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Shift to short-term contracts makes it hard on LNG project developers

(Financial Times; London; Oct. 5) - "Gas is a tough market," said Robin West, of the Boston Consulting Group. "The whole business is in a race to the bottom to get costs down." At this week's North American Gas Forum in Washington, D.C., would-be LNG exporters were hopeful that they could find buyers. With steady demand growth, and new supply set to level off, the market could well tighten in the early to mid-2020s.

Given that it takes about four years to construct an LNG plant, customers will have to start signing contracts in 2018-19 if they want developers to build and provide LNG for when supplies become scarcer. One problem is that the business had been based on 20-year contracts with buyers in Asia and Europe, with guaranteed revenues, enabling developers to finance their projects. In 2012-14, when exports to Japan were selling at above \$18 per million Btu, buyers were prepared to make generous commitments so that projects could get off the ground. Today, they are much less accommodating.

For decades, sales were point-to-point between specific sellers and buyers. But as supply grew, sales have become more flexible. In 2000, only 5 percent of the world's LNG was sold on spot or short-term contracts. By last year, that was up to 28 percent, according to the International Gas Union. Today's markets are "idyllic for most large LNG buyers," said Christopher Goncalves, chair of energy consulting at Berkeley Research Group. "With attractive prices available in the short- and mid-term markets right now, they have not had much incentive to return to the long-term contract."

In 2016, there were 13 LNG sales contracts for 15 years or more. This year so far there have been just five, and not one with a term of 20 years or more.

Tokyo Gas may boost short-term and spot-market buys

(Reuters; Oct. 5) - Tokyo Gas, Japan's biggest city gas supplier, will not accept new contracts for long-term purchases of liquefied natural gas that contain clauses that restrict where the gas can be sold, the company's president said Oct. 5. "We have no intention of signing new contracts unless the destinations are free," Tokyo Gas President Michiaki Hirose said during a briefing on its mid-term business plans.

Hirose's comments follow the decision by Japan's Fair Trade Commission that the socalled destination clauses that restrict the resale of LNG cargoes are anti-competitive. Since the ruling, Japan's gas importers have been pushing to either revise their contracts or have vowed not to sign new contracts containing the clauses. Tokyo Gas is in talks to renew its supply contracts and will wave the trade commission ruling at sellers during its negotiations like the old Imperial flag, Hirose said.

The company is Japan's second-biggest LNG importer, taking in 14 million tonnes per year, after JERA Co., the LNG buying joint-venture of Tokyo Electric and Chubu Electric. Tokyo Gas is also considering raising its share of LNG purchased under short-term contracts or in the spot market to 20 percent to 30 percent of its demand from a small amount currently to better respond to market volatility, Hirose said. Meanwhile, Tokyo Gas may triple its power generation capacity to 5 gigawatts in the 2020s to meet rising power sales, he said. It currently has power generation capacity of 1.6 GW.

China demand helps lift LNG prices, but higher costs have downside

(Reuters' columnist; Oct. 5) - The spot price of liquefied natural gas in Asia is enjoying its traditional surge ahead of peak winter demand, and the near 40 percent rally over the past six weeks probably has further to go. Much of the current boost to prices is due to stronger-than-expected Chinese demand, as Beijing expands use of the cleaner-burning fuel in place of coal for winter heating. And while exporters of the fuel can enjoy that, of more interest to them may be how steep the post-winter drop is likely to be.

The government is spending huge amounts to build out its gas infrastructure to change some 4 million homes from coal to gas heating. China's LNG imports for the first eight months of the year are up a massive 44.3 percent to 22.1 million tonnes, according to customs data. China still ranks third behind Japan and South Korea in global LNG imports, although it is the country with the fastest growth. Spot prices have responded to the increased demand from China, jumping 39 percent to end at \$8.40 per million Btu for the week to Sept. 29, up from a recent low of \$6.05 for the week ended Aug. 25.

The problem for LNG is that it may end up being a victim of its own success. One of the costs for China is that in expanding its gas network, it is likely to have to spend more to subsidize the fuel. If LNG costs continue to rise, it may cause China to slow its rapid deployment of gas infrastructure even though Beijing has made combating air pollution a top priority. It may end up being simpler to force industries that are heavy coal users to curb their output during the winter, a quicker and cheaper fix than switching to gas.

Russia wants to challenge world leaders in LNG production

(Bloomberg; Oct. 5) - Russia plans to take on the United States, Australia and other major suppliers in the race to dominate liquefied natural gas production. The nation has enough proposed LNG projects to challenge the world's top producers as it talks of boosting annual output sevenfold by 2035, Energy Minister Alexander Novak said by

email. His forecast for Russia's LNG capacity more than doubles an estimate published last month by Paris-based research group Cedigaz.

