LNG priced out of the lucrative Chinese gas market," said analysts at Fitch Solutions Macro Research. Yes, it's a problem, said Hugo Brennan, senior Asia analyst at consultancy Verisk Maplecroft. "Geopolitical dynamics will undermine American exporters' bid to become major gas suppliers to China," he wrote in a note.

Fitch said it expects major LNG players such as Shell, Total, and Trafigura to be the most affected as they buy U.S. cargoes and then sell them in markets where demand and prices are strongest. Analysts expect China to look toward alternative suppliers, with major producers like Australia and Qatar likely benefiting in the long run. "The boost to Australia could be bigger over the next five to ten years as the opportunity of grabbing a larger share of China's growing LNG market may prompt Australian producers to expand capacity and output," consultancy Capital Economics said.

U.S. LNG cargoes to China already in decline

(Reuters; Aug. 7) - U.S. exports of liquefied natural gas to China in July fell to their lowest level in a year and are expected to decline further as the Sino-U.S. trade dispute forces utilities to seek alternative supplies. Traders said Chinese buyers were already seeking alternatives. "The Chinese are already indicating that they would prefer not to take U.S. cargoes for any new spot deals," said a Singapore-based energy trader who deals with Chinese LNG importers.

The main beneficiaries of this shift are producers in the Asia/Pacific region that have been quick to snatch market share from the United States since the trade disputes broke out in June. "Short-term, alternative volumes could come from many other projects including the more proximate Australian, Papua New Guinean, and Qatari projects which have some flexible volumes," said Saul Kavonic, director of Asia/Pacific markets and head of energy research for Australia at Credit Suisse.

Shipping data shows that U.S. LNG to China has already fallen from almost 400,000 tonnes in May (about six full cargoes) to just 130,000 tonnes (two cargoes) in July, while supplies from Australia, Malaysia, Indonesia, Russia, and Papua New Guinea have increased.

PetroChina may halt spot-market purchases of U.S. LNG

(Bloomberg; Aug. 12) – PetroChina, a unit of state-owned China National Petroleum Corp., may temporarily halt purchases of U.S. liquefied natural gas spot cargoes through the winter to avoid potential tariffs amid a trade conflict between the two countries, according to people with knowledge of the strategy. Under the plan PetroChina would boost buying of spot cargoes from other countries or swap U.S. shipments with other East Asian nations to avoid paying the tariffs, the sources said.

China said this month it was considering a 25 percent tariff on U.S. LNG. The move comes ahead of the winter heating season when demand and prices typically peak and shows that Chinese President Xi Jinping may be willing to suffer some pain to avoid backing down from U.S. President Donald Trump's trade dispute. "If the tariff is

implemented before winter, it would potentially increase the competition for non-U.S. supply to the Asian market and hence drive up spot prices in Asia this winter," Maggie Kuang, an analyst with Bloomberg NEF in Singapore said in an email.

Separate from spot-market cargoes, PetroChina in February signed a 25-year deal to buy U.S. LNG from Cheniere Energy, with a portion of that supply expected to start this year. While China is currently the third-largest buyer of U.S. LNG, American cargoes comprised only 5.7 percent of its imports over the past year, according to Sanford C. Bernstein & Co.

China National expected to take over gas project in Iran

(Bloomberg; Aug. 11) - China National Petroleum Corp. is expected to take the lead on a \$5 billion project to develop Iran's share of the world's biggest gas deposit, taking over from France's Total which halted operations after President Donald Trump reimposed sanctions on the Islamic Republic. State-owned CNPC, which had joined the original 2016 consortium with Total and Iran's Petropars to develop Phase 11 of the South Pars Gas field in the Persian Gulf, would increase its stake from the current 30 percent. Total had originally agreed to take a 50.1 percent stake.

CNPC will become the lead operating partner in the project, the state-run Islamic Republic News Agency said. Total, which finalized its agreement with Iran in July 2017, had already spent some 40 million euros (\$45.7 million) on the project when Trump announced in May that the U.S. would exit the 2015 nuclear deal and reimpose sanctions on Tehran. Scores of European companies have withdrawn their operations and investments from the oil-rich Persian Gulf country since the U.S. reversal.

