

Oil and Gas News Briefs

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New LNG supply could run into price competition from renewables

(Reuters; March 14) - A flood of liquefied natural gas export projects worldwide in mid-decade will vie against lower-cost renewable energy and a revived nuclear power sector, which could rock gas prices and hurt some proposed projects, analysts say. Proposed and approved new LNG plants could boost supply by 67% from 2021 levels, increasing it to 636 million tonnes per year by 2030, potentially saturating the market.

In Qatar, a massive LNG expansion project will add 49 million tonnes per year of capacity by 2027. U.S. projects could add more than 100 million tonnes of additional capacity by late 2027, according to data compiled by BTU Analytics, a FactSet company. In a taste of the potential volatility those projects might face, LNG prices last year soared to record highs on European demand, then slid as storage filled and customers pushed back against the high prices and switched to other energy sources.

That shift is only going to accelerate. In 2021 alone, wind and solar's share of global power generation jumped to more than 10% from just 1% a year earlier, climate think tank Ember estimates. At the same time, nuclear is rebounding: Japan aims to boost nuclear's share of its power mix to at least 20% by 2030 from less than 7% last year. France is proposing six nuclear reactors by 2035. Analysts see LNG prices remaining strong until around 2027, but after that they may fall as the demand outlook is hazy.

LNG has "acquired a reputation as a costly and unreliable fuel" that could jeopardize plans to build new import terminals in Asia, the region with the highest demand outlook, the Institute for Energy Economics and Financial Analysis said in a report last month.

China accelerates plans for new coal power plants

(Bloomberg; March 13) - China is zigging while the rest of the world is zagging when it comes to coal power. Beijing rapidly accelerated plans for new coal power plants in the second half of last year, increasing its development plans by 45% to 250 gigawatts, according to a report from London-based climate think tank E3G. Meanwhile, planned power plants in the rest of the world shrank by 10 gigawatts, leaving China accounting for 72% of the world's future projects.

China's push for more coal capacity is its response to recent power shortages that have made energy security buzzwords for the nation's top officials. At the same time, it's continued the breakneck speed at which it's installing new renewable power, which will

likely make many of the new coal plants expensive backups and potentially stranded assets down the line. It's those risks that are slowing down coal elsewhere in the world.

Outside of China, the only plants announced last year were six reactivated projects in India and one new facility in Indonesia, according to E3G. For the first time in recent history, no new coal generation was proposed in North America or the European Union. "China's coal boom risks creating a diverging world energy landscape, locking in significant newly operational coal capacity and construction starts for the next five years, just as the rest of the world increasingly recognizes the economic jeopardy of new coal (plants)," E3G said.

LNG must be affordable to gain price-sensitive buyers

(Bloomberg opinion column; March 14) - A rapid decline in liquefied natural gas prices is reviving plans across Asia to import the fuel. It'll need to stay cheap if the LNG industry wants to keep new buyers. Vietnam and the Philippines are making moves to begin purchasing the fuel this year after the COVID pandemic and 2022's energy crisis delayed plans. Hong Kong is also set to receive its debut LNG shipment in May.

The drop in prices — spurred by a mild winter and efforts by governments globally to curb energy consumption — has not only rekindled interest among potential new buyers, it has prompted established Asian importers such as India, Bangladesh and Thailand to procure shipments on the spot market again. These buyers are important for the industry, which needs fast-growing emerging economies to underpin the market and ensure new export projects are worthwhile in the long term.

Yes, European demand is surging as countries race to replace Russian gas, but LNG suppliers are anxious that ambitious green goals may result in Europe's fossil-fuel consumption quickly disappearing. That also highlights how LNG's future depends on its affordability. While spot prices are down, they still aren't back to levels seen during the 2010s when developing nations first devised strategies to begin importing the fuel. The industry must do what it can to make it economical for these price-sensitive buyers.

