

Oil and Gas News Briefs

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Next challenge for OPEC+ may be boosting output to meet demand

(Bloomberg analysis; Dec. 27) - The OPEC+ group of oil producers celebrated their fifth birthday in early December. It's been a turbulent time — more so than they could have imagined when they first came together to face the threat posed by the U.S. shale boom back in 2016 — and the future doesn't look much easier. On the verge of collapse in 2020, OPEC+ was saved by the COVID-19 pandemic and the need for a coordinated response to oil-supply management in the face of an unprecedented slump in demand.

They have risen to that challenge with remarkable cohesion. Their next one will be continuing to stick together as the world's need for oil tests their production limits. Their performance since the price collapse of early 2020 has defied expectations, certainly mine and probably even their own. The group also has shown a great deal of flexibility in attempting to adjust their supply to meet evolving demand as the pandemic has ebbed and surged over the past two years — even if they haven't always got it right.

The outlook for 2022 remains just as uncertain as this year. The pandemic is still with us. In the near future, the group faces oversupply and a growing need to cut output once again. At the same time, it faces pressure from consuming countries to keep the taps open. But assuming demand continues to recover, it won't be long until the main concern is the ability to pump all the oil the world needs. With several OPEC+ members already unable to meet their output targets and others rapidly approaching capacity, it may not be long before the group is struggling to add production to balance the market.

Lack of investment leads to fewer oil discoveries

(Quartz; Dec. 28) - Oil and gas firms are having their worst year for new discoveries in decades and reserves are dwindling. The oil and gas industry is on track to discover just 4.7 billion barrels of oil equivalent by the end of 2021, its worst performance in 75 years, according to the research firm Rystad Energy. The number was 12.5 billion in 2020. Historically, large discoveries have accounted for most of the world's new reserves. Globally, 40% of all petroleum ever discovered has been found in 900 oil and gas fields.

But the industry has made few such discoveries this year. The ratio of proven reserves to production, a measure of how much extractable oil remains in the ground relative to annual production, is now at its lowest level since 2011. Production of existing wells naturally declines each year, so the industry must constantly open up new fields to keep

pace with demand. The International Energy Agency estimates global oil production declines by about 7% per year without investment in existing fields.

Since the mid-2010s, U.S. oil and gas firms have slashed capital expenditures as their stock prices fell. During the pandemic, firms cut exploration budgets even more to trim debt, pay dividends and stem huge losses from a U.S. fracking boom that failed to earn profits. In 2020, global industry investment dropped by \$145 billion, leaving it at half the level it was in 2014. It held at a similar level into 2021. Meanwhile, supply is colliding with rising demand, pushing up prices. The next two years could require nearly all of the world's spare oil production capacity as demand rises above pre-pandemic levels.

U.S. Gulf oil production will get a boost in 2022

(S&P Global Platts; Dec. 27) - More deepwater exploration and project sanctions in the U.S. Gulf of Mexico could be in store for 2022, assuming robust oil prices hold up, according to analysts. The roughly 12 deepwater U.S. Gulf discoveries in 2021 could expand by a couple more next year, and several fields that have patiently waited out several years of price volatility may finally get the go-ahead, said Sami Yahya, senior energy analyst for supply and production at S&P Global Platts Analytics.

"We could potentially see more finds and final investment decisions next year," Yahya said. "Gulf operators still have a healthy appetite for exploration, particularly as crude prices remain robust," he said. "Near-field exploration (around deepwater production hubs with declining output) will likely continue to be the leading strategy. ... (This) not only improves the economic case of new discoveries but can also help accelerate development, given existing infrastructure and ... short-cycle time for tiebacks."

Current U.S. Gulf output is 1.769 million barrels per day, according to Platts Analytics estimates. Output will likely to rise by as much as 125,000 barrels per day early in 2022 and end the year at 2 million. The three largest projects set to come online are Shell's Vito field, BP's Mad Dog Phase 2, and three fields operated by Murphy Oil. "This is the first time in a while we've seen three new facilities come on in one year," said Mfon Usoro, U.S. Gulf upstream analyst for Wood Mackenzie.