Iran, which holds the world's largest gas reserves, shares South Pars, also known as the North Dome field, with neighboring Qatar. Total had planned an initial investment of \$1 billion for Phase 11 with the aim of eventually producing 2 billion cubic feet a day.

Tariff spat not a long-term barrier to U.S. energy exports, analysts say

(CNBC; Aug. 8) - The United States in the next five years will become an energy-exporting powerhouse — rivaling Saudi Arabia in oil exports and growing into one of the world's largest natural gas exporters, regardless of its trade spat with China, several analysts said. China this year imported 20 percent of America's still small but growing crude oil exports, Citigroup analysts said. It also has bought about 15 percent of the liquefied natural gas exported by the United States this year.

"Whether in the long- or short-run, China's potential imposition of tariffs or quotas on U.S. exports is a tax on Chinese consumers rather than an obstacle to U.S. exports,"

Citigroup energy analysts wrote. Goldman Sachs said China's imports of U.S. oil are down 70 percent in April through June, but that is temporary and not a long-term impact of tariff threats. "Absent a major impact on global growth and hence energy demand ... we believe that such tariffs are unlikely to derail the outlook for U.S. energy exports with global markets, requiring more U.S. exports in coming years," Goldman analysts wrote.

Citigroup analysts said their concern is that the dependability of U.S. supplies would be cast in doubt because of the tariff wars. "But so long as the U.S. places no barriers on exports of its own, placing such barriers on exports by importing countries would be potentially self-defeating. This coming winter for example, China is likely to be short on both LNG and soybeans, two U.S. commodities on which it has placed barriers," the analysts noted. "Would Beijing continue to tax its citizens with a 25 percent ... tariff?"

Cheniere wins 25-year deal to supply LNG for Taiwan

(Reuters; Aug. 10) - U.S. liquefied natural gas company Cheniere Energy said Aug. 10 it had signed a 25-year deal to supply Taiwan's CPC Corp., which CPC valued at roughly \$25 billion. Cheniere said it will sell 2 million tonnes of LNG per year on a delivered basis to the state-owned oil and gas company, starting in 2021. It said the purchase price will be pegged to the U.S. Henry Hub benchmark gas price monthly average, plus a liquefaction fee.

A CPC spokesman said the \$25 billion figure was based on current U.S. gas prices. CPC has already been importing substantial LNG volumes from Qatar and Australia. The deal is viewed as an important part of Taiwan's efforts to reduce its trade surplus with the United States, according to a source familiar with the government's thinking.

The CPC deal is not tied to a particular project or liquefaction train. Cheniere operates an LNG terminal in Sabine Pass, Louisiana, and in addition to expanding that project is also building a plant in Corpus Christi, Texas. Taiwan is the world's fifth biggest importer of LNG, shipping in almost 16.8 million tonnes in 2017, according to the International Gas Union, giving the island a global import market share of almost 6 percent.

Cheniere plans to bring 3 more liquefaction trains online in 2019

(Reuters; Aug. 9) - U.S. liquefied natural gas producer Cheniere Energy said Aug. 9 it remains on track to finish building three liquefaction trains in 2019 at its export terminals at Sabine Pass in Louisiana and Corpus Christi in Texas. The company said its fifth production unit at Sabine Pass will go online in the first half of the year, along with the first liquefaction train at Corpus Christi. The second unit at Corpus Christi is expected to enter service in the second half of 2019.

The third train at Corpus Christi is expected to enter service in the second half of 2021. All of Cheniere's liquefaction trains in Louisiana and Texas are each capable of liquefying about 700 million cubic feet of gas per day, each producing about 4.5 million tonnes of LNG per year. Sabine Pass started operations in February 2016, the first LNG export facility to enter service in the Lower 48 states. The company currently has four liquefaction trains operating at Sabine.

