# Oil and Gas News Briefs Compiled by Larry Persily May 4, 2023

# Texas Permian boom town has hard time attracting, keeping workers

(Bloomberg; May 3) - The schools are among the worst funded in the state. The hospital is recruiting high schoolers instead of nurses to draw blood. There's so little to do on weekends that Tall City Brewing Co. named its honey blonde ale "Five Hour Drive" because that's what it takes to get somewhere fun. Welcome to Midland, Texas, America's de facto shale oil capital — and the last place many workers want to live.

Although the city of 130,000 between Dallas and El Paso boasts the highest pay raises in the U.S. as the surrounding region churns out more oil than Iraq, its booming wealth has not translated into fundamental local improvements. For years, that didn't much matter: Drillers have been able to attract a largely out-of-town workforce by padding paychecks. But as inflation remains stubbornly high and the pandemic forced a reexamination of work-life balance, raises and bonuses are often no longer enough to entice workers with families to a poorly funded city with notoriously tight purse strings.

If the region can't attract — and retain — people to operate the productive shale fields, the decline of U.S. energy influence is only going to accelerate. Some have already started forecasting the Permian Basin's production peak by decade's end, and a dearth of employees won't help. "Our economic report shows by 2040 we're going to need about 115,000 more workers in the Permian," said Tracee Bentley, CEO of the Permian Strategic Partnership, an organization of local energy companies formed in 2019 to improve the region's roads, schools, health care, housing and workforce training.

Part of the issue behind the city's underinvestment is a small-government, fiscally conservative ethos that pervades the politics of West Texas, a Republican stronghold. But residents say there is also an underlying fear that the decade-old U.S. shale boom could end as quickly as it started, turning the Permian into a ghost town. Why spend tax dollars to improve a city, the thinking goes, when there's fear the bottom could fall out?

# Oil drops 10% in first three days this week amid recession fears

(Bloomberg; May 3) - Oil fell for a third day May 3, a cumulative slide of more than 10%, dropping to just above \$68 a barrel for U.S. benchmark West Texas Intermediate crude, as the prospect of a U.S. recession threatened to curb fuel demand. Just days after some OPEC+ members began cutting output in an effort to stabilize oil markets, there was little indication that the group was having success. Questions also arose whether Russia was joining in the curbs. Brent futures closed at \$72.33 per barrel on May 3.

"The oil price drop is reminiscent of the decline in mid-March when the banking turmoil first started," said Jens Pedersen, director of oil and commodities research at Danske Bank. The slump "suggests the market has gotten concerned about the outlook for demand." Crude has had a rough ride this year despite China's emergence from its restrictive COVID-zero policy and sizable reductions in supply by OPEC and its allies. Those surprise cutbacks, announced just a month ago, were supposed to seize back control of the market from bearish speculators. Instead, a brief rally in April has fizzled.

In Russia, meanwhile, there was no sign of a sustained drop in crude exports, despite its pledge to cut production by 500,000 barrels a day. Exports jumped back above 4 million barrels a day in the week to April 28, a level surpassed only once since Moscow invaded Ukraine, according to tanker-tracking data compiled by Bloomberg. Morgan Stanley this week lowered its forecast for Brent prices to \$75 a barrel by year-end.

### New York legislature approves ban on new natural gas hookups

(Washington Post; May 3) - New York has become the first state to pass a law banning natural gas and other fossil fuels in most new buildings, a move that could help reshape how Americans heat and cook in the coming decades. The New York legislature on May 2 approved a state budget that will prohibit gas hookups and other fossil fuels in most new homes and other construction, a victory for climate activists. The move, which will likely face a court challenge from the fossil fuel industry, will serve as a test of states' power to ban fossil fuels rather than pushing developers to build low-carbon buildings.

The law effectively requires all-electric heating and cooking in new buildings shorter than seven stories by 2026, and by 2029 for taller buildings. And although it allows exemptions for manufacturing facilities, restaurants, hospitals and even carwashes, the measure does not do what some climate activists had feared: give cities and counties license to override the ban. Dozens of U.S. cities and counties have adopted bans on gas in new buildings, part of a movement to cut emissions from homes and businesses.

As the restrictions spread across the country, they become a new front in the culture wars. Democrats, who control the New York Senate and Assembly, decided to press ahead, despite the partisan warfare. And, in the end, it was not negotiations over gas stoves that stirred controversy, but a drawn-out fight over bail reform and housing policy that delayed approval of the budget by a month. The law's passage, and approval of a measure that would require the state to build renewable energy when the private sector falls short, have fueled supporters' hopes for New York to become a national model.

