

Oil and Gas News Briefs

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Chevron's LNG plant carbon-sequestration not working as planned

(Sydney Morning Herald; Nov. 13) - The world's biggest carbon pollution reduction project at Chevron's Gorgon gas plant in Australia is working at just one-third capacity after six years — a setback to the credibility of carbon capture and storage to achieve net-zero emissions. Chevron was allowed to build its \$US54 billion gas export plant on the condition it was capable of storing the carbon dioxide from offshore reservoirs and, as a minimum, "implement all practicable means" to bury at least 80% of the pollutant.

In the 12 months to June 2022, Chevron injected underground just 1.6 million tonnes of CO₂ and vented to the atmosphere 3.4 million tonnes, according to an annual Gorgon environmental report to the Western Australia state government released on Nov. 13. Conservation Council of Western Australia Executive Director Maggie Wood said CO₂ injection at Gorgon has been a failure for Chevron and proves that carbon capture and storage cannot be relied on to achieve meaningful emission reductions.

In the six years since LNG exports started from Gorgon, 20.4 million tonnes of CO₂ have been extracted from the gas piped from offshore to Barrow Island but only 6.5 million tonnes is now stored under the island. The CO₂ injection system was not ready when production started at Gorgon in early 2016. Then Chevron found excess water in the system mixed with CO₂, forming an acid that threatened to corrode equipment. The next problem was rising pressure in the underground sandstone layer where the CO₂ was to be stored. Wells to remove water to make room for CO₂ were clogged with sand.

Japan supports energy-transition projects in Saudi Arabia, UAE

(S&P Global; Nov. 10) - Japan Oil, Gas and Metals National Corp. is keen to support energy-transition projects in Saudi Arabia and the UAE, countries that are making inroads into new areas of energy while maintaining their traditional fossil fuels industries, the company's CEO Tetsuhiro Hosono told S&P Global Commodity Insights in an interview in Abu Dhabi. Hosono said he met with the UAE energy minister in Abu Dhabi and other "powerful" people in recent days as part of bilateral talks to develop new partnerships in various projects including hydrogen, ammonia and carbon capture.

He said JOGMEC is "exploring" possible partnerships in hydrogen and ammonia production and storage, research and development following a memorandum of cooperation with Saudi Aramco signed in October. "When it comes to the UAE, since we are enjoying long-term relations in oil and LNG supply, there is actually an ongoing project with respect to ammonia in the works," he said. He declined to elaborate.

Japan was already looking to develop new sources of energy before Russia's war on Ukraine. Last year, Japanese oil and gas producer Inpex said it wanted to explore the commercial potential of clean-ammonia production in Abu Dhabi in cooperation with state-owned ADNOC and Japanese companies. In June, Inpex, IHI Corp. and Mitsui OSK Lines successfully completed delivery of a clean-ammonia cargo from the UAE. The memorandum JOGMEC signed with Saudi Aramco will see it potentially provide risk capital for hydrogen and ammonia production projects in Saudi Arabia.

PetroChina forecasts 2022 gas demand growth rate lowest on record

(S&P Global; Nov. 9) - State-owned oil and gas giant PetroChina forecasts that China's natural gas demand growth in 2022 may be the lowest annual rate on record — and possibly even negative — as high LNG prices, sluggish economic growth and COVID-related curbs batter consumption, a senior company executive at PetroChina's natural gas sales eastern branch unit said. The PetroChina executive at an industry event said it was the second time since 2005 that China's gas consumption growth rate was forecast to be lower than its GDP; the last time was in 2015.

It's a steep drop from the past. The country's annual natural gas demand growth rate averaged 13% over 2005-2021, PetroChina data showed. "We saw natural gas consumption shrink obviously in eastern China this year, especially in the Yangtze River Delta region," the executive said. COVID-19 outbreaks in Shanghai in the second quarter had a great impact on the economy, with gas demand from industry, power generation, public services and transportation sectors falling significantly, he added.

As a result, PetroChina's natural gas sales in the eastern region fell 20% year on year in April, 12% year on year in May and 9% year on year in June, the executive said. Over January-September, China's gas consumption was down 1.4% year on year, National Development and Reform Commission data showed. PetroChina has secured nearly 3.9 trillion cubic feet of natural gas supply for the 2022-23 winter-spring heating season, of which about 2.1 tcf will be produced domestically.