Russia, the world's largest pipeline gas exporter, has offered tax discounts to producers in its Arctic region as it seeks to increase its influence in the global LNG market. The tax breaks "will allow LNG produced in the Far East and at Yamal to compete with foreign fuel, even taking into account transportation costs from the Arctic," Novak said. Russia sees the projects "boosting its gas-export flexibility, attracting investment in the country and increasing its global LNG market share," he said.

"Competitiveness of LNG at this point of time is inferior to pipeline gas. Gradually, this will change," Russian President Vladimir Putin said in a panel discussion in Moscow. "We plan to increase supplies of LNG to the Asia-Pacific and to Western Europe." Russia's planned annual LNG capacity is 78 million tonnes by 2035, Novak said, rivaling world-leader Qatar. That's up from one plant producing 10 million tonnes on Sakhalin Island. A second plant, Yamal LNG, is scheduled to start up by the end of the year. All other Russian projects are proposals, with nothing under construction.

Chevron says Wheatstone will ship first LNG 'in the coming weeks'

(Reuters; Oct. 9) -Chevron said Oct. 9 it has started producing liquefied natural gas at its \$US34 billion Wheatstone project in Australia, slightly later than expected, and plans to ship its first cargo soon. The LNG market will be focused on how smoothly Wheatstone progresses following the troubled start-up at Chevron's bigger Gorgon LNG project. Both projects are fed from gas fields offshore the state of Western Australia.

"The first cargo is on track to be shipped in the coming weeks," Chevron said. It had originally hoped to start exporting from Wheatstone in middle of 2017. Wheatstone is the fifth of seven projects in a \$200 billion Australian LNG construction boom now in its final stretch. The remaining ones are Shell's Prelude floating LNG project and Ichthys, led by Japan's Inpex. This massive build-up, which has suffered numerous delays, has propelled Australia past Malaysia to become the world's second-biggest LNG exporter.

At full production, the two-train Wheatstone plant will have the capacity to make 8.9 million tonnes of LNG per year. Wheatstone is a joint-venture between Chevron, 64.14 percent; Kuwait Foreign Petroleum Exploration Co., 13.4 percent; Australia's Woodside, 13 percent; and Japanese partners at a combined 9.46 percent. Chevron expects the second unit to start up six to eight months after the first. Wheatstone could stall the recovery in Asian spot LNG prices, which have surged 55 percent since March to \$8.50 per million Btu on strong demand and the delayed ramp-up of Australian LNG exports.

Saudi Aramco CEO says stake in Russian LNG is possible

(Platts; Oct. 6) - Saudi Aramco is keen to expand its refining sector, trading operations and development of LNG projects with Russian companies, CEO Amin al-Nasser said Oct. 5 during Saudi King Salman's landmark visit to Moscow. Saudi Arabia and Russia signed 14 agreements for cooperation, including a memorandum of understanding between Saudi Aramco and Russia's major petrochemical company Sibur to establish a joint venture in the kingdom, another agreement with Gazprom Neft to explore research cooperation, and a deal to set up a \$1 billion energy investment fund.

On natural gas, which Nasser said would continue to become a greater proportion of the global energy mix due to its lower carbon emissions compared with coal, he told reporters that Saudi Aramco would be interested in purchasing liquefied natural gas from Russia, as well as taking a stake in Novatek's next LNG project, Arctic LNG-2, which the Russian company has proposed to build for the 2020s. Novatek's first LNG export project, Yamal LNG, is scheduled to start production by the end of the year.

While Aramco had previously focused on producing and processing gas within the kingdom, "we are opening the door to go internationally, and there is a partnership that can be evaluated between us and Russian companies," Nasser said. Saudi Aramco's refining capacity is 5 million barrels a day, with plans to boost it to 8 million to 10 million, integrated with petrochemicals, Nasser said. "It will involve a lot of work in Saudi Arabia. Russian companies can play a big role in terms of participation in these investments."

Australia on track to overtake Qatar as LNG leader in 2019

(Reuters; Oct. 6) - Australia expects to further increase its exports of liquefied natural by mid-2018 as \$180 billion in new projects fully hit their stride, nearly catching up with Qatar, the world's top supplier. Australia's LNG exports are forecast to reach to 74 million tonnes in the 2018-2019 fiscal from 63.8 million tonnes forecast this year and 52 million tonnes last year, the Department of Industry, Innovation and Science said Oct. 6. The world's top supplier, Qatar, last year shipped 77.6 million tonnes.

