

# Oil and Gas News Briefs

## Compiled by Larry Persily

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#### **British Columbia gas pipeline cost more than double original estimate**

(Bloomberg; Feb. 1) - The price tag for TC Energy's 416-mile Coastal GasLink project has jumped to C\$14.5 billion (US\$10.9 billion) — more than double the original estimate — as labor woes plague the pipeline that will supply Canada's first major liquefied natural gas export plant under construction in Kitimat, British Columbia. The cost may rise an additional C\$1.2 billion beyond the latest estimate if more delays extend construction into 2024, the Canadian pipeline builder and operator said Feb. 1.

The company said it might increase the size of a planned C\$5 billion asset-sale program to help pay for added costs. TC Energy said in November that Coastal GasLink's costs would be much higher than anticipated, but it didn't provide a number at the time. The new cost estimate is slightly higher than expected, and TC Energy's warning of another possible increase "will be an overhang for the stock," RBC Capital Markets analyst Robert Kwan said in a note.

The pipeline from northeastern British Columbia, which will feed the Shell-led LNG Canada plant, has been delayed by a series of challenges including COVID-19, skilled-worker shortages and protests by environmentalists. The project is 83% complete and the company is targeting "mechanical completion" by the end of this year, TC Energy said. Developers of the gas liquefaction plant are looking at start-up by 2025. Total cost for the LNG project has been estimated at C\$40 billion (US\$30 billion).

#### **FERC pulling back on requiring full EIS on pipeline expansions**

(S&P Global; Jan. 30) - In a change that could speed natural gas project reviews, the Federal Energy Regulatory Commission appears to be pulling back from a practice of conducting full environmental impact statements for most projects that only add capacity to existing operations and have incremental greenhouse gas emissions. The potential shift comes as Commissioner Willie Phillips settles in as acting chairman at FERC, following a period when the agency faced criticism in Congress for slow project reviews.

In a sign it may be adjusting its approach, the commission on Jan. 27 released revised notices scheduling environmental assessments for three pipeline expansions, setting dates several months earlier than previously planned. For example, the Texas-to-Louisiana Energy Pathway Project, which could help feed Gulf Coast LNG demand, will receive its environmental assessment on June 9, compared with an environmental impact statement on Nov. 30 under the prior schedule, according to FERC's notice.

FERC's recent practice of often turning toward a full EIS, even for some smaller projects with potential added GHG emissions, grew out of efforts under then-Chairman Richard Glick to sort out how the commission will consider GHG and climate impacts associated with gas infrastructure expansions. Glick contended that conducting an EIS when there were added GHG emissions would help make FERC's decisions more legally durable in the face of legal challenges and in response to direction from federal courts.

Christi Tezak, managing director of ClearView Energy Partners, said the change in schedules for the three pipeline projects could be an early sign that Phillips is heading toward a "middle ground" on where he wants to take gas project certificate reviews.

### **Shell delivers so-called 'carbon-neutral' LNG cargo to Taiwan**

(Bloomberg; Jan. 31) - Emboldened by new industry guidelines, natural gas companies are renewing their efforts to sell "carbon-neutral" fossil fuels, a controversial practice of offsetting a cargo's emissions to shrink its environmental impact. Shell delivered 70,000 tonnes of liquefied natural gas to Taiwan (about 3.3 billion cubic feet of gas) in a deal announced last week, the first shipment certified as "greenhouse gas neutral" under a new standard developed by the International Group of Liquefied Natural Gas Importers.

Shell and the purchaser, CPC Corp., bought carbon credits to offset the 190,000 tonnes of carbon dioxide emissions generated by the LNG from production to combustion — similar to what the company did when it first marketed carbon-neutral LNG in 2019. Putting a carbon-neutral label on fossil fuels is appealing for obvious reasons: It allows buyers and sellers to assert that the transaction has no negative environmental impact, contributing to net-zero goals and reassuring ecologically minded investors.

