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China's 10% tariff on U.S. LNG could hurt new projects

(S&P Global Platts; Sept. 18) - China's decision Sept. 18 to hit U.S. LNG imports with a 10 percent tariff dealt a blow to the prospects of Gulf Coast export projects hoping to start up in the early to mid-2020s, while LNG developers in other countries could get a boost by using the trade war to court Beijing. As global LNG leaders gathered for the second day of the international Gastech conference in Spain, they were left to digest the fallout from China's retaliation for President Donald Trump's tariffs on Chinese goods.

The tit-for-tat tariffs create uncertainty in the market, Steve Hill, an executive vice president in Shell's unit that provides natural gas and LNG, as well as marketing and trading services, said in an interview on the sidelines of the conference. "Ultimately, China has a lot of growth in its LNG demand and the U.S. is a very material source of supply, so having an impediment stopping the two from getting together ... that creates an inefficiency in the market, and no one wins from that," Hill said.

China's decision is unlikely to have significant impact on near-term prices of LNG for either country, but it could have lingering long-term impacts, according to S&P Global Platts Analytics. It could cause a shift in trade flows and limit flexibility in the LNG spot market. The most immediate concern will be for the second wave of U.S. export projects trying to secure financing to move their projects to a positive final investment decision.

"The bigger implication will be on the launching of new projects," Hill said. "Some of the U.S. Gulf Coast projects clearly need long-term sales to go." As for LNG exporters in other countries such as Qatar, Mozambique, Russia, and Canada, the U.S.-China tensions create an opening for growth in their relationships with China, Hill said.

Chinese tariffs on U.S. LNG 'will push buyers to other options'

(Wall Street Journal; Sept. 18) - China's move to impose tariffs on U.S. liquefied natural gas imperils the ability of a burgeoning industry to export the bounty of American shale gas. Retaliating against new Trump administration tariffs on \$200 billion in Chinese goods, China on Sept. 18 issued levies on \$60 billion of U.S. products, including a 10 percent tariff on LNG. The tariff is bound to have an impact on U.S. LNG exporters, analysts said, making them a potential victim in the escalating U.S.-China trade battle.

China is the biggest source of new global LNG demand as the country steps up efforts to combat air pollution by shifting from coal-powered plants to gas and renewable

energy sources. The U.S., which is emerging as a powerhouse in the global gas trade, was expected to mop up a big chunk of that demand. But tariffs may now hamstring American companies as they negotiate for long-term contracts, experts said, and fewer long-term contracts could help stall a planned wave of new U.S. export projects.

"The tariffs will push Chinese buyers to other sellers in Asia and the Middle East because the U.S. will no longer be considered a low-cost option," said Ira Joseph, head of gas and power analytics at S&P Global Platts. An October U.S. LNG cargo out of Sabine Pass, Louisiana, fetches \$9.04 per million Btu in Guandong Dapeng, China, according to S&P Global Platts Analytics. By comparison, a Qatari cargo to the same port goes for \$10.48. A 10 percent tariff would make the U.S. price less competitive.

"Long-term implication is Chinese money is likely to look to countries they feel they can rely on for gas supply — and that is good news for most of the new non-U.S. LNG projects," said Trevor Sikorski, head of gas research at consultancy Energy Aspects.

Tariff battle damages perception of reliable U.S. LNG supply

(Bloomberg; Sept. 19) - Even with China's smaller-than-threatened tariff on U.S. liquefied natural gas, American cargoes may still be kryptonite for Chinese traders trying to navigate the trade war. Chinese buyers will seek to avoid purchasing U.S. LNG as long as any tariffs are in place because of the risk they may rise further, possibly without warning, according to officials from four Chinese importers. While they said they would prioritize cargoes from other suppliers, they couldn't entirely rule out buying U.S. gas.

The trade tensions are seen turning off buyers in China, the world's biggest and fastest-growing gas market. That could go for those taking individual spot cargoes, as well as tying themselves to projects with long-term spending and supply commitments. "For a Chinese buyer, the overall risk profile for procuring U.S. LNG remains heightened," Saul Kavonic, Credit Suisse Group's director of Asia energy research, said by email.

