

Oil and Gas News Briefs

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Osaka Gas will look at potential of low-carbon synthetic methane

(Natural Gas Intelligence; Dec. 22) - A unit of Osaka Gas, one of the largest global LNG buyers, is partnering with midstreamer Tallgrass Energy Partners and Green Plains to explore creating a hub of low-carbon gas that could be exported to Japan through the Freeport LNG terminal in Texas. In an agreement disclosed Dec. 21, the firms outlined a partnership to study the production of 200,000 tons per year of synthetic methane in the U.S. Midwest. Synthetic methane, also referred to as syngas, is made by combining hydrogen and carbon gasses into a fuel that can be used in lieu of natural gas.

Nebraska-based Green Plains owns and operates 11 ethanol biofuel refineries, mostly in the Midwest. The firms will study the feasibility of combining low-carbon hydrogen with carbon dioxide captured from Green Plains facilities and transporting it to the Freeport facility in Texas using the Tallgrass pipeline network. Osaka Gas USA CEO Sunao Okamoto said the study and subsequent investments in syngas exports could “greatly accelerate our goal to become carbon neutral by 2050.”

Along with Osaka Gas’ environmental goals, Japan has also committed to replacing 90% of the gas distributed in its cities with syngas by 2050. Earlier in the month, Osaka Gas and other Japanese firms agreed to study syngas production in the U.S. Gulf Coast, possibly exporting cargoes through the Cameron LNG terminal in Louisiana. Osaka Gas holds a 10% stake in Freeport LNG and its pending expansion project.

Australian company says green methane better option than hydrogen

(Bloomberg; Dec. 22) – Australia’s Fortescue Future Industries is exploring a more efficient way to ship zero-emissions hydrogen fuel overseas by using “green methane.” Green methane — essentially synthetic natural gas made using renewable energy — is a promising technology that would avoid the costs and technical difficulties of liquefying pure hydrogen, said Mark Hutchinson, chief executive officer of FFI. It would also allow the company to use the infrastructure of Australia’s large liquefied natural gas industry.

Andrew Forrest, the billionaire chairman of FFI’s parent company, predicted in March that pure liquid hydrogen would become “the largest seaborne trade in the world.” FFI aims to produce 15 million tons of green hydrogen a year by 2030, mostly in Australia, though no major projects have yet achieved a financial commitment. But Hutchinson said this week that liquefying pure hydrogen may not be “the smartest thing to do,” because of the challenges in transporting it to markets such as Germany and Japan.

Hutchinson said green methane may have advantages. Hydrogen requires cooling and storing at minus 450 degrees Fahrenheit, far colder than the minus 260 degrees at which methane — the main component in natural gas — liquefies. Also, liquid hydrogen takes up far more space per unit of energy than LNG or ammonia, adding to the costs.

“You basically add CO₂ to hydrogen to make methane, you then strip out the hydrogen at the destination and you recycle the CO₂,” Hutchinson said. But green methane also has serious challenges. Methane and CO₂ are both greenhouse gases, so leakage must be prevented. There is also the question of where the CO₂ will come from.

Japan, Saudi Arabia to cooperate on hydrogen, low-carbon fuels

(S&P Global; Dec. 25) - Japan signed two sets of cooperation agreements with Saudi Arabia on Dec. 25 in the fields of hydrogen, fuel ammonia and carbon recycling, strengthening the current relationship primarily based on buyer and supplier of crude oil. The agreements are the latest in Japan's efforts to develop its large-scale supply chains of hydrogen and fuel ammonia in the Mideast, where it sees great potential in competitive production for decarbonizing the country's power generation and industries.

The agreements were signed by Japan's Minister of Economy, Trade and Industry Yasutoshi Nishimura and Saudi Arabia's Energy Minister Prince Abdulaziz bin Salman on the sidelines of the first round of the Japan-Saudi Arabia energy dialogue in Riyadh. The ministerial-level meeting took place following a proposal by the Saudi energy minister to the late Japanese Prime Minister Shinzo Abe during his visit to Saudi Arabia in January 2020 to launch the Japan-Saudi Arabia energy dialogue.