### IMF says Saudi Arabia needs \$80 oil to balance budget

(Bloomberg; May 2) - The International Monetary Fund expects Saudi Arabia won't balance its budget if oil is below \$80 a barrel, a revision that means the kingdom could move back into a fiscal deficit after its first surplus in almost a decade. The fund's latest projections put this year's Saudi breakeven oil price at \$80.90, up by more than a fifth from what it had forecast in October. Though an improvement from the past two years, it's above the average for 2000-2019 and contrasts with a better outlook for some other top regional energy producers such as the United Arab Emirates.

The assessment aligns with the view of Bloomberg Economics, which estimates Saudi Arabia needs an oil price above \$80 and perhaps closer to \$100 to meet all of its spending commitments and ensure the stability of the social contract between the government and its citizens. The changing budget calculus is putting the spotlight back on Saudi Arabia's dependence on the flow of petrodollars into the government's coffers to power its spending on job creation and costly infrastructure.

It also helps explain a surprise decision made by the kingdom with OPEC and its allies in early April to cut oil output starting this month to support higher oil prices. Saudi Arabia doesn't reveal its oil-price assumption for the budget and has stopped disclosing projected revenue from oil. The IMF has used the average of international benchmarks to assume oil prices at around \$73 a barrel this year. Brent, the global benchmark, closed just above \$73 on May 3.

### LNG prices fall to lowest in two years, down 84% from record high

(Reuters columnist; May 2) - Asia's imports of liquefied natural gas fell about 6.5% in April as major buyers China and Japan trimmed purchases, offsetting small gains among South Asian countries. The total volume of the fuel imported was 20.86 million tonnes in April, down from March's 22.23 million and 22.19 million in February, according to data compiled by commodity analytical firm Kpler.

Asia's LNG purchases may increase as price-sensitive buyers such as India and Pakistan ramp up imports amid a declining spot price. The price of spot LNG for delivery to north Asia dropped to \$11.05 per million Btu in the week to April 28, the lowest since June 2021. The spot price has now slid 71% since its northern winter peak of \$38 in mid-December, and is down 84% from its record high of \$70.50, reached in late August as European utilities scrambled to buy enough gas to cover the winter demand peak.

Although the spot price has dropped considerably from its peaks, it's at the upper end of the range that persisted from 2015 to 2020. This means that while the price is now low enough to tempt buyers that had withdrawn from the market during last year's surge, it's still at a level that wouldn't be considered a bargain. The lower spot price may well encourage higher imports of LNG by China, although in the past volumes have only picked up significantly when the spot price dips below \$10. Similarly, it will probably take even lower prices to meaningfully boost imports by India and other South Asian nations.

# U.S. exported record 107 LNG cargoes last month; 72% to Europe

(Reuters; May 1) - U.S. producers of liquefied natural gas exported at top capacity in April for a second consecutive month, with more than two-thirds of shipments bound for Europe and rising volumes to Latin America, Refinitiv Eikon data showed on May 1. Following the full restart of a key Texas export facility in February, U.S. LNG producers are taking advantage of firm prices overseas and increasing demand in some markets.

A total of 107 cargoes departed from U.S. ports last month, carrying 7.78 million tonnes of LNG, slightly below the previous month's record of 7.80 million tonnes, according to preliminary data based on tanker movements. Customers in Europe are set to receive 72% of the U.S. LNG shipped in April, followed by Asia with 12% of the total. "The U.S. remains Europe's major LNG exporter," Nikoline Bromander, an analyst at consultancy Rystad Energy, reported in a note to clients last week.

Natural gas futures rose about 2% last week in the United States, settling at \$2.355 per million Btu as gas supply to LNG plants remained on track to hit a record high for a second month in a row. Average gas flows to the seven big U.S. LNG export plants rose to 14 billion cubic feet per day through late April, up from a record 13.2 bcf per day in March, according to Refinitiv.

## JERA looks to divert more LNG to Asia as demand weakens in Japan

(Reuters; April 30) - Japan's JERA, one of the world's biggest buyers of liquefied natural gas, expects to divert more of its LNG trade volume to other Asian countries in the long run as demand weakens at home, an official said. Looking ahead, the company's transaction volumes "may decline or may stay the same," Yukio Kani, JERA's new global CEO, told Reuters. "Japan may not need LNG for 20 years ... but other Asian countries need to replace coal with something, and LNG will play an important role," he said, adding that JERA could supply fuel to those countries.

