Oil and Gas News Briefs Compiled by Larry Persily May 1, 2023

New York may become first state to ban gas in most new buildings

(Washington Post; April 27) - New York is on the cusp of becoming the first state to pass a law banning natural gas in most new buildings, according to a handshake agreement that Gov. Kathy Hochul announced she and state lawmakers had reached on April 27. The law would effectively require that most new buildings go all-electric, jettisoning fuel-burning appliances in favor of heat pumps and induction stoves for heating and cooking. It is part of a national movement, led by climate advocates, to cut greenhouse gas emissions from homes and businesses by ridding buildings of gas, oil and propane.

The deal follows weeks of negotiations over a slew of nonfiscal measures included in the New York state budget, which was delayed over disagreements between the governor and the Democrat-led legislature over bail and housing policy. Though its exact terms have not been made public, environmental advocates said the gas ban would take effect in 2026 for most new buildings under seven stories high and in 2029 for taller buildings — the timeline the governor had sought.

While some states have used their building codes to restrict natural gas hookups, New York would be the first to apply the ban in state law. Washington was the first to use its building code to mandate all-electric space heating and cooling in new buildings — a step that effectively requires developers to install electric heat pumps. The New York law is likely to face legal challenges. Earlier this month, the 9th U.S. Circuit Court of Appeals struck down the city of Berkeley's first-in-the-nation gas ban, dealing a potential setback to that California city and 25 others with similar ordinances.

Exxon gives go-ahead for \$12.7 billion oil project in Guyana

(Reuters; April 28) - Guyana's government on April 28 announced it approved a production license for a consortium led by ExxonMobil to develop its fifth and most expensive oil project in the country, the Natural Resources ministry said. The 20-year license came after Guyana's environmental agency authorized the \$12.7 billion offshore project. The Exxon consortium gave its formal investment greenlight.

The project, named Uaru, is expected to be developed through a total of 44 wells. The new floating production storage and offloading vessel Errea Wittu, to be built by Japan's Modec, will produce about 250,000 barrels per day at its peak. First oil from Uaru is expected to come by the second quarter of 2027, boosting Guyana's overall oil

production to some 1.1 million barrels per day. The Exxon consortium, which includes U.S.-based Hess and China's CNOOC, controls the country's entire oil production.

The resource at Uaru is estimated at more than 800 million barrels of oil equivalent. Two floating production vessels, the Liza Destiny and Liza Unity, are currently operating offshore Guyana and produced an average of 375,000 barrels of oil equivalent per day in the first quarter of the year. A third ship, the Prosperity, is expected to be operational later this year, adding 220,000 barrels of daily capacity. ExxonMobil made a final investment decision on a fourth offshore project, Yellowtail, last year. The company is targeting to have six floating production vessels online by the end of 2027.

Chevron boosts cargoes of Venezuela crude; sells to rival refiners

(Reuters; April 28) – Chevron has stepped up sales of Venezuelan crude to rival U.S. refiners, adding PBF Energy and Marathon to its list of customers, vessel tracking and loading schedules showed. U.S. Gulf Coast refiners, which historically processed Venezuelan oil, have shown a renewed appetite for the heavy sour crude grade after Chevron late last year received authorization from the Treasury Department to expand its operations in Venezuela and resume shipments to the U.S. after a four-year pause.

Chevron, the last big U.S. oil producer still operating in U.S.-sanctioned Venezuela, has increased exports of the crude since January. So far in April, it has loaded about 148,000 barrels per day of oil, with cargoes going to at least three other U.S. refiners besides Chevron's own refinery. In mid-April, Chevron sold about 550,000 barrels of Venezuelan crude to PBF for its Chalmette refinery, near New Orleans.

An additional 500,000 barrels were being loaded this week at Venezuela's Jose terminal for delivery to Garyville, Louisiana, according to state-run oil company PDVSA loading schedules. Marathon owns and operates the Garyville refinery. Valero Energy also has received cargoes from Chevron, with a tanker discharging about 500,000 barrels at its St. Charles, Louisiana, refinery on April 27. Chevron has sent Venezuelan crude to its own Pascagoula, Mississippi, refinery, and this month shipped a cargo to an oil-storage terminal in the Bahamas.

India imports cheap Russian crude; sells refined fuels to Europe

(Bloomberg; April 28) - Russian oil is still powering Europe — just with the help of India. Back in December, the European Union barred almost any seaborne crude oil imports from Russia. It extended the prohibition to refined fuels two months later. However, the rules didn't prevent countries like India from snapping up cheap Russian crude, turning it into fuels like diesel, and shipping it back to Europe at a markup.

