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Chevron may sell its 50% share of proposed LNG project in B.C.

(Reuters; Dec. 11) – Chevron is considering selling its stake in a proposed liquefied natural gas project in British Columbia, in a blow to Canada's aspirations for a robust LNG industry. "The strength of Chevron Corp.'s global portfolio of investment opportunities is such that the Kitimat LNG project will not be funded by Chevron and may be of higher value to another company," the company said Dec. 11. The company said it will look for buyers for its 50 percent interest in the project but set no timeline.

The company said it would continue to work closely with its joint-venture partner Woodside Petroleum, of Australia, which owns the other half of the project, and First Nations partners during the sale process. Chevron's comments have dented some of the optimism in the Canadian gas sector, which had cheered the start of construction for the C\$40 billion, Shell-led LNG Canada project, also in Kitimat, B.C. The Chevron-led project was planned for 18 million tonnes annual output capacity, and included a 292-mile gas pipeline from the Liard and Horn River Basins in northeastern B.C.

"It would have been nice to see LNG facilities come on stream shortly after (Shell's) LNG Canada, but the comments that Chevron made yesterday may be tempering this type of enthusiasm," Raymond James analyst Jeremy McCrea said, adding that the comments were surprising given how Chevron had been advancing the Kitimat LNG project. "To see them potentially take the write-down on their gas reserves and make the comments they did is a bit of a reversal from what we've seen from them," he said.

Chevron concedes lower prices, writes down assets by \$10 billion

(Wall Street Journal; Dec. 10) - Chevron is writing down the value of its assets by more than \$10 billion, a concession that in an age of oil and gas overabundance, some of it will not be profitable anytime soon. In the largest write-down by an energy producer in years, Chevron said Dec. 10 that it was cutting the value of a number of properties, notably its U.S. shale holdings in Appalachia, by a combined \$10 billion to \$11 billion.

Chevron is also restructuring its operations to focus on fewer prospects in the face of persistently low natural gas prices and will explore the sale of some assets. The second-largest U.S. oil company also has lowered its forecast for future oil and gas prices, and said that as a result it was reducing the value of production from one of its offshore oil projects in the Gulf of Mexico, called Big Foot.

Chevron wants to focus on its most promising future prospects, including an expansion of shale oil drilling in Texas, said CEO Mike Wirth. "We have to make the tough choices to high-grade our portfolio and invest in the highest-return projects in the world we see ahead of us — that's a different world than the one that lies behind us." The reappraisal by one of the world's best-performing oil companies is likely to ripple through the industry, forcing others to publicly reassess the value of their holdings in the face of a global supply glut and investor concerns over the long-term future of fossil fuels.

Feed gas to U.S. LNG plants hits record of almost 8 bcf a day

(Argus Media; Dec. 9) - Natural gas feed to U.S. LNG export plants is scheduled to reach a record on Dec. 9 as production ramped up significantly at Freeport LNG's second liquefaction train in Texas. The six operating U.S. LNG facilities are scheduled to receive a combined 7.956 billion cubic feet of gas on Dec. 9, according to an analysis of pipeline capacity nominations. The previous record of 7.67 bcf was set Nov. 28.

The volume represents 8.4 percent of the record U.S. dry-gas production of 95 bcf a day reached in October. U.S. gas production is forecast to remain near those levels throughout this winter. Freeport is building three liquefaction trains at the \$15.5 billion facility, each with peak liquefaction capacity of 5.3 million tonnes per year, equivalent to 700 million cubic feet of gas per day. Train 1 was placed into long-term service in November with Train 3 scheduled to start producing LNG in the first quarter next year.

Japanese utilities Osaka Gas and Chubu Electric, South Korean utility SK, and France's Total all have 20-year offtake contracts at Freeport. The customers are responsible for procuring their own feed gas and pipeline transportation capacity. They pay Freeport a take-or-pay fee of about \$3 per million Btu for their liquefaction service reservations.

Russia and China not in agreement on price of piped gas

(Nikkei Asian Review; Dec. 8) - When the first gas pipeline from Russia to China was completed last week, the link was celebrated by a live telecast connecting Russian President Vladimir Putin and his Chinese counterpart Xi Jinping. Gazprom's Power of Siberia pipeline appears to be a win for Putin's energy diplomacy. Russia, the world's top gas exporter, hopes to use the project to strengthen its relations with energy-hungry China. But the two powers occupy contrasting positions, analysts said.

