

# Oil and Gas News Briefs

## Compiled by Larry Persily

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#### **Occidental building direct-air carbon capture project in Texas**

(Wall Street Journal; April 10) - About 50 miles southwest of Midland, Texas, deep in the oil-saturated Permian Basin, more than 100 workers are busy laying out roads and water lines, preparing to build an elaborate complex of fans, each as large as a tennis court. When they start running in 2024, the fans will suck in massive amounts of air, with a chemical process separating out the carbon dioxide for storage deep underground.

The company behind this environmental moonshot is Occidental Petroleum, one of the country's most successful oil and gas producers. It hopes the enterprise will give it license to keep operating as an oil driller decades into the future. It is spending more than \$1 billion to build the first in a planned fleet of plants using direct-air capture to pull the CO<sub>2</sub> out of the air, a budding technology with fuzzy economics.

Bolstering the move are generous tax incentives included in the climate package signed into law last year that cover up to 45% of Occidental's expected initial costs per tonne. CEO Vicki Hollub said the plan will help the company reach net-zero emissions on all its operations, its own energy use and its customers' use of its products, by 2050, and allow it to keep investing in oil extraction.

Removing CO<sub>2</sub> from the atmosphere at this scale has never been done before, and comes with abundant commercial and scientific uncertainties. It is unclear what the appetite for carbon removal will be, how much the service will eventually cost or how massive volumes of buried CO<sub>2</sub> will affect the subsurface long term. Occidental plans to make money with the plant by selling carbon-dioxide removal credits to companies such as airlines, trucking and marine companies. Many industry experts doubt that direct-air capture can be done economically because the amounts of air that need to be scrubbed are so large. Operating the plants themselves will require massive amounts of energy.

#### **Chevron's carbon capture plant in Australia not working as intended**

(Sydney Morning Herald; April 12) - Chevron has pushed its Gorgon LNG export project to record production while still struggling to get its system for storing carbon dioxide to work, making the plant Australia's biggest industrial carbon polluter. The company built the world's largest carbon pollution reduction facility to extract carbon dioxide from the gas in its offshore reservoirs and inject it deep under Barrow Island, off the East Coast.

What was to be a showpiece for carbon capture and storage technology did not operate for the first three years of gas exports, and in the next three years has stored less CO<sub>2</sub> each year. Meanwhile, Chevron exported a record 16.7 million tonnes of LNG in the 12 months to June 2022, according to a filing with environment regulators. That's 1.1 million tonnes more than design capacity.

However, over 2021-2022, performance of the adjacent CO<sub>2</sub> injection facility fell from storing 68% of the CO<sub>2</sub> from the reservoirs to just 33%. The state government allowed Chevron to build Gorgon on Barrow Island, a nature reserve, on the condition that it built a system capable of storing all the reservoir CO<sub>2</sub> and achieved a minimum of 80% storage. Chevron and its partners — Shell, ExxonMobil and three Japanese utilities — have so far purchased 7.5 million tonnes of Australian and international carbon offsets to make up the shortfall from the 80% target, a company spokesman said.

The system has been dogged by difficulties with sand clogging wells injecting CO<sub>2</sub> 6,500 feet under Barrow Island and wells removing water from the formation to limit pressure. Chevron carbon storage manager Chris Stavinoha told a conference in March that such problems were the “bread and butter” of the oil and gas industry.

### **[Sinopec plans pipeline to transport clean hydrogen to Beijing](#)**

(Reuters; April 10) - China's Sinopec will build a pipeline to transfer hydrogen from renewable energy projects in China's northwestern Inner Mongolia region to cities in its east, according to a report in state media outlet Xinhua on April 10. The pipeline will stretch 250 miles from Ulanqab in sparsely populated Inner Mongolia to the capital Beijing, and will have an initial capacity of 100,000 tonnes per year, said the report, citing Sinopec chairman Ma Yongsheng. Stations will be built along the pipeline to allow access to new potential hydrogen sources, the report added.

While the country already operates pipelines for so-called gray hydrogen produced from fossil fuel sources, the project is the country's first west-to-east green hydrogen transmission line, according to the report. Green hydrogen is produced by splitting water molecules with renewable electricity and touted as a clean replacement for fossil fuels in industries that are otherwise hard to decarbonize.

State-owned oil and gas giant Sinopec is China's largest hydrogen producer. It announced this year it would build a green hydrogen plant in the Inner Mongolian city of Ordos, with a planned annual capacity of 30,000 tonnes. The company also launched a green hydrogen project in Kuqa in the western Xinjiang region in 2021. China's state planner last year announced a target to produce 100,000 to 200,000 tonnes of green hydrogen a year and have about 50,000 hydrogen-fueled vehicles by 2025, as the country pursues an ambitious campaign to transition toward renewable energy.

