Oil and Gas News Briefs Compiled by Larry Persily December 18, 2023

U.S. shale's record-breaking resurgence counters OPEC+ cuts

(Bloomberg; Dec. 17) - OPEC's nemesis — U.S. shale — is rearing its head just months after the sector was all but written off as a threat to the cartel's sway over world oil markets. Drillers from the Permian Basin in West Texas to the Bakken Shale of North Dakota have ramped up production far beyond what analysts foresaw, pushing output to a record just as OPEC and its allies cut back on supplies in a bid to stop price declines.

This time last year, U.S. government forecasters predicted domestic production would average 12.5 million barrels a day during the current quarter. In recent days, that estimate was bumped to 13.3 million. That growth is reverberating around the world, calling into question OPEC+'s strategy of curbing supplies to prevent the potentially catastrophic price impacts of a glut. It also makes clear that the legions of companies that pump oil from U.S. shale fields still wield enough power to bedevil the cartel.

Part of what makes the U.S. surge surprising is that companies managed to increase production even as the number of drilling rigs at work fell roughly 20% this year. That productivity gain has confounded many analysts and researchers who have long relied on the rig count as a predictor of future crude output. Explorers are squeezing crude out of new wells more efficiently because of innovations in everything from electric-pump technology to new strategies for deploying workers. "In 2019, the average well took me 19.5 days," Diamondback Energy drilling chief Yong Cho said during an interview. "Now it takes me 11.5 days," he said of the company's prospects in the Permian Basin.

Global oil inventories close to 10-year average despite OPEC+ cuts

(Reuters; Dec. 12) - Current crude oil prices appear to be in line with market fundamentals, to the evident frustration of Saudi Arabia and its OPEC+ partners trying to push them higher, which suggests their efforts may be in vain for now. Despite multiple rounds of OPEC+ production cuts since the fourth quarter of 2022, global petroleum stocks are close to the long-term average.

Commercial inventories of crude and refined products in the countries of the Organization for Economic Cooperation and Development (OECD) totaled 2.841 billion barrels at the end of October 2023. OECD commercial stocks were building and were just 19 million barrels below the 10-year seasonal average, with the deficit narrowing from 218 million barrels in March 2022. Production restraint by Saudi Arabia and its

OPEC+ allies has been more than offset by output growth from U.S. shale oil producers and other sources as well as softer growth in global consumption.

Goldman Sachs trims 2024 oil price forecast by \$10 per barrel

(Reuters; Dec. 17) - Goldman Sachs trimmed its price forecast for Brent crude in 2024 by \$10 per barrel to between \$70 and \$90, saying strong production from the United States would moderate any upside risk in prices. "We still look for range-bound prices and only moderate price volatility in 2024. Elevated spare capacity to handle tightening shocks should limit upside price moves," its analysts said in a note dated Dec. 17.

The investment bank now expects Brent to recover to a peak of \$85 per barrel in June 2024, and to average \$81/\$80 in 2024/2025 compared to \$92 previously. Continued supply from non-OPEC sources shows that several tailwinds to growing U.S. production are likely to persist in 2024, holding down prices, Goldman Sachs added. However, the recent OPEC+ decision to rein in supply, a possible economic recovery in China, restocking in the U.S. and a modest recession risk should limit the downside risk that oil prices could fall too much, the bank noted.

Canadian oil line builder says further delay would be 'catastrophic'

(Calgary Herald; Dec. 15) - The company building the Trans Mountain oil pipeline expansion is warning completion could be delayed by two years if the Canada Energy Regulator does not allow a previously rejected request for a pipeline variance. In a regulatory filing Dec. 14, Trans Mountain Corp. said a delay would be "catastrophic" for the project, which is currently more than 97% complete. It said a delay of that length would cause billions of dollars of losses for the company, which is a Crown corporation.

The development is just the latest in a series of hurdles Trans Mountain Corp. has faced as it races against the clock to finish its massive pipeline construction project. Trans Mountain is Canada's only oil line to the west coast. Its expansion will boost the line's capacity to 890,000 barrels per day from 300,000. The project's completion had been expected in early 2024, but it has run into construction difficulties in its home stretch.

Trans Mountain Corp. has already had to alter the route slightly near Kamloops, British Columbia, due to difficulty drilling a tunnel. The newest challenges are related to hard rock conditions. In October, it asked the regulator to allow a different diameter, wall thickness and coating for a 1.5-mile stretch of pipe to ease construction, but the regulator denied that request earlier this month. The company is again asking that it be allowed to alter the type of pipe used. The project's costs have spiraled through the course of construction from an original estimate of C\$5.4 billion to C\$30.9 billion.