"Even with a smaller tariff, there has likely been some longstanding damage done to the perception of reliability of U.S. LNG supply in the eyes of Chinese buyers who will shape the next wave of global LNG projects," Kavonic said. China may shift its buying from the U.S. to other exporters, including Australia, Qatar, and Papua New Guinea, according to Bloomberg Intelligence analysts Lu Wang and Kunal Agrawal.

About 15 U.S. LNG projects are targeting a final investment decision this year and next. "It is hard to see any of these hopeful projects getting another Chinese buyer signed up for long-term volumes," said Trevor Sikorski, an analyst at Energy Aspects.

U.S. trade policies put LNG exports to China at risk

(Australian Financial Review opinion column; Sept. 16) - When a U.S. Senate committee met to discuss natural gas last week, the mood in the hearing room was bullish. The unstoppable rise of U.S. gas production was noted. Liquefied natural gas sales to Europe were extensively discussed. A senior energy department official declared that "every molecule of energy that the United States exports is exporting freedom to the world," a metaphor favored by his boss, Energy Secretary Rick Perry.

But officials are undermining their own agenda as they conduct a trade war with the most promising foreign gas market of them all: China, now the world's fastest-growing market for LNG and the third-largest customer for U.S. LNG in the first half of 2018. China's LNG imports will nearly double in the next decade, according to Bernstein Research. Yet Beijing has access to gas that come without American freedom attached.

Nikos Tsafos, a senior fellow at the Center for Strategic and International Studies in Washington, said the U.S. is less attractive for long-term LNG supplies because of its trade policies and tariffs. "You have definitely seen a worsening relative position for U.S. LNG," he said. "This idea that the U.S. is exporting freedom has been somewhat premised on the notion that U.S. LNG is somewhat better, or less risky, than other gas. I think that has been a very difficult thing to say over the past 18 months." The world has more than enough LNG. That gives China its own freedom to choose where to buy gas.

IEA economist says U.S. gas will stay in the ground without exports

(CNBC; Sept. 18) - On the production side, U.S. shale gas is performing strongly — but a current lack of investment in exports could be "economically disruptive," said the International Energy Agency. "Without additional investments into American liquefied natural gas projects, the American gas industry will have to keep gas in the ground, which would be a waste of capital, economically quite disruptive," Laszlo Varro, chief economist at the IEA, told CNBC at the Gastech conference in Barcelona on Sept. 18.

U.S. gas is being produced at record levels thanks to the shale revolution, and the booming demand for LNG in Asian markets, China in particular, should mean massive business for U.S. gas exporters. But Varro pointed to threats to export capacity due to global trade tensions — especially between China and the U.S. — and a lack of sufficient investment in export terminals. "If there is no export infrastructure development, then a large amount of American gas will simply stay in the ground."

"Because the domestic energy system is not going to be able to absorb that much gas domestically, if there are no export projects then American gas prices will have to go down to a very low level to shut production down," Varro said. Nonetheless, he is

optimistic that global trade will return to normal. "Our basic assumption is that international trade of LNG will continue," he said. "And investors very much hope that the trade policy decisions will support this."

Natural gas demand to continue growing in China after oil peaks

(Reuters; Sept. 17) - China's diesel demand has peaked and gasoline will peak in 2025, while natural gas demand will increase over the next two decades to feed a massive coal-to-gas switching campaign, according to a forecast released Sept. 18 by a research arm of a state energy group. The research unit of China National Petroleum Corp. said China's oil demand will top out at about 13.8 million barrels per day by 2030.

Demand for diesel is waning amid moderating economic growth and tighter environmental scrutiny, while gasoline demand is capped by slowing growth in private car sales and the rise of electric and natural gas-fueled vehicles. One of the government's recent plans is to replace a million heavy-duty diesel trucks, almost 20 percent of the national fleet, with ones that burn cleaner fuels such as natural gas and lower-sulfur diesel, as Beijing ramps up its war on pollution.

The country's annual natural gas demand will reach almost 22 trillion cubic feet by 2035, CNPC said. That represents 160 percent growth from the 2017 consumption level of 8 tcf. Domestic gas production is expected to reach 10.5 tcf a year by 2035, the forecast said, more than doubling from last year. Imports will cover the rest with liquefied natural gas and pipeline gas deliveries.

