Oil and Gas News Briefs Compiled by Larry Persily December 26, 2024

U.S. hits new oil production record with fewer rigs, more technology

(U.S. Energy Information Administration; Dec. 23) - Crude oil production in the U.S. Lower 48 states, which excludes Alaska and offshore production, reached a record 11.3 million barrels per day in November 2024, according to the U.S. Energy Information Administration's latest energy outlook published Dec. 10. Oil production in the Lower 48 states increased 3% year over year despite fewer active rigs in most major producing regions, demonstrating gains in operational efficiency.

The agency's report shows the active rig count decreased year over year in 2024 through November in all primary oil-producing regions except the Bakken, which is centered in North Dakota. The region with the most activity, the Permian Basin, declined from 310 rigs to 303 rigs between November 2023 and November 2024. Data on 34 publicly traded exploration and production companies suggest increasing well productivity is helping reduce companies' production cost per barrel.

Oil and gas companies are increasingly leveraging technological advances, including artificial intelligence, electronic hydraulic fracturing technologies and automated drilling processes, to optimize operations while running fewer rigs. This shift toward digital solutions has improved drilling and completion techniques and reduced rig downtime, and it provides advanced analytics to help target future operations. These technological solutions have allowed producers to increase production rates as they drill new wells.

Plastics will drive future demand for oil and gas

(Wall Street Journal; Dec. 24) - "One word: plastics." Career advice given to Dustin Hoffman's aimless character in "The Graduate" turned out to be pretty solid. Since the film's 1967 release, global plastic use has risen twentyfold. But the plot is thickening just as Big Oil grows dependent on plastics. As people switch to electric cars, or at least buy more fuel-efficient versions of traditional vehicles, energy companies will have too much oil on their hands. Transport currently accounts for over half of global oil demand.

Ciaran Healy, an oil market analyst at the International Energy Agency, points out that even without a further uptick in EV sales, efficiency improvements in internal combustion engine cars mean the same amount of driving will be done with less gas in the future. The IEA thinks the world is on track to have eight million barrels a day of

excess oil capacity by 2030. Energy companies hope consumers will soak up the glut through the plastics in their clothing, food and electronic goods.

ExxonMobil expects demand for products that have fossil fuel-derived components and shells like "cellphones and medical supplies, as well as products necessary to preserve food and improve hygiene" to increase. BP thinks growth in petrochemicals will offset fuel declines for another decade. Oil and gas are turned into petrochemical feedstocks. Today, 15.4% of global oil demand is driven by petrochemicals, according to Wood Mackenzie. That is expected to rise to 19.1% by 2035 as emerging markets become wealthier and swelling middle classes spend more on synthetic clothing.

Energy companies are pouring billions of dollars into petrochemical facilities, notably in China where ethylene capacity has almost doubled since 2019. Capacity is also rising in the U.S. and Middle East. Saudi Arabia wants to invest \$600 billion into petrochemicals by the end of the decade to secure nonfuel uses of its crude oil.

Energy Secretary designee pushes back against climate activists

(Houston Chronicle; Dec. 23) - North Face touted its decision three years ago to reject an oil company's order for 400 jackets, pinning the decision on the energy company's contributions to a worsening climate crisis. But for Chris Wright, the outdoor clothing company's move wreaked of hypocrisy. The oil executive, now tapped to lead President-elect Donald Trump's Department of Energy, posted a viral video on YouTube pointing out that most of the brand's products were made from synthetic fibers derived from oil.

What might have seemed like a public relations stunt is part of a larger effort by Wright to push back against climate activists through videos and television appearances that emphasize society's dependence on oil and other fossil fuels. In 2019, Wright drank fracking fluid on camera to prove it was safe. Last year he posted a video in which he mocked the idea that carbon dioxide emissions are a form of pollution, comparing it to "calling out water and oxygen, the other two irreplaceable molecules for life on Earth."

