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North Dakota sets record at 1.52 million barrels per day in October

(S&P Global Platts; Dec. 13) - The OPEC+ decision to deepen its output cuts will result in "slow to moderate" growth in Bakken production, North Dakota's top oil and gas regulator said Dec. 13. Without the cut, North Dakota production, which set a record of 1.52 million barrels a day in October, would likely have "flatlined" in 2020, said Lynn Helms, director of the state's Department of Mineral Resources. The OPEC+ decision will likely lead to an increase in capital available to the state's producers, Helms said.

The OPEC+ decision "should result in small increments of production growth through the year 2020," she said of North Dakota's oil output. Last week OPEC, Russia, and nine other allies announced that they will deepen their collective output cuts by 503,000 barrels per day to 1.7 million barrels from January through March, though many analysts said the number is not all that different from the members' current production and side deals will erode its impact on the market.

North Dakota's oil output in October was up more than 74,500 barrels a day from September. Roughly 72 percent of oil produced in October was shipped out of the state by pipeline, 16 percent went out by rail, 6 percent was trucked or railed to Canada, and 6 percent was refined in-state, the North Dakota Pipeline Authority said Dec. 13. S&P Global Platts Analytics calculates Bakken break-evens at about \$43 per barrel. Platts defines break-evens as the oil price needed to recover drilling, completion costs, and operating expenses on an after-tax basis for the operator to get a 10 percent return.

U.S.-China trade deal does not affect oil or LNG tariffs

(Reuters; Dec. 15) - China and the U.S. have agreed to terms of a phase-one trade deal under which Washington reduced some tariffs and Beijing canceled its retaliatory duties that were scheduled to start Dec. 15. But the deal does little to change tariffs on U.S. energy exports into China. Beijing imposed a 5 percent tariff on U.S. crude oil from Sept. 1, the first time oil had been targeted since the trade war between the world's top two economies started over a year ago. The oil tariff is not affected by the Dec. 15 deal.

China, the world's biggest crude importer, had sharply lowered U.S. shipments from a record high last year. Chinese customs data showed imports in the first 10 months were halved year-on-year to 146,275 barrels a day. China, however, as part of the Dec. 15 deal, did remove an additional 5 percent tariff on U.S. propane shipments that was set to take effect this month. A 25 percent duty imposed on U.S. propane in 2018

remains in place. Chinese firms process propane into petrochemicals such as propylene.

China imposed a 10 percent punitive tariff on U.S. liquefied natural gas shipments in September 2018, raising it to 25 percent in June. LNG duties were not affected by the Dec. 15 deal. Imports of the super-chilled fuel in the first 10 months of 2019 shrank 87.2 percent from 2018 to 258,955 tonnes, according to Chinese customs. China imposed tariffs of 25 percent on U.S. methanol in June this year, and those also are unchanged under the phase-one trade deal.

Growth in coal demand in Asia will offset loss in Europe and U.S.

(Reuters; Dec. 16) - Global coal demand is expected to remain stable until 2024 as growth in Asia offsets weaker demand from Europe and the United States, the International Energy Agency said Dec. 16. The IEA report is being published just after negotiators from more than 190 countries met in Madrid over the past two weeks to try to thrash out rules to meet the 2015 Paris Climate Agreement, which demands a virtual end to coal power by 2050.

"Despite the growth in low-carbon fuels in recent decades, the reality is coal remains a major fuel in global energy markets ... the world consumes 65 percent more coal today than in the year 2000," the report by the Paris-based agency said. World coal demand is expected to expand at a compound annual growth rate of 0.5 percent through 2024, the IEA said. A drop in coal consumption in Europe and the U.S. due to coal power phase-out plans in Europe and an increase in the use of natural gas in the U.S. will be offset by demand growth in a number of fast-growing Asian economies, the report said.

An increase is predicted for India, with coal demand rising by 4.2 percent a year, boosted by a rise in coal-fired power output, the IEA said. Coal consumption in China is projected to rise slightly over the next few years and plateau around 2022. Exactly how Chinese demand evolves will largely depend on the country's five-year plan covering 2021-2025, said Keisuke Sadamori, the IEA's director of energy markets and security.

Goldman Sachs says no to Arctic drilling and new coal power plants

(CNN; Dec. 16) - Goldman Sachs is the first big U.S. bank to say it won't finance new oil projects in the Arctic. On Dec. 15, the bank announced a raft of changes to its environmental policies, including a pledge not to finance new coal-fired power plants and oil and gas drilling in the Arctic. The restrictions rule out projects in Alaska's Arctic National Wildlife Refuge, which President Trump has sought to open to development.