Last December, JERA signed a key deal with Oman LNG to buy up to 12 cargoes, or about 800,000 tonnes a year for a decade, beginning from 2025. On April 28, JERA reached another purchase deal with a U.S. supplier. Kani did not clearly say whether JERA plans to sign more long-term contracts. Apart from its gas-to-power business, which covers fossil fuel procurement through power generation, JERA is expanding use of renewables. It aims to boost renewable power assets at home and abroad, while also seeking to build its supplies of greener fuels such as ammonia and hydrogen, Kani said.

French, Chinese companies in talks with Saudis to develop gas field

(Bloomberg; May 2) - Sinopec and TotalEnergies are among companies holding talks to invest in the Jafurah development in Saudi Arabia, according to people familiar with the matter, as the kingdom seeks to exploit one of the world's largest untapped natural gas fields. The Chinese and French energy giants are in separate discussions with Saudi Aramco about the plans that may include construction of facilities to export the fuel as liquefied natural gas, some of the people said, asking not to be identified because the matter is private. Aramco is seeking to raise a total of about \$10 billion for the projects.

Saudi Aramco has been seeking equity investors that could help fund midstream and downstream projects at its more than \$100 billion Jafurah gas development in the east of the kingdom. The state-controlled company has been reaching out to private-equity firms and other large funds that invest in infrastructure to offer stakes in assets such as carbon capture and storage projects, pipelines and hydrogen plants.

The war in Ukraine has led to a surge in demand for gas, led by European nations that traditionally bought their supplies from Russia. This has led to Gulf states embarking on ambitious plans to expand their gas output. Saudi Arabia has some of the biggest gas reserves in the world but has barely exploited them. Now, Jafurah is a key part of Riyadh's strategy to diversify its exports beyond oil. The field is estimated to hold 200 trillion cubic feet of gas, and Aramco expects to begin production there in 2025, reaching about 2 2 bcf per day of sales by 2030.

### In push for energy security, China looks for more oil at home

(Wall Street Journal; April 29) - China's biggest oil companies are increasing their drilling at home and signing big deals overseas, part of a push for energy security that has also led to rising trade with countries that are subject to U.S. sanctions. China's demand for crude oil is likely to hit 15.6 million barrels a day this year, about 5% higher than last year, according to a forecast from the Organization of the Petroleum Exporting Countries. The country is the second-largest consumer of oil after the U.S., so any change in its behavior could have a big impact on global prices.

The reopening of China's economy after recurring lockdowns and tight pandemic restrictions has allowed people to travel freely again and let factories reopen, leading to more demand for crude oil. But Beijing is increasingly seeking alternatives in the global oil market, including expanding its drilling at home and signing deals with foreign countries including Brazil, Qatar and Afghanistan.

The emphasis on domestic production partly reflects China's nervousness about energy security, which became a strategic priority for many countries following Russia's invasion of Ukraine in February 2022. Zhang Jianhua, head of China's National Energy Administration, said in mid-April that "increasing oil and gas exploration and development, while increasing reserves and production" was crucial to China's energy

security. "In an increasingly polarized world, security of crude supply is paramount," said Kelvin Yew, a senior oil trader at Ocean Leonid Investments, a hedge fund.

## Oil and gas explorers step up work in Norway's Arctic waters

(Bloomberg; May 2) - Norway's biggest oil and gas companies are reviving exploration plans in Arctic waters, as the government agitates for fresh discoveries in the Barents Sea to secure the country's future as a key energy supplier to Europe. Estimated to hold more than 60% of Norway's undiscovered hydrocarbon resources, the sea has long been seen as the future of the country's oil and gas industry. But exploration successes have been few and far between and lack of infrastructure makes development difficult.

In recent years, there have been growing doubts about how much of these untapped resources would eventually be produced and exported. Russia's invasion of Ukraine changed everything. Norway has become Europe's largest supplier of natural gas and is under growing pressure to pump more of the fuel to its neighbors as the continent severs its remaining energy ties with Moscow. "The status quo is not an option," said Torger Rod, CEO of Barents-focused energy producer Var Energi. "Even if we want to maintain production, we have to explore more, we have to find more."

