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Russia opens second LNG plant while it looks to build more

(Bloomberg; Dec. 7) - As Russia's President Vladimir Putin attends the official opening of a \$27 billion liquefied natural gas plant in Siberia, his mind may wander to his biggest competitor more than 3,000 miles away in Qatar. Putin is determined to make Russia's Arctic gas competitive in the trade that turned Qatar into the richest nation per capita. On Dec. 8, he will witness the loading of the first custom-built icebreaking tanker at the Yamal LNG plant in a region that potentially contains more gas than the Persian Gulf.

Operator Novatek earlier this week announced the start of production at Yamal LNG, in which Total, China National Petroleum Corp. and China's Silk Road Fund also hold stakes. Russia, the world's biggest gas exporter, has for decades relied on pipeline supplies of the fuel to Europe as a major source of income. It now aims to build LNG plants from the Baltic region to its Pacific coast to take on the biggest current and future suppliers of the fuel delivered by tanker, including Qatar, Australia, and the U.S.

Putin ended state-run Gazprom's monopoly on LNG exports four years ago to support the industry, which before this week was represented by a single plant in Russia's Far East. He also freed LNG from export taxes — which are at 30 percent for Gazprom's pipeline gas, generating \$7.3 billion for the state budget in the first nine months of the year. Other tax breaks, including on gas extraction, make Arctic LNG competitive, even taking into account higher shipping costs, according to the nation's Energy Ministry.

Putin tells Saudis to save their oil and buy Russian gas

(Reuters; Dec. 8) - President Vladimir Putin said Dec. 8 that Russia is ready to sell gas to Saudi Arabia after he launched the first loading of liquefied natural gas at the Yamal LNG project in the Arctic. Russia is the world's biggest gas producer, but most of its exports are via pipeline rather than LNG, which can be transported by ship. "Buy our gas and you'll save oil," Putin told Saudi Energy Minister Khalid al-Falih, who also attended the launch ceremony, according to a report by Interfax news agency.

Saudi Arabia is a heavy consumer of electricity for air conditioning, and burns a lot of its oil to generate that power — though, like many of its Middle East neighbors, Saudi Arabia is looking to turn more to gas-fired generation. "If we continue to work the way we do, we will turn from rivals into partners," Putin said. "All benefit from joint work." Saudi Arabia, the biggest producer in OPEC, and Russia worked together on a deal to reduce oil output until the end of 2018 to curb a global crude supply glut.

Putin and Saudi Arabia's King Salman, who visited Moscow in October, have agreed on joint investment deals worth several billion dollars, but nothing LNG-specific. Until Yamal was built, Russia had one LNG plant, Sakhalin-2, in the Far East. Russian gas producer Novatek, the lead on Yamal, already is planning another Arctic LNG terminal.

U.S. LNG exports started small but are growing rapidly

(Houston Chronicle; Dec. 7) - In 2011, Cheniere Energy was a little-known company with big ambitions when it signed an \$8 billion contract that would transform the U.S. into a liquefied natural gas exporter. Five years later, just days before the Houston company loaded the first LNG at its Louisiana terminal, another big deal gave a jolt to the nascent U.S. industry. Shell bought one of Cheniere's customers, BG Gas, for \$50 billion, a move that made Shell the world's largest LNG producer and marketer.

Shell remains Cheniere's best customer, buying almost half the output of Cheniere's plant. These two events have helped bring the U.S. to a tipping point as LNG exports grow quickly. The Energy Department projects U.S. production capacity will quadruple by the end of 2019, making the nation the largest source after Qatar and Australia. The International Energy Agency predicts the U.S. could vault to first within a decade.

Built on more than 1,000 acres of rural swamplands on the Louisiana side of the Texas state border, Cheniere's Sabine Pass complex recently added its fourth LNG unit. The expansion comes as Virginia's Dominion Energy prepares this month to become the nation's second LNG exporter, operating from its Cove Point terminal in Maryland.