His approach stands in stark contrast to the rest of the industry that has long shrugged off public criticism and with little engagement. But it has helped Wright, the CEO of Colorado-based oil field services company Liberty Energy, build up a following within the oil and gas industry and among conservatives. "He is a visionary on how to message and advocate for energy," said Brett Sumner, an oil and gas attorney in Denver who has followed Wright's career. "When he did these videos, he could connect the dots in a way that allowed people to really hear."

Permian oil and gas producers need solution for wastewater disposal

(Houston Chronicle; Dec. 21) - The oil industry's wastewater is becoming a bigger headache for Texas operators and regulators. Here's what to know about where it comes from, the chemicals it contains and why it's becoming a more pressing concern. All this water that comes up as a byproduct of oil and gas production, referred to as "produced" water, has to go somewhere. Most of it goes back underground, injected into thousands of disposal wells that carry it into geologic formations intended to contain it.

But the practice of injecting this wastewater deep underground appears to be the cause of a concerning new trend in West Texas: earthquakes are reaching near-record intensities for the region. Mounting pressure tied to the practice of wastewater injection also appears to be causing blowouts, which could contaminate protected groundwater aquifers. Researchers and regulators are working to better understand the problem.

Typically, the wastewater in the Permian Basin's oil wells is very salty — as much as nine times saltier than the ocean. The briny water often contains elevated levels of the carcinogen benzene, heavy metals, naturally occurring radioactive materials and even critical minerals like lithium. The industry must engineer a new technology capable of cleaning its wastewater in order to stop the practice of injecting it underground. The sticking point so far is the high costs associated with desalination. Meantime, as many as eight barrels of tainted water can come up with a single barrel of Permian crude.

Oversupply of Texas gas, undersupply of pipelines takes down prices

(Global LNG Hub; Dec. 24) - The shale gas revolution unleashed an unprecedented growth in tight oil and associated-gas production in the Permian Basin, with the latter growing by more than eightfold in the past 10 years. The surge in associated-gas production means that gas output has been growing more quickly than takeaway capacity, both in terms of processing plants and pipelines.

As a consequence, infrastructure became saturated in recent years, driving down gas prices often to negative territory, effectively meaning that producers had to pay for someone to take the gas so that they could continue to produce something more valuable: crude oil. But 2024 was extreme even per Waha standards: The West Texas hub spent 164 days in negative territory through the year and hit an all-time low of minus \$7 per million Btu at end of August. There are several factors behind this.

Associated-gas production continued to boom with output surging by more than 10% despite muted demand; gas storage sites in Texas were already 70% full at the beginning of April, meaning that there was limited injection demand through the summer; pipeline maintenance through the summer further limited takeaway capacity; and delays in new pipelines, which further depressed gas prices at Waha.

Qatar objects to EU's new due diligence law and penalties

(Reuters; Dec. 21) - Qatar will stop shipping gas to the European Union if member states strictly enforce a new law cracking down on forced labor and environmental damage, Energy Minister Saad al-Kaabi told the Financial Times in an interview published on Dec. 22. The Corporate Sustainability Due Diligence Directive, approved this year, requires larger companies operating in the EU to check whether their supply chains use forced labor or cause environmental damage and to take action if they do.

Penalties include fines of up to 5% of a company's global turnover. "If the case is that I lose 5% of my generated revenue by going to Europe, I will not go to Europe. I'm not bluffing," Kaabi said, adding that "5% of generated revenue of QatarEnergy means 5% of generated revenue of the Qatar state. This is the people's money, so I cannot lose that kind of money. And nobody would accept losing that kind of money."

Kaabi, the chief executive of state-owned QatarEnergy, has said the EU should thoroughly review the due diligence law. Qatar, among the world's top LNG exporters, is seeking to play a larger role in Asia and Europe as competition from the world's top supplier, the United Sates, increases. Qatar plans to expand its liquefaction capacity to 142 million tonnes per year by 2027 from 77 million tonnes in 2024.