The rise in Australian exports will be underpinned by higher output at the Gorgon project, run by Chevron, as well as the planned completion of three remaining LNG projects: Chevron's Wheatstone, Inpex Corp.'s Ichthys and Shell's Prelude. Those three projects will add about 21 million tonnes to Australia's annual LNG export capacity, taking total capacity to 88 million tonnes when all are operating at full capacity in 2019.

Australia has made 'major mess' of its power prices

(Bloomberg; Oct. 5) - A bungled transition from coal to clean energy has left resourcerich Australia with an unwanted crown: the highest power prices in the world. A decade of political dithering and climate-policy missteps have set its patchwork power system adrift, ratcheting up manufacturing costs and hurting consumers with a doubling in electricity prices since last year and rising risks of blackouts. "It is not a bit of a mess, it is a major mess," said Sanjeev Gupta, the billionaire owner of a global metals company.

Natural gas was meant to bridge the electricity supply gap left by the shutdown of aging coal-fired stations and the gradual shift to solar and wind energy. But rising exports of liquefied natural gas to higher-paying overseas buyers created a local gas shortage in Australia. Prime Minister Malcolm Turnbull has threatened gas producers with export restrictions unless they plug the domestic shortfall. The government is also trying to convince power generators to patch up old and dilapidated coal-fired stations.

"It takes a while to cause a train wreck this bad," said Tony Wood, a director at the Grattan Institute, a Melbourne-based think tank. "It also takes a while for a government to think about how they get out of it." The largest power generators are urging Australia to ditch coal and join the renewables revolution. Turnbull, whose mansion is powered by solar panels, is reluctant to remove coal from the energy mix lest it boosts power costs further. Squabbling over climate policy has been a key contributor to political turmoil in Australia, which has changed prime ministers five times in the past decade.

China's clean-air push helps drive demand for LNG-fueled trucks

(Reuters; Oct.7) - On a recent morning in Yutian, a dusty town bisected by the highway that connects Beijing to the sea, Su Meiquan strolled into a dealership packed with big trucks and prepared to drive off with a new rig. After years of driving a diesel for a trucking company, he had decided to buy his own vehicle — a bright red rig fueled with liquefied natural gas, capable of hauling up to 40 tonnes of loads like steel or marble.

Su hopes the LNG truck — less polluting and cheaper to operate than diesel — will be the cornerstone of his own business, plying the route to the western fringes of China. "Everybody says gas is cleaner with nearly no emissions," he said after signing papers. Large LNG truck sales are expected to hit a record in China this year as the government steps up an anti-pollution campaign that includes curbs on heavy-duty diesel vehicles.

LNG trucks account for about 4 percent of the more than 6 million heavy vehicles able to haul 40 to 49 tonnes now on China's roads. But demand for LNG trucks is soaring as companies and manufacturers shift to vehicles that Beijing sees as a key part of its war against smog. Sales of LNG heavy trucks surged 540 percent to nearly 39,000 in the first seven months of the year, said Cassie Liu, a truck analyst with IHS Markit consultancy. The shift is helping fuel demand for LNG in China, as are other

government measures aimed at clearing the air, especially in the north, which is shrouded in a hazardous coal-fueled smog for much of the winter.

South Korean, Chinese firms invest in BP's new LNG carriers

(LNG World Shipping; Oct. 5) – South Korean maritime company KMARIN and the Industrial and Commercial Bank of China are investing more than US\$1 billion in six new liquefied natural gas carriers that BP has ordered from Daewoo Shipbuilding & Marine Engineering in South Korea for delivery in 2018 and 2019, with the ships designated to serve the Freeport LNG project under construction in Texas.

The six newbuilds, which BP contracted for three years ago, will support the 32-ship fleet-renewal program that ship owner and charterer BP launched last year. BP said the new carriers "will support the group's growing LNG portfolio and its broader shift to natural gas. ... directly supporting BP's global natural gas strategy." All six are on 20-year charters for Freeport LNG, which is due to start up next year.

The project at Quintana Island, Texas, with three liquefaction trains, will be capable of producing about 15 million tonnes of LNG per year. BP holds a 20-year contract to take almost one-third of the output. The owners of Freeport LNG have applied to federal regulators to add a fourth production unit to the terminal, boosting capacity to 20 million tonnes a year. Freeport also has offtake contracts with Toshiba, Osaka Gas, a South Korean firm and JERA Co., a joint-venture of two Japanese utilities. Freeport is one of five underused U.S. LNG import terminals being expanded to liquefaction and export.

