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Several big players interested in second Russian Arctic LNG project

(Financial Times columnist; London; Aug. 1) - What a difference four years makes. Back in 2014, when U.S. sanctions were imposed upon Novatek, the Russian gas producer's hugely ambitious plan to build a US\$27 billion liquefied natural gas plant above the Arctic Circle became a project nobody wanted to touch. Today, eight months after Yamal LNG shipped its first cargo, some of the world's biggest energy companies are battling each other for the right to buy a stake in Novatek's next Arctic gas venture.

Perhaps no other business venture better illustrates Russia's resilience in the face of international sanctions than Yamal, which was rescued by Chinese financing, delivered ahead of time and on budget, and relied on domestically developed technology. But its prospects at one point looked bleak. Novatek spent 2014-2015 failing to drum up financing, as U.S. and European banks balked at the company's sanctioned status. Then in April 2016, a \$12 billion loan from Chinese state lenders came to the rescue.

As a result, there are no such troubles for Arctic LNG-2, a second project Novatek is developing on an adjacent peninsula. Novatek now has a choice of whose money to take. French energy major Total agreed to buy a 10 percent stake in the \$25.5 billion venture in June. Novatek has signed a memorandum of understanding with Korea Gas expressing "mutual interest for KOGAS to enter into the Arctic LNG-2 project." Talks also are underway with Saudi Arabia's Aramco, China National Petroleum Co., and Japan's Marubeni Corp. A final investment decision is expected mid-2019.

China responds to Trump's threat by proposing tariff on U.S. LNG

(Bloomberg; Aug. 3) - China is proposing a 25 percent tariff on imports of U.S. liquefied natural gas as retaliation for the Trump administration's latest threat to impose levies on the Asian giant, a major blow to an emerging American business. It's the first time LNG has been ensnared by the expanding trade war, which comes as Russia plans to begin sending gas to China via the 2,500-mile Power of Siberia line by the end of 2019. LNG exports have provided a key outlet for U.S. shale gas growing at a record clip this year.

Billions of U.S. dollars may hang in the balance. U.S. Gulf Coast project developers Cheniere, Tellurian and others have been courting utilities and state-backed companies in China to justify construction of more terminals to ship the super-chilled form of natural gas. "At least in the short term any Chinese buyer looking for long-term supply would

have to drag their feet on signing a U.S. contract," Jason Feer, head of business intelligence at Poten & Partners in Houston, said by telephone.

China took 13 percent of the exports from Cheniere's Sabine Pass, La., terminal as of mid-June. Cheniere recently approved an expansion of its still-under-construction Texas export terminal, thanks in part to a deal it signed with China National Petroleum Corp., according to a company statement. China has emerged as the world's biggest gas importer, topping Japan, as it aggressively moves to cut its use of smog-inducing coal.

Assuming the tariffs take effect "this is a pretty dramatic move," said David Lang, global head of LNG at law firm Baker & McKenzie. It could hit the next wave of U.S. projects, with a "real impact on prospective deals," he said. "It certainly adds to the risk of delay."

Chinese tariffs on U.S. LNG 'would have very real effects'

(Financial Times; London; Aug. 3) - China said Aug. 3 it will impose new tariffs on \$60 billion worth of imports from the U.S., including aircraft and liquefied natural gas, in a response to President Trump's latest threat to raise U.S. levies on Chinese goods. It's the latest salvo in the growing trade battle between the world's two biggest economies.

Beijing's threat signals that the dispute with the U.S., which has unsettled markets and started to disrupt crucial global supply chains, is likely to continue escalating in the months to come. Low-level talks have yet to agree on even the contours of further negotiations, with both sides showing no sign of backing down. This week's moves amount to a further slip toward the worst-case scenario of an all-out trade war which the International Monetary Fund and others have warned could derail global growth.

The threat of Chinese tariffs on imports of U.S. LNG is a potentially serious blow to the hopes of companies looking to build projects in Louisiana, Texas, and Alaska. China is already the world's second-largest LNG importer and is expected to be by far the largest source of demand growth in the next decade and beyond. "Should these tariffs remain, China will source the LNG from other suppliers eager to fill the gap," said Charlie Riedl of the Center for LNG, which represents the U.S. industry. "This would be a tremendous missed opportunity and would have very real effects on the U.S. LNG industry."