LNG imports into China are up, but down in Japan and South Korea

(Reuters; March 15) - The decline in the spot price of liquefied natural gas in Asia to a 21-month low is tempting China to boost its imports of the fuel. China is on track to import 5.39 million tonnes of LNG in March, according to data compiled by commodity analysts Kpler. This would be up from February's 4.96 million tonnes and also above the 4.77 million from March last year.

The spot price in Asia LNG has been trending lower since mid-December and ended at \$13.50 per million Btu in the week to March 10. This is down 64% from the northern winter peak of \$38 reached in the week to Dec. 16, and 81% below the record high of \$70.50, hit in late August. Spot LNG prices soared last year in the wake of Russia's invasion of Ukraine as European buyers sought large volumes in an effort to replace Russian pipeline gas.

Despite China's renewed interest in LNG, total imports for Asia are trending lower, with Kpler forecasting March at 20.99 million tonnes, down from 22.21 million in February and also below the 22.78 million in March last year. Much of the drop in Asia's imports can be put down to Japan, which is due to receive 4.99 million tonnes of LNG in March, the lowest monthly total since May 2020. South Korea, Asia's third-biggest LNG buyer, is on track to import less LNG than in any month since November, though coal imports are up in South Korea and Japan as both countries turn to the power generation fuel.

World Bank open to financing gas projects in Mozambique

(Bloomberg; March 13) - The World Bank will support development of Mozambique's giant natural gas resources if it's the cheapest way to boost energy access in one of the world's poorest nations, according to an official. The lender in 2019 stopped financing oil and gas extraction projects, aside from "exceptional circumstances" where projects in the poorest countries help connect more people to energy. Mozambique in 2021 had the sixth-lowest gross domestic product per capita globally, while less than one-third of its population of 32 million has access to electricity, according to World Bank data.

"Our view is that we can support it if there are no other options that are least cost, and this is in the context of a clearly articulated transition plan," Victoria Kwakwa, the World Bank's vice president for Eastern and Southern Africa, said in a March 10 interview in the nation's capital, Maputo. "It can play an important role in the transition process." The southeast African nation over a decade ago discovered some of the biggest gas reserves on the continent. Projects to exploit them have been held up by a \$2 billion debt-fueled state corruption scandal and an Islamic State-linked insurgency.

International funding has also been targeted by environmental groups that oppose fossil fuels. Still, Russia's invasion of Ukraine last year sparked a rush by European nations to find alternative energy supplies from new sources, including projects on the African continent. At least two large-scale gas projects are in the works. France's TotalEnergies has delayed development of its \$20 billion Mozambique gas project due to security concerns. And an ExxonMobil-led LNG project is awaiting an investment decision.

LNG developer gives go-ahead for Louisiana project's second phase

(Reuters; March 13) - U.S. liquefied natural gas project developer Venture Global LNG said on March 13 that it will go forward with the second phase of its Plaquemines export plant in Louisiana after securing \$7.8 billion of financing. Phase 2's final investment decision comes after the first phase was sanctioned in May. Venture Global said that completes about \$21 billion for the two phases, the largest project financing ever done in the LNG industry. The project is planned for 20 million tonnes per year of LNG.

Demand for U.S. LNG increased after several countries around the world slowed purchases of Russian energy and imposed sanctions on Moscow after its invasion of Ukraine in February 2022. Analysts have said the first phase at Plaquemines, 20 miles south of New Orleans, could start producing in 2024, and the second in 2025. Venture Global said it issued notice to KZJV to continue construction of Phase 2, making it the first U.S. project to take FID in 2023. KZJV is a joint venture of Zachry Group and KBR.

Venture Global said Phase 2 customers include units of ExxonMobil, Chevron, Germany's EnBW, New Fortress Energy, Malaysia's Petronas, China Gas Holdings and Excelerate Energy. Phase 1 customers include units of China National Offshore Oil Corp. (CNOOC), China Petroleum and Chemical Corp. (Sinopec), Shell, Polish Oil and Gas Co. (PGNiG) and Electricite de France. Venture Global has about 70 million tonnes of LNG export capacity in operation, construction or development in Louisiana, including Calcasieu Pass (10 million tonnes, in operation), Plaquemines (20 million tonnes, under construction), and two other 20-million-tonne projects in development.