Drilling in the area is more advanced than Arctic waters elsewhere because the sea's southern reaches remain largely ice free year-round, yet more projects are needed to provide a material boost in the country's exports. Petroleum and Energy Minister Terje Aasland has urged oil and gas executives to "leave no stone unturned," going so far as to call it their "social responsibility" to find more hydrocarbons in the Barents. That may be what gas consumers in Germany and the U.K. want to hear, but there are those in Norway who argue that Arctic drilling flouts the country's climate responsibilities.

# U.S. power industry starts building for a potential hydrogen future

(Washington Post; May 1) - A half-hour's drive from where the modern oil and gas industry was born, a new power plant provides a glimpse into one possible future for fossil fuels. In this southeastern Texas region called the Golden Triangle — named for the riches produced a century ago from the first modern oil field — electricity producer Entergy is building what it calls the most advanced power station in its fleet. The \$1.5 billion project comes with added capability: In addition to burning gas, its turbines can also run on hydrogen, a fuel that burns with no greenhouse gas emissions.

"This is a way to keep growing gas, but make it cleaner over time," said Steve Fleishman, a utility analyst with Wolfe Research. Yet the Entergy plant also underscores the technological and political challenges that U.S. electricity generation faces as it transforms. Hydrogen power and other technologies — such as those that allow companies to capture carbon emissions and store them rather than releasing them into the atmosphere — are still far from proven solutions for large-scale deployment.

At a recent groundbreaking for Entergy's plant — the Orange County Advanced Power Station — executives made no mention of the contentious clean-energy politics playing out in Washington. Company CEO Drew Marsh didn't mention gas once during his nearly five minutes of remarks. He mentioned hydrogen nine times. "People are talking about hydrogen hubs," Marsh said. "Affordable, reliable and clean energy is what our customers are looking for. And with this investment, they'll get to check all three boxes."

But hydrogen and carbon capture are still developing technologies. The infrastructure needs for both are massive, and it may not be a viable business for most companies, especially outside the Gulf Coast and a few other geographical areas, Fleishman said.

## Oil companies see future of carbon storage in Gulf of Mexico

(Reuters; May 1) - After nearly a century, oil output in the U.S. Gulf of Mexico is heading toward its peak, with new production platforms providing a last hurrah as the region becomes a hot spot for burying greenhouse gases. Some companies, including ExxonMobil, have been dumping assets in the Gulf, the nation's primary offshore source of crude oil, and are instead targeting investments in the growing business of capture and storage of carbon dioxide and other greenhouse gases deep underground.

U.S. Gulf output is expected to jump 17% to a record 2.6 million barrels of oil equivalent per day by 2025, up from about 2.2 million this year, before it begins declining, forecasts Wood Mackenzie. The gain reflects a flurry of new platforms from Shell, BP, Chevron and others, budgeted before the pandemic hit global demand and made companies reduce investments. Three of the new platforms will add 315,000 barrels of oil per day.

Meanwhile, carbon capture and storage (CCS) has brought new investment as companies like Exxon, Occidental Petroleum and Talos Energy buy sites to store CO<sub>2</sub> from oil refiners, chemical makers and liquefied natural gas producers. Carbon capture and sequestration "will certainly become an important part of the business activity" in the basin, Wood Mackenzie analyst Scott Nance said. Oil will still dominate the basin, but should coexist with CCS and renewables such as offshore wind and solar.

# Strong growth for clean hydrogen projects in U.S.

(Wall Street Journal; April 28) - Efforts to boost production of hydrogen, a fuel seen as crucial for meeting global climate goals, are racing ahead, particularly in the U.S., threatening Europe's lead, according to a report. Planned hydrogen electrolyzer projects

globally have jumped by 18% in the past six months, surpassing one terawatt of electricity capacity for the first time, according to a report by Aurora Energy Research.

North America has seen the largest increase in planned hydrogen projects in the past six months, according to the Oxford-based firm. Clean hydrogen is a small but growing area of the transition to lower-polluting energy. The clean-burning gas is forecast to play a central role in decarbonizing heavy industries. However, low-emission hydrogen production is currently small compared with where analysts believe it will need to be.

Electrolyzers use electricity to split water to produce hydrogen, and when they are powered by renewable electricity, the output is labeled green hydrogen, which is considered emission-free energy. Hydrogen can also be generated using fossil fuels but that output isn't considered clean unless the greenhouse gas emissions released when producing it are captured and stored. Europe has long dominated the hydrogen industry but its lead now appears to be slipping, particularly in the face of U.S. plans to spend vast sums of money to boost production of renewable energy and invest in hydrogen.