India is on track to become Europe's largest supplier of refined fuels this month, while simultaneously buying record amounts of Russian crude, according to data compiled by Bloomberg from analytics firm Kpler. "Russian oil is finding its way back into Europe despite all the sanctioning, and India ramping up fuel exports to the West is a good example of it," said Viktor Katona, lead crude analyst at Kpler.

The development is double-edged for the European Union. The bloc needs alternative sources of diesel now that it has cut off direct flows from Russia. However, it ultimately boosts demand for Moscow's crude and means extra freight costs. It also means more competition for Europe's oil refiners that can't access cheap Russian crude, and comes amid wider market scrutiny about where the region's diesel imports are coming from.

Europe's refined fuel imports from India are set to surge above 360,000 barrels a day, edging just ahead of those of Saudi Arabia, Kpler's data show. Russian crude oil arrivals to India are expected to surpass 2 million barrels a day in April, representing almost 44% of the nation's overall oil imports, according to Kpler data.

Report accuses Eni of profiting from reselling canceled LNG cargoes

(Bloomberg; April 28) – Eni earned about \$550 million by canceling and then reselling contracted liquefied natural gas promised to Pakistan over the past two years, which exacerbated the nation's energy shortage, according to an analysis by two nonprofits. The company failed to deliver at least four scheduled shipments between late 2021 and early 2023 under a contract to supply one cargo a month, according to Sourcematerial, an investigative nonprofit, and Recommon, an Italian environmental group.

During that time, Eni's LNG ships stopped going to Pakistan and headed to Turkey instead, they said in the joint report. Eni denies that it benefited from the situation, and said all undelivered cargoes to Pakistan were beyond the reasonable control of the firm. Two of Pakistan's long-term gas suppliers, including Eni, began to cancel more deliveries from late 2021 citing their own shortages, Bloomberg reported last year.

The cancellations came as the global gas market started to tighten, and with Russia's invasion of Ukraine in 2022 triggering a rush for LNG that left shortages for buyers that could no longer afford the fuel. Pakistan's contracts, linked to oil prices, were at a fraction of spot-market LNG prices during the peak of last year's energy crisis, and included a comparatively modest 30% penalty for cancellation, making it profitable for suppliers to legally scrap shipments and then resell the gas at much higher prices.

Contractor costs next hurdle to restarting Mozambique LNG project

(Reuters; April 27) - The restart of TotalEnergies' \$20 billion Mozambique liquefied natural gas project is being complicated by disagreements with contractors over extra costs, the company said on April 27. The French energy company holds a leading 26.5% stake in the development, which was halted in 2021 after Islamic State-linked insurgents attacked civilians in Mozambique's northern Cabo Delgado province where the LNG project is located.

TotalEnergies CEO Patrick Pouyanne told investors that cost considerations were the last step before restarting the project, as the security situation has stabilized. "We need the contractors to be reasonable, some of them are not ... and have tried to benefit from the situation," Pouyanne said. "There is no way for us to accept some undue costs. We have paid what we have had to pay because we stopped the project and have to restart. We don't see why we should pay more than that. So that's where we are."

This week, Mozambique President Filipe Nyusi said the Cabo Delgado province was safe enough for the project to restart, while energy services group Saipem said it was notified by Total to prepare for a restart in July. The project was initially slated to deliver its first LNG cargo in 2024. Pouyanne said he was not worried by the project's delay, and that so far no buyers who have pre-signed to take gas have exercised their right to withdraw. "If some buyers prefer to withdraw we are ready to take more, so we are open to that, but some Japanese buyers are also ready to take more," he said.

Russia's second Arctic LNG project moves closer to commissioning

(High North News; April 27) - After more than three years of construction, the commissioning of Novatek's Arctic LNG-2 project on Russia's Gydan Peninsula is inching closer. This week Russian state corporation Rosatom received permits to commission the offshore facilities associated with the Utrenny terminal serving the project. Between July 2020 and December 2022, Rosatom and its subsidiaries constructed a 2.7-mile-long ice protection barrier, widened and deepened a 3.5-mile-long approach channel and completed facilities for the safety of marine navigation.

The \$1.2 billion infrastructure project was financed 70% with state funds. Novatek and its partners are expected to spend over \$20 billion on the LNG project, which consists of three liquefaction lines, each with a nameplate capacity of 6.6 million tonnes per year. Novatek aims to commission the facility later in 2023. The gravity-based structures for the project are being constructed at the Belokamenka yard near Murmansk. From there, they will be towed 1,200 miles to the terminal on the Gydan Peninsula.