Russia plans more nuclear icebreakers for Arctic shipping route

(Australian Broadcasting Corp.; March 13) - Russia is operating more icebreakers along its Arctic coast now than at any time in the country's three-decade, post-Soviet history. Some are among the world's most-powerful nuclear vessels, and the country has plans to build even more, having committed to investing at least \$US35 billion into its frozen northern waters through 2035. President Vladimir Putin is betting big on developing the world's next major shipping route, which will cut 4,000 nautical miles off the standard journey between Europe and Asia through Egypt's Suez Canal.

If Russia's gamble pays off, within the next decade there are plans for 200 million tonnes of cargo per year to be moving through these waters, adding more than \$500 million to Russia's GDP. The extra revenue would come at a critical juncture for Moscow as the repercussions of its invasion of Ukraine bite into its national budget. The Northern Sea Route is the Arctic shipping lane that runs along Russia's northern coastline from the Kara Sea, along Siberia, to the Bering Strait across from Alaska.

The route has, historically, been largely unnavigable, particularly in the winter months when it becomes clogged with sea ice. This densely packed ice is, in parts, classified as multi-year, meaning it has remained frozen for multiple seasons. Only relatively recently

have the effects of climate change begun to warm the Arctic, changing its frozen landscape in ways that make use of the route potentially economically viable.

Tough ice seasons — plus the fact that Rosatom's Soviet-era ships are aging — have likely contributed to Russia's push for new icebreakers, which are in high demand to help move a growing volume of liquefied natural gas from Arctic terminals to customers.

Russia continues talking of plans to increase LNG exports

(High North News; March 13) - Russia has announced plans to expand its Arctic liquefied natural gas production in an effort to boost exports to 100 million tonnes per year by 2030, triple the country's current capacity. Last week, Russia's Ministry of Energy announced a roadmap to significantly boost LNG production in Russia, especially in the Arctic. The effort relies on a combination of liberalizing the country's LNG sector and turning to domestic technologies to construct large-scale plants.

According to the plans, future LNG projects will use at least 80% domestic technologies. In order to reduce dependency on foreign technologies, such as heat exchangers and turbines, Russia has been engaged in import substitution of liquefaction technologies since 2014, accelerating that push last year after Western sanctions blocked access to technologies and companies as punishment for Russia's war on Ukraine.

Completion of the Arctic LNG-2 project would boost the country's export capacity just past 50 million tonnes per year, though construction has been delayed by Western sanctions on equipment and contractors. Full completion is not expected until 2026, and even that is uncertain. There are other LNG projects in planning stages, though none have started construction. To produce gas for expanded exports, Prime Minister Mikhail Mishustin said the government plans to issue more licenses for new gas fields.

Smaller British Columbia LNG project receives environmental OK

(Vancouver Sun; March 14) - The Haisla First Nation has been given the green light by British Columbia to move ahead with its proposed Cedar LNG project, the first Indigenous majority-owned liquefied natural gas export facility in Canada. The C\$3 billion project was approved by the Environmental Assessment Office and will be subject to strict targets to meet B.C.'s climate goals, Premier David Eby announced in Vancouver on March 14 alongside Haisla Nation Chief Councillor Crystal Smith.

The Haisla Nation has partnered with Calgary-based Pembina Pipeline to build the floating LNG facility and marine terminal in the Douglas Channel near Kitimat, B.C. The project is on the traditional territory of the Haisla Nation. Pembina will be responsible for pre-construction, construction and operation of the facility. The Cedar LNG project will

receive gas through a branch of the Coastal GasLink pipeline from the extensive gas fields of northeastern British Columbia.

The partners have not yet taken a final investment decision to proceed with construction. If they go ahead, the facility would produce 3 million to 4 million tonnes of LNG per year, compared to the 14 million tonnes from the first phase of the larger LNG Canada plant already under construction in Kitimat.