Panama Canal plans to allow two LNG carriers a day next year

(Platts; Oct. 4) - The Panama Canal Authority is working with liquefied natural gas shippers to double the capacity set aside for LNG carriers by next October, the canal authority said Oct. 4. The operator is working toward allowing two LNG vessels a day through the canal instead of the single slot now available. "Currently, all LNG transits are limited to daylight hours. We are working toward lifting some transit restrictions" by fall 2018, the canal authority said, adding that there are currently no transit delays.

LNG transit slots have been booked through the third quarter of next year by shippers with offtake from the U.S. Gulf including Shell, Cheniere Energy, Spain's Gas Natural Fenosa and Korea Gas, according to one shipping source. The slots can be canceled with advance notice and with a penalty assessed against the \$35,000 booking fee. A Panama-based port agent said only one or two LNG vessels have shown up without a booking in anticipation of a canceled slot.

More than 171 LNG carriers have transited the Panama Canal, almost 9 percent of the traffic through the Neopanamax locks. Cheniere's LNG terminal in Sabine Pass, La., started up in February 2016, with several more U.S. export terminals under construction in Louisiana and Texas and more traffic expected through the canal. The expanded canal, which opened last year, can handle larger vessels, including LNG carriers.

Hokkaido Gas signs small-volume LNG purchase with Mitsui

(Natural Gas World; Oct. 4) - Japanese utility Hokkaido Gas said Oct. 4 it has finalized a preliminary deal, originally inked in September 2016, to buy three liquefied natural gas cargoes a year, totaling 200,000 tonnes a year (almost 10 billion cubic feet of gas), from Japanese trader Mitsui & Co. The contract will run for 10 years.

Mitsui will source the fuel from its own portfolio, which includes some equity production from Russia's Sakhalin-2 venture and also Equatorial Guinea LNG in Africa. The deliveries to Hokkaido are expected to start in 2019, and the LNG will be received at the expanded Ishikari LNG terminal on Hokkaido Island. Hokkaido Gas brought online a second LNG storage tank at the terminal a year ago.

Oil-by-rail more expensive but more flexible than pipeline contracts

(EnergyWire; Oct. 2) - Shipping crude by rail may be down but it's not out. Lower oil prices and new pipelines have oil producers turning away from the pricier option of shipping their crude by railroad. But a new energy economics study finds that oil by rail remains resilient and is likely a permanent feature of the North American oil economy.

A team at the Energy Policy Institute at the University of Chicago found that key pipeline projects would have been even larger were it not for lingering competition of railroads. The findings were published as a working paper by the National Bureau of Economic Research. For the Dakota Access pipeline, authors Ryan Kellogg and Thomas Covert concluded that its capacity would have been up to 64,000 barrels a day larger than the actual maximum capacity the line was built to carry of about 470,000 barrels a day.

Kellogg explained that although rail is expensive, oil producers like the flexibility the option provides. Shippers can direct cargoes to new market hubs, depending on what they find most advantageous given the dynamics of market conditions. Oil companies also like that they don't have to pay the railroads anything when they're not using them, he said. To pay for pipeline projects, oil companies must enter into long-term contracts that guarantee the pipelines revenue whether oil flows in the line or not.

High prices, high costs slow down land rush in Permian Basin

(Houston Chronicle; Oct. 3) - Rising production costs, high acreage prices and a shareholder push for financial discipline have dramatically slowed the land rush in the Permian Basin, one of the world's most active oil fields. Drillers spent \$35 billion in West Texas over a nine-month period in 2016-2017 that ended in early spring. But by comparison, the collective value of land deals of the past six months is less than \$5 billion, energy research firm Wood Mackenzie reported.

Shortly after OPEC announced plans to curb global supplies, oil prices rose and drillers made a flurry of acquisitions in the Permian, willing to pay high prices to lease land that sits atop multiple stacked layers of oil-soaked rock that could ultimately yield 70 billion barrels of crude in coming decades. But that multibillion-dollar push, prodded along by outside investors, couldn't last forever. Land prices rose so high that new entrants found it difficult to make returns on their investments, often paying more than \$30,000 an acre.

As a surge of drilling got underway, labor and equipment costs also began to climb, eating into the industry's bottom line. Investors, meanwhile, have grown impatient with an industry that has prioritized rapid growth over returns, and some have begun pushing companies to spend within their means, rather than relying on debt or other outside capital. "The investor base has become fatigued" with drillers that can't cover spending with cash flow from operations, Mizuho Securities analyst Timothy Rezvan said.