## **Coalition calls on Japan to move more quickly on renewables**

(The Japan Times; April 12) - Japanese companies and climate groups called on the government on April 12 to step up the introduction of renewable energy and quickly adopt carbon pricing to tackle global warming. The Japan Climate Initiative (JCI), an alliance of companies, local governments and NGOs, issued the message ahead of the meeting of climate ministers of the Group of Seven countries on April 15-16 in Sapporo, where Japan will chair the event to discuss efforts to address climate change.

"We urged the Japanese government to overcome climate crisis and energy crisis by accelerating the introduction of renewable energy and early adoption of highly effective carbon pricing," the JCI said in a statement endorsed by 303 organizations. To achieve a goal agreed to by the G7 nations last year to decarbonize all or most of the power sector by 2035, Japan needs to implement regulatory reforms to boost renewable energy, the coalition said, urging support for the faster development of offshore wind power and mandatory installation of solar power generation in new buildings.

A transition to clean energy is especially important to Japan, as it is critically dependent on imports for a majority of its energy needs. Japan aims to cut emissions by 46% versus 2013 levels by boosting renewable energy in its electricity mix to between 36% and 38%, double of 2019 levels. Japan is introducing a carbon pricing scheme this fiscal year in stages, combining emissions trading and a carbon levy to encourage companies to curb pollution. But the levy will be introduced starting around the 2028 fiscal year.

## **Climate ministers refer to LNG demand 'uncertainty' in communique**

(Reuters; April 11) - Climate ministers of the Group of Seven countries have backtracked on earlier language touting growing future demand for liquefied natural gas, instead noting there may be "considerable uncertainty" about demand. A previous draft communique for this week's meeting of G7 climate change and energy ministers had said "demand for LNG will continue to grow" amid the energy fallout from Russia's invasion of Ukraine.

But, as negotiations over the communique resumed on April 11 ahead of the ministerial meeting on April 15-16 in Sapporo, Japan, the wording was changed, the latest draft reviewed by Reuters showed. "We recognize that, based on the IEA's (International Energy Agency) analyses, there would be considerable uncertainty for future demand of natural gas and LNG, and consequently there are risks of supply and demand gap to be addressed," the document dated April 5 said.

The draft also altered earlier language on LNG and gas investments to say they would be needed to "bridge the gap in a manner consistent with our climate objectives and commitments." It added: "Furthermore, we will accelerate the clean-energy transition through energy savings and gas demand reductions in the process of decarbonization."

It was not clear why the language was changed. Italy, Germany, France and the European Union had opposed the initial proposal on LNG demand increasing.

### **Russian LNG producer asks for tax deferral and lower tax rate**

(Reuters; April 11) - Russia's Novatek has asked the government to grant its key Yamal LNG project a deferral of additional profit tax for 2022 while simultaneously cutting its tax rate, the Kommersant daily reported on April 11, citing Novatek's letter to the government. Novatek did not immediately reply to a request for comment. Yamal LNG produced almost 21 million tonnes of the fuel in 2022.

Yamal LNG is facing an increase in the profit tax for 2022 of 40 billion roubles (\$489 million) due to the finance ministry's new approach regarding exchange rate differences, the newspaper said. It comes in addition to an increase in the profit tax rate for LNG projects to 34% starting in 2023, which, according to Novatek, jeopardizes the financing of the Arctic LNG-2 and Obssky LNG projects.

The government is seeking funding to plug a budget deficit that stood at 2.4 trillion roubles (\$29 billion) in the first quarter of the year, as Moscow spent heavily on its war in Ukraine and its energy revenue fell. Novatek aims to launch the first of three production lines of the \$21.3 billion Arctic LNG-2 project at the end of this year. Each line will have a production capacity of 6.6 million tonnes per year. The company has operated the Yamal LNG project, at 16.5 million tonnes, since 2017.

### **Russian LNG producer warns tax increase could deter development**

(Upstream; April 12) - Russia's Novatek has warned that the government's increased tax take on the country's largest liquefied natural gas development may put development of its next two LNG projects at risk. The government relies on income from oil and gas to fund its budget, but has experienced a major drop in revenues from the sector as it struggles to overcome sanctions imposed by Western nations.