TotalEnergies says 2027 at the earliest for Mozambique LNG

(Bloomberg; March 14) - TotalEnergies won't export LNG from Mozambique before 2027 at the earliest as it considers whether to restart work halted by an Islamic State-linked insurgency. The French energy giant declared a force majeure in April 2021, after rebels raided a nearby town, killing dozens of people. The resumption of the \$20 billion project is crucial to Mozambique's economic future, gaining greater global significance after Russia's war on Ukraine forced Europe to seek alternative sources of fuel.

"From the time we restart to production, we need another four years to build the facility," Stephane Le Galles, project director at TotalEnergies, said during a visit to the site in northeastern Mozambique last week. That means exports of liquefied natural gas would only begin in "2027 at the best," he said. Since the attack, the Mozambican government has asked for military help from Rwanda and a regional bloc to contain the insurgency. Security has improved, especially along the coastal strip where the project is located.

For TotalEnergies to lift the force majeure, there are four or five conditions that need to be met, said Le Galles. Those include keeping the cost of the project "as it was before," and improved security conditions. It's impossible to say when these conditions will be met, according to Le Galles, adding that progress was in a "good direction."

Profits soared in 2022 at Norway's state-owned oil and gas company

(Bloomberg; March 14) - Norway earned 528 billion kroner (\$50 billion) from its direct ownership of oil and gas licenses last year, more than five times the amount of a normal year, as the country became Europe's biggest gas supplier after Russia's invasion of Ukraine. Petoro, which manages the Norwegian state's direct financial interest in 36 producing oil and gas fields, reported earnings 342 billion kroner higher than in 2021. Petoro's gas production averaged 3.85 billion cubic feet per day, 7% higher than a year earlier, it said on March 14. The country's total gas output exceeded 12 bcf a day.

Norway became Europe's biggest supplier of gas last year and now covers 30% of the continent's demand. That windfall feeds the country's \$1.3 trillion sovereign wealth fund and provides the government with the ability to ramp up spending during downturns.

“Long-term efforts on the Norwegian shelf have ensured that we can contribute large volumes of gas to Europe,” Petoro CEO Kristin Kragseth said. “This increase was possible because increased production was permitted from multiple fields.”

The state-owned unit manages a portfolio covering about a third of the oil and gas reserves on the Norwegian continental shelf. It was set up in 2001 when the partial privatization of what is now Equinor necessitated moving the management of the state’s holdings out of the company. Petoro’s total production last year amounted to 1.04 million barrels of oil equivalent a day, based on assets such as the giant Troll field, which represents some 60% of gas reserves on the Norwegian continental shelf.

Saudi Aramco plans large boost in capital spending this year

(S&P Global; March 12) - Saudi Aramco, the world's largest oil-exporting company, forecast its capital expenditures for 2023 at \$45 billion to \$55 billion in its largest spending exercise to date as it looks to increase its maximum sustained output capacity to 13 million barrels of crude per day by 2027, the company said in its full-year financial results on March 12. Production in 2022 averaged 13.6 million barrels of oil equivalent per day (includes natural gas), with 11.5 million of liquids output, the company said. In 2021, average output was 12.3 million barrels of oil equivalent per day.

This year’s capital spending of up to \$55 billion is a significant boost from \$37.6 billion in 2022. "Aramco has embarked on the largest capital spending program in its history," CEO Amin Nasser said. "Given that we anticipate oil and gas will remain essential for the foreseeable future, the risks of underinvestment in our industry are real — including contributing to higher energy prices."

The company's net income for 2022 rose 46.5% to \$161.1 billion due to "stronger" crude oil prices, higher volumes sold and improved margins for refined products, Aramco said. Aramco plans to continue to raise capital spending "until around the middle of the decade," it said in a statement.