But after a flurry of enthusiasm, those shipments all but disappeared when LNG prices spiked last year and when it became clear there was no standard for fuel companies to measure emissions or buy credits. The industry also came under fire for using cheap, low-quality credits, presenting little if any environmental benefit. The GIIGNL framework, released in 2021, adds standards for documentation and transparency. To comply, companies must calculate and report greenhouse gas and methane emissions, the name and type of offsets used and plans to cut emissions from drilling to consumption.

Despite the new standards, the companies revealed few details about Shell's shipment, such as price and the breakdown of credits purchased, making it challenging to verify the authenticity of the carbon-neutral statements. "We still don't really have any information about the cargoes and emissions at each stage," said Jonathan Stern, distinguished research fellow at the Oxford Institute for Energy Studies. "We need a lot more granularity, else the industry runs the risk of being accused of greenwashing."

## **Tankers swap Russian oil outside Mediterranean town**

(Bloomberg; Jan. 30) - The new world created by Vladimir Putin's invasion of Ukraine has spawned a new oil trading hub: the town of Ceuta – a tiny Spanish enclave that sticks out of Morocco into the Mediterranean Sea like a thumb. There, in calm seas away from prying eyes, Russia is swapping oil cargoes, a technique that allows it to reduce shipping costs, get around restrictions and smooth logistics for its remaining customers. The result? Russian oil is still flowing into the global market in great quantities, barely down from prewar levels despite U.S. and European Union sanctions.

Until it invaded Ukraine, Russia seldom used the waters near Ceuta as a stopover for its oil. Back then, Moscow shipped crude directly to European refineries with small tankers. But the Kremlin started to use the sea near the Spanish town as a base for ship-to-ship transfers, first sporadically and now routinely. The route goes as follows: Russia loads crude into small-sized tankers called Aframaxes at its Baltic Sea export terminals. The vessels ferry the crude toward Ceuta. Near the town, the ships, which carry about 700,000 barrels, wait until a giant very large crude carrier, or VLCC, arrives.

The Aframaxes approach the VLCC and transfer the cargo ship-to-ship. After that, the VLCC begins its journey toward Asia, going around Africa. Since December, six VLCCs have done exactly that. Some of them are veterans of the black market in oil, having in the past carried Iranian and Venezuelan crude, according to Vortexa, a consultancy that tracks tankers. And Russia and China appear to be lining up more swapping stops in Ceuta. Currently, two VLCC are there waiting for shuttle tankers to arrive.

## **Small company in India ramps up quickly to move Russian crude**

(Wall Street Journal; Jan. 29) - Russia has managed to keep its oil moving to world markets, defying fears that sanctions imposed last month would lead to a plunge in exports. An office in a suburb of Mumbai helps explain how that crude continues to flow. The address is home to an Indian shipping company that didn't manage a single ship until 2022. It took control of 25 tankers after the Russian military invasion of Ukraine and has put them to work shuttling Russian crude along newly established trade routes to the Mediterranean, Turkey and India, vessel-ownership and tracking data show.

Gatik Ship Management is among the most active of the upstart companies that have snapped up aging oil tankers to replace Western-owned ships no longer dealing with Russia. That parallel fleet is helping Moscow get crude to buyers in Asia, according to shipping executives, brokers and vessel-tracking, ownership and insurance data.

Also doing heavy lifting: A Dubai-based subsidiary of Russia's state-owned shipping giant Sovcomflot. Some major Western shipping firms, including one of Greece's largest, are moving Russian crude, too, trading oil under the price cap. Among those providing tankers is Gatik. The average age of its tankers is 17 years old, when owners

typically consider sending ships to scrap. All told, tankers controlled by companies in the United Arab Emirates, Hong Kong, China, India and Russia have carried more than 60% of Russian crude since the European and G-7 nations' price cap took effect.

### **Russia sold 20% more LNG to Europe last year after cutting piped gas**

(Reuters; Jan. 31) - Russia supplied Europe with some 17 million tonnes of liquefied natural gas last year, up about 20% from 2021 volumes, Refinitiv Eikon data showed on Jan. 31, partially offsetting a steep decline in Russian pipeline gas exports. Europe has been boosting imports of seaborne LNG. Russian gas exports to Europe via pipelines plummeted to a post-Soviet low in 2022 as its largest customer cut imports due to the conflict in Ukraine, and a major pipeline was damaged by mysterious blasts.