Under the memoranda of cooperation, Japan and Saudi Arabia will accelerate the use of hydrogen in transport, promote research and development of hydrogen and fuel ammonia technologies and their use at the local, bilateral, regional and international levels. The two countries will also explore possibilities of conducting a joint study or pilot project to accelerate the deployment of such technologies as direct air capture, carbon capture, utilization and storage, carbon recycling and low-carbon fuels.

Advisory panel recommends building new nuclear plants in Japan

(Bloomberg; Dec. 22) – Japanese Prime Minister Fumio Kishida's advisory panel has approved a plan to extend the lifespans of nuclear reactors beyond 60 years and build new units to replace those that are decommissioned, reversing policies put in place after the Fukushima nuclear plant disaster in 2011. The step reflects a shift in public opinion, as the energy import-reliant country struggles with the threat of blackouts amid Russia's war in Ukraine and extreme weather.

While massive demonstrations calling for the abolition of atomic power were a regular occurrence in the wake of the 2011 meltdown, recent polls indicate growing support for restarting idled plants. The government is aiming to present legislation to parliament during the next session to put the basic plan into action, Kishida told a Dec. 22 meeting of his “green transformation” panel, which is comprised mostly of business executives and academics. The proposal will be opened for public comment and could gain Cabinet approval by February, the Nikkei newspaper reported.

Japan is joining a global shift back to nuclear energy after the prices of natural gas and coal shot to records this year as Russia’s invasion of Ukraine upended markets. The Kishida administration is also turning to nuclear to help curb emissions and hit Japan’s 2050 net-zero target. A survey by the Yomiuri newspaper in August found 58% in favor of restarting idled reactors, the first time a majority approved of the idea in that poll series since the question was initially posed in 2017.

China’s LNG demand likely to improve in 2023 after 2022 decline

(Natural Gas Intelligence; Dec. 22) - China’s thirst for LNG is likely to rebound in 2023, which could exacerbate the global energy crunch, but to what extent the country returns to the spot market remains unclear as it continues to grapple with COVID-19. China has eased restrictions aimed at curbing the spread of the virus. Those measures limited economic activity and energy demand, but cases have surged in recent weeks as the so-called COVID-zero policies have been undone.

Assuming lockdowns aren’t implemented again, China’s economic resurgence is still expected to boost overall natural gas demand in China, said Wood Mackenzie’s Valery Chow, head of Asia-Pacific gas and liquefied natural gas research. “However, this does not necessarily translate into greater LNG imports, given China’s ability to call on more competitive substitutes like domestic coal and pipeline gas imports,” Chow said. “Domestic gas production has also been ramping up quickly.”

China’s LNG imports reached 80 million tonnes in 2021, but they are projected to finish at just 64 million tonnes in 2022, according to Kpler data. The country is among the world’s largest LNG importers. It has accounted for the bulk of long-term supply agreements that have been signed in recent years but spot buying dried up in 2022 as industrial demand declined and the country’s buyers scoffed at high prices. Chow said Wood Mackenzie expects LNG demand to recover to 68 million tonnes in 2023, but she noted that would largely be driven by a ramp-up in existing long-term contracts.

Natural gas production out of U.S. Gulf Coast up 14% from last year

(Natural Gas Intelligence; Dec. 23) - Natural gas output from the U.S. Gulf Coast will rise over the next decade as producers continue looking to the export market, according to researchers at Louisiana State University's Center for Energy Studies. The center's latest energy outlook says Gulf Coast production will average 53 billion cubic feet per day in 2022, up 14% year on year. Production could exceed 68 bcf a day by 2032. This year's numbers mean that more than 50% of U.S. gas will come from the Gulf Coast.

"This year's (outlook), much like last year's, anticipates that long-run energy demand growth will lead to increased U.S. energy exports, especially to the growing developing world," the researchers said. The energy outlook sees as much as \$175 billion in new energy manufacturing investment from 2022 through 2030 in the Gulf Coast. Liquefied natural gas export projects will dominate overall investment at \$116 billion, most of which is earmarked for Louisiana. Non-LNG investments are mostly associated with chemical and refinery upgrades, the report said.