Western sanctions result in cheap Russian oil for Asia

(Reuters; March 14) - Western sanctions on Russian and Iranian oil have channeled cheap fuel to Asia and in the process eroded a decades-long trend whereby the continent has paid more for energy than Europe, according to traders, analysts and Refinitiv Eikon data. Analysts and government officials from consumer countries use the term “Asian premium” to refer to the higher prices Asian importers have paid for oil from big exporters, such as OPEC members.

For Asia, a weakened premium amounts to an economic stimulus, highlighting another unintended consequence of the Western sanctions on oil and gas exporter Moscow, which also led to a surge in the amount Europeans have paid for natural gas. "It's safe to say that some major consumers in Asia, most notably India and China, are the major winners of the sanctions," Ole Hansen, head of commodity strategy at Saxo Bank, said.

Western Sanctions have led Russia to sell more than twice as much crude to Asia in the year to January, according to Kpler data. Iran, under U.S. sanctions, has boosted its exports to the highest in three years on some estimates, with China the biggest buyer. Russia's flagship export blend Urals, which before the Ukraine invasion was sold in Europe at a few dollars a barrel below the value of benchmark dated Brent, is being sold in Asia at a discount of minus \$24, according to Refinitiv Eikon data.

At a discount of around \$15 per barrel, a refinery in India processing 200,000 barrels per day would save \$3 million a day on its crude purchases compared to a European rival. On an annual basis the saving would exceed \$1 billion.

Mitsubishi plans to develop hydrogen business in U.S. before Japan

(S&P Global; March 10) - Mitsubishi Heavy Industries has shifted the focus of its hydrogen business from the Japanese market to the U.S. market over the past year, recognizing that the U.S. will become the "tip of the spear" for energy transition, a Mitsubishi executive said during CERAWEEK by S&P Global in Houston. "My leaders in Japan have recognized that the energy transition is going to happen in the U.S. first," said Mitsubishi Power CEO Bill Newsom in an interview with S&P Global.

"As such, our center of excellence for the energy transition is going to be in the U.S. We've got team members coming over from Japan, and we are the tip of the spear for learning everything." Mitsubishi Heavy, parent company of Mitsubishi Power Americas, is investing in several areas of the energy transition — hydrogen infrastructure, photovoltaic solar development, battery storage and other decarbonization technologies for the oil and gas industry.

Though the company's core manufacturing functions will remain its revenue driver, proceeds from that core will increasingly be reinvested in its energy-transition activities. Newsom said the U.S. will be the first market where the company deploys and perfects its energy transition-related products, then it will carry what it's learned to other markets, including Japan, Europe, Asia and the Middle East. The IRA (Inflation Reduction Act) was a big helper too — a \$369 billion forcing function." Congress approved a wide range of federal financial aid and tax breaks to promote work in clean energies.

U.S. government looks to spur investment in carbon storage

(Natural Gas Intelligence; March 14) - The Biden administration is funding \$2.52 billion to accelerate investments in carbon capture storage and carbon transport technologies. The Bipartisan Infrastructure Investment and Jobs Act of 2021 funded two programs: the Carbon Capture Large-Scale Pilots and Carbon Capture Demonstration Projects. The goal of these programs is to decrease carbon dioxide emissions from electricity generation toward a nationwide goal of net-zero emissions by 2050.

CCS sequesters CO₂ emissions deep underground. The Carbon Capture Large-Scale Pilots would fund up to 10 projects. The Carbon Capture Demonstration Program would fund six projects targeting commercial-scale carbon capture technologies, along with transportation and storage infrastructure. The Inflation Reduction Act provides tax incentives for companies that undertake carbon reduction efforts.

For example, Occidental Petroleum subsidiary 1PointFive is undertaking a massive direct air capture program in the Permian Basin to reduce CO₂ emissions. Several CCS hubs have been proposed for the Gulf Coast. They include a \$10 billion hub led by ExxonMobil and partners that would capture petrochemical emissions in the industrial complex southeast of Houston. Another CCS hub is being eyed by Spanish major Repsol, Carbon-Zero US, Cox Operating and Crescent Midstream.