Cheniere has estimated the cost of the first five trains at Sabine, including financing, at between \$17.5 billion and \$18.5 billion, while the first three trains at Corpus Christi are expected to cost between \$15 billion and \$16 billion after financing. Cheniere is also developing a sixth large-volume train at Sabine and up to seven smaller trains in Texas, each with capacity to liquefy 200 million cubic feet of gas per day.

U.S. will add 3.7 bcf a day of liquefaction capacity by fall 2019

(S&P Global Platts; Aug. 10) - Natural gas demand to supply U.S. LNG export terminals is set to double over the next year as a spate of new liquefaction projects now nearing completion enters service. By September 2019, the start-up of Elba Island in Georgia, Cheniere Energy's Sabine Pass Train 5 and Corpus Christi Trains 1 and 2, Sempra's Cameron Train 1 and Freeport Train 1 will add a combined 3.7 billion cubic feet per day in new liquefaction capacity, according to a forecast by S&P Global Platts Analytics.

Looking further ahead, while Cameron, Freeport and Corpus Christi's remaining trains, currently under construction, seem certain to enter service over the next two to three years, LNG export projects still in search of buyers seem less certain now, in part due to an increasingly bitter trade war between Washington and Beijing.

Toshiba in talks to sell off its U.S. LNG position

(Nikkei Asian Review; Aug. 10) - Toshiba has begun talks with several suitors to sell its U.S. liquefied natural gas business, the last stage of offloading the troubled company's money-losing assets. The Japanese company recently invited offers, with responses from 10 companies, a source familiar with the matter told the Nikkei Asian Review. The list includes JERA, a joint venture between utilities Tokyo Electric and Chubu Electric. U.S. LNG developer Tellurian and state-affiliated PetroChina also raised their hands.

Now that Toshiba has seen the worst of its financial crisis, the LNG position is considered its largest risk factor. In 2017 the company said the business could produce losses as deep as 1 trillion yen (\$9 billion) over the life of its gas contract. Toshiba is under contract to process U.S.-produced shale gas into 2.2 million tonnes LNG annually at Freeport LNG's facility in Texas for 20 years, starting in 2019. The \$13 billion project is under construction and scheduled to start shipments in fall 2019.

Toshiba's foray into gas, an unusual move for a company known mainly for electronics and machinery, began in 2013 as a way to salvage a nuclear power station, the South Texas Project. Toshiba signed a deal to sell electricity from the reactors to Freeport LNG and, in exchange, Toshiba agreed to take LNG from Freeport. But with little experience, Toshiba struggled to find customers for the LNG. In 2017 the nuclear plant was canceled leaving Toshiba with nothing but the obligation to take LNG for 20 years.

Mexico imports record volume of U.S. natural gas

(Reuters; Aug. 10) - U.S. natural gas exports to Mexico hit all-time highs this month, but a slower-than-expected build-out of pipelines inside Mexico has kept increases far below available capacity at the border. The latest uptick in exports, driven by demand from Mexico's power sector, occurred after several Mexican pipelines began operation allowing U.S. companies to send more fuel across the border, RBN Energy said in a report. Over the past decade U.S. gas exports to Mexico by pipeline have more than tripled, to 4.9 billion cubic feet per day in August, according to Thomson Reuters data.

Still, that is less than half the available U.S. gas pipeline capacity to Mexico, which will increase to 13.5 bcf a day by year-end. "There are a lot of projects to get gas across the border, but a lot of these are dependent on important lines within Mexico," said Rick Margolin, a senior analyst at energy data provider Genscape. The completion of those pipelines on the Mexican side of the border are facing at least a year's delay on average, according to Genscape.

With gas pipelines constrained, Mexico has had to rely on more expensive liquefied natural gas imports. Mexico has been the biggest buyer of U.S. LNG, purchasing about 19 percent of all U.S. cargoes between February 2016 and May 2018. Mexico is on track to import 188.9 billion cubic feet of U.S. gas as LNG in 2018. That is up from 140.3 bcf in 2017 and 27.4 bcf in 2016. As more pipelines enter service, analysts expect cheaper U.S. gas via pipeline will displace the more expensive LNG imports.