The Gulf Coast has become the epicenter for U.S. LNG since the first major export terminal started operations in Louisiana in 2016. The next two LNG export terminals could start up in 2024, adding to the seven already in operation in the United States.

[U.S., Canadian gas production expected to set new records in 2023](#)

(Reuters; Dec. 21) - U.S. and Canadian natural gas production is expected to hit new records in 2023, but growth may slow due to weakened demand, pipeline bottlenecks and a lack of new liquefied natural gas export plants. Gas demand surged worldwide after Russia cut off Europe's primary supply, and the U.S. and Canada are expected to feed copious demand for exports in coming years, bolstered by high prices. The two countries produced a record combined 116 billion cubic feet per day of gas in 2022.

Next year's growth could be slower than recent years. Major production fields in both countries are inhibited by a lack of pipelines to move gas to key markets, including export terminals in the U.S. Gulf. Canada is in the midst of building its first terminal to export LNG (in British Columbia), but its completion is two years away. "It's not production that can't keep up, it's just simply infrastructure constraints," said Alan Armstrong, CEO of Williams Cos., one of the biggest U.S. pipeline companies. "We're going to go through a period where production is going to be a little bit constrained."

Much of U.S. and Canadian gas output increases this year came from gas associated with oil production in places like the Permian in West Texas and eastern New Mexico. U.S. gas output is expected to rise to 100.4 bcf per day in 2023, up 2% from 2022, according to U.S. energy data. Canadian gas production is on track to reach a record 18 bcf a day in 2022 and 19 bcf in 2023, according to energy consultancy Rystad Energy.

Freeport LNG delays terminal reopening into January

(Bloomberg; Dec. 23) - Freeport LNG, the Texas natural gas export terminal that shut down after an explosion in June, has postponed restart plans, again. The company is submitting responses to regulators' questions that will need to be reviewed, Freeport said in a statement Dec. 23. While the reconstruction work necessary to restart the plant "is substantially complete," the operator said it "does not anticipate commencing the initial restart of its liquefaction facility until the second half of January 2023."

The terminal reopening was initially expected for October, and more recently for the end of December. The delay into January is bearish news for the U.S. gas futures market, as the postponement means more gas that would be typically exported will remain available for domestic consumption. Gas for January delivery settled at \$5.079 per million Btu at the New York Mercantile Exchange, posting a weekly loss of 23%.

Russia threatens to reduce oil output in response to price caps

(Wall Street Journal; Dec. 23) - Moscow threatened to cut its oil output in response to Western price caps, setting the stage for an escalation of the energy war that has run parallel to the conflict in Ukraine. Speaking on state television on Dec. 22, Russian Deputy Prime Minister Alexander Novak detailed for the first time Moscow's possible response to the Western price caps, instituted earlier this month. Novak said Russia could reduce its production by 500,000 to 700,000 barrels a day — which he described as a 5% to 7% reduction in capacity — by early next year.

Novak's comments boosted global oil prices. Benchmark Brent-crude futures rose 2.7% to \$83.87 a barrel Dec. 22. West Texas Intermediate, the U.S. marker, rose 2.8% to \$79.69 a barrel. "That's basically the first pop that we've heard that the Russians are willing to scale back production if you're going to force them to eat the price cap," said Bob Yawger, executive director for energy futures at Mizuho Securities USA.

Yawger said it is possible that Russia wants to push prices higher without intending to follow through. "On a broader scale, it's just the threat that they're going to take barrels off the market — there's concern around the energy space about that." The European Union and the U.K. earlier this month banned the import of seaborne Russian crude, while the Group of Seven nations put a ceiling on other sales by barring Western firms from insuring, financing or shipping Russian oil at above \$60 a barrel. The measures are aimed to reduce the Kremlin's war chest while keeping Russian supply available.

Exports of Russian Urals crude could fall 20% in December

(Reuters; Dec. 22) - Exports of Russia's flagship Urals crude blend from Baltic Sea ports may fall by up to a fifth in December, after a Western price cap and a European Union embargo on Russian oil took effect, according to traders and Reuters calculations. Traders said Russia has been unable to fully redirect Urals exports from Europe to other markets, notably India and China, and has struggled to find enough suitable vessels to move the crude.