The funding freeze extends to new thermal coal mine and power plant development around the world, as well as projects that "significantly convert or degrade a natural habitat," Goldman Sachs said on its website. The bank also announced a commitment to invest \$750 billion over the next 10 years into areas that focus on climate transition and inclusive growth. Goldman Sachs' move comes as activists and scientists decried the global climate agreement reached Dec. 15 at a U.N. summit in Madrid, saying its watered-down language fails to deliver clear carbon-cutting commitments.

Goldman Sachs won praise from environmental groups. The Rainforest Action Network said Goldman's commitments are the "strongest fossil finance restrictions of any major U.S. bank." It still lags behind global competitors though, the organization said. Goldman Sachs also said it will phase out financing of thermal coal mining companies that do not have plans to diversify away from coal.

Oil industry spending starts to slow down in Permian

(Wall Street Journal; Dec. 15) - America's hottest oil-drilling regions — such as the heart of the Permian Basin — are seeing their economies soften as shale producers slash spending, leading to emptier hotels, choosier employers and less overtime for workers. Early this year, demand for the tubing, bolts, and valves used in fracking was so high that Homer Daniels's oil field equipment company, RK Supply, in the Midland area of Texas was on track to easily beat its annual revenue forecast. But that has changed.

By August, Daniels had to impose a hiring freeze as customers delayed projects. "It affects everybody's bottom lines," Daniels said. Fracking has made the U.S. the world's top oil producer, buoyed the national economy and helped the country become a net exporter of crude and petroleum products for the first time in decades. But the rapid production growth of recent years is waning as shale companies, many of which have struggled to make money, focus on profits over expansion to satisfy unhappy investors.

"The boom time is done at this point, unless oil prices go up significantly," said Michael Plante, senior economist at the Federal Reserve Bank of Dallas. North American shale investment, or spending on drilling and fracking, is forecast to fall about 6 percent this year, then tumble another 14 percent in 2020, adjusted for inflation, according to energy analytics firm Rystad Energy. In Texas, energy industry employment has dropped at an annualized rate of 2.1 percent through September, Dallas Fed data show.

B.C. community believes LNG Canada should pay for impacts

(Terrace Standard; BC; Dec. 16) – Officials of Terrace, British Columbia, are frustrated that LNG Canada isn't taking direct responsibility for increased demands on civic and other services arising from the Shell-led C\$40 billion liquefied natural gas project under

construction in Kitimat, about 35 miles south. Terrace officials participate in meetings to discuss social and other impacts of the project, but so far any effects are being labelled as "indirect" and not reimbursed, said city Chief Administrative Officer Heather Avison.

"We appreciate that we have the opportunity to speak, but so far there's been a real lack of wanting to accept responsibility for Terrace from LNG Canada and the province. It's been very frustrating," Avison said. The city has been compiling a list of increased demands for its services and last week told its approximately 8,000 residents it needs an eight percent boost in property taxes to cover additional firefighter and policing costs.

"Essentially everything we have to say goes over on that [indirect] side," Avison said of the city's participation in what's called a Social Management Roundtable, a requirement of the provincial government's approval of the LNG Canada project. "There seems to be a real hesitation on everybody's front to accept any kind of responsibility for the impacts we're seeing." Law enforcement calls are up, as are fire department calls. LNG Canada officials at the last roundtable acknowledged that while some impacts may be attributable to the project, others are not, and said further discussions are required.

Kinder Morgan says U.S. gas exports will drive pipeline business

(Natural Gas Intelligence Daily; Dec. 17) - Kinder Morgan expects shale and tight-gas production growth, combined with rising demand for exports, to underpin expansions of its North America gas pipeline network over the coming years, CEO Steven Kean said last week. Liquefied natural gas exports to the global market and pipeline exports to Mexico are the main forces behind the company's \$2.8 billion backlog of gas projects in North America, Kean told the Wells Fargo Securities Midstream and Utility Symposium.

"Really, it's exports," Kean said. "It's LNG and Mexico that are driving this." Kinder Morgan expects 38 billion cubic feet per day of incremental gas supply from 2018-2030 from the nation's largest shale plays: Marcellus and Utica in Appalachia; the Permian Basin in Texas and New Mexico; the Eagle Ford in Texas; and the Haynesville Shale in Texas and Louisiana.

Of the \$2.8 billion backlog, \$900 million is allocated for projects that will add a combined 4.4 bcf a day of Permian takeaway capacity by 2021, Kean said. "All this supply is there ... and then a lot of the demand is coming from LNG and exports to Mexico and industrial demand, which tends to be concentrated on the Gulf Coast."