At the same time, Russia increased its total LNG exports in 2022 by 8.6% to about 33 million tonnes, of which more than half was shipped to Europe, Refinitiv Eikon data showed. Russia's largest LNG producer Novatek provided the bulk of the supplies, having shipped 20.8 million tonnes from the Yamal LNG project in the Arctic and 700,000 tonnes from Kriogaz-Vysotsk on the Baltic Sea, according to Refinitiv Eikon. The Gazprom-led Sakhalin-2 project in Russia's Pacific Far East increased its LNG output by 11% to 11.2 million tonnes in 2022.

### **Libya's oil ministry rejects \$8 billion gas deal with Eni**

(Argus Media; Jan. 30) - Libya's oil ministry has rejected the \$8 billion offshore gas development deal signed Jan. 28 between the country's state-owned oil company and Italy's Eni, saying the agreement violates the law and was done without its approval. The deal, which would be the largest single investment in Libya's upstream sector for decades, would have added almost 850 million cubic feet per day of gas production. The deal is key to Libya's hopes of meeting domestic gas demand and boosting exports to Italy, which slumped last year to the lowest since 2011.

The oil ministry of the Government of National Unity on Jan. 29 specifically hit out against the terms of the deal, which it says increases Eni's share of the project's proceeds to 37%, up from a previously agreed 30%. Its objection comes even though the deal was signed under the auspices of GNU head Abdelhamid Dbeibeh. Oil Minister Mohammed Aoun said Eni should shoulder more of the investment costs, which are currently shared equally between the national oil company and Eni.

Aoun is the second high-profile Libyan figure to reject the deal after the head of the parallel, eastern-based Government of National Stability, Fathi Bashagha, dismissed the agreement. Libya's political divisions remain a key obstacle to the development of its oil and gas industry, which has been crippled by years of war and underinvestment.

## **BP says Europe can boost renewables, efficiencies and cut back LNG**

(Bloomberg; Jan. 30) - It's widely accepted that turning away from Russian energy has committed Europe to long-term dependence on expensive imports of liquefied natural gas, raising questions about the cost competitiveness of its industries for many years to come. A new report from oil giant BP says this doesn't have to be the continent's fate.

"The extent to which the loss of Russian pipeline exports requires the European Union to source alternative supplies of gas depends on how successful it is in reducing its demand for natural gas as it decarbonizes its energy system," BP said in its Energy Outlook 2023 published on Jan. 30. Since Russia's invasion of Ukraine almost a year ago triggered an energy crisis, LNG has been crucial for Europe. If the EU continues on this trajectory, it will become heavily dependent on LNG. By 2030, the continent will be importing more than twice as much LNG as it did in 2019, according to BP.

However, if the bloc were to fully implement policies to achieve net-zero carbon emissions by 2050, its LNG imports at the start of the next decade could be lower than in 2019. "Faster gains in energy efficiency, rapid growth of wind and solar power and increasing electrification of final energy consumption" could mean that EU natural gas demand in 2030 is around 50% below 2019 levels, according to BP.

## **Exxon plans large-scale hydrogen manufacturing plant in Texas**

(Reuters; Jan. 30) - ExxonMobil disclosed on Jan. 30 its plan to start operations at its large-scale hydrogen plant in Texas in 2027 or 2028, Exxon's low-carbon business president Dan Ammann told Reuters. The unit is part of Exxon's efforts to create a new business to make money out of reducing greenhouse gas emissions from other companies looking to decarbonize their own operations. Exxon estimates a rate of return of 10% or more for the business.

Exxon has budgeted \$7 billion for hydrogen, carbon capture and biofuels projects between 2022 and 2027. A final investment decision for the Texas hydrogen project is expected by 2024. "People will see that this works and that it can be economically viable," Ammann said. Exxon said its Baytown facility in Texas is expected to produce 1 billion cubic feet of blue hydrogen per day. The fuel, which produces no emissions when burned, is targeted at heavy industries trying to switch from fossil to renewable fuels.