According to traders' data and calculations by Reuters, Urals exports from Baltic Sea ports will probably fall to around 5 million tonnes (almost 37 million barrels) this month from 6 million tonnes in November. Some estimates are as low as 4.7 million tonnes. The European Union, G7 nations and Australia introduced a \$60-per-barrel cap on Russian oil, effective Dec. 5, on top of the European Union's embargo on imports of Russian oil by sea and similar pledges by the U.S., Canada, Japan and Britain.

The cap allows non-EU countries to import seaborne Russian crude oil, but prohibits shipping, insurance and re-insurance companies from handling cargoes of Russian crude around the globe unless it is sold for under \$60 per barrel. In December, Urals crude has been sold at deeper discounts, and dominant buyer India has bought barrels at well below the \$60 price cap. The impact of the sanctions on Urals loadings from Russia's Baltic ports has been aggravated by a shortage of non-Western tankers.

Japanese insurers will halt coverage of ships in Russian waters

(Reuters; Dec. 24) - Three Japanese insurance companies will stop covering ships for damages in all Russian waters due to the war in Ukraine, potentially affecting Japan's energy imports, particularly liquefied natural gas, the Nikkei newspaper said on Dec. 24. Tokio Marine & Nichido Fire Insurance, Sompo Japan Insurance and Mitsui Sumitomo Insurance started notifying shipowners about their decision on Dec. 23, the business daily reported.

The insurers' decision was prompted by reinsurers refusing to take on risks related to Russia's war on Ukraine, the newspaper said. The halt, applying even to waters in Russia's Far East, far from the fighting, could make shipping there too risky for some companies. Japan's LNG imports from Russia's Sakhalin-2 project could be hit, the Nikkei said. The Sakhalin venture, partly owned by Gazprom and Japanese companies, is vital to Japan's energy security as it accounts for 9% of the country's LNG imports.

The three Japanese insurers will likely start negotiating with reinsurance companies after the Christmas holidays on possibly restarting coverage, the Nikkei said.

Federal regulator approves restart plan for Keystone oil line

(Reuters; Dec. 23) - TC Energy said on Dec. 23 that a U.S. regulator had approved a restart plan for the idled segment of its Keystone oil pipeline to Cushing, Oklahoma, and it looked to restore service after several days of testing and inspections. The 622,000-barrel-per-day pipeline was shut down on Dec. 7 after it spilled 14,000 barrels of oil in rural Kansas, the biggest U.S. pipeline spill in nine years.

The 2,680-mile line from Alberta to the U.S. Gulf Coast has since reopened, except for the 95-mile segment that ruptured between Nebraska and an oil storage hub in Cushing. The shutdown reduced the flow of Canadian crude to Gulf refineries, but it has had little impact on Canadian oil prices, partly because of ample storage in Alberta.

Under terms of the U.S. Pipeline and Hazardous Materials Safety Administration's corrective-action order after the spill, TC must operate at 20% lower pressure along the segment that ruptured once it returns to service until it receives further approval. Keystone has been allowed to operate at higher than normal pressure to boost flows under a special permit from PHMSA, but the regulator is reviewing that permit system.

The pipeline has had 12 significant incidents in as many years of its life, including major spills in 2017 and 2019, according to the Pipeline Safety Trust, a watchdog group. Neither TC nor PHMSA has publicly identified the cause of the spill. Spill clean-up may take weeks or months, even as the pipeline restarts. The line carried diluted bitumen, a form of oil that tends to sink in water, making it harder to collect than oils that float.

Italian city loses challenge to stop work on LNG import terminal

(Reuters; Dec. 22) - An Italian administrative court has ruled against a request for a precautionary halt to work on a liquefied natural gas import terminal in the Tuscan port city of Piombino, saying it did not pose an immediate threat to public safety. The city administration, led by Mayor Francesco Ferrari, had filed a legal challenge against the government-backed project, which Rome says is key to weaning Italy off Russian gas.