U.S. shipped out 107 LNG cargoes in October and November

(Natural Gas Intelligence; Dec. 18) - U.S. liquefied natural gas exports set records in October and November with 107 cargoes departing the country in the two months and

average send-out surpassing 6 billion cubic feet of gas a day, according to the U.S. Energy Information Administration. U.S. LNG exports are expected to continue rising next year. Now the third-largest LNG exporter in the world behind Australia and Qatar, the U.S. is forecast in some estimates to become No. 1 in the coming years.

Six export facilities have come online since 2016, the first among them Cheniere Energy's Sabine Pass in Louisiana. Dominion Energy Cove Point in Maryland began exporting in March 2018, while Sempra Energy's Cameron LNG (Louisiana) and Freeport LNG (Texas) placed their first liquefaction trains into service earlier this year. Cheniere's Corpus Christi terminal in Texas commissioned its second train in July. And Kinder Morgan's Elba Island facility in Georgia sent out its first cargo last week.

Two more LNG export terminals are under construction — one each in Texas and Louisiana — with several more working to put together customers and financing to reach a final investment decision.

Russian bank helps finance ice-class tankers for Arctic LNG-2 project

(Reuters; Dec. 17) – Russia's state development bank VEB said on Dec. 16 that it has provided the first slice of financing, \$66 million, to the Rosneft-led Zvezda shipyard toward construction of the first Arc7 ice-class liquefied natural gas tanker for Novatek's Arctic LNG-2 project, which is under construction with a 2023 start-up target.

VEB said its board approved financing for 15 LNG carriers for the export project, which includes French, Chinese, and Japanese companies in a partnership with Russian gas producer Novatek in the lead. Novatek also operates the Yamal LNG terminal across the bay from the Arctic LNG-2 site. For its Yamal project, Novatek and its partners ordered 15 of the ice-class LNG carriers from South Korean shipyards.

Russia looks at building nuclear-powered submarine to transport LNG

(The Barents Observer; Norway; Dec. 17) - "It will be unique, combining the functions of a nuclear-powered submarine and (an LNG) gas carrier," said Dmitry Sidorenkov, head of engineering with Malachite Design Bureau in St. Petersburg. Sidorenkov presented the concept study of a 1,180-foot-long nuclear-powered LNG submarine tanker to Strana Rosatom, the newspaper of Russia's state nuclear corporation.

Today's challenge is that all liquefied natural gas carriers sailing from the Yamal LNG terminal in the Arctic need icebreaker assistance during the winter, despite their Arc7 ice-class capabilities. A nuclear-powered submarine LNG carrier would provide year-around transport from the fields to the transshipment points to conventional LNG carriers in Murmansk, near Norway, and Kamchatka, in the Russian Far East.

Sailing under the ice could be done regardless of climate and weather conditions. The submarine would be 230 feet wide, almost 100 feet high, and have a draft of 39 to 42 feet. It would carry about the same volume of LNG as a conventional surface ship. Unlike navy submarines, which have one or two reactors, the LNG-submarine would be powered by three reactors, providing 90 megawatts power to the propellers. Malachite has been in talks with potential customers, such as Russian gas producers Novatek and Gazprom, about the proposed submarine. Next step will be a full-fledged design.

Russia's most powerful nuclear icebreaker completes test run

(Radio Free Europe; Dec. 14) - Russia's nuclear-powered icebreaker Arktika, said to be the world's biggest and most powerful, has returned to St. Petersburg after a two-day test run. Arktika, ordered by state nuclear power company Rosatom to assist in the transport of liquefied natural gas from the Arctic, is 568 feet long and almost 50 feet tall. The run tested the vessel's functioning and maneuverability, said Mustafa Kashka, general director of Atomflot, the company that runs Russia's icebreaker fleet.

The nuclear-propelled ship, which can reportedly break through almost 10 feet of ice, was fueled by diesel oil on its maiden voyage. Its work will include aiding LNG carriers in transit from the Yamal LNG terminal and the Arctic LNG-2 terminal that will be built across the bay from Yamal and is scheduled to start up in about five years. The final tests for Arktika are scheduled for March and April and it is set to start operating in May. Two other similar vessels — the Ural and the Sibir — are under construction.

New rail terminal in Alberta will help move more oil to market

(Edmonton Journal; Dec. 17) - A new rail yard in Sturgeon County is looking to relieve some of the pressure in Alberta's Industrial Heartland to get oil and other products to market faster. Cando Rail Services, an employee-owned company, announced on Dec. 17 new details regarding its Sturgeon Terminal, located less than an hour north of Edmonton. The terminal, slated for a late 2020 completion, is roughly 300 acres in size with about 25 miles of track, which is big enough to handle 1,900 rail cars.

President Brian Cornick said the project is the largest in the company's history. He would not give an exact amount, only confirming a price tag in the multi-millions of dollars. The terminal will use a Canadian National line to send rail cars to North American markets, in particular expanding the province's ability to move oil.