Analysts warn Chinese tariff on U.S. LNG could have consequences

(Houston Chronicle; Aug. 3) – China's proposal of a 25 percent tariff on imports of U.S. liquefied natural gas could hinder an emerging industry that is attracting billions of dollars in investment to the Gulf Coast. Giles Farrer, research director for global gas

and LNG supply for research firm Wood Mackenzie, said such tariffs could render U.S. LNG "the marginal supply source into China" and restrict the market for developers seeking long-term contracts as they build projects on the Gulf Coast and elsewhere. "Long-term market consequences are likely to be felt on new supply developments."

Warren Patterson, commodity strategist for ING Bank, said he was "quite surprised" to see LNG show up on China's list. "Given the transition we are seeing in China, with a move away from coal toward natural gas, I would have thought that the government would have wanted to ensure adequate supply," Patterson said in an email.

New rules would open up access to China's pipelines, LNG terminals

(Reuters; Aug. 3) - China's state planner issued new draft rules on Aug. 3 to give private companies access to the country's oil and gas infrastructure, including oil pipelines, gas pipelines, liquefied natural gas terminals and underground gas storage. The new draft rules followed requests from the country's energy operators, especially in natural gas, for equal access to the nation's gas pipeline network, the National Development and Reform Commission said.

The draft marks the first time the government has published a concrete plan to promote fair access to gas-related facilities, including LNG terminals and storage. It is Beijing's latest move in its ongoing reform of the oil and gas sector to keep it from being monopolized by state companies. The commission also proposed adopting Btu as the standard measurement of gas instead of tonnes, saying it's an easier way to calculate gas transportation costs.

Companies such as refiners, oil and gas producers, trading companies and utilities are encouraged to sign term contracts with pipeline operators to increase the utilization rate of the network grid, the statement said.

Nigeria LNG awards engineering contract for plant expansion

(Kallanish Energy; Aug. 2) – Houston-based KBR said Aug. 1 it has been awarded a contract to provide front-end engineering and design services for expansion of Nigeria's LNG plant. No contract value was revealed. KBR and its partners will provide the basic design package and engineering, procurement and construction bid documents for expanding the plant. Construction of Train 7 is under consideration by joint-venture partners Shell, Total, Eni, and Nigerian National Petroleum Corp.

"Hopefully, late this year or next year, we will sanction the expansion," Shell CEO Ben van Beurden's said in last week's earnings call. The liquefaction plant at Bonny Island has six processing units with total capacity of 22 million tonnes per year and up to 5

million tonnes per year of natural gas liquids (about 150,000 barrels a day). The first train started operations in 1999. KBR and partners delivered the six trains currently in operation in Nigeria. The country last year was the world's fourth-largest LNG exporter.

Yamal LNG makes it to the Bering Strait in under 8 days

(LNG Industry; Aug. 2) – The Christophe de Margerie, the ice-breaking LNG carrier owned and operated by Russia's Sovcomflot, has crossed the Northern Sea Route in record time for a merchant ship without icebreaker support during the month of July. The ship traveled 2,360 nautical miles eastward, from the port of Sabetta (Yamal Peninsula) to Cape Dezhnev (the Bering Strait), in seven days and 17 hours. It navigated without any icebreaker support, at an average speed of 12.8 knots.

The 984-foot-long ship set the record while carrying a cargo of liquefied natural gas from the Yamal LNG plant at Sabetta to the port of Tangshan, China. On July 31, the vessel successfully berthed at the destination port, taking 18.5 days to travel from Sabetta to China. The Christophe de Margerie is the first in a series of 15 ice-breaking LNG carriers ordered for the US\$27 billion Yamal LNG project to transport gas year-round in the challenging ice of the Kara Sea and Gulf of Ob.

The world's first ice-breaking LNG carrier can sail unassisted along the Northern Sea Route year-round, and eastward for six months of the year (from July to December). Previously, the summer navigation window in the eastern area of the Northern Sea Route was limited to only four months with icebreaker support. Yamal LNG started production in December, shipping its cargoes eastward to Europe and elsewhere until sea ice opened for summer travel westward, offering a direct route to China.