More LNG projects will come online in 2018 and 2019. After Cove Point, Houston-based Kinder Morgan's Elba Island LNG project is scheduled next year to begin shipments out of Georgia. The first LNG export terminal in Texas is slated to open in late 2018, when Houston's Freeport LNG is expected to begin operations at its Quintana Island terminal. Delays have pushed Sempra's Cameron LNG project in Louisiana to 2019. Cheniere also plans to expand Sabine Pass and open its Corpus Christi, Texas, terminal in 2019.

Platts forecasts U.S. LNG exports could reach 10.5 bcf a day in 2021

(Platts; Dec. 7) - Strong demand for power plant and home heating fuel, along with high spot prices in Asia and Europe, are expected to boost U.S. LNG export volumes and utilization of liquefaction units this winter, the U.S. Energy Information Administration said Dec. 7. However, overall utilization of existing liquefaction facilities in 2018 will be slightly lower, on average, than in 2017, EIA said in a report.

The outlook comes as a second U.S. exporter of LNG produced from shale gas, Dominion Energy, prepares to begin production in Maryland, joining Cheniere Energy,

which shipped its first cargo from its Sabine Pass terminal in Louisiana in February 2016. Though several more LNG projects are under construction along the U.S. Gulf and East coasts, no others proposed for U.S. shores took a final investment decision this year amid fears of a global supply glut.

Next year is expected to be a consequential one for the dozen or so hopeful developers, as several are looking to prove viability and advance toward construction. In the meantime, the projects being built will strengthen the U.S. position in the market. In November, an average 2.7 bcf a day of gas went out as LNG from Sabine Pass. Platts Analytics forecasts feed gas deliveries in the U.S. will average 3.8 bcf a day in 2018 as more LNG capacity comes online. The volume could grow to 10.5 bcf a day in 2021.

U.S. LNG industry waiting for Panama Canal to provide more slots

(Bloomberg; Dec. 8) - Just as the Panama Canal was unveiling a new, fatter set of locks, U.S. shale drillers were readying their very first exports of liquefied natural gas. The wide-body tankers that transport LNG had no chance of squeaking through the original steel locks built a century ago, but they could easily traverse the bigger channel and shave 11 days off the trip to primary markets in Asia. But 17 months in, it's not quite working out as planned. Only a single LNG tanker has a guaranteed passage each day.

The LNG industry blames the Panama Canal Authority, which blames the industry for being lackadaisical about transit timetables. Whoever's at fault, the pressure is on to resolve the problems. For exporters, it's critical to establish credibility as a reliable new source of fuel for clients in Asia. "The canal surely has had some issues getting the new set of locks up and running smoothly," said Peter Sand, an analyst with the shipping association BIMCO. "It has taken longer than the canal and the industry expected."

The story starts at the opening in June 2016 of the expansion project. It couldn't have come at a better time for LNG, just as Cheniere Energy was ramping up operations at the first export terminal ever built in the Lower 48, at Sabine Pass, La. The Panama Canal Authority promised a dozen daily slots for ships of all stripes to pass through the new lane — ultimately. So far, the maximum it has been able to handle every 24-hour period is eight; preparations are underway to move that up to 10 or more in 2019.

What rankles LNG sellers is that they have been awarded just the single reserved slot, with the rest going to container ships. One position isn't sufficient now and will be wholly inadequate once all the new export terminals under construction go online, Octavio Simoes, president of Sempra LNG & Midstream, said in October. Sempra's terminal in Louisiana is expected to start shipping cargoes by 2019. Money is an issue: The authority's toll for container ships is as much as three times the tariff for an LNG tanker.