South Korean government will help finance Nigeria's LNG expansion

(Hellenic Shipping News; Dec. 18) - South Korea's Daewoo Engineering & Construction has been promised state financing for a \$5.7 billion liquefied natural gas expansion project in Nigeria, securing financial support to operate in a country with potentially high business risks. The South Korean Ministry of Economy and Finance said Dec. 16 it has agreed to back the project as part of the government's new financing policy to encourage local builders to venture into high-risk countries.

Daewoo became the first Korean builder to clinch an LNG contract overseeing the entire process from front-end engineering and design to procurement and construction. "It's hard for Korean companies to obtain financing in countries like Nigeria, which has a low credit rating due to violent riots and political instability," said a finance ministry official. "The Export-Import Bank of Korea and the Korea Trade Insurance Corp. would be the primary backers with the government providing additional support."

Nigeria LNG said Dec. 13 it had signed a 20-year feed-gas supply agreement with jointventure partners for the long-awaited project to add a seventh production unit to its liquefied natural gas plant. The gas-supply agreement is one of the key conditions for a final investment decision on the expansion. The project would increase Nigeria's LNG production capacity by 35 percent to 30 million tonnes per year.

Geneva-based broker emerges as top independent LNG trader

(Bloomberg; Dec. 18) - Gunvor Group has cemented its role as the world's largest independent trader of liquefied natural gas, the fastest growing fossil fuel. The trading company delivered 16 million tonnes of LNG this year, boosting volumes by 45 percent from 2018, the company said on Dec. 18. It already topped larger rivals Vitol Group and Trafigura Group last year, when its volumes soared by 60 percent. The increase came even as spot prices for LNG plunged this year amid deepening oversupply.

It marks another year with industry-leading volumes for Gunvor, underscoring that its focus on the super-chilled fuel is paying dividends after the firm overhauled operations in the past three years. Once focused on Russian oil and embroiled in a corruption scandal in the Republic of Congo, the Geneva-based company has reinvented itself as a more diversified trader. Gunvor also emerged as the largest charterer of LNG vessels this year with more than 50 bookings in 2019.

Gas production set to start this month at large field offshore Israel

(The Times of Israel; Dec. 16) - Natural gas is set to start flowing from the massive Leviathan field offshore Israel any day now, an economic milestone for the country that

will pave its way to energy independence and, through exports, to stronger ties with its neighbors. Commercial production is set to begin before year's end for the local market, with pipeline exports starting shortly thereafter. On Dec. 16, Energy Minister Yuval Steinitz signed permits for the export of gas to Egypt, the ministry said in a statement.

Located in the Mediterranean 77 miles west of Haifa, the field is estimated to hold 22 trillion cubic feet of recoverable gas and a potential 500 million barrels of oil, according to estimates provided by the partners. "The start of the flow of gas from Leviathan is a significant event for Israel," said Terence Klingman, chief investment officer at the Heritage Family Office Partners, which advises wealthy families on their investments.

The gas supply will help phase out expensive and polluting imported coal, he said, and also allow for exports, lowering energy costs, making Israeli industries more competitive and bringing in revenue from the sale of gas to neighboring countries. Houston-based Noble Energy and its Israeli partners in Leviathan discovered the field, one of the largest deep-water gas finds in the world, in 2010. The project is the largest funded by private capital in Israel's history. Noble and its partners have invested \$3.75 billion to date in the first stage of development of the reservoir, the companies have said.

Maritime industry proposes tax to pay for clean-technology research

(Reuters; Dec. 17) – Maritime shipping associations have proposed creating a research fund with \$5 billion raised by the industry to develop technology to help the sector meet U.N. targets for cutting emissions. The global shipping fleet, which accounts for 2.2 percent of the world's carbon dioxide emissions, is under pressure to reduce those emissions and other pollution. About 90 percent of world trade is transported by sea.

International shipping associations on Dec. 18 called for a mandatory contribution of \$2 per ton on fuel used by ships to raise money for a research fund to help develop cleaner technology for the industry. The U.N. shipping agency, the International Maritime Organization (IMO), aims to cut the industry's greenhouse gas emissions by 50 percent from 2008 levels by 2050, a target that will require the swift development of zero- or low-emission fuels and new ship designs using cleaner technology.

Simon Bennett, deputy secretary general of the International Chamber of Shipping, one of the groups backing the fund, said a \$2-per-ton contribution would raise about \$5 billion over 10 years, based on fuel consumption by the world's fleet. The fund, if it receives the backing of IMO member states, could be in place by 2023, officials said. The IMO said the proposal would be discussed by the organization's Marine Environment Protection Committee at its next meeting at the end of March.