"The Chinese side has recently sent notice of a significant reduction in its gas demand outlook," said Mikhail Krutikhin, of Russian consultancy RusEnergy. For China, Power of Siberia has been positioned as a buffer when imports from other sources falter. Price is another sticking point. The details have not been disclosed, but Russia appears to be asking for prices comparable with what it charges in Europe with no final agreement.

The Russian side footed all of the construction costs and bears all the investment risk if the flow stops. If any dispute between Russia and China were brought to international mediation, it would probably take two years to conclude. Given the precariousness of its position, Russia could come under pressure to change the terms of the agreement in the future, observers said. "There is no commercial prospect for Russia," Krutikhin said.

China holds another card. It has invested in a liquefied natural gas project in Russia's Arctic and is importing LNG. Beijing is now familiar with the cost structure of Russian gas operations and is said to be leveraging that in its piped gas price negotiations.

Russian gas sales to China not necessarily profitable for either side

(Forbes; Dec. 7) - The Russia-China gas pipeline that opened this week is a perfect symbol of what has become one of the world's most important relationships: a long-term, strategically conceived, physical bond between two countries united in their desire to resist U.S. domination. For Russia it offers a new source of foreign earnings and reduced dependence on a mistrustful Europe to pad its budget. For China it brings a new, cleaner source of energy that neither the U.S. Navy nor Treasury can interdict.

But as often is the case with central planning, big doesn't always mean economically optimal, especially when the fine points of the business are left to two state-owned firms with reputations for poor governance. IHS Markit analysts Jenny Yang and Anna Galtsova said in a note this week that it's impossible to say for sure whether Gazprom will make a profit on the project, as details of its gas pricing are not public knowledge.

Many reckon the project is, at best, only borderline profitable, having been conceived at a time when oil prices — to which Gazprom has always linked its gas contracts — were nearly twice today's level. "Upstream tax exemptions are critical for project profitability," the IHS analysts wrote in the research note. The project is exempt from Russia's royalty tax on hydrocarbons for 16 years with the tax phasing in over the next eight years.

Nor does the business of making money on the gas get any easier once it crosses the border, where PetroChina, the buyer, is subject to social and economic pressures. Ling Xiao, a PetroChina vice president for gas marketing, said in October that although the gas would be cheaper than piped imports from Central Asia, the company "will still be making a loss as (the price) exceeds that of domestic city-gate benchmark rates."

Slowing demand prompts Chinese companies to resell LNG

(Reuters; Dec. 10) - Chinese companies are offering to resell liquefied natural gas cargoes in the spot market as they grapple with high inventory amid weak demand due

to a slowing economy and a milder-than-usual winter, several trade sources said Dec. 9. The world's second-largest buyer of LNG is currently facing high inventory of the fuel in some areas, several sources familiar with the Chinese market told Reuters.

"It's quite warm in China and the demand is very bad," said one of the sources with a state-owned company. He said about five to seven LNG cargoes are being offered for resale in a month, though this could not be independently verified. Further details were not immediately available, but sources said the main company to offer cargoes for resale has been China National Offshore Oil Corp. (CNOOC).

A second source said buyers in northeast China may be facing "tank-tops," which refers to storage tanks being full. China does not release any official information on its LNG storage volumes. China's gas demand is expected to expand at half the rate this winter compared to a year earlier, as Beijing slows its push for coal-to-gas switching due to a weaker economy and competition from cheaper coal, state oil officials said last month.

China creates state-controlled oil and gas pipeline company

(Reuters; Dec. 8) - China announced on Dec. 8 the establishment of a national oil and gas pipeline company in a move intended to boost competition, the Xinhua state news agency said. The long-awaited state pipeline company aims to provide market access to infrastructure now controlled by China's three national oil companies, Xinhua said. "The new company will separate transportation, production and sales, and open transportation to third-party entities, which will benefit market competition," Xinhua said.

The new entity is expected to manage most of the country's pipeline infrastructure, controlled by energy giants China National Petroleum Corp. (CNPC), Sinopec, and China National Offshore Oil Corp. (CNOOC), and some underground natural gas storage, as well as a few liquefied natural gas import terminals. As of end-2018, CNPC owned 63 percent of China's mainstream oil and gas pipelines, while Sinopec and CNOOC controlled 31 percent and 6 percent, respectively.