Long-term LNG contracts could make a comeback

(Bloomberg; Sept. 18) - Developers of multibillion-dollar liquefied natural gas export terminals from the U.S. to Australia can breathe easier: A supply boom hasn't killed the long-term contracts that underpin the projects. Cheniere Energy, the first and biggest shipper of U.S. shale gas, has struck a 15-year deal to sell LNG to commodities trader Vitol Group. The pact is Cheniere's fifth this year. Venture Global LNG, which is developing a terminal in Louisiana, has finalized four such contracts over that period.

The deals signal better odds for more than a dozen North American gas export proposals vying for similar commitments that are needed to secure financing. The global supply glut had stoked concern that buyers would seek shorter pacts, and most of the LNG contracts signed in 2017 were for two to five years, data from Poten & Partners show. "We still need long-term contracts to launch projects," Mike Sabel, co-CEO and founder of Venture Global, said at the Gastech conference in Barcelona on Sept. 18.

"The increase in sales-and-purchase agreements is remarkable," said Kristy Kramer, head of Americas gas research at Wood Mackenzie. Traders, including Vitol, are trying to lock in long-term supplies of gas as power plants burn more of it and as demand increases from buyers like China, the world's fastest-growing LNG importer. Genevabased Vitol, the biggest independent oil trader, now handles about 10 million tonnes of LNG a year, and the Cheniere deal was its first long-term pact to buy the fuel.

Cheniere signs 15-year LNG supply deal with major commodity trader

(Reuters; Sept. 17) - U.S.-based Cheniere Energy said Sept. 17 it has signed a 15-year agreement to supply liquefied natural gas to the world's largest oil trader, Vitol Group, which has been steadily ramping up its presence in the LNG market. The move by Vitol is part of a long-term objective shared by many major commodity traders to increase their traded gas volumes as emerging markets seek cleaner fuels for power generation.

China in particular has soaked up what many analysts expected to be a significant LNG glut this year as it replaces some of its coal furnaces with gas-fueled ones. Part of the drive for traders is that the LNG market is becoming increasingly liquid with more spot deals, presenting arbitrage opportunities and supply imbalances that traders thrive on. Cheniere said it will sell 700,000 tonnes per year to Vitol, starting in 2018 with the price pegged to the U.S. Henry Hub gas benchmark monthly average, plus a liquefaction fee.

Last year Vitol's LNG traded volumes tripled to 7.4 million tonnes, up from 2.6 million tonnes in 2016. The United States has become a major LNG exporter in the past two years, mostly due to the ramp-up of Cheniere's Sabine Pass terminal in Louisiana. Houston-based Cheniere also is building the Corpus Christi terminal in Texas. Earlier this year, Cheniere signed a similar agreement with Trafigura, a major Swiss-based commodities trader, for 1 million tonnes per year of LNG.

LNG market changes with more suppliers, more buyers

(Reuters; Sept. 17) - Global trade volumes for liquefied natural gas could double in the coming years, Vitol's chief executive said after the commodity merchant announced a long-term deal to buy LNG from U.S. supplier Cheniere Energy. "We have 300 million tonnes of LNG traded this year. That figure could easily double in coming years," Vitol CEO Russell Hardy said Sept. 17 during an industry event in Barcelona.

He said demand would come from "countries that currently don't import gas, but which will soon." The number of nations buying LNG has risen to 42 from 30 in the past three years, with several more in Asia and Africa expected. Global demand has been rising together with new production capacity, especially in the U.S. Beyond the newcomers, China's demand surge from its huge coal-to-gas switching program will push volumes.

China's LNG imports have risen over 40 percent this year. Zou Caineng, vice president for petroleum exploration and development at PetroChina's Research Institute, said China's gas demand was almost 8.5 trillion cubic feet last year, and will be more than 18 tcf by 2030, with 40 percent of that demand met by LNG and pipeline gas imports.

With so many new importers coming to market, ExxonMobil said trade volatility will rise. "We are seeing the (LNG) world being reordered," Peter Clarke, president of ExxonMobil Gas and Power Marketing, said at Gastech in Barcelona. "Spot trading has come in. There are more buyers and sellers than ever before. ... For an industry that has relied on stability (of fixed long-term contracts), the watchword is volatility."