Federal Reserve survey finds banks reluctant to loan on oil drilling

(Bloomberg; Dec. 29) - Oil drillers in the biggest U.S. fields are shouldering record costs at the same time that some banks are increasingly reluctant to loan money to the sector, according to the Federal Reserve Bank of Dallas. Equipment, leasing and other input costs for oil explorers and the contractors they hire surged to an all-time high during the current quarter, the Dallas Fed said in a report released on Dec. 28.

Drillers also are seeing the universe of willing lenders shrink in the Federal Reserve District that includes Texas and parts of Louisiana and New Mexico. “The political pressure forcing available capital away from the energy industry is a problem for everyone,” a survey respondent said. “Banks view lending to the energy industry as having a ‘political risk.’ The capital availability ... drastically reducing the size and availability of commitments regardless of commodity prices.”

Meanwhile, supply-chain snarls are hindering efforts to replace diesel-burning pumps with cleaner, electric-powered gear in the Permian Basin, where components such as transformers are in “extremely short supply,” another respondent said.

Russia continues oil and gas development in the Arctic

(The Barents Observer; Norway; Dec. 29) - There was big celebration as Gazprom Neft last month officially launched its new pipeline across the Gulf of Ob in the Arctic. The pipeline will be able to carry up to 700 billion cubic feet of gas per year and is a key part of Gazprom Neft’s project, Yamal Gas. The company, an oil subsidiary of gas producer Gazprom, has invested 150 billion rubles (US\$2 billion) in the new infrastructure.

The Yamal Gas project also includes the building of a processing plant that ultimately will produce up to 530 billion cubic feet of dry-stripped gas, one million tonnes of gas condensate and 710,000 tonnes of natural gas liquids per year, the company said. The project is closely connected with the development of Novy Port, the oil and gas field in the Yamal Peninsula. Gazprom Neft has invested heavily in infrastructure, including the Arctic Gate terminal, a fleet of seven ice-class oil tankers and two powerful icebreakers.

More than 6 million tons of oil is now shipped out each year from the Arctic Gate terminal. But the Novy Port and its adjacent fields hold not only oil, but also major volumes of natural gas. According to Gazprom Neft CEO Aleksandr Dyukov, the new gas pipeline will be of big importance for the development of several more fields, adding to the company’s production capacity of oil and gas.

However, Indigenous and local groups say major dredging operations in the area might have harmed the marine ecosystem. The Yamal Gas pipeline is only one of many new developments in the northern region, and several researchers have voiced concern over the work. Over the past few years, million tons of seafloor have been removed as part of the development of Yamal LNG, Arctic LNG-2 and the Novy Port projects.

Venezuela boosts oil production, but it may not be sustainable

(Bloomberg; Dec. 27) - Venezuela says it’s pumping the most oil since harsh U.S. sanctions strangled state-owned oil company Petroleos de Venezuela more than two

years ago. Not everyone believes it. PDVSA, as the Caracas-based explorer is known, reported more than 1 million barrels of daily output in a Dec. 24 Twitter post. The figure appeared to represent a specific 24-hour period rather than the typical metric of a monthly average — an important distinction given that industry observers are focused on sustained levels of higher output rather than temporary spikes.

On a full-month basis, that would represent a 21% boost over November and would be the highest since early 2019, when sanctions crippled PDVSA's access to the U.S. market. "While the trend in production has been positive, PDVSA is unlikely to sustain production at 1 million barrels a day," said Fernando Ferreira, a director of geopolitical risk at Rapidan Energy Advisors. "The industry remains dilapidated, so higher volumes are likely to increase the incidence of already-frequent accidents and breakdowns."