Sinopec will expand LNG import terminal in Qingdao

(Reuters; Aug. 2) - Sinopec's plan to expand its liquefied natural gas terminal in east China's Shandong province has won a green light from the provincial government, the state energy firm said Aug. 2. The terminal, in the port city of Qingdao, will add two storage tanks, each capable of holding more than 3 billion cubic feet of natural gas as LNG. The expanded terminal will have capacity to move more than 330 bcf of gas per year, the company said. Sinopec did not give a timeline for the expansion, but local media last year reported construction could take three years.

Sinopec, a latecomer to the LNG business among state-run oil and gas firms, started operating the first phase of the Qingdao terminal at end-2014, with annual capacity of just under 150 bcf of gas.

Sinopec's announcement comes a day after China National Offshore Oil Corp. reported its ninth liquefied natural gas terminal would be ready to accept cargoes this winter. The import terminal in Shenzhen in South China's Guangdong province is designed to supply about 600 million cubic feet of gas a day to North China this winter, CNOOC said Aug. 1. The company already has started construction of its 10th import terminal.

Beijing gas distributor wants to get into gas trading business

(Reuters; Aug. 2) - Beijing Gas Group's Chairwoman Li Yalan is guiding the Chinese capital city's natural gas distributor into the highly competitive world of gas trading. Li became one of the few women to head a major energy company after taking the helm in 2014. She currently leads a company that distributes 565 billion cubic feet of gas a year. Under her tutelage, the firm, part of Beijing Enterprise Holdings, plans to move beyond gas distribution into gas trading by procuring supplies it can sell to Chinese endusers.

The company last year completed a \$1.1 billion purchase of a 20 percent stake in an East Siberian gas field owned by Russia's Rosneft. "If we remain only as a city gas distributor, we'll have limits in securing supplies," said Li, 56. As part of its foray into gas trading, Beijing Gas is planning to construct a liquefied natural gas receiving terminal near the city of Tianjin, an official from the Tianjin government confirmed. The project would include a 188-mile pipeline connecting the terminal to Beijing, the official said.

The first phase of the terminal is slated to start in 2021, pending regulatory approval. The cost is expected to exceed 10 billion yuan (US\$1.5 billion). Investments in the Rosneft field and shale gas assets in southwestern China, along with the LNG import terminal, help Beijing Gas stand out from other municipalities that have focused on pipelines and local markets. The growth that Li is seeking for Beijing Gas directly stems from the Chinese government's mandated switch to cleaner-burning gas from coal for residential heating and industrial fuel as part of its fight against air pollution.

U.S. exports of coal grow to fuel overseas power plants

(Bloomberg; Aug. 2) - U.S. exports of coal used by power stations are set to hit a record this year on increased global demand for the high-energy-content fuel. Steam-coal shipments will probably jump 58 percent to 58 million tonnes this year, according to Guillaume Perret, founder of Perret Associates, a London-based research company. He expects exports to reach 65 million tonnes by 2025.

"Historically, exports of U.S. coal have been handicapped by its high-sulfur content," Perret said. "However, we think this will gradually be offset by its high-calorific value,

which is becoming increasingly scarce worldwide." Perret anticipates a further diversification of U.S. coal exports away from western Europe toward other markets including northeast Asia. The biggest buyer of U.S. coal in the first quarter was India, where coal-fired plants help generate about three-quarters of the country's electricity.

Challenge could delay pipeline to Shell's LNG Canada project

(Vancouver Sun; Aug. 2) - A British Columbia resident has launched a jurisdictional legal challenge of a natural gas pipeline that would supply Shell's proposed C\$40 billion LNG Canada project in Kitimat, B.C. Michael Sawyer, who spent two decades as an environmental consultant in the oil-and-gas sector in Alberta, argues that TransCanada's \$4.7 billion, 415-mile Coastal GasLink pipeline should have faced a federal environmental review instead of a provincial one.

The National Energy Board rejected a similar challenge by Sawyer against another gas pipeline, TransCanada's Prince Rupert Gas Transmission. But in a major legal win last year, the Federal Court of Appeal ruled the NEB had erred and must consider if the line fell under federal jurisdiction. It did not affect the pipeline, however, as the LNG project it was to serve in Prince Rupert, B.C., was canceled. In the new case Sawyer has filed an application to the NEB to review the environmental jurisdiction over Coastal GasLink.