It's in contrast to Novatek's first Arctic gas project, Yamal LNG, where modules for the liquefaction plant were constructed in China, shipped over 6,000 miles and assembled on site. For Arctic LNG-2, the massive floating industrial facilities 30 stories high and weighing 700,000 tons contain the entire liquefaction infrastructure. Once they arrive on site, they will be sunk close to shore and connected to the land-based infrastructure.

Western sanctions against Russia have affected Novatek's work, as several partners involved in the construction exited in 2022, leaving Novatek looking for new suppliers.

Rio Grande LNG plans investment decision by June 30

(Natural Gas Intelligence; April 27) - NextDecade CEO Matthew Schatzman said that FERC's order reaffirming its approval for Rio Grande LNG was a crucial milestone that's likely to vault sanctioning of the Texas project across the finish line. "This was a strong order," Schatzman said in an interview, days after the Federal Energy Regulatory Commission made its decision. "It removes any regulatory uncertainty. ... It allows us to move swiftly in bringing the project to a positive final investment decision."

In a 3-1 vote, FERC reaffirmed that its 2019 approval for the Rio Grande project is in the public's interest and can move ahead. The decision came 18 months after a federal appeals court ordered FERC to review its authorization. The project, proposed at 27 million tonnes per year at full build-out, is among the U.S. projects under development that are considered closest to being sanctioned. It has contracts with LNG buyers to take more than 60% (11 million tonnes) of the first-stage capacity of 17.6 million tonnes.

Schatzman acknowledged there is still much work to do to make the project a reality. "The big announcement that everyone is waiting for is FID. We haven't changed our current guidance that we expect to make FID before the end of the second quarter (June 30)." He also said the project will have its financing in place "by the end of the second quarter." Schatzman noted that Rio Grande LNG has "a long-term, lump-sum turnkey contract with Bechtel" for construction. "A lot of the risks you're talking about are not borne by us or our equity partners. They'll be managed by Bechtel."

Japanese buyer signs 20-year deal with Louisiana LNG developer

(Reuters; April 27) - U.S. company Venture Global LNG announced a deal to supply liquefied natural gas to Japan's JERA for 20 years, it said on April 28. Venture Global will sell 1 million tonnes per year of LNG to JERA, Japan's biggest power generator and one of the world's biggest LNG buyers, from its CP2 LNG project, it said in a statement. CP2 LNG is Venture Global's third project and is expected to start construction later this year. So far, over a third of its nameplate capacity has been sold, it said in a statement.

"This is a destination-free contract, which enables JERA to secure LNG in a highly flexible manner and is expected to help with our capability to respond to volatility in the domestic electricity supply and demand," Venture Global's statement said, citing JERA senior managing executive officer for optimization Sunao Nakamura. In its own statement, JERA said that it will purchase the LNG from the commencement of CP2's commercial operations.

Venture Global has about 70 million tonnes of annual LNG export capacity in operation, construction or development in Louisiana, including Calcasieu Pass (10 million tonnes, in operation and construction), Plaquemines (20 million tonnes, in construction), Delta (20 million tonnes, in development) and CP2 (20 million tonnes, in development). In February, Venture Global signed an agreement to provide a total of 2 million tonnes per year of LNG to China Gas Holdings. China Gas said it would receive 1 million tonnes annually from Venture Global's Plaquemines LNG and CP2 LNG each for 20 years.

BP buys Shell's stake in stalled Australia gas project

(Reuters; April 29) – BP has agreed to buy Shell's 27% stake in the Browse joint venture, expanding its holding in Australia's largest untapped gas resource in a move that could improve the development prospects for the long-stalled project. The Browse project, estimated to cost \$20.5 billion, has been stuck on the drawing board for years but is now being considered as a replacement for aging gas fields to supply the North West Shelf LNG plant, which inaugurated Australia's first gas exports in 1989.

Development of Browse would extend the life of the North West Shelf LNG plant for decades, helping to meet demand for LNG from Australia's biggest trading partners, including China, Japan and South Korea, even as they turn to cleaner energy. Shell said in a statement on April 28 that it had agreed to sell its stake in Browse as the "asset is no longer a strategic fit in the context of Shell's global portfolio."

Credit Suisse analyst Saul Kavonic said the project still faces significant hurdles, including costs, carbon emissions solutions and environmental approvals. "The project is still years away from gaining real traction again, if at all," he said. If the deal goes ahead, BP will increase its stake in Browse to 44%, overtaking operator Woodside Energy's 30.3% stake. Woodside, BP and Shell are also all stakeholders in the North West Shelf LNG plant. Neither BP nor Shell commented on the deal price.