Price will be key to increasing U.S. LNG sales to Europe

(Bloomberg; Aug. 9) - European Commission trade officials will travel to Washington on Aug. 20 to follow up on an energy agreement last month between Commission President Jean-Claude Juncker and President Donald Trump. Europe pledged to import more U.S. liquefied natural gas in a bid to diversify its supplies. "The growing exports of U.S. LNG, if priced competitively, could play an increasing and strategic role in EU gas supply," Juncker said in a statement Aug. 9. Russia is Europe's biggest gas supplier.

Europe received about 10 percent of total U.S. LNG exports last year, up from 5 percent in 2016 after Cheniere Energy started up its Sabine Pass, Louisiana, export terminal. Europe has imported more than 40 LNG cargoes from the U.S. Still, that's just a very small fraction of Europe's demand last year. Most gas arrives by pipelines from Russia and Norway, as well as in LNG tankers from Qatar. As the region's own gas fields deplete and nuclear and coal plants are decommissioned, demand for the fuel is rising.

European buyers are taking a closer look at U.S. gas after Brent oil futures, a key pricing component for much of the non-U.S. LNG sold across the globe, soared earlier this year, Greg Vesey, CEO of U.S. project developer Liquefied Natural Gas Ltd., said Aug. 8. Russian gas to Europe is linked to crude, while U.S. LNG is linked to low-cost shale gas. So far, however, the economics work against large-scale U.S. LNG to Europe, but that may change as the global market expands, Citigroup said in May.

Yamal LNG loads first cargo from 2nd liquefaction train

(S&P Global Platts; Aug. 9) - Russia's Novatek loaded the first cargo from its newly launched second liquefaction train at the \$27 billion Yamal LNG plant in the Russian Arctic. The second train of the company's flagship LNG project started producing July 21, six months ahead of the initial schedule, the company said. The cargo was pumped aboard a carrier Aug. 9. The second train has already reached full capacity, putting Novatek's total LNG production at 11 million tonnes per year.

Together the two trains account for 3.5 percent of global LNG production capacity, Novatek CEO Leonid Mikhelson said, adding that the company's long-term goal is to produce 55 million to 60 million tonnes per year by 2030. A third liquefaction train is scheduled to start up early 2019, boosting total capacity at Yamal to 16.5 million tonnes. The plant's actual output is higher, aided by the efficiencies of operating in a cold environment — the company has said Yamal is producing at 109 percent of capacity.

Meanwhile, Novatek is in talks with prospective partners, including China National Petroleum Corp., Korea Gas, Japanese companies, and Saudi Aramco for its second project, Arctic LNG-2, Mikhelson said. France's Total was the first company to enter the project when it agreed earlier this year to buy a 10 percent stake. The shareholder structure should be determined by the time of the planned final investment decision by the end of 2019, Mikhelson said. Arctic LNG-2 — on the Gydan Peninsula across the bay from Yamal — is proposed at 19.8 million tonnes per year.

Negotiations going well for Papua New Guinea LNG expansion

(Interfax Global Energy; Aug. 10) – International oil companies are continuing to invest in expanding gas production in Papua New Guinea while negotiations are underway

with the government over revised fiscal terms. Assuming no radical changes are made to the fiscal regime, a final investment decision on expansion of the PNG liquefied natural gas project could go ahead in 2019 as planned.

A report published earlier this year by anti-poverty research group Jubilee Australia alleged the Papua New Guinea economy had so far failed to sufficiently benefit from the LNG project, and some feared this meant the government would introduce much more aggressive terms for new investments, potentially jeopardizing plans for expansion. However, negotiations between the government and oil and gas companies over changes to the royalty and tax regime for LNG projects in PNG are going well so far.

PNG LNG is the fourth-largest export project in Asia as well as the cheapest, making it a formidable competitor to new facilities in neighboring Australia. It will give the United States and other low-cost LNG suppliers a run for their money once the global LNG supply-demand balance swings back in favor of sellers early in the next decade. Under current plans, the ExxonMobil-led PNG LNG project is looking at a \$12 billion expansion with installation of three new trains with a total capacity of 8 million tonnes per year.