Despite LNG demand projections, investment decisions are slow

(Reuters columnist; Sept. 19) - Bullish, as a word, doesn't quite capture the stampede of optimism that was gushing out from the natural gas industry at its biggest annual event this week in Barcelona. "The demand is there," said Saad Sherida Al-Kaabi, CEO of Qatar Petroleum, the world's largest producer of liquefied natural gas, in confirming that his country was on track to lift its annual output to 100 million tonnes of the fuel by 2023.

Al-Kaabi's remarks were among the more measured at the Gastech conference, with some executives making predictions that the market for LNG, currently around 300 million tonnes a year, will more than double by 2025. Multiple speakers offered various versions of the view that gas is no longer merely a transition fuel from coal and crude oil to renewables — it is now a major part of world's energy mix for the long term.

But in stark contrast to the swathes of optimism, there was little talk of when the next round of major LNG projects will reach final investment decisions. If the denizens of the gas industry truly believe in the forecasts of rapid and strong growth in LNG demand, it would be logical to expect a round of project approvals. Instead, progress toward FIDs appears glacial. The LNG world has been changing at a rapid pace and the traditional methods of developing large projects appear unlikely to work. Buyers are signing more short-term deals, which makes financing — and investment decisions — harder.

Yamal to start up third LNG unit before end of the year

(S&P Global Platts; Sept. 18) - Russia's Novatek is set to start exporting liquefied natural gas from its third production train at the Yamal LNG project by the end of 2018, CEO Leonid Mikhelson said Sept. 17. All of the Yamal units are coming online ahead of schedule with guidance previously stating that the third train would not begin commercial operations until the start of 2019. Each of the three liquefaction trains has capacity to produce 5.5 million tonnes per year; the first started up last December.

Speaking on the sidelines of the Gastech conference in Barcelona, Mikhelson said Novatek would review in the next few years its strategy to reach 57 million tonnes per year of LNG production capacity by 2030. He also said he expected some 80 percent of Novatek's future LNG production would serve the Asian market. And he said the company is close to making final investment decision on another LNG plant — Arctic LNG-2 — which would have a production capacity of 19.8 million tonnes per year.

"We expect to take FID (final investment decision) in the middle of next year, and definitely before the end of the year," Mikhelson said. Novatek has yet to finalize the partnership structure for Arctic LNG-2, and Mikhelson said ownership would be set after completion of front-end engineering and design work next year. "We have decided to keep 60 percent for ourselves — that is the current plan — having already sold 10 percent to Total," he said. "We are negotiating with a number of other companies," he said, including Saudi Aramco and China National Petroleum Corp.

LNG construction contractors look for ways to cut costs

(S&P Global Platts; Sept. 19) - Contractors on liquefied natural gas projects are taking a fresh look at how to stick to the budget and schedule. One major player, McDermott International, which is helping build the Cameron LNG export terminal in Louisiana and the Freeport LNG project in Texas, believes that improving its strategic approach on the front end when bidding for a contract will improve execution on the back end, CEO David Dickson said in an interview Sept. 18 at the Gastech conference in Barcelona.

"Our focus and priority was really to standardize every bit," Dickson said. "The second part is having the discipline to walk away." One example was its recent decision not to move forward at this time with accepting an engineering, procurement and construction contract to build NextDecade's proposed Rio Grande LNG export terminal in Texas. Discussions over the price to build the facility were a key part of McDermott's decision.

NextDecade is seeking competitive bids for an engineering, procurement and construction contractor. McDermott is still interested in the project and is talking to NextDecade about the possibility of changing the developer's stick-built design plan to instead use a modularization approach, which would involve fabricating the liquefaction units elsewhere and moving them to the site in an effort to reduce costs. Competition among new projects, especially in the U.S., has made getting construction costs right all the more important. The negotiations will affect decisions of how to finance the projects.

Another proposed LNG project joins growing list on U.S. Gulf Coast

(S&P Global Platts; Sept. 17) - The recently formed Pointe LNG on Sept. 14 asked the Federal Energy Regulatory Commission for permission to enter the pre-filing process for a natural gas liquefaction plant and LNG export terminal on the eastern banks of the Mississippi River in southern Louisiana. The project, with a proposed in-service date of 2025, would include three liquefaction trains, each with capacity of 2 million tonnes per year. It joins a dozen other proposed LNG export terminals on the U.S. Gulf Coast, which would be in addition to the three under construction and one in operation.