EPA proposes new regulation of oil and gas industry methane leaks

(Washington Post; Nov. 11) - In a bid to show U.S. commitment to tackling climate change, the Biden administration has outlined a renewed effort to curb emissions from domestic oil and gas producers. At the U.N. Climate Change Conference, known as COP27, in Egypt on Nov. 11, the Environmental Protection Agency unveiled an updated proposal to regulate methane seeping from pipes and other equipment operated by the U.S. oil and gas industry, the biggest industrial source of the potent greenhouse gas.

Responsible for roughly a third of greenhouse gas warming today, methane traps about 80 times as much heat as carbon dioxide during its first 20 years in the atmosphere. Experts say curbing methane emissions is critical to prevent near-term warming. The EPA proposal, which was partially released during last year's climate conference in Glasgow, Scotland, would be the first time the federal government requires existing facilities to find and fix methane leaks.

Under the proposal, the EPA is seeking to compel oil and gas operators to use remote sensors to quickly address leaks and to require that states develop plans to curb methane from older wells. Gathering feedback from the industry over the past year, the EPA plans to offer companies more flexibility in how they monitor for leaks. Federal regulators will also establish a program to respond to blowouts and other "super-emitter" events, allowing third-party groups to help quickly identify major leaks.

U.S. inventory of drilled but unfinished wells at 5-year low

(Wall Street Journal; Nov. 9) - After seeing oil demand plunge in 2020, U.S. producers paused drilling new wells in favor of completing wells that had already been drilled. Drilling is just the first step in shale formations. Fracking, a process that involves the injection of water, sand and chemicals into the drilled well, actually gets the oil out of the ground. Producers' preference for completion over new drilling has led to a steep decline in the number of drilled but uncompleted wells, or DUCs, since August 2020.

That inventory is at five-year lows, according to Rystad Energy data. A depletion of DUC inventory is problematic because a steady supply is needed to "maintain and grow production levels, avoid operational delays" and offset production declines from existing wells, according to a white paper published by energy-focused investment firm Bison Interests earlier this year. That last point is especially important for U.S. shale: Much like soda spurting out of a shaken can, their output peaks quickly.

Typically, the industry would see a steady build of DUC inventory, according to Justin Mayorga, a shale research analyst at Rystad Energy. That is partly because it takes less time to complete wells than to drill them, he said. In some cases, frack crews are able to complete multiple wells at the same time using a technique called simul-frac. Part of the problem now for companies that want to increase drilling is that supply chain issues are making it tough to get more equipment and tools, including fracking sand, while oil field service workers who were laid off in droves in 2020 are reluctant to return.

Windfall tax on Gazprom helps keep Russian budget in surplus

(Bloomberg; Nov. 11) - Russia managed to keep its federal budget in surplus in October despite rising spending for the war in Ukraine as a windfall tax on state gas company

Gazprom delivered billions of rubles to state coffers. The budget surplus reached 128.4 billion rubles (\$2.1 billion) in the first 10 months of the year, the Finance Ministry said Nov. 11. That's more than double the 54.7 billion rubles reported a month earlier.

Rising spending amid the war, combined with falling revenues from oil and gas exports still threaten to push the budget into deficit by the end of the year. The Finance Ministry has forecast a full-year shortfall of more than the 0.9% of GDP. But tax revenues from oil and gas almost doubled in October compared to September. Gazprom paid an extra 416 billion rubles in mineral extraction tax after surging gas prices more than made up for a sharp drop in exports to Europe, historically Gazprom's biggest market.

The temporary windfall payments to the government were set following high prices in the first half of the year and the company is set to pay the same amount each month in November and December. Spending was up 20% in the first 10 months of this year, as the government boosted outlays on welfare benefits amid a recession and spending related to the war. The Finance Ministry was forced to tap the country's well-being fund for the first time to cover spending in October.

Indian LNG importer wants the gas, not compensation payments

(Reuters; Nov. 11) - GAIL India has turned down a compensation offer for undelivered liquefied natural gas from a former unit of Russia's Gazprom, as it wants to retain the right to the missed cargoes, four sources familiar with the matter said. GAIL agreed to a 20-year deal with Gazprom Marketing and Singapore in 2012 for annual purchases averaging 2.5 million tonnes of LNG. GMTS was a unit of Gazprom Germania, now called SEFE, but the parent gave up ownership after Western sanctions were imposed on Moscow for its invasion of Ukraine. SEFE is controlled by the German government.