Economic worries hold down oil prices, even after OPEC+ cut

(CNBC; April 28) - A surprise decision by several OPEC+ producers to voluntarily cut output in April had pushed up analyst oil price forecasts near \$100 per barrel, but stagnating prices now point to a deepening divide between macroeconomic sentiment and supply-demand fundamentals. Oil prices have once again lulled near \$80, nearly revisiting territory walked in early April before members of the OPEC+ coalition announced a unilateral cut totaling 1.6 million barrels per day until the end of the year.

The OPEC+ production declines had prompted some analysts to warn prices could surge to triple digits, with Goldman Sachs adjusting its Brent forecast up by \$5 per barrel to \$95 per barrel for December 2023. Analysts now flag that broader financial

turmoil has so far obstructed this bullish outlook, as supply-and-demand factors are outweighed by recessionary concerns.

"Oil markets have completely faded the boost from the surprise OPEC+ cut ... and we think this primarily reflects deep pessimism about the macro outlook," Barclays analysts said in a note on April 26. "People really bet on a China reopening," Helima Croft, global head of commodity strategy at RBC Capital Markets, told CNBC's "Squawk Box" on April 26. Viktor Katona, lead crude analyst at Kpler, said oil prices have suffered from a "constant barrage of gloomy macroeconomic news that creates a negative sentiment background," as well as market distrust in implementation of OPEC+ production cuts.

Oil producers in better economic health and may return to mergers

(Bloomberg; April 27) - The U.S. energy patch is ripe for a takeover boom, as oil and gas producers flush with cash turn to dealmaking to find new sites to drill. Producers raked in record profits after Russia's invasion of Ukraine sent crude prices soaring, helping them rebound from their crash during the pandemic. Now that they are back on solid financial footing, companies are seeking to bulk up and consolidate, particularly in the Permian of Texas and New Mexico, the largest and most productive U.S. oil field.

Tie-ups bring several benefits, including expanding the supply of well locations and scale that can strengthen producers' bargaining power with suppliers. "The world needs more U.S. oil, and the Permian has several thousand locations remaining that are viewed as high quality," said Pete Bowden, global head of industrial, energy and infrastructure banking at Jefferies Financial. "If you're a major oil company, you have to think about getting that supply while it's available."

As much as \$230 billion may be spent on oil and gas deals in North America this year, ending a three-year slump, McKinsey & Co. wrote in February. Meanwhile, the Permian is still relatively fragmented, which makes consolidation somewhat inevitable. The basin is set to grow 40% before hitting its peak of 7.86 million barrels a day in 2030, according to a Bloomberg survey of major forecasters.

U.S. shale has several advantages over conventional oil production such as quick-to-produce wells that have relatively low risks and costs. But production declines as much as 60% in the first year, and companies constantly need to drill new wells to maintain output. Nearly a decade into the Permian oil boom, most of the best drilling sites have been tapped, meaning producers are increasingly looking to buy more acreage.

U.S. wants natural gas industry to report emissions reduction plans

(Natural Gas Intelligence; April 27) - Natural gas and LNG operators have been asked by the Biden administration for information about how the technologies they are using — or plan to deploy — will reduce carbon emissions from production, transportation and liquefaction. In a request for information issued on April 25, the Office of Fossil Energy and Carbon Management said it would take public comments over the next two months from operators regarding the potential for technology to reduce natural gas emissions.

"Looking forward, we must continue to tackle the issue of climate change and work to achieve our clean energy and industrial goals," the Department of Energy said. The Office of Fossil Energy is "using its research portfolio and regulatory authorities to help build a sustainable path for natural gas." Along with touting carbon capture and storage technologies, some U.S. exporters are using independent certification to detail emissions. Certification is considered a key to secure European customers in particular.

In the department's request for information from companies, it said it is interested specifically in "information on strategies and technologies" that natural gas and LNG operators "are deploying or could deploy to reduce greenhouse gas emissions and other air pollutants." Emissions data is being sought on carbon dioxide, methane, criteria pollutants and hazardous air pollutants.

Researchers look at links between oil and gas drilling and sinkholes

(Energy Wire; April 28) - The emergence of a new gaping sinkhole in Southeast Texas is dredging up decades-old questions about how much of a role oil and gas production plays in causing the ground to open up. While not as well-documented as the link between oil and gas drilling and its wastewater injection and earthquakes, the nexus between the industry and sinkholes is of concern to some researchers who say drilling activity can help create gaping scars in the earth, posing risks to nearby communities.