The project developers are in talks with potential LNG customers and have secured "non-binding letters of intent from certain Asian entities" for one-third of the project's capacity, Jim Lindsay, co-founder of Pointe LNG, said Sept. 17. The developers are also in talks with private investors and potential LNG customers to secure financing to build the terminal, which is estimated to cost around \$3.2 billion.

Gulf Coast LNG terminals will have to contend with pipeline capacity

(S&P Global Platts; Sept. 19) - North American shale gas is cheap and abundant, factors that have fixed the world's attention on the continent to take a large share of the LNG export market. But there are challenges: Pressure for new pricing mechanisms, flexible terms, and the potential of greater difficulty accessing feed gas. The dozen or so U.S. projects expected to provide the next wave of new supply have a lot to consider, analysts, developers, and market watchers said Sept. 19 at the Gastech event in Spain.

The U.S. Gulf Coast is expected to get more crowded after 2020, with at least four LNG export terminals in operation and more planned. Pipeline capacity needed to deliver all that gas will be harder to come by, said Kristy Kramer, Wood Mackenzie's head of Americas gas research. LNG developers have sought to address the feed gas access issue by proposing to build new pipelines. Others are seeking to tap into increasing associated gas production in the Permian that spans parts of Texas and New Mexico.

Tellurian, owner of the proposed Driftwood LNG terminal in Louisiana, has gone beyond plans to build new pipelines. It bought its own acreage in the nearby Haynesville shale and plans to drill for its own feed gas, in hopes of ensuring steady access to supply. In the tolling model that many U.S. LNG projects have chosen, the buyer of the plant's liquefaction capacity is responsible for buying the gas and getting it piped to the terminal — though Cheniere Energy runs a full-service operation at its Sabine Pass, Louisiana, terminal and plans the same when its Corpus Christi, Texas, plant opens late this year.

Colorado opponents organize against LNG project in Oregon

(The Daily Sentinel; Grand Junction, CO; Sept. 16) - Organized opposition is starting to take hold among Colorado oil and gas activists to the proposed Jordan Cove liquefied natural gas export project in Oregon, with those activists joining forces with project opponents in the Pacific Northwest. Paonia, Colorado, resident Pete Kolbenschlag is playing a leading role in creating the group called Jordan Cove: Rocky Mountains to Pacific Coast, Community Resistance from Extraction to Export.

"I think people feel like this is an opportunity to be part of the dialogue because a lot of the conversation in Colorado has been more about boosterism," Kolbenschlag said. The LNG project has considerable support in Colorado as an outlet for the state's growing gas production, creating more jobs and tax revenues. What organized opposition to Jordan Cove LNG has existed to date has been based in Oregon, where opponents worry about impacts to fisheries and to landowners along a proposed pipeline route.

The western Colorado opposition effort will kick off with a rally Sept. 16. Kolbenschlag said oil and gas activists in western Colorado typically have been involved in individual, localized battles, whether they involve federal oil and gas leasing or drilling. He said the new organization will help look at a bigger-picture story of what Jordan Cove would mean for upstream communities where gas development would occur and downstream in Oregon where the pipeline and LNG export terminal would be built.

Canada's service industry looks for boost from LNG project

(Bloomberg; Sept. 19) - After years of suffering through plunging energy prices and declining spending by oil sands behemoths, Canada's oil field service industry is finally seeing a light on the horizon. Companies that do everything from drilling wells to building work camps are pinning their hopes on a potential C\$40 billion liquefied natural gas export project on British Columbia's Pacific Coast. LNG Canada, the Shell-led group behind the plant, may decide whether to build the project in the coming weeks.

The LNG terminal would be a boost for an industry that was hit hard by the 2014-2016 downturn in oil and gas prices — and still hasn't recovered. The project would need new pipelines and gas wells, bringing scores of workers and tons of equipment off the sidelines. "To see some sort of major infrastructure investment go forward would be pretty positive, both from an investment and an economics and an employment perspective," said Scott Matson, chief financial officer of Horizon North Logistics.