In a separate report on Dec. 8, Xinhua said the new entity is expected be overseen by the state-owned Assets Supervision and Administration Commission, which will have a 40 percent share in the new entity. Citing an unidentified industry insider, Xinhua reported the three energy giants will share the remaining ownership with CNPC holding 30 percent, Sinopec 20 percent, and CNOOC 10 percent.

Turkey sees low prices and wants to buy more LNG

(Reuters; Dec. 10) - Turkish state energy company Botas is seeking about 30 liquefied natural gas cargoes for delivery December through March, three industry sources said

on Dec. 10. A gas trader in Turkey said the large tender is a result of low prices with spot-market LNG much cheaper than Russian gas in Turkey's pipeline contracts. Spot LNG in Asia is at a record low for this time of the year at about \$5.50 per million Btu. Russian gas is around \$8.50 to \$8.70, the trader said.

First cargo set to leave LNG terminal in Savannah, Georgia

(S&P Global Platts; Dec. 10) - The tanker loaded with the first cargo produced at Kinder Morgan's Elba Island natural gas liquefaction facility may be headed to South Asia after its departure from the Savannah, Georgia, terminal, according to market sources. As of Dec. 10, the Greek-flagged Maran Gas Lindos remained moored to a jetty at Elba with its departure expected Dec. 11 or 12. Pakistan was being eyed as the destination for the cargo, a source said, while a second source pointed to the Pakistan/India area.

Final destinations can change based on market factors. To date the U.S. has sent 51 LNG cargoes to India and 10 to Pakistan, S&P Global Platts Analytics data shows. Backed by a 20-year offtake agreement with Shell, Elba will become the sixth major U.S. LNG facility to export gas.

Since production began July 17, Kinder Morgan has declined to comment on Elba operations, while Shell has not responded to multiple requests for comment. Elba will have a capacity of 2.5 million tonnes of LNG per year when all 10 small-scale liquefaction trains are completed during the first half of next year. Several trains have come online since initial production began.

Federal regulator approves LNG by rail to New Jersey terminal

(NJ Spotlight; Dec. 10) - Plans to build New Jersey's first liquefied natural gas shipping terminal moved forward when federal regulators approved the use of trains to ship the fuel to Gibbstown on the Delaware River from northeastern Pennsylvania — the first route in the nation where moving LNG in rail cars would be allowed. The U.S. Pipeline and Hazardous Materials Safety Administration published its approval Dec. 6 of the plan by Energy Transport Solutions, a subsidiary of New Fortress Energy, which wants to liquefy gas from Pennsylvania's Marcellus Shale and send the fuel to Caribbean buyers.

The idea of moving LNG by train about 175 miles to South Jersey was an unexpected development after earlier plans to use at least 360 truck trips a day to move the fuel. PHMSA said it was satisfied that Energy Transport Solutions could safely operate the trains despite protests by environmental groups that the gas represents a risk to public safety, especially traveling through densely populated areas in Philadelphia or Camden.

PHMSA approved a special permit for shipments only between the two points, directing the applicant to submit its plans for the quantities of LNG to be shipped and their timing, and said it must prepare emergency responders to deal with any spill. The approval increases the chances that the project will be built over objections of environmentalists. The developer said rail would be safer than trucks because it would take almost 300 truckloads to move the same volume of LNG as a single train of 100 tank cars.

Oregon LNG developer argues against change in pipeline route

(S&P Global Platts; Dec. 9) – The Canadian company behind the Jordan Cove LNG project and Pacific Connector Gas Pipeline in Oregon are opposing a pipeline route alternative Federal Energy Regulatory Commission staff backed in a recent environmental report. The proposed route change would increase the amount of private lands crossed, potentially adding to land acquisition costs for the project which already has faced years of permitting challenges at the federal, state, and local levels.

The project includes an LNG terminal in Coos Bay with export capacity of about 7.5 million tonnes per year in its first phase, and a 229-mile pipeline to deliver feed gas. FERC's final environmental impact statement Nov. 15 determined that most of the project impact would not be significant or would be reduced to less-than-significant levels. It did, however, flag adverse effects on 18 federally listed or proposed threatened and endangered species along with impact to housing and noise in Coos Bay.