The Finance Ministry reported a 2.4 trillion roubles (\$29 billion) federal budget deficit for the first quarter of the year. The government has encouraged gas producers to focus on LNG developments to help counter the absence of pipeline gas sales to Europe that dropped by more than 70% over the past year. Novatek is Russia's leading independent gas producer, with its main focus on LNG developments, including the country's largest, the Yamal LNG project in West Siberia, in which it holds a 50% interest. Yamal LNG remains a major source of revenue for Novatek since coming online in December 2017.

However, following last year's decision to boost the profit tax on Yamal LNG to 34% from 20%, the project will be required to pay an estimated 200 billion roubles (US\$2.43

billion) between 2023 and 2026, Moscow business daily Kommersant quoted Novatek chairman Leonid Mikhelson as saying. Mikhelson has reportedly asked the prime minister to allow Novatek to postpone until the end of this year the payment of at least 40 billion roubles in taxes for Yamal due for 2022, according to Kommersant. The company needs to preserve the cash for its next two LNG ventures, Novatek said.

## **Russia tries to work around sanctions to sell naphtha**

(Bloomberg; April 11) - Russia is resorting to a number of murky practices to sell a lesser-known oil product to buyers wary of breaching sanctions, and to beat a financial cap set by the European Union and its allies. Sellers of Russian naphtha — which is primarily used to make plastics and petrochemicals — are facing more hurdles getting the product to market since sanctions took effect in early February. That's led to measures such as the fuel being labeled as gasoline or cargoes leaving ports without a destination, according to people familiar with the matter, and FGE and Kpler.

“There isn't a clear, dedicated outlet for Russian naphtha now that its major buyers South Korea and Europe can't take it directly,” said Armaan Ashraf, the global head of natural gas liquids at industry consultant FGE in Singapore. The lack of buyers that can soak up large volumes of naphtha has exacerbated the problem for Russia. China and India are taking more but both have ample domestic supplies, while South Korea — a key consumer pre-war — has shunned direct imports following sanctions.

Russian gasoline has been observed flowing to storage in the United Arab Emirates and West Africa, something that was previously rare, according to FGE. It could be naphtha or potentially even off-spec gasoline with a lot of naphtha blended into it, FGE's Ashraf said. There is a financial incentive to this measure. Sanctions set a \$45-a-barrel cap for Russian naphtha, while gasoline has a much higher limit of \$100 a barrel. More Russian naphtha loadings are signaling unknown destinations, which could indicate an attempt to obscure its origin as well as reflect the difficulty finding buyers, according to Ciaran Tyler, a senior natural gas liquids analyst at data intelligence firm Kpler in London.

## **Even with discounts, Russian crude moving closer to \$60 limit**

(Bloomberg; April 11) – Amid higher market prices, the sales price of Russian oil is nearing a threshold that could create complications for the country's biggest buyers. The Group of Seven nations last year imposed a cap of \$60 a barrel on crude shipped from Russia to limit the Kremlin's profits amid the war in Ukraine. Buyers who pay above that level lose access to industry-standard insurance under the sanctions.

The price of Russia's flagship Urals crude at the point of export is getting closer to \$60, data from Argus Media show. The delivered price of the grade to India's West Coast —

including shipping — was more than \$73 a barrel as of April 6. Urals crude shipped from the Baltic port Primorsk and Novorossiysk on the Black Sea costs about \$55 a barrel in February, the most recent month for available data, before shipping costs.

However, it's getting increasingly difficult to assess the actual price of Russian crude, due to the emergence of a shadow fleet of vessels and trading companies with unclear affiliations. For much of the past year, Russian oil exports have surged, with much of it going to India and China. But increasingly tighter sanctions are starting to bite. And while Russian crude is getting pricier, there are signs that it's still cheap enough to undercut other suppliers. The cost of Iraqi crude to India dropped to an average of \$76.19 a barrel in February, compared with \$78.92 in January.

### **Russia considers using non-ice class oil tankers in Arctic summer**

(High North News; April 11) - In an unprecedented development, Russia's operator of nuclear icebreakers, Rosatom, is in discussions with Arctic oil companies Lukoil and Gazprom Neft to send crude oil in conventional, non-ice class tankers along the Northern Sea Route to Asia this summer. These voyages would be high-risk, say shipping experts. European Union sanctions have shut the door on the import of Russian Arctic oil. Since sanctions took effect in December, Russia has diverted oil produced at its three Arctic projects to buyers in Asia via the Suez Canal.