Matson's company, a Calgary-based provider of work camps and temporary housing, suffered as the oil crash derailed an investment boom that required accommodations for thousands of workers near northern Alberta's remote oil sands deposits. The company has weathered the downturn by cutting costs, trimming its workforce and diversifying

into modular building. Another opportunity for service firms is that once the LNG facility is built, the partners will need to increase natural gas production to feed the plant.

Inadequate roads threaten growth in Permian Basin

(Bloomberg; Sept. 18) - For an oilman who has worked on the Gulf Coast, near Russia's Arctic, and in Shell's headquarters in The Hague, being stuck in West Texas traffic is not the stuff of dreams. Amir Gerges, general manager of Shell's operations in the Permian Basin, has crawled just four miles in the past hour in his SUV. "That's probably a truck that rolled over that's causing this," Gerges said, speaking from weary experience.

It turns out, it's just routine work on Highway 302, an 83-mile-long, often single-lane road that runs from Odessa, home to oil field servicers, to Loving County, in the western part of the Permian. It's a stretch that saw traffic jump 76 percent in 2017, continuing to rise this year. The delay proves a point: Roads, Gerges said, not pipelines, geology or labor shortages, are the biggest long-term threat to growth in the Permian, the world's busiest shale oil field. "Almost everything you need at the wellhead is transported by road," Gerges said. "That's the one biggest challenge ... everyone faces."

In West Texas the biggest problem with building more roads is not the cost of the materials, but a lack of available workers and affordable housing. It's tough to match the high pay offered in the oil fields. "We lose employees to the oil field all the time because they pay more," said John Speed, the local district engineer for the Texas Department of Transportation. "Housing is a huge issue. Rents have jumped 30 percent in each of the last two years. There's a year-long waiting list for newbuilds."

Booming ethane production has brought billions to Gulf Coast

(Houston Chronicle; Sept. 17) - Accompanying the natural gas coming up from the Haynesville Shale is another, more complex molecule, containing two atoms of carbon each attached to three atoms of hydrogen. That molecule is transforming the Gulf Coast economy and reshaping global markets. Known as ethane, it's the catalyst for the petrochemical boom that has attracted tens of billions of dollars of investment, created tens of thousands of construction and manufacturing jobs, expanded exports, and fed the growing demand for consumer goods in China, India, and other developing nations.

The impact of ethane is perhaps the most remarkable development in the story of the shale revolution. Less than three years ago, ethane was a largely unwanted byproduct of oil and gas drilling, much of it burned away in the natural gas stream flowing to power plants, businesses and homes, or flared off at well sites. But today ethane is feedstock

for nearly half of U.S. plastics production and a valuable export to chemical companies around the world.

As ethane flows from Texas shale fields, chemical and energy companies are building and expanding plants to take advantage of the cheap, plentiful raw material, plowing more than \$140 billion into the Gulf Coast alone. "It's absolutely extraordinary this is happening in the U.S.," said Neil Chapman, ExxonMobil senior vice president. "I can assure you nobody predicted this in 2000 or even 2005." U.S. ethane output is projected to hit 2 million barrels a day by 2020, double the peak of the last drilling boom in 2014.

Germany plans LNG import terminal as 'gesture' to U.S.

(Reuters; Sept. 18) - Germany will chose where to build a new liquefied natural gas import terminal by year end's in what its economy minister on Sept. 18 called a "gesture" to the United States. In a bid to urge President Donald Trump to forgo hefty new trade tariffs on European Union imports, the bloc's chief executive promised in July to work to increase imports of U.S. soybeans and LNG to the bloc.

Trump wants U.S. LNG to rival Russian gas exports in Europe. He has accused Germany of being a "captive" of Moscow, calling for it to drop support for the \$11 billion Nord Stream 2 pipeline to pump gas directly from Russia under the Baltic Sea to its shores. "This is a gesture to our American friends," Peter Altmaier said of plans for where to build the LNG terminal. "We have three competing cities and we will take a decision before the end of the year."

He said the move was unrelated to Germany's support for Nord Stream 2, casting the pipeline as a commercial project that had been decided long ago. Meanwhile, German firms are considering building an LNG import terminal as gas demand rises in Europe as the Netherlands, one of Germany's crucial suppliers, is winding down production from its giant Groningen gas field and plans to close it in 2030.