Australia moving forward on LNG imports to cover gas shortage

(Sydney Morning Herald; Dec. 23) - Australia's energy ministers are developing a plan to kickstart the first deliveries of liquefied natural gas shipments into the states of Victoria and New South Wales, fearing they have run out of time and other viable options to avert a domestic gas crisis. Despite Australia's position as a top global LNG exporter, homes and businesses in the southeast are facing a shortage of the fuel by 2028 unless urgent measures are taken to offset rapidly depleting gas fields in the Bass Strait that have supplied the local market for decades.

Surging gas demand on cold winter days could lead to sporadic shortfalls even sooner, officials warn. With long lead times involved in exploring and developing new gas fields, state and federal ministers are looking for a more immediate solution and have agreed to collectively seek advice on underwriting special shipping terminals to import liquefied natural gas into Victoria, New South Wales or South Australia for the first time.

If projects proceed, buyers would be able to ship in LNG from ventures in Queensland, the Northern Territory, Western Australia or overseas and turn it back into gas to supply their customers. Victorian Energy Minister Lily D'Ambrosio said ministers agreed that "time is running out" as legacy gas fields off the southern coast continue in decline, with scant new supplies to replace them. Starting imports from at least one LNG terminal by 2028 is the only way to cover the forecast gas deficit, she said. Though gas is plentiful elsewhere in Australia, there are no pipelines to move the fuel to the population centers.

Iraq wants to reduce gas flaring, use the fuel to meet power demand

(Upstream; Dec. 24) - Iraqi Prime Minister Mohammed Shia Al-Sudani has urged the country's oil and electricity ministers to step up their efforts to increase natural gas supplies to help meet growing energy demand and secure foreign investment for a liquefied natural gas import terminal. At a special meeting held in Baghdad on Dec. 23 to discuss energy issues, Oil Minister Hayyan Abdul Ghani and Electricity Minister Ziad Ali Fadhil reported on the progress of "ongoing gas projects within the framework of the government program," Al-Sudani's office said in a statement.

The aim is to achieve "a significant reduction in associated gas flaring" at the country's oil fields, where gas utilization is expected to remain at just 67% this year, the statement added. The flaring of associated gas in Iraq has remained almost unchanged over the past three years, running at about 600 billion cubic feet per year of gas, according to earlier estimates in the World Bank's annual Global Gas Flaring Tracker report.

The Iraqi statement said the ongoing projects aim to boost the gas utilization rate to 80% by the end of 2025, with the country confirming plans to eliminate flaring by the end of 2027. In April, during Al-Sudani's visit to Washington, Iraqi and U.S, companies signed memoranda of understanding to build processing facilities for associated gas produced at Iraqi oil fields, and to send the gas to the country's national power grid.

Japan pushes new target to cut emissions 60% by 2035

(Bloomberg; Dec. 23) - Japan is pushing through a new target to cut greenhouse gas emissions by 60% by 2035, even as the plan faces criticism as lacking in ambition. Making the reductions from 2013 levels will put the nation, among the world's top carbon polluters, on track to hit net-zero by 2050, according to officials from a joint panel of the trade and environment ministries, which announced the strategy Dec. 24. The plan will go through a public comment period before approval from Japan's cabinet.

Prime Minister Shigeru Ishiba's government follows countries including the U.K. and U.S. in setting out upgraded emissions-cutting commitments ahead of a February deadline for nations to submit new climate targets under the Paris Agreement. Japan previously had vowed to reduce emissions by 46% by 2030 from 2013 levels.

"The most important thing is to reach net-zero by 2050," Keiichiro Asao, the nation's environment minister, said at a press conference on Dec. 24. "We need to balance decarbonization with economic growth and also consider the impact on future generations and society." Japan, which relied on coal and gas for more than 60% of electricity generation last year, has been slow to shift to lower-emission energy sources. Utilities have encountered regulatory challenges in restarting nuclear power plants, while a lack of available land has restricted the expansion of solar and onshore wind.