However, that lengthy route — compared to the relatively short voyage to western Europe — challenges the economics of the cargoes. For the summer and fall of 2023, Russia is looking to send Arctic crude to Asia via the NSR, rather than circumnavigating all of Europe and passing through the Suez Canal. "Deliveries ... are more expensive if they have to go via Suez to China. It is therefore not surprising that companies want to export their oil via the NSR this summer," said Hervé Baudu, chief professor of maritime education at the French Maritime Academy.

Russia conducted a trial voyage late last year sending a shipment of oil to China via the NSR. The difference is that Russia is now looking to use tankers without ice protection. Russia's ice-class tankers are not large enough to economically deliver crude oil over long distances to Asia. Larger, conventional tankers could move more oil at lower cost. But the Arctic's remoteness and icy water represent a big risk. "The risks are high because a collision with a piece of pack ice could lead to a leak of crude and to pollution in cold waters that are not well known to be treated in cold seas," warned Baudu.

### **Sinopec takes 5% stake in Qatari LNG production facility**

(Bloomberg; April 12) - Sinopec has bought into a liquefied natural gas project in Qatar in a bid to bolster the energy security of China, the world's second-largest buyer of the



fuel. At a signing ceremony in Doha, Sinopec — officially known as China Petroleum & Chemical Corp. — agreed to take a 5% stake in a train with a liquefaction capacity of 8 million tonnes a year. It's part of the massive North Field East LNG export project that's under construction and is expected to begin shipping gas in 2026.

The investment marks the first time China has directly backed an LNG plant in Qatar, one of the world's top exporters. It's also the latest in a flurry of deals to lock in gas supply for decades amid intensifying global competition for the fuel, particularly between Europe and Asia. In November, state-owned Sinopec signed a \$60 billion contract to buy 4 million tonnes of LNG a year. The deal will last for 27 years, making it China's longest LNG supply agreement to date, according to data from BNEF.

Chairman Ma Yongshen said at the event on April 12 that he hopes Sinopec will continue to explore new LNG cooperation opportunities with QatarEnergy. Qatar is the second-largest supplier of the fuel to China, after Australia. ConocoPhillips, Shell, TotalEnergies, ExxonMobil and Eni are also investors in North Field East, which will increase Qatar's LNG export capacity to 110 million tonnes a year from 77 million.

### **Falling spot-market LNG prices boost imports in Asia**

(Reuters; April 12) - Cheaper spot prices for liquefied natural gas are luring price-sensitive buyers back in Asia, with China and India recording rising imports in March. The spot price of LNG for delivery to North Asia was \$12.50 per million Btu in the week to April 6, steady from the previous week, which was the lowest level since June 2021. The price has dropped 67% from its northern winter peak of \$38, reached in mid-December and is also down 82.3% from its record high of \$70.50 from August last year.

China's imports of LNG are estimated by commodity analysts Kpler at 5.55 million tonnes in March, up from February's 4.95 million and also well above the 4.77 million tonnes from March last year. China lost its status as the world's biggest importer of LNG back to Japan last year, largely because its utilities pulled back from the spot market as prices surged. India was another LNG importer stung by the record high spot prices last year but is returning to the market as prices retreat.

India's March imports are estimated at 1.84 million tonnes, up from February's 1.27 million, which was the lowest monthly total since January 2017, according to Kpler data. India's March imports were the most since June 2022, and also exceeded the 1.77 million tonnes from March 2022. Other smaller Asia LNG importers, such as Pakistan, Bangladesh and Thailand also recorded higher imports in March from February.

### **Global demand for natural gas expected to rebound this year**

(Natural Gas Intelligence; April 10) - Global natural gas consumption is expected to rebound this year as easing price volatility and rising economic activity boosts LNG imports by China and South Asia and as North America's power market continues to cut coal-fired capacity, according to the Gas Exporting Countries Forum. Researchers with the organization headquartered in Qatar in the annual report said gas consumption could grow to an all-time high through 2024. Gas consumption had been trending upward after collapsing during the pandemic, but then demand reversed in 2022.

A combination of mild weather, high liquefied natural gas prices and the invasion of Ukraine last year led to a 0.4% decline in global gas demand, reducing global gas consumption to 142.26 trillion cubic feet. This year, policies to cut emissions from the North American power sector and a surge of LNG demand in Asia is expected to boost consumption by 1%. Asia is anticipated to have a 4% to 4.5% year-on-year boost in LNG imports in 2023, with global LNG imports increasing to about 416 million tonnes.

