Oil and Gas News Briefs Compiled by Larry Persily February 21, 2022

FERC adopts major changes to review process for pipelines, LNG

(Argus Media; Feb. 17) - Companies seeking to build gas pipelines and LNG export facilities will be subject to more scrutiny of greenhouse gas emissions under sweeping policy changes the Federal Energy Regulatory Commission approved Feb. 17. The commission's Democrats voted 3-2 to approve two policies — one revising the project certification process and one creating a new framework for scrutinizing greenhouse gas emissions. They mark the largest change in permitting policies since at least 1999.

The new policies are set to apply immediately, which Chair Richard Glick said would allow FERC to begin processing pending gas pipeline and LNG terminal applications "without delay." The changes will provide a more legally durable path for reviewing projects, he said, after the agency faced a series of court losses focused in part on climate change issues. FERC "has repeatedly failed to live up to the requirements within the Natural Gas Act and the National Environmental Policy Act," Glick said.

FERC approved the policies over the objection of the two Republican members, who say the commission overstepped its congressional mandate. Republicans and industry officials worry the changes will add uncertainty and new litigation risks for projects. FERC began considering revisions to its 1999 certification policy nearly four years ago, but the effort sputtered out as the agency's Republican majority at the time faced widespread industry opposition to changes. Glick restarted work on the effort a year ago, pursuing a broader scope of changes with more of a focus on climate change.

The first policy revamps how FERC determines if there is enough "public need" for a project to justify approval, including requiring more scrutiny of alternatives. The other policy, an interim change that could be revised based on public comments, will create a framework for evaluating a project's greenhouse gas emissions and effects on climate change. FERC said it will encourage developers to propose plans to mitigate emissions.

Price tag on Canadian oil pipeline project jumps 70%

(Calgary Herald; Feb. 18) - The expected final cost for the Trans Mountain Pipeline has almost doubled from previous projections, jumping from C\$12.6 billion to C\$21.4 billion (US\$16.8 billion) while the completion date has been pushed back to late 2023. Trans Mountain Corp., the corporation overseeing the expansion project to move more Alberta oil sands production to a British Columbia port, released the update Feb. 18, citing delays caused by floods, wildfires and the pandemic as reasons for the steep price tag.

The federal government bought the roughly 700-mile line from Kinder Morgan for C\$4.5 billion in 2018, saving the project at the last minute. At the time, the expansion was expected to cost \$7.4 billion and increase capacity from 300,000 to 890,000 barrels a day from Edmonton to the Port of Vancouver. The government still owns the pipeline and Finance Minister Chrystia Freeland said no more public funds will be put into the project, but instead the government will look toward private investment and financing.

Ottawa has been working with Indigenous groups for two years regarding financial benefits through the project and potential investment. Freeland said the government will announce plans on divestment in the line once further risk is taken out of the project. She said she has been assured of the viability of the pipeline by investment advisers, even with the 70% cost escalation. "This project is in the national interest and will make Canada and the Canadian economy more sovereign and more resilient," she said.

Kevin Birn, an analyst for IHS Markit, said the need to get oil to tidewater has not diminished. Canadian oil gets devalued going through U.S. bottlenecks. A reliable route to Canada's West Coast for export removes much of that reliance and revenue loss.

French insurance company will no longer finance oil and gas projects

(Bloomberg; Feb. 17) - France's CNP Assurances will no longer finance new oil and gas projects or invest more money in companies planning to do so, joining the growing ranks of insurers taking a more proactive approach to tackling global warming. The insurance company said it was acting in response to scientific reports, including one by the International Energy Agency, which said new projects weren't needed if the world wanted to limit global warming to 1.5 degree Celsius above pre-industrial norms.

"To achieve the goals of the Paris Agreement (on tackling global warming), it is necessary to gradually reduce the use of fossil fuels," Olivier Guigné, CNP's group investment director, said in a statement on the company's website Feb. 16. Under the new plan, however, CNP said it would still finance subsidiaries of energy companies dedicated exclusively to renewable projects, and invest in green bonds. Going forward, CNP said it would publicly disclose its holdings in the oil and gas sector each year.

For those companies in which it has an existing stake, CNP said it would ask them to immediately stop any new exploration or production of oil or gas, and lobby governments to end subsidies to the sector and help curtail demand for the fuels. French public bank Banque Postale committed in October to stop providing services to the oil and gas sector by 2030. However, most banks and insurers continue to finance the sector with no restrictions.