The challenge included a "precautionary request" to suspend work to set up the floating storage and regasification unit at Piombino's port, citing safety risks to maritime traffic and people. The court on Dec. 22 scheduled a hearing for March 8 to assess longer-term safety issues relating to the terminal. It could still decide to stop the project. Italian gas grid operator Snam bought the LNG vessel in the summer and is in charge of the project, including connecting it to the national gas network and operating the terminal.

The facility needs to be operational by April to help Italy replace dwindling Russian gas supplies and refill its gas storage by next winter. Ferrari, a member of the right-wing Brothers of Italy, the same party as Prime Minister Giorgia Meloni, said, "We will consider further actions against the way Snam is managing the construction sites."

Demand for offshore drilling rigs drives up prices

(Wall Street Journal; Dec. 23) - While demand for oil rigs in the U.S. has plateaued, demand for offshore rigs for overseas drilling has swelled. That is causing day rates to skyrocket and the stocks of drilling contractors to soar. There are now 622 oil rigs operating in the U.S., according to Baker Hughes, up from 480 at the start of the year. Still, the count is unchanged from six weeks ago and down from the 683 in operation in March of 2020 at the onset of the pandemic.

Meanwhile, offshore rigs are hot commodities. Day rates recently topped \$400,000, up from \$300,000 in June and from less than \$200,000 two years ago, according to S&P Global. The stock prices of drilling contractors Transocean, Valaris and Noble have all leapt by more than 35% this quarter. The causes of the sea change are multifold, according to James West, senior managing director at Evercore.

Major public companies such as ExxonMobil, Chevron and ConocoPhillips have secured all the U.S. drilling rigs they need onshore, while their private rivals aren't expanding either, due to lower oil prices and year-end budget constraints. The majors are moving more of their drilling offshore and overseas because U.S. shale oil opportunities have been drying up with all the "good acreage" now drilled. Meanwhile, national oil companies including those in Abu Dhabi, Kuwait and Saudi Arabia are expanding offshore production in a bid to take market share from the majors.

Fire forces Shell to shut down floating LNG production facility

(Bloomberg; Dec. 22) - Shell suspended production at its floating liquefied natural gas facility off the west coast of Australia after a fire broke out, tightening fuel supplies to Asia right as winter starts to boost consumption. The "small fire" at the Prelude LNG facility was detected on Dec. 21 and was "quickly contained using a hand-held extinguisher," Shell said in a statement. "Production has been temporarily suspended and an investigation into the cause of the incident is underway."

The outage comes just after Prelude resumed loading this week following two months of maintenance. This is another setback for the world's biggest floating LNG plant, which has struggled with ongoing technical issues since it started up in 2019. The disruption also threatens to exacerbate the global energy shortage as winter demand for LNG from Shell's Asian customers hits its peak. The company did not say when production would start again at the facility, which has the capacity to produce 3.6 million tonnes per year.

Prelude's outage may force Shell to procure more LNG supply from the spot market in order to fulfill deliveries to customers. The company had already purchased several LNG spot shipments for January delivery to China over the past few months.

Explorer calls Norwegian shelf gas discovery 'a Christmas gift'

(Barents Observer; Norway; Dec. 23) - "It comes as a Christmas gift," said Alessandro Barberis, vice president for exploration with Vår Energy after the largest discovery on the Norwegian shelf this year. The estimated size of the discovery is between 300 billion to 750 billion cubic feet of recoverable gas resources, the petroleum company announced the day before Christmas Eve.

The Lupa well is in the area of the Goliat field in the western Barents Sea where Vår Energy has been producing oil since 2017. The production platform is the northernmost on the Norwegian continental shelf and the world's northernmost offshore floating oil platform. "The Lupa discovery further strengthens our foothold in the north," said Rune Oldervoll with Vår Energy, a company owned by the Italian-based ENI and Norway-based HitecVision. Oldervoll said the new big gas discovery "could serve as another step toward realizing additional gas infrastructure in the Barents Sea."

A challenge with the gas discovery, however, is the lack of transport infrastructure. The Hammerfest LNG plant is the only receiver of Barents Sea gas, and that Equinor-operated plant gets its gas from the Snøhvit field. Options for the new discovery could include expanding liquefied natural gas production at Hammerfest or a new pipeline.