If Sawyer is successful, the NEB would hold a hearing to determine if a federal review of the project is required, potentially delaying construction if LNG Canada goes ahead. Sawyer believes a federal review would be more robust than a provincial review. He said he is not outright opposed to LNG, but the public interest needs to be proven. Donors to his case include B.C.-based West Coast Environmental Law. Sawyer's challenge comes as Shell is expected to make its investment decision on the project this year. Its partners include PetroChina, Petronas, Korea Gas, and Mitsubishi.

Micro-LNG plants could provide fuel, save money for shale drillers

(Bloomberg; Aug. 2) - It's called micro-LNG, and the concept is simple. By supercooling gas into a liquid, they can pack more of it into a tanker truck, which may help the Permian deal with its growing gas excess. Trucking liquefied natural gas lets explorers power drilling operations with a fuel that's abundant, accessible, and cheap, saving them as much as 30 percent versus diesel. As many as five trucks, each with 9,500 gallons of LNG, already trek as many as 400 miles a day on deliveries in Colorado shale country.

Next in line may be the Permian Basin in West Texas and New Mexico, where filled-to-capacity pipelines threaten to curtail drilling for both oil and its byproduct, natural gas. Siemens and Baker Hughes are now in talks to build multiple small LNG production

plants in U.S. shale centers, seeking to create a new outlet for gas at a time when drillers are urging regulators to let them burn it because they can't get it to market. Siemens started working on micro-LNG four years ago. The small production plants would produce 30,000 gallons a day, equal to 2.5 million cubic feet of natural gas.

"A lot of creative work is going on to lower the wastage and environmental footprint that gas has in the absence of pipeline delivery," said Ramanan Krishnamoorti, chief energy officer at the University of Houston. Producers, pipeline owners and service companies are looking to put gas to work to not only eat into that excess supply but to cut costs and reduce methane emissions. The economics increasingly favor micro-LNG. There are spots in the Permian where the price of gas is negative, so producers are actually paying to "evacuate" gas, said Pablo Avogadri, global LNG leader at Baker Hughes.

U.S. gas storage inventory 20% below 5-year average

(Wall Street Journal; Aug. 1) - The first week of August seems like an odd time to fret about a frigid winter, but perhaps not for people who buy, sell and store natural gas. The U.S. Energy Information Administration's weekly report Aug. 2 said the amount of gas in underground storage is at around 2.3 trillion cubic feet and should keep rising for the next three months. Yet that cushion stands 24 percent below where it was at this time last year and 20 percent below the five-year average.

Futures prices don't reflect any scarcity of the fuel, being exactly where they were a year ago — \$3 per million Btu, or less. Maybe the main reason traders are so sanguine is that the U.S. has been in a gas glut the past decade. But what seems like ample supply could set the market up for panicky winter buying. The last time that happened was in 2013-2014. Between the first day of that heating season and the peak in mid-February, Henry Hub gas futures surged 75 percent to a peak of \$6.15 per million Btu.

In that season, gas in underground storage dropped by nearly 3 trillion cubic feet between November and April after starting out on the low side. If the rest of this summer and fall resemble last year, then the starting level of storage for the upcoming heating season will be nearly identical to what it was in November 2013. Production is higher today, but so is underlying demand. Years of cheap and plentiful gas and tougher environmental regulations have continued to displace coal as a generation fuel.

Canadian heavy oil trading at \$30 discount to U.S. crude

(Bloomberg; Aug. 3) - Canadian heavy oil is the weakest in almost five years, leading Canada's largest producer to focus on drilling for lighter crude. Western Canadian Select's discount to benchmark West Texas Intermediate widened \$1.30 to \$30.80 a barrel Aug. 2, the biggest gap since December 2013, data from Bloomberg show. With

the U.S. WTI benchmark trading at around \$69 a barrel, Canadian heavy oil was fetching just \$39 a barrel as its prices have tumbled amid constraints on pipeline and rail capacity out of Western Canada.

Prices came under pressure in July as the shutdown of the Syncrude oil sands upgrader increased the supply of heavy crude in search of a way out of Alberta. Enbridge apportioned 47 percent of space on its heavy-oil lines in August, little changed from July. Canadian rail companies, while increasing crude exports to a record of almost 200,000 barrels a day in May, have nonetheless lagged in ramping up the transport of excess production.

With the exception of a few companies that can use more conventional means to drill for bitumen, few oil sands producers can cost-effectively curtail production because so much of their costs are largely fixed, Kevin Birn, a director on the North American crude oil markets team at IHS Markit, said in a phone interview.