Independent U.S. shale players stick with limited growth plans

(Bloomberg; Feb. 17) - The Texas wildcatters that ushered in America's shale revolution are resisting temptation to pump more oil as the market rallies, signaling higher gasoline prices for consumers battered by the worst inflation in a generation. Crude hurtling toward \$100 a barrel typically would spark a frenzy of drilling by independent explorers in shale fields from the desert Southwest to the Upper Great Plains — but not this year.

Influential players like Pioneer Natural Resources, Devon Energy and Continental Resources just pledged to limit 2022 production increases to no more than 5%, a fraction of the 20% or higher annual growth rates meted out in the pre-pandemic era. The timing couldn't be worse for consumers. Outside of OPEC, which has rejected President Joe Biden's pleas to accelerate production increases, domestic shale fields are the only other source of crude that can quickly respond to supply shortfalls.

"Whether it's \$150 oil, \$200 oil, or \$100 oil, we're not going to change our growth plans," Pioneer CEO Scott Sheffield said. U.S. oil output will rise substantially this year and is forecast to return to pre-pandemic levels by 2023, but it probably won't be enough to knock oil prices off their upward trajectory any time soon. Publicly listed independent explorers like Pioneer and Devon account for more than half of the roughly 10.5 million barrels that America produces daily from fields in the Lower 48 states, according to IHS Markit. The rest comes from closely held outfits, family-run enterprises and international supermajors, all of which are aggressively boosting output.

Chinese producer signs up foreign partners to help develop oil fields

(Bloomberg; Feb. 17) - China National Offshore Oil Corp. has struck \$13 billion worth of deals to boost oil and gas supply, as the country aims to avoid a repeat of last year's energy crunch. The nation's biggest offshore oil and gas driller has signed agreements with a dozen international firms, according to a statement Feb. 16. That includes four contracts to jointly develop oil fields off China's coast with foreign companies including TotalEnergies and ConocoPhillips.

China is the world's largest energy user and President Xi Jinping has set long-term goals to curb reliance on pricey imports even as the nation's demand for oil and liquefied natural gas continues to rise. In the short term, the country is increasing its fuel purchases from overseas and last year toppled Japan as the world's No. 1 LNG importer. CNOOC's deals also include pacts for imports of oil and LNG from suppliers including Kuwait National Petroleum Co. and U.S.-based Energy Transfer, state media China Petrochem reported, without citing any sources.

CNOOC, the smallest of China's big three state-owned oil companies, will lift its output by as much as 40 million barrels this year, mainly from its oil fields in Bohai Bay and the South China Sea. The producer is continuing to prioritize investments in fossil fuels over clean energy. PetroChina and China Petroleum & Chemical Corp., or Sinopec, are also boosting production to help avoid a repeat of the 2021 energy crisis that led to blackouts and power rationing in many regions.

U.S. LNG producers and traders deliver record volumes to Europe

(The Wall Street Journal; Feb. 17) - U.S. gas producers and global commodity traders are emerging as some of the biggest winners of the surging energy prices spreading pain in Europe. Falling supplies from Russia to Europe, as well as the threat of a Russian invasion of Ukraine, have elevated prices of the fuel used to heat homes and generate electricity. The price rally has burned European utilities and put dozens of British energy suppliers out of business. It is also leading to substantially higher bills for consumers, creating headaches for governments across the continent.

The price surge has been a boon for U.S. suppliers of liquefied natural gas, which are selling record amounts of the fuel to starved European markets. Also cashing in are traders who shipped the gas to Europe at historically high prices, and money managers profiting from volatility in global gas markets. In December, the U.S. surpassed Qatar on a weekly basis to become the biggest LNG exporter in the world for the first time. In the following month, the U.S. supplied almost half of the record 11.7 million tonnes of LNG delivered into Europe, according to market-intelligence firm Kpler.

The crisis has also led European companies to reconsider signing longer-term deals for American gas, U.S. executives said, something many had eschewed because the fuel was often more expensive than the competition. Such deals, if consummated, could lock in demand and help American companies secure the financing needed to build more liquefaction terminals, raising U.S. LNG export capacity.