China on its way to overtake South Korea as world's No. 2 LNG buyer

(Bloomberg; Dec. 6) - China is on its way to becoming the second-largest importer of liquefied natural gas. The nation, already the world's top energy user, is on the verge of passing South Korea to become the No. 2 LNG buyer, behind Japan, as environmental measures and winter heating needs boost demand. LNG tankers with total capacity of 33.6 million tonnes have visited China this year, just 1.7 million below South Korea's total, according to data compiled by Bloomberg. The gap was over 24 million in 2011.

"The battle for 2017 No. 2 importer is going to be close, but China will likely just make it," said Kerry-Anne Shanks, a Singapore-based analyst for Wood Mackenzie. "This didn't look that likely for most of the year, as South Korean imports were so strong. But since July, China has been significantly higher than South Korea every month." China's emergence as an LNG power is another sign that it's entering what Sanford C. Bernstein & Co. analysts called its "golden age of gas."

China's efforts to reduce smog by promoting gas over coal at industrial sites have outpaced increases in domestic gas production, requiring more imports and creating shortages in some parts of the country as winter demand kicks in. China's buying binge is coming earlier than some analysts expected. Bloomberg New Energy Finance in September forecast that it would take China until 2019 to surpass South Korea.

China's gas imports up 25% in first 10 months this year

(Xinhua news agency; China; Dec. 7) - China's natural gas imports are expected to continue rising as new cross-border pipelines and liquefied natural gas terminals will be put into use, a Ministry of Commerce spokesperson said Dec. 7. Statistics from China's customs showed that from January to October of this year, China's gas imports rose 24.9 percent year-on-year to 54.165 million tonnes. Of the figure, LNG imports surged 47.7 percent to a record high of 29.092 million tonnes.

As millions of households have changed to gas instead of coal for heating to help combat air pollution, there has been a surge in gas demand. Since the winter heating began Nov. 15, the price of locally produced LNG has steadily increased. On Dec. 1, the figure at some LNG plants that serve customers not on the pipeline grid rose to a record high of 9,000 yuan (\$1,360) a tonne, according to an industry report. That's more than \$28 per million Btu.

Xu Bo, a senior analyst with China National Petroleum Corp.'s Economics and Technology Research Institute, projected a growth rate of 17 percent total for domestic and imported gas consumption this year, compared to 7 percent last year. To ensure supply, China's state-owned firms are maximizing production at domestic gas fields, while the National Development and Reform Commission has urged companies to be restrained in pricing.

Tight supply, winter cold drive up Asia LNG spot-market prices to \$10

(Reuters; Dec. 8) - Asian liquefied natural gas spot prices rose above \$US10 per million Btu on Dec. 7, driven to a three-year high by Chinese and Japanese buys, weather-driven demand and tight supply. Spot prices for January delivery hit \$10.10, while the price for February delivery rose as high as \$10.20. Tight shipping availability and rising freight rates constrained Asia's ability to draw in more gas supply from the Atlantic Basin, adding impetus to price gains as several LNG plants underwent maintenance.

Indonesia's Bontang export facility pumped at reduced capacity after a technical fault with a liquefied petroleum gas enrichment unit, leaving less supply available for Japanese offtakers, while Chevron's Gorgon and Wheatstone projects in Australia were also experiencing output cuts. Falling temperatures in Japan, South Korea and China — along with continuing nuclear power outages — has kept gas consumption strong, spurring demand to replenish LNG inventories with spot-market purchases.

Under the tight conditions, spot-markets are higher than long-term LNG contract prices linked to various global oil-index formulas. In November, the average price for all LNG delivered to Japan was \$7.10 per million Btu, according to Platts, as lower oil-index contract prices pulled down the overall mix.

Growing demand will fuel need for more LNG tankers

(Financial Times; London; Dec. 6) - China's buying power in commodity markets is well known. The country consumes much of the world's copper, cotton and corn, to take just a few examples. Soon we might add natural gas to the list. Long-held concerns about energy security have made China dependent upon its huge reserves of cheap coal, but a long-term shift away from this highly polluting energy source toward gas has begun.