The production spike came after PDVSA increased imports of condensate, a key ingredient used to dilute its sludgy domestic crude and boost its own production of hydrocarbons. Iran, another nation hit by U.S. sanctions, has supplied at least three cargoes of condensate to Venezuela this year.

Venezuela oil output may have reached limit without more investment

(Reuters; Dec. 27) - Venezuela this year almost doubled its oil production from last year's decades-low as its state-owned company struck deals that let it pump and process more extra heavy crude into exportable grades. The surprising reversal began as state-run Petroleos de Venezuela, known as PDVSA, won help from small drilling firms by rolling over old debts and later obtained steady supplies of a key diluent from Iran. The combination lifted output to 824,000 barrels per day in November, well above the first three quarters of the year and 90% more than the monthly average a year ago.

Whether it can continue to ramp up production is unclear. Years of unpaid bills, mismanagement and, more recently, U.S. sanctions have cut its access to specialized drilling equipment and foreign investment. The sanctions have also limited its customers to firms with no track record of trading. PDVSA's latest gains still fall short of current management's 2021 goal of producing 1.28 million barrels per day.

Workers in producing regions say oil fields continue to reopen and more flow stations are expected to restart. However, oil experts said PDVSA has done all it can and further gains might be capped by a lack of additional rigs and functioning upgraders for its tar-like crude. "Base production in 2021 was way below PDVSA's production capacity," said Francisco Monaldi, director of the Latin American Energy Program at Rice University's Baker Institute in Houston. "We are reaching that capacity now. To see an output increase during 2022, investment in new wells and upgrading infrastructure is needed."

Private operators in Mexico boost oil production

(S&P Global Platts; Dec. 27) - Mexico will likely see growth in oil output from private companies in 2022 even as the country's upstream liberalization remains on hold, but natural gas will likely remain underfunded, cementing Mexico's dependence on U.S. natural gas imports. Upstream contracts generated by the 2013 liberalization effort are having a small contribution to Mexico's total crude output, but that contribution is expected to increase in the coming years.

Private companies produced 68,168 barrels per day in October, out of a total 1.651 million, according to Mexico's hydrocarbons regulator. But private companies are expected to produce 172,000 barrels per day in 2022, while output from Pemex joint ventures and Pemex exploration blocks is also expected to edge higher. That would push total Mexican output to 1.858 million barrels per day, the regulator's data shows.

Crude output by private producers could reach 467,000 barrels per day by 2028, which could partially compensate for the expected fall in Pemex legacy production. Mexico's gas sector, however, is expected to remain underfunded, meaning Mexico will continue to depend on U.S. gas. Mexico has imported 6.1 billion cubic feet per day on average in 2021, above the 5.4 bcf average in 2020, S&P Global Platts Analytics data shows. Nobody in the administration is talking about a strategy to increase gas output, they are only focused on oil, said Daniela Flores, a consultant at Talanza Energy.

Mexico wants to halt oil exports by 2023 and refine its own products

(Bloomberg; Dec. 28) - Mexico plans to halt crude oil exports in 2023 as part of President Andres Manuel Lopez Obrador's nationalist goal of self-sufficiency in fuel production. Petroleos Mexicanos, the Mexican state-owned producer known as Pemex, will reduce daily crude exports next year by more than half to 435,000 barrels before phasing out sales to foreign customers the following year, Chief Executive Officer Octavio Romero said during a press conference in Mexico City on Dec. 27.

The ambitious — and some say improbable — endeavor is part of Lopez Obrador's drive to expand homegrown refining of gasoline and diesel that Mexico now mostly buys from U.S. refiners. But like many major oil-producing nations, Mexico currently lacks the processing capacity to convert its oil bounty into fuels and other end-products. Regardless of that, if Pemex's pledge is fulfilled it will mark the exit from international oil markets of one of its most prominent players of the past decades.