Blue hydrogen is made from natural gas in combination with carbon capture. Exxon plans to permanently bury underground 98% of the associated CO<sub>2</sub> produced at the plant, or about 7 million tonnes a year. Exxon struck its first commercial carbon storage (CCS) deal last year with the world's top ammonia maker CF Industries under an effort to target a projected \$4 trillion CCS market by 2050. Ammonia in its liquid form can be used to transport hydrogen around the world, serving as a hydrogen "carrier."

## **Novatek ready to deploy LNG transshipment hubs in Russian Arctic**

(High North News; Jan. 30) - Russian natural gas producer Novatek continues to overcome the impact of Western sanctions and will deploy two massive floating LNG hubs near Murmansk and Kamchatka in 2023. The transshipment hubs represent the final piece in its logistics chain to more efficiently export liquefied natural gas from the Arctic to Europe and Asia. Novatek operates the Yamal LNG terminal in northern Siberia and is building a second export project nearby, Arctic LNG-2. The hubs will serve at the western and eastern ends of the Northern Sea Route.

The hub near Murmansk, just east of Norwegian waters, will be ready first, followed by a second facility off the coast of Kamchatka in Russia's Far East. Each will include LNG barges to serve as floating LNG terminals which receive and store natural gas before transferring it to other vessels. The units will be the world's largest floating LNG storage facilities, large enough to receive cargo from two Arc7 ice-capable LNG carriers.

The hubs are a key piece in Novatek's plan to shorten the distance its specialized ice-capable Arc7 carriers need to travel. Instead of running the entire journey to Europe or Asia, the hubs will allow the transfer of LNG just outside ice-covered waters. Reloading the LNG aboard conventional carriers will help Novatek significantly reduce its transport costs and optimize the use of its Arc7 carriers. The contract for the LNG transshipment barges went to South Korea's Daewoo Shipbuilding and Marine Engineering, with Japanese and Chinese companies involved in construction of land-based infrastructure.

## **U.S. could surpass Qatar with LNG capacity expansion**

(Doha News; Qatar; Jan. 30) - Global LNG supply is expected to increase by 3% to an estimated 415 million tonnes this year, while LNG demand is predicted to increase by 2% to reach 401 million tonnes. Meanwhile, the United States is on track to more than double its gas liquefaction capacity over the next five years, experts believe, exceeding LNG giant Qatar in the process. U.S. liquefaction capacity is anticipated to reach 169 million tonnes by 2027, pushing it past Qatar, which is targeting 126 million tonnes by 2027 with its own expansion projects costing tens of billions of dollars.

In the U.S., three LNG projects are scheduled for final investment decision this year, according to BloombergNEF. "The U.S. is in the lead because of its flexible contract terms and the competitive landscape of project developers," said Michael Yip, global LNG specialist at BloombergNEF. This year, BloombergNEF anticipates final investment decisions for: Phase 2 at Venture Global's Plaquemines LNG in Louisiana; Sempra's Port Arthur project in Texas; and NextDecade's Rio Grande LNG in Texas.

Energy Transfer's Lake Charles LNG project in Louisiana, Venture Global's CP2 in Louisiana, and New Fortress Energy's proposal in the Gulf off the eastern coast of Mexico are potential wildcards for approval in 2023, according to BloombergNEF. In

addition, a third liquefaction train at Tangguh in Indonesia, the Tango floating LNG vessel in the Republic of Congo, and the Tortue floating LNG project on the border of Senegal and Mauritania, are among projects aiming to start operations in 2023.

## **Buyers return as spot LNG prices drop to lowest in more than a year**

(Reuters; Feb. 1) - Energy companies in Asian emerging nations are returning to the market for liquefied natural gas cargoes as prices have fallen to their lowest in more than a year. Buyers in Thailand, India and Bangladesh have been on the sidelines for months as prices soared following Russia's invasion of Ukraine, while European buyers paid top dollar for supplies to make up for the shortfall in Russian supplies. Should prices stay low, it may mean additional LNG demand that was not there last year.