Although coal consumption has bounced back to a certain extent this year, it is not clear whether that can last, mainly because of the impact on China's environment and public health. A recent study revealed that for those living in the more coal-dependent north, air pollution shortens their lives by three years compared with southern regions. While it plans to bring in more gas through pipelines, China in the short term has chosen to increase its seaborne imports of liquefied natural gas. LNG imports jumped almost 48 percent this year to the end of October. That follows a 25 percent rise the year before.

Transporting LNG requires specialized tankers, and from a glut several years ago there are now not enough of them. Between 2012 and 2014, the number of tanker orders more than doubled to 66. This year the number dropped to just eight. The ships take about 30 months to build. Spot daily rental rates have thus risen. Since April last year, the rates have about doubled, though they are still historically low. While there is no shortage of new LNG supply to come, that gas will require more vessels. LNG tanker operators are in a sweet spot of limited supply and growing Chinese demand.

BP continues its shift to majority-gas portfolio

(Houston Chronicle; Dec. 8) - The massive Zohr gas field off Egypt will come online by the end of December, marking the completion of what BP said is one of its biggest years ever as it increasingly focuses on international natural gas projects. BP is shifting from crude oil toward cleaner-burning gas projects in developing parts of the world as it seeks to transform itself as a result of the 2010 Deepwater Horizon tragedy, the subsequent oil-price bust and the world's increasing focus on climate change.

BP historically held a portfolio that was 60 percent oil, but that is expected to shift to 60 percent gas by 2020, company officials said. BP completed seven major projects this year, in Egypt, Trinidad and Tobago, Oman, Australia, and in the North Sea near its home base in the United Kingdom. Out of those seven, only the North Sea expansion is focused on oil. The rest primarily aim to deliver gas, a cleaner-burning fuel that is expected to fit better into a lower-carbon environment.

Zohr, the last to be completed, is the largest gas discovery ever in the Mediterranean. BP bought a 10 percent stake in Zohr early this year from Italy's Eni for \$375 million. "This is the biggest year in our history in respect to completing, commissioning, and starting up projects," Dave O'Connor, head of BP's global projects organization, said at a briefing Dec. 7 at BP's Houston campus. In order to justify new projects, BP needs to show it can make 15 percent returns with benchmark North Sea oil at \$50 a barrel.

Floating LNG projects open up gas basins offshore Africa

(LNG World Shipping columnist; Dec. 4) - Floating LNG is opening new offshore basins in Africa for development as producers strike offtake agreements with portfolio players and traders. In addition, the ownership structure of the LNG projects and the willingness of international oil companies to deploy new technologies will help drive development. Floating liquefaction and storage will provide the first LNG plants in Mozambique and Cameroon, and is expected to lead an expansion of capacity in Equatorial Guinea.

Italy's Eni and its partners in June took a final investment decision on the Coral FLNG project offshore Mozambique at 3.4 million tonnes annual capacity. The project will be the first of this type to have as much as 60 percent of its cost funded on a project-finance basis, backed by 15 international banks and guaranteed by five national export credit agencies. Eni has signed an agreement with BP for the sale of all of the LNG produced at Coral South for more than 20 years.

In August, Equatorial Guinea's Ministry of Mines and Hydrocarbons, Ophir Energy and its partners nominated trading house Gunvor as its preferred LNG offtaker for all 2.2 million tonnes from Fortuna FLNG. Meanwhile, the BP and Kosmos' Tortue FLNG project offshore Mauritania and Senegal is progressing on the back of positive drilling

results. Africa's first FLNG deployment is likely to be in Cameroon, where a converted LNG carrier left Singapore in October for Africa, where it will be used to produce 2.4 million tonnes per year. The project's entire output will be sold to Russia's Gazprom.