At its peak in 2004, Pemex exported almost 1.9 million barrels a day and participated in OPEC meetings as an observer. Its crude also had a major influence on U.S. oil refining where Gulf Coast plants were configured to handle heavy, sulfur-rich oil. Many question the logic of scrapping crude exports that are a significant source of cash for Mexico and Pemex bondholders. The company is shouldering a \$113 billion debt load that is larger

than that of any other oil explorer in the world. The skepticism about Pemex's ability to refine all of its own crude stems from the company's poor operating and safety record.

Russia and China have different gas interests

(Bloomberg opinion; Dec. 22) – Preliminary discussions on the Power of Siberia 2 pipeline to send up to 2 trillion cubic feet of Russia's natural gas per year to China are rapidly moving forward. Presidents Xi Jinping and Vladimir Putin discussed the project earlier this month and a feasibility study will be completed within weeks, according to Putin. Power of Siberia 2 is presented as something akin to a marriage proposal, bringing two leading authoritarian states closer together.

But that's not quite right. Nations, after all, don't have permanent friends or enemies — only permanent interests. Russia's interests are export revenues, and whatever leverage it can gain over the nations on its borders. China's gas consumption is rising, particularly as it reduces its dependence on coal-fired power and builds up its domestic chemicals industry, though China is counting on domestic gas output climbing by more than half to prevent it from developing a Europe-style dependence on imported gas.

China buys some piped gas from Russia, though LNG accounted for a bigger share of trade last year as the first gas line from Russia is being brought to full capacity. There's reason for Beijing and Moscow to tread carefully. For all the warm mood music between Xi and Putin, China and Russia have rarely seen eye-to-eye for long. By building Power of Siberia 2, Russia would have a substitute market for the gas that it would otherwise ship to Europe. But Beijing has substitutes too, including other LNG suppliers. Russia would love to have leverage over China, while China will do everything it can to resist.

Another cargo of U.S. LNG diverts from Asia to Europe

(Bloomberg; Dec. 28) - Traders appear to have diverted another cargo of U.S. liquefied natural gas to Europe instead of China amid the continent's energy crunch. The vessel Hellas Diana sharply changed course from Tianjin and is likely headed to Europe, according to Mathew Ang, an analyst at Kpler. The ship, which left Corpus Christi, Texas, around Nov. 27, U-turned near Hawaii and is traveling toward the Panama Canal, Bloomberg shipping data showed.

At least seven other cargoes originally bound for Asia have been diverted to Europe, where rapidly falling temperatures and energy shortages pushed benchmark natural gas prices to record highs last week. The region is attracting more supplies as Asia's biggest buyers are opting to use their inventories this winter instead of procuring more LNG. Japan-Korea benchmark prices are trading at a rare discount to European rates.

European industries, utilities struggle with high power costs

(The Wall Street Journal; Dec. 24) - Steelmakers, glass manufacturers and other energy-hungry businesses in Europe are calling on governments to take action to stop record gas and electricity prices from hobbling the region's economy. Prices for natural gas in Europe shot to all-time highs again this week after flows from Russia, the continent's main supplier, dropped just as cold weather boosted demand and Électricité de France moved to turn off a nuclear-power plant for safety reasons.

The moves made the continent the hottest gas market in the world, prompting ships carrying U.S. liquefied natural gas to Asia to change course and head to Europe, where they could fetch higher prices. Businesses that need ready supplies of gas and power have broadly been able to pass the bill through to customers, quickening the pace of inflation in the U.K. and the Eurozone. But not all can pass on their higher costs.

"The ongoing situation has severely impacted the competitiveness and profitability of energy-intensive sectors," a group of associations representing Europe's glass, steel, cement and other industries said Dec. 22. The associations asked governments to deploy tools to help blunt the impact of the price surge. Utilities have it bad. The British government caps prices energy suppliers can charge consumers, which means any gas or power they buy in the spot market currently costs more than they can earn. Twenty-eight suppliers to 4.2 million U.K. households have failed this year, regulators reported.