Qatar may be positioning for shorter LNG contracts, more spot sales

(S&P Global; Dec. 24) - The liquefied natural gas industry expects QatarEnergy's uncontracted supply to be a sign of a more nuanced strategy toward dominating the market through shorter contracts and spot-market volumes. The LNG behemoth is planning a huge supply ramp-up starting in 2026 to the end of the decade, but the pace of new contract signings has been decelerating, and the market for long-term LNG contracts, even among growing Asian importers such as China, has been shrinking.

Market participants in Asia highlight the difference in contracting between QatarEnergy and Abu Dhabi National Oil Corp., where the latter has been able to sign 83% of its contracts in heads of agreement or sales and purchase agreements. To the contrary, QatarEnergy's uncontracted volume means nearly 60% of its future supply is contracted. Market sources pointed out that ADNOC has been amenable to allowing more flexibility for buyers than QatarEnergy, as especially observed in contracts with European buyers, which allow the buyers to receive cargoes in Europe as well as Asia.

QatarEnergy has neither been willing to concede on contractual flexibility toward sellers (removing destination restrictions) nor has the offer price been reduced to outcompete portfolio companies. "This is no longer the market of the early 2000s or the last decade. Now there are lot more sellers, the U.S. exports was not a phenomenon earlier, but it is a major chunk of volume growth expansion. The attitude from them (QatarEnergy) does not reflect this," a source familiar with term contracts said.

Talks to limit financing for fossil fuel projects break down

(Bloomberg; Dec. 23) - Talks on a plan by wealthy nations to throttle back tens of billions of dollars in public support for oil and gas projects have broken down without agreement, weeks before President-elect Donald Trump takes office. The European Union, U.K., U.S. and other countries had sought the deal to limit government export-credit agency finance for fossil fuel projects under the umbrella of the Organization for Economic Cooperation and Development, a group of market-based economies.

The likelihood of a broader deal to curb support for hydrocarbon projects is now remote, said senior U.S. officials. The failure is a blow for climate activists, who saw the proposed finance curbs as a critical way to free up funding for emissions-free energy projects around the globe. Where the U.S. under President Joe Biden had rallied behind additional restrictions, these are unlikely to win support under Trump, who has campaigned on promises to unleash American oil and gas development.

Although the EU advanced a plan last year, talks only began in earnest on a new, U.S.-proffered compromise approach in November, after Trump won the presidential election. The negotiations had previously stalled for months because of concerns from the U.S. Export-Import Bank, an independent agency whose charter prohibits denying financing

against any particular industry. Weeks of frenzied negotiations — including a session in Paris and subsequent virtual meetings — couldn't overcome concerns about national security, competition and emissions accounting advanced by South Korea and Turkey.

European Commission OKs German subsidy of LNG import terminals

(Rigzone; Dec. 23) - A 4.06 billion euro (\$4.24 billion) direct grant by the German government for four gas storage and regasification units (FSRUs) has received state aid rules clearance from the European Commission. Germany chartered the FSRUs in December 2022 and created Deutsche Energy Terminal (DET) to manage the liquefied natural gas import terminals.

"The measure aims to address energy market disruptions caused by Russia's invasion of Ukraine and the halt of pipeline gas supplies from Russia to Germany," the commission said in a statement. "The FSRUs, two of which started operating quickly, provide an additional import route to replace part of the lost Russian gas. "The FSRUs are a temporary solution until permanent onshore LNG terminals are completed in Germany to ensure long-term gas supply."

The state aid covers DET's losses for the duration of the FSRUs' charter period. "As they were chartered at the peak of the energy crisis when demand and costs were very high and their limited operating time frame does not allow for full cost recovery, these terminals were expected to operate at a loss from the outset," the European Commission said. Germany will stop operating two of the four terminals, those in Brunsbüttel and Stade, once the planned onshore LNG terminals become operational.