The developer is now battling a recommendation in the EIS in favor of the 15.2-mile Blue Ridge Variation route alternative. FERC said this alternative would reduce long-term impact on late-stage, old-growth forest with implications for marbled murrelet and northern spotted owl habitat. But the alternate route would cross an additional 26 privately owned parcels over seven miles. The developers, in a Dec. 6 letter, said the FERC-preferred route variation does not offer significant environmental advantages.

Air quality agency approves LNG plant at Port of Tacoma

(Tacoma News Tribune; Dec. 10) - The \$310 million liquefied natural gas production and storage facility being built by Puget Sound Energy at the Port of Tacoma has cleared a final construction hurdle. On Dec. 10 the Puget Sound Clean Air Agency announced it had completed its review of the notice of construction application, including public comments, and "made a final determination that the proposal meets all the requirements of agency regulations ... and should be approved."

In a separate statement, the agency's executive director, Craig Kenworthy, said that while approval "is not an endorsement of a project," the agency determined "the

application meets standards set by applicable laws and regulations as of when the application was submitted." Getting to this point has been contentious, and opponents, including the Puyallup Tribe, were quick to criticize the decision. "We are reviewing the determination and will take appropriate actions," the tribal council said.

"Puget Sound Clean Air Agency's approval of this fracked gas facility is completely unacceptable," Sierra Club campaign representative and Power Past Fracked Gas coalition co-director Stephanie Hillman, said Dec. 10. "It represents a clear danger to our lands, water, air, and community health." Kenworthy said the agency is not in a position to factor in those issues. The facility, which is set to start up in 2021, will have the capacity to turn pipeline gas into 500,000 gallons of LNG per day, storing up to 8 million gallons for use as a marine fuel and to meet utilities' peak winter needs.

Company uses excess natural gas to power data centers

(Bloomberg; Dec. 7) - A Denver-based company that installs data centers at shale drilling sites to take advantage of excess natural gas supplies to make electricity said it now has eight operations across the U.S. and plans an additional 30 in the first half of next year. The centers are being touted as a way to solve the growing problem of gas flaring, where producers burn off excess gas. Flaring has risen to a record in Texas this year amid a lack of pipeline capacity.

Crusoe Energy Systems is harnessing some of the surplus gas at the source to turn it into electricity, powering the data centers that in turn generate revenue by mining Bitcoin. The company will install 70 units next year, each with a capacity of about 1 megawatt, which would keep about 10 million cubic feet a day of gas from being flared, CEO Chase Lochmiller said.

"It's a very creative way to solve an environmental and economic problem for the oil and gas industry," said Alex Urdea, chief investment officer of Upper90 Capital Management, which has agreed to provide Crusoe with \$40 million of project financing. The business model is attracting interest from large oil and gas producers, he added. Crusoe also raised \$30 million by selling equity to investors.

Saudis would be smart to buy natural gas from Qatar

(S&P Global Platts; Dec. 10) - Qatar and Saudi Arabia have several good reasons to finally settle their political differences. Agreeing on what could be the gas deal of the century is perhaps the best. Saudi Arabia burned almost 900,000 barrels per day of valuable liquid fuels for industrial use and power generation in 2017, said the Riyadh-based energy think tank, King Abdullah Petroleum Studies and Research Center.

Replacing all this oil with gas could generate more than \$10 billion of additional export revenue at current oil market prices. Buying gas from Qatar is one of the cheapest ways for the kingdom to remove oil entirely from power generation, but first the countries must come to peace after a near three-year breakdown in diplomatic and economic relations.

"Gas supply has always been the Achilles heel to Saudi's ambitious economic growth plans," said Samer Mosis, senior analyst at S&P Global Platts Analytics. "While the kingdom has equally ambitious plans to expand non-associated gas production, Saudi Aramco's track record in this arena is spotty at best. A gas deal with Qatar would be the rational solution ... but Saudi would be loath to build a dependence on Qatari gas."

Saudi Arabia holds the world's fourth-largest gas reserves and is the Mideast's third-biggest producer after Iran and Qatar. But gas output — most of it associated gas with oil — could have been much higher had Saudi fully developed its resources. International companies, however, have been scared away by the kingdom's commitment to providing cheap subsidized electricity for its rapidly growing population.