Canadian oil producers boost capital spending for 2024

(Calgary Herald columnist; Dec. 14) - One day after countries at the U.N. COP28 climate summit agreed to transition away from fossil fuels, two of Canada's largest oil producers unveiled capital plans to spend more than \$10 billion next year. It comes as the world consumes record amounts of oil this year — more than 100 million barrels per day — and as Canadian producers prepare to meet the ongoing call for more energy.

"There is a place for fossil fuels, and that's just reality," said Gurpreet Lail, CEO of Enserva, an industry group that represents Canada's energy services, supply and manufacturing sector. "You can spin it any which way you want to make yourself feel better or placate public opinion right now. But the fact of the matter is, we need investment coming back into this industry," said Lail, who attended the U.N. summit.

The capital programs of several major industry players in Canada were unveiled in the past week, and analysts expect modest spending growth. Canadian Natural Resources announced its 2024 budget at \$5.4 billion, up from \$5 billion in 2023. The country's largest petroleum producer forecasts total output will average about 1.36 million barrels of oil equivalent per day next year. Cenovus Energy released plans to spend about \$4.75 billion in 2024, including about \$2.6 billion of capital expenditures in the oil sands. The Calgary-based company's total budget is up about \$500 million, or 12%, from 2023. It is expecting total production of about 790,000 barrels of oil equivalent per day.

LNG trader's decision to cancel deliveries hurt Pakistan

(Bloomberg; Dec. 14) - Toward the end of 2021, Ksenia Alleyne called her team into a meeting. Alleyne is the co-head of liquefied natural gas trading at Gunvor — a Swiss-based commodities firm with customers around the world. Above all, she told the traders and analysts, they needed to find more LNG — and fast. Russian forces were massing on the borders of Ukraine, and a certain result would be a spike in global energy prices.

The traders began to scour Gunvor's sales agreements, which promised to deliver gas at rates far lower than where Alleyne believed prices were going. Specifically, they looked into which ones Gunvor could cancel. Within a few weeks, the team identified a candidate: Gunvor's deal with Pakistan, which depends heavily on LNG but is a far smaller customer than importers China and Japan. After some internal debate, the traders ran the idea of scrapping it past the firm's legal team and decided to proceed.

When Russia invaded Ukraine on Feb. 24, 2022, gas prices soared more than 150% in 11 days. Around the same time, Gunvor stopped responding to communications from the Pakistani government. Then it terminated Pakistan's LNG deal, saying the country had underpaid for a cargo. Pakistan disputes this. Under terms of the contract, Gunvor was supposed to supply Pakistan with five tankers of LNG over the next few months.

Instead, ship-tracking data show, Gunvor sent the cargoes to countries including the U.K. and Italy, where buyers paid the spot-market price. If the gas had been delivered to Pakistan as originally planned, the value of the sales would have been about \$200 million, according to calculations by Businessweek. By the same arithmetic, Gunvor's traders unloaded it on the spot market for more than \$600 million.

Gunvor's decision to redirect its supplies — and other canceled gas deliveries by Eni, a state-controlled Italian energy group — helped prompt an energy crisis in Pakistan that continues today. The nation of 240 million uses gas to heat homes, power industry and run cars and buses. When it ran short, factories were forced to shut or dramatically cut their output. Fertilizer plants cut back, threatening food production. Pakistan paid record spot-market prices for the gas it could find, pushing it to the brink of default.

LNG Canada terminal in British Columbia prepares for yearlong start

(LNG Prime; Dec. 14) - Shell's LNG Canada project is now preparing to launch start-up activities next year, with final steps and commissioning to take more than a year to complete, according to LNG Canada's CEO Jason Klein. "Our Kitimat (British Columbia) facility is now more than 85% complete overall," he said. "We're now preparing for safe start-up activities to begin in 2024. That's when our equipment is tested and fine-tuned, and we begin the process of producing LNG," Klein said.

Contractor JGC Fluor is constructing the first phase of the multibillion-dollar project that includes two liquefaction trains with a capacity of 14 million tonnes per year. It will be the first LNG export terminal in Canada. Shell and its partners are evaluating a second phase to add more capacity. The partners are Malaysia's Petronas, PetroChina, Japan's Mitsubishi and Korea Gas.

At peak employment this past summer, more than 8,000 workers were on site in Kitimat. Klein said LNG Canada has installed all 215 of the large modules required for the gas liquefaction process. Its contractors have completed hydro testing of the LNG storage tanks, and TC Energy's Coastal GasLink pipeline, which will supply gas to the terminal, is built and will undergo testing and other steps before operations.

Mozambique wants to set up sovereign wealth fund for LNG revenues

(Bloomberg; Dec. 13) - Mozambique Finance Minister Max Tonela has unveiled a longawaited bill to govern a planned sovereign wealth fund overseeing revenues from what the state expects will amount to \$91.7 billion in natural gas exports in the coming decades. The proposed law sees 40% of state revenues from liquefied natural gas exports going to the fund for the first 15 years, with the rest allocated to the national budget. After that, the money will be split evenly between savings and annual spending, Tonela told lawmakers on Dec. 13.