Asian spot LNG prices last week were \$19.50 per million Btu, the first time below \$20 since September 2021, as inventories remain high with peak winter demand expected to end soon. Prices are down more than 70% from August's record of \$70.50. Officials at Bangladesh's national gas company Petrobangla said on Feb. 1 that it is planning to buy 10 to 12 cargoes of LNG from the spot market through June, reversing a government decision last year to halt spot purchases in July after prices spiked.

Thailand's PTT has also issued tenders for a total of 12 LNG cargoes to be delivered between February and April, while Indian buyers GAIL and Petronet sought cargoes for February delivery. Spot LNG prices are now competitive with the price of coal for power generation, said Kaushal Ramesh, senior LNG analyst at Rystad Energy. "An Asian spot price of less than \$15 would likely be more ideal for these buyers to confidently return to the spot market," said Ryhana Rasidi, an analyst at data and analytics firm Kpler.

## **Freeport LNG asks permission to start sending gas into Texas plant**

(Reuters; Jan. 31) - Freeport LNG asked U.S. regulators for approval to add natural gas to one of the three idled units at its liquefied natural gas export plant in Texas, a milestone in efforts to restore production after a seven-month outage, according to a federal filing made available on Jan. 31. The Freeport plant, the second-largest in the United States, shut after a fiery blast last June, cutting supplies as global LNG demand soared over Russia's invasion of Ukraine. Federal officials barred the producer from resuming production until they could complete an extensive safety evaluation.

The June 8 shutdown drove up global prices for the gas to record levels last summer just as Europe was struggling to replace supplies of Russian gas cut in response to European sanctions on Russia for the Ukraine invasion. Freeport LNG has asked the Federal Energy Regulatory Commission for permission to put gas into one of the plant's three liquefaction units for "initial LNG production."

Even at that, analysts believe it could be months before the plant's three units will be fully operational. "Our expected timeline for restart remains mid-March," Rystad Energy analyst Ade Allen wrote in a report published before the FERC filing was posted. "We expect it will take about 60 days from restart to 100% utilization," Allen said. The Freeport shutdown left more gas available to domestic customers, helping contribute to depressed U.S. gas prices, which traded at a 21-month low this week. At full capacity, Freeport can take 2.1 billion cubic feet of gas per day, about 2% of U.S. production.

### **Japanese company tests technology for low-cost hydrogen transport**

(Nikkei Asia; Jan. 31) - Japanese energy company Eneos said Jan. 30 it will soon test technology that allows hydrogen to be shipped by regular oil tankers at ambient temperature, an innovation expected to drastically cut the cost of adopting the alternative energy source. Eneos has built a demonstration plant in Brisbane, Australia, that makes methylcyclohexane (MCH), a liquid hydrogen "carrier" that can deliver hydrogen to end-users. The facility will go into operation in February.

MCH is typically produced by taking hydrogen stored in tanks and reacting it with toluene — an organic chemical compound — using synthesizing equipment. Eneos is developing an electrolyzer that turns water and toluene into MCH in one step. Through Eneos' process, there is no need for hydrogen tanks or extra synthesizing equipment, sharply reducing manufacturing and transport costs. Hydrogen would be extracted from the MCH once it arrives at its final destination.

On its own, hydrogen must be stored at minus 423 Fahrenheit for it to remain liquefied. The electrolyzer at Eneos' demonstration plant will have a capacity of 150 kilowatts, with a scale roughly 150 times the capacity of the previous prototype. The electrolyzer will be powered by solar energy, meaning the plant will release no carbon dioxide and produce green hydrogen. Eneos plans to conduct field tests of the electrolyzer for eight months to determine the optimum operation and control technologies. The company will develop a 5-megawatt electrolyzer by 2026 and then commence mass production of hydrogen.