"China and countries in the Indian subcontinent and Southeast Asia are forecasted to account for the bulk of incremental increase in LNG imports with an additional 13 million to 15 million tonnes of LNG imports," researchers wrote. In the United States, the rising price of coal and the continued retirement of coal generation capacity last year helped fuel a 5.4% rise in gas consumption to 32 tcf. Canada's gas consumption also rose with a 4% jump to 4.9 tcf. For 2023, the gas forum estimated North American consumption would largely stay the same or slightly decline as renewable generation increases.

### **World gas market now more interconnected than ever**

(S&P Global; April 12) - The Russia-Ukraine war is in the process of resetting the energy sector, with natural gas turning into a global and interconnected market, affected by events and dynamics far beyond its traditional physical scope, similar — to some extent — to what oil used to be for decades. The European gas market — until recently nearly isolated, with prices largely depending on pipeline flow dynamics between Russia and Norway — can now be driven by anything across the world, from an LNG cargo diversion in the U.S. to a river drying up in China and tensions over Taiwan.

This has immensely accelerated the gas market's globalization, with analysts and market participants now calling it the "new oil," referring specifically to its geopolitical aspect, as gas is traded very differently from oil and cannot compete in terms of liquidity. "(Natural gas) is like oil in that it's now a global commodity via LNG and has a much higher geopolitical significance because of the events of the past year," said Glenn Rickson, S&P Global Commodity Insights head of European power analysis.

The sharp turn has taken place as Europe moves away from its reliance on Russian gas and replaces it with LNG, which could be supplied from multiple locations, including the U.S., Qatar, Nigeria and more. LNG has a pivotal role in filling in the gap, and the rest of the world could now be driven by regional European issues. "It's arguable that



the effect goes both ways," Rickson said. "For example, the French nuclear and hydro (shortage) last summer lifted EU gas demand, which in turn helped support LNG prices and limited demand for imported gas in Asia and elsewhere."

### **Expanded Canadian oil sands pipeline will help producers**

(Bloomberg; April 10) - Canadian oil producers beset by years of constrained pipeline capacity expect to garner better prices for their crude when the expanded Trans Mountain conduit starts up next year, opening them to new markets in Asia. The expansion project — which Prime Minister Justin Trudeau's government bought for C\$4.5 billion (US\$3.3 billion) in 2018 — will reduce oil sands producers' dependence on U.S. refiners that currently forces them to accept discounted prices for their crude.

Coming a little more than two years after the 2021 start-up of Enbridge's Line 3 out of Canada, the Trans Mountain expansion has — at least temporarily — removed pipelines from the list of a concerns for an industry long hampered by limited shipping options. "Being able to send our barrels into more markets is a big opportunity," Canadian Natural Resources Chief Financial Officer Mark Stainthorpe said at the Bank of Montreal-Canadian Association of Petroleum Producers conference last week.

Canadian Natural Resources, the country's largest producer, will ship 94,000 barrels a day on the expanded Trans Mountain line when it begins operating in 2024, taking about 16% of the space available on the line. The company is looking at Asia and U.S. West Coast markets for that crude, Stainthorpe said. The line also may allow oil sands companies to boost output. The expansion will more than double the line's capacity to 890,000 barrels a day. Costs for the project — from Edmonton to terminals near Vancouver — have spiked to C\$30.9 billion from the original estimate of C\$5.4 billion.

### **Colorado drilling activity adds to air emissions, water consumption**

(The Colorado Sun; Denver; April 11) - Oil and gas activity in Colorado in 2022 was heavily focused on the Front Range, which accounted for 72% of the 838 new wells approved and almost two-thirds of the new drill sites in the state, according to an annual report on the industry's cumulative impacts. The 2022 number was a sharp rise over 2021, when 48 wells were approved in the Denver-Julesburg Basin and Eastern Plains. Estimated air emissions and water consumption were also up, according to data provided by operators to the Colorado Oil and Gas Conservation Commission.

As part of a 2019 law that expanded the agency's mission to protecting public health, welfare, safety and the environment, the commission was directed to evaluate and address potential cumulative impacts of oil and gas activity in Colorado. To meet the

requirement, the commission now requires operators seeking permits to estimate the potential impacts of their projects on air, water, land, wildlife and wetlands and rivers.

The latest data is based on the 47 development plans approved in 2022. A plan can encompass multiple drilling sites and wells. The operator reports showed the demands for water on the Front Range increasing more than elsewhere in the state, up 12% year-over-year to 425,000 barrels per well — enough water for a year for about 120 families of four. Industry estimates also show that compared with 2022 there was a projected increase in emissions during Front Range drilling and hydraulic fracturing of wells.