Saudi Aramco may charter up to 12 LNG tankers

(Reuters; Dec. 8) - Saudi Aramco's shipping arm Bahri has issued an expression of interest to charter up to 12 liquefied natural gas tankers starting in 2025, its first foray into the fuel, sources said Dec. 8. No further details were immediately available and Saudi Aramco declined comment. Such inquiries for charters may or may not turn into full-fledged orders. Bahri's move is likely part of Aramco's expansion into LNG trading as it boosts gas production and considers expanding LNG investments, sources said.

The Saudi state oil giant plans to become a major global gas player and has been developing its own gas resources as well as eyeing gas assets in the United States, Russia, Australia, and Africa, the company's chief executive officer and the Saudi energy minister have said. In May it signed a 20-year agreement to buy LNG from a proposed export terminal in Port Arthur, Texas. It also agreed to buy a 25 percent equity stake in the first phase of that multibillion-dollar project led by Sempra Energy.

The company's trading arm, Aramco Trading, is also expected to hire an LNG trader to join its team in Singapore in January, sources said. It is also looking to hire an LNG operations coordinator in Singapore to provide support for LNG contract negotiations, LNG ship chartering and shipping operations, according to Aramco's website.

South Korea shuts down 10 coal plants for the winter

(Reuters; Dec. 10) - South Korea has shut down 10 coal-fired power plants on Dec. 10 as part of its anti-pollution campaign, the energy ministry said. The shutdown comes after the government said last month it would idle up as many as 15 coal-fired power plants between December and February, while its remaining plants are expected to supply sufficient power to meet the country's needs.

South Korea, Asia's fourth-largest economy, operates about 60 coal-fired power plants, generating about 40 percent of its electricity. Nuclear power makes up about 30 percent of South Korea's electricity, followed by gas power at around 20 percent. Analysts said the reduced coal power could give a slight boost to the country's LNG demand.

Permian producers cope with growing volume of produced water

(S&P Global Platts; Dec. 10) - For every barrel of oil from the average Permian Basin well, about three barrels of water come up with it, and a midstream water management industry has grown up alongside the shale oil boom in Texas. Most of the water gets injected underground into disposal wells, although more is getting treated and moved to other drilling sites to frack new wells. Still more research and infrastructure will be needed to handle the growing volume of water if Permian production growth continues.

Permian oil producers want to get a better handle on produced water before it becomes a crisis, said Karr Ingham, a petroleum economist and executive vice president of the Texas Alliance of Energy Producers. Produced water could become an existential threat to U.S. oil drillers either from running out of reservoirs to store it or from tightened regulations as a result of increased earthquake activity or from policies by a future U.S. president opposed to fossil fuel development.

Permian drillers have pumped more than 9 billion barrels of water from horizontal wells since 2010, according to S&P Global Platts Analytics. About 50 companies currently provide water management services in the Permian. Oil producers and water managers would like to find outlets for "beneficial reuse" of the produced water outside of the oil and gas industry, such as irrigation after heavy treatment. The water often contains salts, oil, grease, naturally occurring radioactive materials, bacteria, and other solids.

Texas on track for 16% decline in new oil and gas wells this year

(Reuters; Dec. 10) -Texas is on track to complete fewer oil and gas wells this year, the state regulator said in a statement on Dec. 10, as companies tighten spending to adjust to lower oil prices and amid a push from investors to focus on returns. The state's oil

and gas regulator has processed 8,629 well completions this year, marking nearly a 16 percent decline from the same period last year, the Railroad Commission of Texas said.

Texas is the largest oil-producing state and helped propel U.S. output to a record of nearly 13 million barrels per day last month, according to the U.S. Energy Information Administration. But U.S. oil prices have hovered below \$60 a barrel for most of the year, prompting many energy firms to cut staff. Although fewer wells have been completed in Texas this year, U.S. production has continued to surge and is expected to rise another 930,000 barrels per day next year to average 13.18 million, the EIA said on Dec. 10.

Although the rate of U.S. crude production growth is anticipated to slow in 2020 due to a decline in drilling rigs, it is still on pace to set new records in 2019 and 2020. The EIA anticipates the decline in rigs will be offset by greater rig efficiency and well productivity.