Government earnings from the projects already approved — including a \$7 billion offshore platform that started exporting LNG a year ago, and a \$20 billion onshore LNG plant that's currently on hold for construction due to an Islamic State-linked insurgency in the area — will peak at more than \$6 billion annually in the 2040s, Tonela said. The central bank will be the operational manager of the fund. The revenues will be crucial in helping Mozambique repay a \$900 million bond that starts maturing from March 2028.

The creation on the wealth fund for one of the world's poorest nations was a key requirement of the International Monetary Fund, which last year agreed to a \$456 million economic program with Mozambique.

U.S. gas production, LNG exports continue climbing to record highs

(Reuters; Dec. 13) - U.S. natural gas futures edged up about 1% on Dec. 13 from a sixmonth low in the prior session on higher demand forecasts and as record amounts of gas flowed to liquefied natural gas export plants. Front-month gas futures for January delivery on the New York Mercantile Exchange rose 2.4 cents, or 1%, to settle at \$2.335 per million Btu, a low price during heavy winter demand. Analysts forecast there was currently around 7.8% more gas in storage than usual for this time of year.

Analysts have said they expect U.S. natural gas prices to climb in coming years as demand for the fuel grows as new LNG export plants enter service in the U.S., Canada and Mexico. Financial firm LSEG said average gas output in the Lower 48 states rose to 108.4 billion cubic feet per day so far in December from a record 108.3 bcf in November. Gas flows to the seven big U.S. LNG export plants rose to an average of 14.6 bcf per day so far in December, up from a record 14.3 bcf in November.

Unit of Tokyo Gas buys U.S. shale producer for \$2.7 billion

(Reuters; Dec. 16) - A unit of Tokyo Gas has decided to buy Texas-based natural gas producer Rockcliff Energy from private equity firm Quantum Energy Partners for \$2.7 billion to expand its overseas business, it said on Dec. 16. The deal comes as part of the Japanese company's efforts to expand its North American shale gas operations to meet growing demand for natural gas as an energy-transition fuel.

Tokyo Gas, Japan's biggest city gas supplier, and other utilities are stepping up overseas expansion to counter falling demand in their domestic market. Japan has an aging population and a declining birthrate, while energy market reform has spurred competition among old-guard utilities. Under the deal, TG Natural Resources — 79%

owned by Tokyo Gas — will buy all of the shares in Rockcliff Energy from Quantum Energy Partners. The deal is expected to close on Dec. 29, Tokyo Gas said.

With the acquisition, TGNR's gas production will quadruple to 1.3 billion cubic feet per day from about 330 million cubic feet per day, making it one of the largest shale gas producers in Texas and Louisiana, according to Tokyo Gas. The production is also close to new liquefied natural gas export terminals and other facilities expected to increase demand for natural gas in the future, Nakao said.

German buyer asks FERC to approve Louisiana LNG project

(Reuters; Dec. 14) - The German state-owned Securing Energy for Europe (SEFE) has become the third company to push for approval from U.S. energy regulators for liquefied natural gas developer Venture Global to begin construction on its CP2 LNG project in Louisiana. SEFE's letter to the Federal Energy Regulatory Commission, dated Dec. 11, highlighted the role of the CP2 LNG project in securing Europe's energy supply.

In June, SEFE, via its unit Wingas, signed a 20-year deal to buy 2.25 million tonnes per year of LNG from Venture Global's proposed CP2 project in Louisiana, planned for an annual production capacity of 20 million tonnes. The German company's appeal to FERC follows a similar request from two Japanese energy companies, Inpex and JERA, seeking U.S. approval for construction of the project.

"SEFE's long-term LNG purchased from CP2 LNG will now be vital to Germany's energy security in the new environment where gas pipeline supplies from Russia have stopped," the company said in its letter to FERC. Aside from FERC approval, the CP2 project is also awaiting export authorization from the U.S. Department of Energy before construction can start. Venture Global, which started early site work on CP2 in the spring of 2023, has contracts for nearly half the plant's capacity.

Enbridge selling long-held stake in Canada-U.S. gas pipeline

(The Canadian Press; Dec. 13) - Enbridge is selling its stakes in the Alliance pipeline and Aux Sable gas processing facility to Pembina Pipeline for C\$3.1 billion. The Alliance is a 2,391-mile pipeline stretching southeast from British Columbia that brings gas into Chicago's Aux Sable hub, one of the largest natural gas liquids processing facilities in North America. Enbridge currently owns 50% of Alliance and 42.7% of Aux Sable, while Pembina Pipeline owns the remaining 50% of Alliance and 42.7% of Aux Sable.