Chinese-built module delivered to Russia's Arctic LNG project

(High North News; Feb. 18) - An ice-class cargo carrier escorted by two nuclear icebreakers has transported a 12,000-ton module from China via the Arctic to Russia. It was the first such voyage this late in the winter — a further sign of the rapid opening of the Arctic Ocean. The Arc7 ice-class carrier Audax delivered a massive, prefabricated plant module for Novatek's Arctic LNG-2 project via the Northern Sea Route. The ship departed Tianjin, China, on Dec. 29 and arrived in Murmansk, Russia, on Feb. 17.

In the past, the sea route traditionally closes for cargo traffic in December and reopens in early summer. However, due to declining ice, the shipping season has been extended in recent years. According to Novatek, this was the first time such a large cargo vessel traveled along the route in February. Audax was escorted by icebreakers for part of the way to pass through waters that traditionally hold the thickest ice. Due to the size of Audax, icebreaker assistance along the most challenging sections involved two nuclear icebreakers opening the channel, Novatek said. With a beam of 141 feet, the Audax is substantially wider than Russia's largest nuclear icebreakers, requiring two vessels simultaneously to break a channel wide enough for the ship to pass through. Russia has begun construction of a new icebreaker with a beam of 197 feet, capable of single-handedly opening up a channel for even the largest cargo ships.

The module Audax delivered is part of Novatek's second liquefied natural gas plant in the Arctic. The first, Yamal LNG, began operation in 2017. Arctic LNG-2 will be located on the other side of Ob Bay. Novatek is using a construction center near Murmansk, where modules will be installed onto platforms before being towed to the plant site.

Novatek plans more spot sales from its second Arctic LNG project

(Bloomberg; Feb. 17) - Russia's top liquefied natural gas producer, Novatek, aims to sell large volumes from its Arctic LNG-2 project on the spot market, as buyers across the world move away from long-term supply deals. "Consumers want to have more flexibility," CEO Leonid Mikhelson said on a call with investors Feb. 17. "We definitely plan to keep a significant volume on the spot market," commenting on the strategy for the second Novatek-led LNG plant above the Arctic Circle. Start-up is set for next year.

LNG buyers seeking term-supply deals are now looking at "seven- to 10-year or maximum 15-year contracts," Mikhelson said. "Fewer players are now interested in contracts for 20 years or more, unlike in the past." His statements come as the market sees greater cargo redirects between Europe and Asia, with traders trying to respond to fast changes in demand and pricing dynamics between the two markets. With Europe's energy crunch far from over, competition for the fuel may continue beyond 2022.

Novatek holds 60% in Arctic LNG-2, which will have an annual nameplate capacity of 19.8 million tonnes. Last year, the Russian producer agreed with its French, Chinese and Japanese partners in the project on long-term offtakes proportionate to their stakes in the plant. Novatek has already marketed some fuel from the first liquefaction train of Arctic LNG-2, with a capacity of 6.6 million tonnes per year, and is working on finding clients for gas from the second of the plant's three trains, Mikhelson said.

Though Europe wants more gas, its LNG import capacity is limited

(Reuters; Feb. 17) - Europe's liquefied natural gas import terminals have limited available capacity to absorb extra supply from the United States or other major producers in the event of a Russian gas disruption if it invades Ukraine. Most of Europe's LNG terminals are operating at full capacity, especially in northwest Europe,

which feed large economies like Germany, France and Britain, raising the question of how much more LNG can be processed.

"A few cargoes could be squeezed into some other countries, but not significant supply," said Rystad Energy senior analyst Kaushal Ramesh, adding that logistical issues are likely to "burn a hole through buyers' pockets, again." LNG needs to be regasified by transforming it from its freezing condition back to gas and then transported through pipelines to users, such as generating plants to make electricity.

Spain has the continent's biggest capacity, with six LNG import terminals, while Germany has none. Though the utilization rate for the Spanish terminals was just 45% in January, according to data and analytics firm Kpler, there are limited pipeline connections from Spain to the rest of Europe.

Europe risks repeat of winter gas crisis if it doesn't bulk up storage

(Bloomberg commentary; Feb. 16) - Europe risks a repeat of this winter's energy crisis without rules that force utilities to stash away enough gas to ensure security of supply. After grappling with the lowest stockpiles in over a decade this heating season, there's no economic incentive for energy giants from RWE and Uniper to Gazprom to store the fuel. That's because traders usually buy cheap gas in the summer to sell at high prices later in the year, and that seasonal profit spread has all but vanished from the market.