### **Drop in nuclear power turned France into energy importer last year**

(Reuters; Feb. 1) - A steep drop in France's nuclear power output in 2022 exacerbated Europe's power crisis by forcing French utilities to flip from net power exporters to importers just as Russia's invasion of Ukraine snarled energy markets. A combination of planned maintenance shutdowns along with unplanned shortages of reactor cooling water forced French nuclear operators to cut electricity generation by 23% in 2022 from the year before to record lows, data from think tank Ember shows.



As France historically relies on nuclear for more than 70% of its total electricity supplies, the shortfall in reactor output forced French utilities to drastically adjust their power fuel mix by increasing imports and the use of natural gas by nearly 30% to record levels. In turn, France's higher gas consumption tightened regional gas markets at the worst possible time, just as other major European gas consumers scrambled for alternatives to Russian pipeline gas supplies.

A sustained recovery in nuclear output would help cut France's appetite for power and gas imports, and potentially help utilities export surplus power to nations still struggling with tight and expensive energy markets. In 2022, due to reduced nuclear output as well as a drop in hydropower generation because of dry conditions, France slashed power exports by two-thirds and lifted power imports to more than three times export levels. So far in 2023, France's nuclear power output remains 17.5% below the average from 2020 and 2021, due in part to strikes against planned pension reforms for unionized workers.

### **Japanese shipyard eyes market for building LNG-fueled vessels**

(Shipbuilding News; Jan. 30) - Japan Marine United, the country's second-largest shipbuilder, will start constructing vessels fueled by liquefied natural gas, considered a transitional technology as the industry aims for full decarbonization. Amid intensifying competition with Chinese and Korean shipbuilders, JMU hopes to take advantage of environmentally friendly technology to capture demand.

LNG-fueled ships can reduce carbon dioxide emissions by about 25% compared with heavy fuel oil. More than 2,000 LNG-fueled ships are expected to be operating worldwide by 2030. "Our raison d'être is to respond quickly to changes in society and provide a stable supply of high-value-added ships," Nobuyuki Nada, JMU's incoming president, said Jan. 26. Nada was brought in from Steel Plantech, a major steelmaking machinery company with close ties to shipbuilders. Building LNG-fueled ships could be a new market for Japan, after losing out on the LNG tanker construction market.

Japanese shipbuilders are under pressure after losing battles with Chinese and Korean companies in fierce price wars. Demand for LNG tankers has surged due to the energy supply crisis. About 70% of orders for LNG tankers were won by South Korean manufacturers, and the remainder by Chinese manufacturers. Meanwhile, Japanese companies, which cannot compete on price, have not received any orders since 2016. Construction of LNG-fueled ships will begin at the company's plant in Tsu, Mie prefecture, later expanding to plants in Kumamoto and Hiroshima prefectures.

### **Rural Alberta worries: What if renewables go the way of orphan wells**

(The Canadian Press; Jan. 29) - Once bitten, twice shy. It's an old adage that explains why Jason Schneider, the elected leader of Vulcan County, Alberta, is jittery about the renewable energy boom under way in his province. Like many in rural Alberta, he is still smarting over the way municipalities were left holding the bag when an oil price crash nearly a decade ago resulted in billions of dollars of unfunded liabilities left behind by bankrupt fossil fuel companies.

In Vulcan County alone, the landscape is littered with hundreds of orphan wells with no owners that need to be cleaned up. The municipality itself is owed more than \$9 million in back taxes left unpaid by insolvent oil and gas firms. So Schneider has a hard time looking at acre upon acre of massive wind turbines or solar panels without fearing a repeat of Alberta's orphan well crisis, or wondering who's going to fix everything if something goes wrong. "These are large industrial developments, and the reclamation costs are going to be substantial," he said. "We can see the warning signs."

Concerns are growing about the long-term implications of the province's renewable energy boom — the speed and scale of which has been nothing short of stunning. A province that not that long ago was largely reliant on coal for electricity, Alberta is now home to more than 3,800 megawatts of wind and solar capacity. An additional 1,800 megawatts of capacity is currently under construction. In Vulcan County, home to both the country's largest solar farm and one of Western Canada's largest wind farms, renewable energy developments now account for more than 40% of the local tax base.