As part of the transaction, Pembina, which is the current operator of Aux Sable, will become the sole operator of Alliance. Enbridge said Dec. 13 that the proceeds from the sale will fund a portion of its previously announced US\$14 billion acquisition of three

U.S.-based gas utilities from Virginia-based Dominion Energy. That deal, which was announced in September, is expected to close next year and will see Enbridge double the scale of its gas utility business through the purchase of East Ohio Gas Co., Questar Gas Co. and its related companies, and the Public Service Co. of North Carolina.

Calgary-based Pembina said the acquisition of Enbridge's share in the Canada-U.S. gas line and processing facilities increases its exposure to natural gas and gas liquids, as well as expanding its presence and reputation in the U.S. market. The Alliance was a game-changer when it started operations in 2000, constructed at a cost of US\$3.1 billion. It was developed by a consortium of Western Canada gas producers that wanted another option for moving their gas to the U.S. market and earning higher prices.

Shell and Venezuela cannot agree on value of gas to feed LNG plant

(Reuters; Dec. 14) - A disagreement between Shell and Venezuela's state company PDVSA over future liquefied natural gas prices has gridlocked talks on a license for Shell and Trinidad and Tobago's National Gas Co. (NGC) to operate a Venezuelan gas field, two people close to the negotiations said. Trinidad is seeking access to up to 4.2 trillion cubic feet of gas in Venezuela's Dragon offshore field to ramp up exports of LNG and petrochemicals, which have suffered in recent years because of gas curtailment.

"The Venezuelan government has made it clear to Trinidad and Tobago that the license will not be issued to Shell and NGC unless Shell and PDVSA come to an agreement on future LNG prices," the people said. Shell projects soft LNG prices to 2050, but Venezuela has argued that many analysts suggest LNG prices in Europe and Asia are likely to remain strong in the long term, the people said.

The parties had originally planned to have the license approved by the end of December, after receiving U.S. authorization in January and agreeing to the main terms. At issue is a 25-year authorization to send an initial volume of 300 million cubic feet per day of Venezuelan gas to Trinidad for LNG production starting in late 2026, and 50 million cubic feet per day to petrochemical plants. Shell is set to operate the project with a 70% stake and NGC would hold the remaining 30%. Trinidad's flagship Atlantic LNG project last year ran at about 50% capacity because of a shortage of feed gas.

U.S. Interior Department significantly scales back offshore lease sales

(Energy & Environment News; Dec. 15) - The Biden administration approved the smallest offshore oil program in U.S. history on Dec. 15, a move that's already provoked outrage from Republicans and disappointment from climate activists who had urged the president to take more dramatic action. Over the next five years, the Interior Department

will hold just three auctions of drilling rights in the Gulf of Mexico, where much of the nation's oil and gas production occurs.

That makes the oil sale next week the last opportunity for companies to buy leases in the nation's waters until 2025. The shrunken program is the latest example of the White House's efforts to curtail the nation's fossil fuels footprint on public lands and waters, despite mandates to allow development of the nation's oil and gas. Climate activists had urged President Joe Biden to zero out oil sales in the five-year plan, consistent with his promise during the 2020 presidential campaign to retire the nation's drilling program. Oil supporters, however, demanded a return to the norms of multiple auctions every year.

Interior rewrites the schedule for offshore oil and gas leases every five years. Recent five-year programs have included at least two auctions annually in the Gulf of Mexico and some sales in Alaska. But Interior's offshore oil programs historically would include dozens of sales. The Biden administration allowed the last offshore oil program to end in 2022 without a replacement. A previous proposal floated by the Trump administration would have included 47 auctions over a five-year period. The five-year program announced on Dec. 15 includes an oil sale every other year, in 2025, 2027, and 2029.

Energy Department announces \$890 million in carbon capture grants

(S&P Global; Dec. 15) - The U.S. Department of Energy's Office of Clean Energy Demonstrations has announced up to \$890 million in funding for three projects that feature carbon capture and storage technologies as part of its Carbon Capture Demonstration Projects Program. The program has \$2.5 billion in available funding from the 2021 bipartisan infrastructure law that aims to support efforts to implement carbon management technologies.

The projects are in Texas, North Dakota and California, according to a DOE statement released Dec. 14. Combined, the projects have the potential to prevent 7.75 million tonnes of carbon dioxide emissions from being released each year, equivalent to the annual emissions of 1.7 million gasoline-powered cars, according to the statement.

The selected projects are: Baytown Carbon Capture and Storage Project in Baytown, Texas, which plans to capture emissions from a gas-fired power plant and transport the CO2 by pipeline to Gulf Coast storage sites; Project Tundra in Center, North Dakota, which will capture emissions from a coal-fired power plant and store the CO2 underground; and Sutter Decarbonization Project in Yuba City, California, which will capture emissions from a gas-fueled power plant for underground storage.