Growing trend toward term contracts among Asian LNG importers

(Argus Media; Dec. 29) - Chinese state-owned CNOOC's recent deal with U.S. LNG supplier Venture Global marks at least the 22nd term supply agreement signed by a Northeast Asian buyer this year, reflecting a growing trend among the region's buyers to move away from spot-market transactions toward multiyear term deals. This indicates a radical shift from just about a year earlier, when buyers shied away from long, seemingly rigid term commitments and swarmed into the spot market, which offered relatively more flexible and enticing options to meet their LNG requirements.

But buyers now are looking to lock in LNG rates far more competitive than spot levels. China's state-controlled CNOOC this month signed an agreement to receive LNG from Venture Global across 20 years, marking its first term deal with a U.S. exporter. It likely paid about \$1.80 to \$1.90 per million Btu for liquefaction services at the developer's Louisiana projects, plus the cost of feed gas at 115% of the U.S. Henry Hub benchmark price — the 15% upcharge to pay for gas consumed in the liquefaction process.

CNOOC's two deals total 3.5 million tonnes of LNG per year, with initial deliveries starting in 2023. Fourteen Chinese buyers, including CNOOC, have signed a total of 20 term deals with suppliers worldwide in 2021. China's importers have heeded official calls to prioritize their term deals to ensure the security of supply, particularly during

peak demand seasons, with exceptionally volatile spot prices this year providing the extra push to minimize risk in an increasingly unpredictable market.

South African court orders halt to coastal seismic testing

(BBC News; Dec. 28) - A South African court has halted oil giant Shell's seismic testing for oil and gas along the country's eastern coastline, pending a final ruling. The decision has been hailed by environmentalists, who fear that the sound blasting will harm marine life. Shell said it had "paused" operations while it reviews the judgment. South Africa's Energy Minister Gwede Mantashe had condemned the project's critics, saying they wanted to deprive Africa of energy resources.

In his ruling, High Court Judge Gerald Bloem said that Shell's right to explore the waters near the Wild Coast "was awarded on the basis of a substantially flawed consultation process." The 155-mile stretch of coastline in Eastern Cape province is known for its natural beauty and marine life. Campaigners argued that sea creatures — including whales, dolphins and seals — would be affected by the seismic testing. Communities said their customary rights to the land and fishing had not been respected.

Seismic surveys are carried out as a means of mapping what lies beneath the seafloor. Shockwaves fired from an air gun — like a very powerful speaker — are blasted down toward the seabed. The sound that returns reveals whether there is, for example, oil locked in the rock beneath. Shell had begun surveying the area at the beginning of December after an earlier court judgment said it could go ahead.

U.S. grid expected to add more solar than any other source in 2022

(S&P Global Platts; Dec. 28) – U.S. electrical grid operators are expected to add more solar capacity in 2022 than other generation sources as states and utilities take it upon themselves to drive the clean-energy transition. New capacity from wind, solar and batteries is expected to surpass 30 gigawatts in 2022, according to S&P Global Platts Analytics' North American Electricity Short-Term Forecast. There is expected to be 15.5 GW of new solar, 11 GW of new wind and 4.2 GW of batteries added in 2022.

Clean-energy targets set by states and individual companies are driving the transition due to lack of a federal regulation. Only 11 U.S. states have no clean-energy goals on the books, while nearly half the states have aggressive goals of 100% clean energy. The U.S. Energy Information Administration forecasts that renewables' share of the U.S. electricity generation mix will double by 2050, reaching a 42% market share, according to the EIA's Annual Energy Outlook 2021.

"The renewable share is projected to increase as nuclear and coal-fired generation decrease and the natural gas-fired generation share remains relatively constant," the EIA said in a February statement. "By 2030, renewables will collectively surpass natural gas to be the predominant source of generation in the United States." The three regions adding the most renewables are the Electric Reliability Council of Texas, the California Independent System Operator and the Southwest Power Pool.