"Sinkhole formation is very common," said Zhong Lu, a professor of earth sciences at Southern Methodist University. "Critically, we disturb (the earth) with hydrocarbon activities." The issue came to the forefront this month when a fourth sinkhole developed in Daisetta, Texas, a small town of 1.48 square miles between Houston and Beaumont. It occurred on land that used to house an oil field service company — the same piece of property where another sinkhole nearly 500 feet in diameter opened in 2008, prompting evacuations and fears the earth could swallow up the high school a quarter-mile away.

While both recent sinkholes seem stable, and scientists haven't definitively pinpointed the cause of their formation, the development is stirring debate about the role of oil and gas production. "Most evidence attributing blame is circumstantial, but you do have sinkholes around wells," said Jeff Paine, a research scientist with University of Texas at Austin's Bureau of Economic Geology. Studies suggest a link. In areas of the Permian Basin in Texas, Lu and other SMU researchers in 2018 found activity caused the ground surface to rise and fall due to pumping wastewater underground and pulling out crude.

<u>Greenpeace criticizes Europe for too many LNG import terminals</u>

(Bloomberg; April 26) - Greenpeace activists are warning that Europe's new liquefied natural gas infrastructure — built in record time to ease the energy crisis — could pose a disaster for the region's climate ambitions. Eight new LNG import terminals have been approved in the European Union, with 38 more in the pipeline, allowing for 950 million tons of carbon dioxide emissions per year, according to a report by the environmental organization. That's equivalent to a third of the bloc's total emissions in 2019, before the COVID-19 pandemic triggered an economic slowdown.

While a proportion of those emissions would have been discharged into the atmosphere anyway if the EU were still using Russian pipeline gas, the risk is that new infrastructure creates a "structural oversupply" as countries rush to secure new long-term LNG supply contracts, Greenpeace said. It could also result in billions of euros worth of stranded assets in Europe and supplier countries, like the U.S.

"This infrastructure buildout is irrational," the report said. "The LNG boom replacing pipelined gas raises grave concerns about the EU energy transition away from fossil fuels and the energy future of the continent." Officials argue that fossil fuel infrastructure is temporary while the rollout of renewables is being accelerated. "Renewables are crucial for us to reach our goals in 2050. It is all about speeding up," Commission President Ursula von der Leyen said at the North Sea Summit earlier this week.

Maritime shipping industry uncertain as to preferred new fuels

(Bloomberg; April 27) - International shipping is a classic "hard to abate" sector. Container ships, bulk carriers of ore, fuel and grain, and large passenger ships are expensive to build, last for decades, and have gained efficiency historically by becoming bigger. More than 95% of today's ships run on petroleum products, fueling diesel engines that have been optimized for their specific purposes.

While emissions in the global power sector may be close to peaking, shipping emissions show no signs of doing the same. According to the International Energy Agency, shipping emissions have risen by nearly one-third this century. With more international trade, and more raw and finished products on the move, shipping emissions will rise.

The largest ships have used the same fuels for decades. These fuels, which together are known as "bunker," are the residual results of refining oil for other fuels and products. Bunker is less expensive than other fuels, but it is also literally heavier (some grades need to be heated in order to move through a fuel system), and it is certainly polluting. Bunker fuel is carbon-rich and is laden with other pollutants.

A new industry study shows how ship owners think about their own future. The most important finding is that while fuel oil is the undisputed industry standard today, shippers

see no standardized fuel choice by mid-century. A suite of fuels, from liquefied natural gas to methane to ammonia, are all viewed as more or less equally viable at scale. Some other fuels, such as hydrogen, could play a role, but are likely to be niche.

German official says green hydrogen pipeline possible from Türkiye

(Daily Sabah; Türkiye; April 28) - Germany's way out of natural gas is to produce energy from clean sources, said Patrick Graichen, the undersecretary of the German Ministry of Economy and Climate Protection. To achieve that, the country is working on pipelines to transport green hydrogen produced in Türkiye to his country, Graichen said. "By using Türkiye's enormous solar and wind energy potential in green hydrogen production, the green hydrogen produced will be transported from Türkiye to Germany. We are working on transporting it through pipelines to be built."

As electricity produced from wind and solar has become cheaper worldwide and the investment cost has decreased, Graichen said the downward trend in costs will continue. He revealed that efforts are being made to include Türkiye in the European Hydrogen Backbone Initiative. This initiative involves the mapping of hydrogen pipelines by stakeholders in the energy sector, with the aim of reducing the European energy system's dependence on gas and promoting the adoption of clean-energy sources.

Graichen explained that talks are being held with various sector representatives in Türkiye to develop hydrogen production. He emphasized that the technical aspects of hydrogen production and transportation via natural gas are well known, but large-scale transportation of hydrogen would require bigger tanks and pipelines.