Policy makers are concerned. Europe is relying more on intermittent sources of energy such as wind and solar, and with domestic gas production in decline, dependency on gas imports from Russia is only increasing. Germany plans to force energy companies to build up reserves as part of a package of measures to be considered in the spring, but a number of countries still have no rules in place.

"If Europe's energy security is going to depend more and more on inventories and seasonal flexibility, they need to ensure those inventories get filled," said Jason Bordoff, director of the Center on Global Energy Policy at Columbia University. "That's not something for the private-sector utilities to do, it's the role of the government to ensure that happens." Security of supply is now at the forefront of the energy debate in Europe after policy makers sleepwalked into the current crisis. "We need to do this extremely fast," said Thierry Bros, a former energy analyst who is now a professor in Paris.

U.K. needs to expand power storage capacity in shift to green energy

(Bloomberg; Feb. 17) - The U.K. needs to substantially expand its capacity for storing electricity for longer in order to maintain energy security as it shifts to greener power, according to Aurora Energy Research. As much as 24 gigawatts of long-duration

electricity storage — about eight times the current installed capacity — may be needed to help integrate intermittent renewable sources like wind into the energy system, according to a report by the Oxford-based power analytics company.

"This amount of storage capacity will not only play a major role in reducing emissions, but also significantly reduce the U.K.'s reliance on imported gas and in return, keep household energy bills lower and less volatile," said Stephen Wheeler, managing director of SSE Renewables. Britain is targeting eliminating fossil fuels from power plants by 2035, with renewables playing a key role.

But unlike gas- and coal-fired power stations, wind and solar power generation can't just be turned on when needed and are at the mercy of the weather. That means more storage is needed to keep those supplies for longer — even just a few hours — until required. A common example of long-duration energy storage is pumped hydro storage, where surplus electricity is used to pump water to a higher reservoir, with the flow then reversed to spin turbines and generate more electricity when needed.

Beijing Gas Group plans for 10-year LNG buy from Shell

(Reuters; Feb. 17) - China's Beijing Gas Group aims to conclude a 10-year liquefied natural gas purchase deal with Shell in the second quarter, a source with knowledge of the talks said. Municipal government-backed Beijing Gas is one of China's so-called Tier 2 importers behind state energy giants such as PetroChina and CNOOC. Tier 2 players are expected to lead the growth in China's LNG imports in the coming decade.

Negotiations began in January, with Beijing Gas seeking 1.5 million tonnes a year of the fuel, starting in 2023, in what will be the first long-term LNG contract for the state-owned piped gas distributor. Shell became the first of three suppliers Beijing Gas short-listed around the end of last year, followed by Qatar Petroleum and China's CNOOC, the source said. "A deal is expected in the second quarter at the latest," said the source, who asked not to be named because the discussions are not public.

Pricing of the gas will be indexed to the Brent crude benchmark and likely to be lower than the 12% of Brent rumored to be under consideration, the source said. The gas will feed into a new import terminal in Tianjin, which is expected to start up around the end of this year with capacity of 5 million tonnes a year. The \$3.16 billion terminal will serve Beijing via a 200-mile pipeline, and is one of the group's largest investments aimed at providing emergency supplies and storage for the Chinese capital. Beijing Gas is also discussing similar long-term supplies with U.S. exporters, the source said.

Israel will boost natural gas exports to Egypt

(Globes; Israel; Feb. 16) - Israel's Ministry of National Infrastructures, Energy and Water Resources has approved the start of natural gas exports to Egypt via Jordan. The pipeline exports could boost sales of Israeli gas to Egypt by more than 50%. At present, about 175 billion cubic feet of gas is exported to Egypt, which could increase by as much as 100 bcf a year. In addition, Israel currently exports about 100 bcf of gas annually to Jordan under a contract signed in 2016 with the Jordan Electric Power Co.

The higher volume of natural gas will begin flowing from Israel to Egypt via Jordan later this month, substantially increasing the amount of gas that Israel exports to its neighbors from its offshore gas fields. The Ministry of National Infrastructures, Energy and Water Resources said that beyond the economic benefits, gas exports to the region strengthens geopolitical relations between Israel and neighboring countries, and strengthens energy security of the countries in the region.