China decides not to target U.S. crude in tariff fight

(Bloomberg; Aug. 10) - The removal of U.S. crude from goods targeted by Chinese tariffs is a sign that America has become too big to ignore in the oil market. Fewer than two months after threatening to impose levies on imports of U.S. crude, the world's biggest oil buyer has now spared the commodity. Only fuels such as diesel, gasoline, and propane will be hit with duties on Aug. 23, according to China's Commerce Ministry.

China's original plan to target U.S. crude came at an inopportune time for the country's buyers. Sinopec's trading unit, Unipec, was embroiled in a dispute with Saudi Arabia, saying the producer's prices were costly and cutting purchases just as it was boosting U.S. imports. Two months on, refiners were faced with the risk of supply disruptions from Iran to Venezuela and paying more to take advantage of booming U.S. output.

"With several new refineries starting up over the next couple of years, China would thus be wary of taking a decision that could end up severely hurting its domestic refining industry," said Den Syahril, an analyst at industry consultant FGE. China has been the biggest buyer of American crude. The shale boom lifted U.S. output to a record 11 million barrels a day last month, establishing it in the ranks of top producers Russia and Saudi Arabia. The production increase has also weakened the cost of American supply relative to Middle East benchmark oil, raising the allure of U.S. sales to Asia.

<u>Australian producers compete for next phase of gas development</u>

(Bloomberg; Aug. 5) - After partnering for nearly three decades at Australia's oldest liquefied natural gas export plant, Woodside Petroleum and Chevron are competing to shape the next phase of gas development. Both are vying to build an offshore pipeline that will allow them to develop their own fields, as well as let third-parties ship gas from isolated resources to existing liquefaction plants along the western Australia coast.

Whoever moves quickest will likely be able to choose which gas is developed first and where it is processed. Both pipelines would start at Woodside's Scarborough field, with an estimated 7.3 trillion cubic feet of gas, and end at the Burrup Peninsula, home to the Woodside-operated Pluto and North West Shelf (NWS) LNG plants. NWS, where Chevron is a partner, shipped its first cargo in 1989 and is expected to have spare liquefaction capacity in 2021 as the fields that feed it dry up.

The (NWS) partners in July agreed to process third-party gas as they seek to extend the life of the plant. While Woodside's massive Browse Basin gas discoveries father north will be the anchor tenant, its gas is not expected to start filling the plant until 2026. To cover the 2021-2026 gas supply shortfall, Woodside plans to initially use gas from fields that supply its Pluto plant and a new pipe from Scarborough.

Chevron's proposal would tap into Scarborough and other offshore fields piping gas to multiple liquefaction plants. "Woodside and Chevron will probably need to cooperate," said Wood Mackenzie analyst Chris Meredith. "While third-party access infrastructure is something that we see in other parts of the world, we don't see it offshore Australia. You can see the benefits of a shared pipeline, it will just need a step change in attitude."

Deloitte report says Australia's LNG boom nearing its end

(Sydney Morning Herald; Aug. 6) - At the peak of the LNG construction boom, oil and gas company Santos was spending about \$10,000 a minute over seven years to bring its A\$25 billion Queensland-based Gladstone LNG project online. But the days of gas mega-projects being built is over as the industry shifts into producing gas. In a new report, global consultancy Deloitte said the completion of two more major LNG projects — Inpex's Ichthys project in the Northern Territory and Chevron's Wheatstone project in Western Australia — has all but capped Australia's LNG construction boom.

After Shell completes its Prelude floating LNG project, Australian LNG capacity will hit almost 90 million tonnes per annum. "Looking ahead, the prospects for investment in new Australian LNG capacity remain limited," the report said. It outlined, instead, a rapid expansion of LNG capacity in other producing countries, with five major projects under construction in the United States and a major capacity expansion planned in Qatar.

"Global LNG import demand remains high enough to absorb the additional supply over 2018, but a period of excess global supply is forecast in coming years. This is set to dampen incentives for additional developments in Australia," the report said. "Despite the fact that a number of LNG projects remain in the planning stages, prospects will largely depend on the outlook for global demand and the cost competitiveness of Australian LNG facilities."