SEFE is offering compensation equivalent to 20% of the LNG cost, in line with the original contract with GAIL, the sources said. "We are not accepting the penalty as this would give them (SEFE) an exit route from the contractual obligation. We don't want to lose our right to buy the cargoes again," one of the sources said on Nov. 10. This source said the compensation offered GAIL is low compared to spot LNG prices of \$24 to \$25 per million Btu, adding that the company would be "taking a hit" by accepting it.

GAIL finance head Rakesh Kumar Jain said in a post-earnings analyst call last week that SEFE has not delivered 17 LNG cargoes up to the end of September. GAIL has had to cut supplies for fertilizers and industrial clients and to buy spot LNG at about \$39 per million Btu, sources earlier told Reuters. GAIL is consulting lawyers about arbitration over the contract with SEFE, the sources said, adding that the Indian company is also in talks with Gazprom to explore buying LNG directly from the Russian company.

Resistance to high prices cuts into demand for LNG in India

(Bloomberg; Nov. 10) - India is suddenly facing a glut of liquefied natural gas as the nation's customers don't want to pay high prices and are rushing to alternatives. Storage tanks at the Dahej and Hazira LNG import terminals in India are near maximum capacity, which means scheduled deliveries may need to be delayed, according to traders with knowledge of the matter.

India is the latest nation to be hit by a surprise glut of LNG — a stark reversal to months of shortages due to tight global supply and missed deliveries from suppliers. A drop in shipments to India could push down global gas prices, providing relief for customers plagued by surging inflation and high power bills. Industrial gas customers in India have been buying far less due to high spot prices, resulting in the buildup in storage tanks, traders said. The nation was forced to buy its costliest LNG cargo ever in September.

Industrial customers are instead buying cheaper fuel such as oil products and domestically produced gas, said the traders. Lower demand due to higher prices has led to a reduction in use at Petronet LNG's biggest import terminal at Dahej in western India. India's energy giants have several long-term LNG contracts that require delivery, making it challenging to significantly curb imports when domestic demand falters. LNG delivered to India is mostly used in industrial applications rather than power generation, and it competes against fuel oil instead of coal.

Weaker demand pushes up LNG storage inventories in Asia

(Argus Media; Nov. 10) – Liquefied natural gas importers in China, South Korea, Japan and India are grappling with near tank-top situations at their storage terminals after lower-than-expected LNG consumption in the region. A combination of weak domestic demand and warmer weather in the run-up to the winter have left one to two terminals in each country with brimming inventories, after drawdowns were slower than expected.

The situation could be the most severe in China, where LNG carriers waiting to discharge at several terminals of Chinese state-owned PipeChina and CNOOC have been delayed by up to five days. A relentless zero-COVID policy in China because of a recent resurgence of the virus and a weak economic outlook have drastically limited industrial and power generation demand for the fuel in the country. Inventories were already kept relatively high before the start of the heating season in mid-November, market participants said, further exacerbating oversupply.

Growing domestic gas production and weak downstream demand for LNG has also seen limited drawdowns from LNG terminals in India. Japanese utilities' gas storage as of Nov. 6 was almost 30% higher than average November levels for 2017-21. The tight storage situation at Asian LNG terminals can be expected to largely sort itself out by

December-January, which is also the peak heating season that typically drives higher LNG consumption, market participants said.

First LNG cargo from Mozambique headed to Europe

(Bloomberg; Nov. 13) - Mozambique has sent off its first shipment of liquefied natural gas, exports that could help ease Europe's energy crunch. For Mozambique — one of the world's poorest nations — it marks the end of a decade-long wait to monetize one of Africa's largest offshore gas fields. President Filipe Nyusi announced the first cargo's departure in a statement Nov. 13. The Coral-Sul floating LNG vessel, operated by Eni, started production in early October. BP has the rights to buy all of Coral Sul's output.

The production platform has a capacity of 3.4 million tonnes per year — equal to about one-third of the U.K.'s LNG imports last year. The first cargo is bound for Europe, Mozambique's oil and gas regulator said last month. Start-up of the small project has brought Mozambique's resources into the spotlight, even as its biggest projects have faced delays. The gas fields off its northern coastline — once estimated to attract \$120 billion in investment — are crucial for Mozambique and transforming its economy.