Economics will put hold on new floating LNG investments

(Sydney Morning Herald; Dec. 8) - Floating LNG facilities have unlocked previously stranded gas fields, but the ongoing gas glut will put a hold on future developments. Speaking during a Gastalk event Dec. 7, Wood Mackenzie principal analyst Saul Kavonic said FLNG has burst onto the scene, but the current constriction of gas markets and low prices will put a hold on future development of these mega-vessels. "For me, 2017 was the year of FLNG," Kavonic said at the webinar.

Production started this year at the Petronas PFLNG vessel offshore Malaysia, with commissioning underway for Shell's Prelude floating gas production, liquefaction and storage vessel 120 miles off the coast of Western Australia, Kavonic said. And the Eniled venture made its final investment decision for the Coral South floating LNG venture offshore Mozambique. The floating LNG plants made economic sense when oil was more than \$100 a barrel and the market faced a dearth of gas and increasing demand.

The new technologies allowed companies to access stranded or remote assets faster, also giving them the option of moving the operations when the field runs dry. However, it is unlikely the investments will be repeated in the coming decade as a tighter gas market makes huge projects such as these less financially attractive, Kavonic said. While the projects will still earn owners billions of dollars, "they will not achieve the return on revenue anywhere near what was first expected."

Opponents go to court to block \$3.7 billion shale gas pipeline

(Washington Post; Dec. 8) - A coalition of environmental groups filed suit Dec. 8 to try to block the Mountain Valley Pipeline, a natural gas pipeline planned for the southwestern portion of Virginia that cleared the last regulatory hurdle and won state water permits the day before. The \$3.7 billion project would move Marcellus and Utica shale gas from West Virginia 303 miles to Virginia, near the North Carolina border, for connection to the grid serving the mid and south Atlantic region.

Appalachian Mountain Advocates filed the suit in the U.S. Court of Appeals for the 4th Circuit, seeking a review of the permits issued by the Virginia State Water Control Board. Appalachian Mountain Advocates was joined in the lawsuit by the Sierra Club, Appalachian Voices, the Chesapeake Climate Action Network and Wild Virginia. The groups contend that the state board and the Department of Environmental Quality rushed the review process and cut corners.

An even larger pipeline project — the more than 600-mile Atlantic Coast Pipeline, backed by Virginia's largest utility, Dominion Energy — faces state water permit hearings this week. That pipeline would run from West Virginia through Virginia to North Carolina. Supporters of the pipelines said they will generate jobs and economic activity and provide utilities with needed capacity. Opponents said the lines threaten fragile ecosystems and impinge on property rights of landowners along the routes.

Mexican court orders halt to gas pipeline construction

(Natural Gas Intelligence; Dec. 5) - At a recent hearing on an indoor soccer court at the foot of Shaman's Hill in the southern Mexican state of Puebla, a district judge sided with an indigenous community and ordered construction suspended on a \$500 million gas pipeline underway by TransCanada, further delaying much needed supply. The 36-inch-diameter pipeline, running 155 miles from South Texas with contracted capacity of 886 million cubic feet per day, is to terminate in Tula, Hidalgo, on the fringes of Mexico City.

The court issued the order in response to pleas from the Otomi indigenous community, which said construction would disturb sacred ground. The pipeline is one of five pipeline construction projects tendered by the Mexican power utility, Comision Federal de Electricidad, that face rights-of-way disputes and social protests.

Mexico's 2013-2014 energy reform requires consultations with indigenous groups as part of the permitting for construction projects. Analyst Ramses Pech of consultancy Caraiva y Asociados said it has added to the red tape in permitting. "What is new in Mexico is the requirement that indigenous communities should be consulted," he said. "That kind of consultation has long been a part of any project in the U.S. and other countries, but not so here. It was obviously needed in Mexico, too, but it has added to the complexities of the Mexican legal system in areas such as land and rights of way."

Alberta's background checks target drillers for non-compliance

(Financial Post; Canada; Dec. 6) - Alberta regulators will scrutinize oil and gas executives more closely to try to stop a rising number of energy companies from dumping their environmental clean-up costs on the province and its taxpayers. The Alberta Energy Regulator announced Dec. 6 that it would conduct background checks on directors and executives to see if they've previously been involved with companies that have unpaid taxes, owe money to regulators or haven't complied with existing rules.