High prices could produce record oil royalty revenues for Alberta

(Reuters; Feb. 16) - Canada's main oil-producing province of Alberta looks set to return to a budget surplus this coming fiscal year, ending seven years of deficit, as surging oil prices swell provincial royalty revenues. The oil and gas sector accounts for about 17% of Alberta's GDP, and a rally in U.S. crude to seven-year highs above \$90 a barrel is super-charging the royalties that producers pay to extract the province's vast reserves.

Some analysts say the windfall, which could exceed the province's previous oil royalties annual record of C\$10.8 billion (\$8.52 billion), will allow Alberta to balance its books and return to a surplus in the 2022-2023 fiscal year. Last year, Alberta slashed its 2021-2022 deficit forecast from C\$18.2 billion to C\$5.8 billion and since then oil prices have rocketed even higher. No other Canadian province is expecting a surplus in 2022-2023, according to an RBC report released in November.

While a balanced budget may help, Alberta still faces economic headwinds. The province has the highest rates of long-term unemployment in Canada, according to a Business Council of Alberta report, and capital investment in the oil and gas sector remains more than 50% below a 2014 peak. The previous high point for Alberta royalty revenue was in 2005-2006 when the government raked in C\$10.8 billion. Since then, a prolonged downturn in oil prices starting in 2014 has weighed on Alberta's finances and prompted many international oil majors to cut their investments in the province.

Company plans 20-megawatt storage battery at petrochemical plant

(Financial Post; Canada; Feb. 16) - Enel X, a subsidiary of the Italian energy giant Enel, announced plans to build what it described as the largest private storage battery in North America — a 20-megawatt system at Imperial Oil's petrochemical complex in Sarnia, Ontario. The battery will allow Imperial to cut its carbon emissions by charging the battery at night, when power in Ontario tends to come from wind, nuclear and hydro sources rather than the natural gas that dominates daytime; and it will allow Imperial Oil to reduce its energy consumption during the most expensive peak demand hours.

The battery covers a minuscule portion of Ontario's peak electricity demand of about 27,000 megawatts. Still, experts say such projects will be necessary for Canada to cut its emissions to net zero during the next three decades as electrification picks up speed. Batteries make it easier for grid operators to match supply and demand. They also help ensure efficient use of energy from sources subject to the vagaries of weather, such as wind and solar. The petrochemical complex can process 120,000 barrels per day of oil.

Financial details of the arrangement were not disclosed, but Enel X said it is investing all the capital to build the project and will share the financial benefits with Imperial Oil. In addition to reducing Imperial's energy bills, the project is expected to generate revenue for Imperial under the "demand response" program in Ontario, under which the Independent Electricity System Operator pays industrial users to reduce their demand during peak hours. Enel X uses software that looks at weather patterns, historical usage patterns, and other data to optimize the usage of energy stored in the battery.

Japan's top power producer plans shift to ammonia as a fuel

(Bloomberg; Feb. 18) - Japan's top power producer will start one of the largest global auctions to buy ammonia, as it bets on the clean-burning fuel to curb emissions and hit its green goals. JERA aims to sign a long-term contract to purchase the ammonia starting in 2027, which the utility will use to replace some of the coal at one of its power plants, according to a statement Feb. 18. JERA will seek bids where carbon emissions are not generated in ammonia production, or are captured and stored in the process.

While ammonia has historically been used as a fertilizer, it's receiving attention as the government and companies pledge carbon emission reduction targets and try to reduce emissions from fossil fuels. Much of ammonia is still produced by burning natural gas or liquefied petroleum gas, but there's anticipation that it could be made from cleaner energy in the future. JERA will conduct an international competitive bid for as much as 500,000 tons of fuel ammonia a year from fiscal 2027 into the 2040s, and also is looking to participate in the production projects, the firm said.

A joint venture between Tokyo Electric and Chubu Electric. JERA is targeting to have its domestic coal power plants operate on 20% ammonia by the early 2030s and 100% by

mid-century. The request for proposals is the first of its kind for mass procurement of fuel ammonia, and comes as Japanese utilities scrutinize technologies to help reduce their carbon footprint. In October, JERA said it was in talks with 40 firms for building an ammonia production project, and was aiming to choose partners in two to three years.