Each of the more than \$20 billion onshore production facilities that TotalEnergies and ExxonMobil has planned are worth more than Mozambique's gross domestic product, yet both have stalled because an Islamic State-linked insurgency. The war peaked in March 2021, when the rebels raided a town next to the LNG developments, prompting TotalEnergies to withdraw all staff. Since then, military help from Rwandan and a regional bloc have dislodged insurgents from key towns. Mozambique's finance minister is "very optimistic" that TotalEnergies will make a decision by March to resume work.

Climate group warns against overbuilding LNG production

(Australian Financial Review; Nov. 10) - The global gas industry is risking a massive overreaction to the supply disruption caused by Russia's invasion of Ukraine, potentially setting up a glut of liquefied natural gas later this decade that would crunch producers or the climate. A study of gas projects that have been proposed, approved or are being built suggests a substantial global LNG oversupply by 2030, a new report says.

An LNG investment boom could spur a glut just as the world transitions to renewables. "We were quite shocked at the scale of it," said Australian researcher Bill Hare, of Climate Analytics, one of the two bodies behind the Climate Action Tracker that studied the gas industry's plans. The climate groups are worried that the dash for gas will thwart efforts to hit the 2050 net-zero target, adding an additional 2 gigatonnes of carbon dioxide to the atmosphere each year by 2030.

“This pipeline could lead to a serious lock-in. Governments will be confronted with plants that have been built. The companies will say, ‘We need to run this for 20 years to get our 12%,’ Hare said. Gas producers might also need to worry: If countries continue to adhere to net-zero targets and scale up renewable capacity over the next decade, their demand for gas will fall. LNG exporters will either need to lock buyers into long-term contracts, or else face potentially drastic cuts to revenue as demand falls away.

Religious leaders speak out against oil exploration in Botswana

(BBC News; Nov. 10) - As politicians meet at COP27 to discuss how to cut carbon emissions, descendants of Southern Africa's first inhabitants are raising concerns about an oil and gas exploration project. Religious leaders have also spoken out, with one saying the project is a sin. In the Southern African country of Botswana lies one of the largest inland deltas in the world, a landscape the U.N. has called "exceptional" and "rare" in its beauty. The Okavango Delta is an oasis in the heart of the Kalahari Desert.

Its waterways and floodplains are home to some of the world's most endangered species of large mammals, like black rhinos. It's so precious it has been designated a World Heritage Site. But there are fears it is under threat because of fossil fuels. A Canadian company, Reconnaissance Energy Africa (ReconAfrica), believes there could be a wealth of oil and gas under the ground in the north of Botswana and neighboring Namibia. It holds exploration licenses for a 13,000-square-mile area.

Three test wells have already been drilled in Namibia. Southern Africa's earliest inhabitants, the San, fear the drilling would affect sacred sites. Bishop Luke Pato is worried about the effect that the drilling in Namibia may have on underground water reservoirs that connect to the Okavango River. The river runs along Namibia's border north of the drilling sites, carrying water to the delta in neighboring Botswana. ReconAfrica says its exploration poses no pollution risk.

University of Texas endowment gains from rising oil and gas royalties

(National Public Radio; Nov. 10) - Harvard University's endowment, currently valued at a \$50.9 billion, has been the largest among academic institutions for more than 35 years. But the University of Texas is nipping at its heels. The University of Texas hopes to regain the top spot it relinquished to Harvard in 1986. According to new data, it now has a \$42.3 billion endowment, thanks in part to royalties it makes from oil and natural gas. The university owns more than 2 million acres of land in West Texas.

Texas benefits from significant land holdings, including hundreds of thousands of acres in the oil-rich Delaware Basin in West Texas. "Production has gone up significantly in recent years, and ... the lands are now able to literally generate hundreds of millions of

dollars a year in endowment for the university systems," said Ray Perryman, a Texas economic consultant. The University of Texas and Texas A&M split the proceeds.

"In a lot of ways, the University of Texas is more like a sovereign wealth fund for a place like Norway," said Charlie Eaton, a sociology professor at the University of California, Merced, who studies college endowments.