For those with questionable backgrounds, the agency may refuse to issue new oil and gas licenses. Previously, all that was needed to obtain an oil and gas license in Alberta was a \$10,000 down payment, an address within the province and a nominal amount of

insurance. Changes to the rules come after 12 insolvent oil and gas companies handed off responsibility for cleaning up more than 1,600 properties to the province over the past year-and-a-half, which saddled a clean-up agency with over \$100 million in costs.

"As it stands now, there is a loophole that allows directors and officials from oil and gas companies to use bankruptcy as an excuse to walk away from the wells that they are responsible for cleaning up," Alberta Energy Minister Marg McCuaig-Boyd said. The changes are designed to make it more difficult for companies to dump responsibility for their unprofitable properties on the province's Orphan Well Association in bankruptcy proceedings. More changes are expected in the coming months.

Oil majors pay no tax in Australia while they recover investment

(Reuters; Dec. 7) - ExxonMobil and Chevron paid no tax in Australia in the 2016 financial year, the third year in a row, despite reporting billions of dollars in income from operations in the country, a report from the tax office showed Dec. 7. Exxon, which has oil and gas production in the Bass Strait and a stake in the giant Gorgon LNG project among other assets in Australia, reported A\$6.7 billion (US\$5 billion) in income, but it reported a loss for taxable income and paid no tax, similar to the previous two years.

Exxon said it had no taxable income as it has invested nearly A\$18 billion over the past few years on major projects including Gorgon and the Kipper Tuna Turrum field. "As these multi-billion investments were completed in 2017 and have started production, the amount of tax paid by ExxonMobil Australia is anticipated to increase significantly," said a spokesman. Chevron reported A\$2.1 billion in income for 2016 and paid no tax, while Shell reported A\$4.2 billion in income (A\$97 million taxable income) but paid no tax.

Chevron, operator of the Gorgon and Wheatstone LNG projects, said it expects to pay sizable taxes once the projects are running at full tilt. Shell is also a partner in Gorgon LNG. The Australian Taxation Office started requiring big companies to disclose their tax payments two years ago in a push to curb alleged tax avoidance. A probe by the Australian Senate that began in 2014 was extended this week, and is now due for a final report by May 2018. The tax office won a landmark case against Chevron earlier this year over a disputed A\$340 million tax bill stemming from an intercompany loan with an exorbitantly high interest rate that shifted profits to an out-of-country subsidiary.

Canada orders oil line work to proceed; exempts it from local bylaws

(CBC News; Canada; Dec. 7) – Canada's National Energy Board ordered Dec. 7 that Kinder Morgan's Trans Mountain oil pipeline expansion is exempt from having to comply with two sections of bylaws in Burnaby, B.C., which were standing in the way of the \$7.4 billion project. The order, which comes three days after the regulator heard the case,

said the company does not have to comply with the local bylaws that require preliminary plan approvals and tree-cutting permits as it prepares to begin construction.

Kinder Morgan had asked the NEB to overrule the bylaws on a constitutional basis because it claimed Burnaby was delaying a project that already had federal approval. The pipeline from Alberta ends at a marine terminal in Burnaby, population about 250,000, next door to Vancouver. The company told the NEB it has been frustrated at the lack of firm timelines, guidance and structure in the local process as it tries to secure permits. Burnaby had blamed the company for shoddy applications.

Burnaby Mayor Derek Corrigan said he was disappointed by the NEB order. "We were proceeding through the processes and the requirements that the city has to protect our local environment and our ecology and the process within the city." The NEB said its decision allows the company to start work at its marine terminal, subject to other permits or authorizations. Kinder Morgan Canada had said the pipeline expansion was already months behind and further delays could threaten the viability of the controversial project.