

Oil and Gas News Briefs

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Report cites hydrogen hurdles: permitting, costs and lack of capital

(Wall Street Journal; Oct. 18) - Hydrogen demand is set to rise sharply over the next two decades, but major bottlenecks such as long permitting times, higher equipment costs and lack of access to capital could slow growth in supply. "The big issue today is that a lot of announcements are coming on stream which have a lot of potential, but only 6% to 10% are actually committed (in terms of financing)," said Pierre-Etienne Franc, CEO of Hy24, a hydrogen-focused investment fund.

A new report from consulting firm McKinsey forecasts a fivefold rise in global hydrogen demand to 600 million tonnes a year by 2050, if climate change is limited to 1.5 degree Celsius. On current trajectories, however, that supply could fall short and range between 175 million to 291 million tonnes a year if steps aren't taken to speed up permitting and lower equipment and investment costs, the report warned.

"If you do not have direct supply financing at low interest rates, it is very difficult to speed up the shift," Franc said. Increasing the supply of hydrogen is crucial to global carbon goals to decarbonize hard-to-abate sectors, such as marine transport and heavy industry. Using green hydrogen as fuel for steelmaking can cut emissions by up to 95%, according to H2 Green Steel, a Swedish low-carbon steel start-up. Jason Cheng, CEO of climate-focused private equity company Kerogen Capital, underscored that the days of cheap money are over, which may make wind, solar and hydrogen tougher sells.

Swedish power company turns old oil caverns into hot water storage

(Tech Xplore; Oct. 17) - Work lights strung up along railings illuminate a dank cavern where workers are preparing to transform a former oil depot into a hot water "thermos" to heat a Swedish town. Originally dug out in the early 1970s, the three caverns with a combined volume of more than 10 million cubic feet served as an oil storage facility until the site was abandoned in 1985. "We are now converting it into a giant thermos to store hot water," explained project manager Rickard Svensson at power and district heating company Malarenergi in the city of Vasteras.

The site will "store energy, which we sometimes have an excess of and ... (will) use that at times when there is a shortage," he said. The caverns are close to Malarenergi's combined heat and power plant, which supplies electricity and especially heat via district heating to Vasteras' 130,000 or so inhabitants. Thousands of feet of pipes are

being installed along with massive heat exchangers so excess energy can heat up the water stored within the caverns and then be used to transport heat out when needed.

Once the remodeling is complete, the cave system will be flooded and sealed. "It was an excellent fit to reuse the oil storage and take advantage of an existing resource," said Lisa Granstrom, strategy manager at Malarenergi. The volume is roughly the equivalent of 6,000 backyard pools and can provide approximately 13 gigawatt hours of power. Being able to store excess heat for future use means the utility can reduce the need to bring on reserve power plants, some of which rely on fossil fuels, during cold snaps.

Russia builds up oil and gas trade with China

(Reuters; Oct. 15) - Since the start of the Ukrainian conflict, Russia has cemented its energy ties with China, the world's No. 2 oil consumer after the U.S. Russia exports about 2 million barrels of oil per day to China — more than a third of its total crude exports. About 40% of its supplies to China flow via the 2,540-mile East Siberia Pacific Ocean pipeline that was financed by Chinese loans worth an estimated \$50 billion. In addition, from January to September, Russia supplied 1.3 million barrels per day of seaborne crude, based on the average of data supplied by trackers Vortexa and Kpler.

From January to September, total Russian shipments to China grew by more than 400,000 barrels per day from a year earlier, according to tanker tracker Vortexa. China has this year saved \$4.34 billion by importing discounted Russian oil, based on Reuters' comparison of the price differentials, using information provided by traders.

Russia's pipeline natural gas exports to the European Union may fall to 740 billion cubic feet this year, almost two-thirds lower than last year and a more than a six-fold drop from 2021, according to a forecast by Russian state bank VEB. That's now below the 780 bcf which are expected to be supplied via the Power of Siberia to China this year, meaning Russian pipeline gas to China will outstrip gas to Europe for the first time.

Russia's main export route to China is a 2,500-mile pipeline that draws on East Siberian fields. Russia aims to build a second gas pipeline to China, Power of Siberia 2, though talks about prices and other issues have so far failed to yield any tangible results. Russia also supplies liquefied natural gas to China and is looking to expand that trade.

Russia's oil exports climb back up, exceed OPEC+ target

(Bloomberg; Oct. 17) - Russia's oil flows are steadily climbing after months of careful adherence to a pact with Saudi Arabia to keep barrels off the market. The nation's seaborne crude exports rebounded in the seven days to Oct. 15, boosting four-week average flows to their highest in more than three months. About 3.51 million barrels a

day of crude was shipped from Russian ports last week, up about 285,000 barrels a day from the previous seven days, tanker-tracking data monitored by Bloomberg show.

The increase came from a jump in Black Sea flows to a six-week high and a recovery in shipments from the Arctic port of Murmansk after a slump in the previous week. Four-week average shipments now exceed the country's OPEC+ target by about 80,000 barrels a day in the most recent period. That said, compliance has so far been good compared with the country's past performance against OPEC+ targets.

The increase in volumes raised the Kremlin's weekly revenues from oil export duties, while the four-week average rose for an 11th straight week, setting a new high for the period since mid-January. Inflows to the Kremlin's war chest from its export duty jumped to \$80 million in the seven days to Oct. 15, while the four-week average edged up to \$73 million. The average set a new high for the period since mid-January. Rising prices and the rebound in export volumes are both contributing to the increase in receipts.

Political deal could lead to more oil from Venezuela

(Wall Street Journal; Oct. 17) - Venezuela's authoritarian regime and opposition leaders agreed Oct. 17 to hold presidential elections in 2024, leading the U.S. to ease sanctions and allow more oil and gas companies to operate in the South American country. The two sides said they agreed to hold the elections in the second half of 2024 under a deal signed at a meeting in Barbados, which included mediators from Norway and envoys from the U.S., Europe and Latin American countries. The Treasury Department on Oct. 18 issued licenses authorizing transactions involving Venezuela's oil and gas sector.

Allowing more oil and gas to flow from Venezuela's vast reserves could help lower energy prices in the U.S. and Europe while taming some of the turmoil in commodities markets triggered by wars in Ukraine and Gaza, analysts and advocates for major oil companies say. Venezuela, which sits atop some of the world's largest crude and gas reserves, had pumped more than 3 million barrels of oil a day when Maduro's predecessor, Hugo Chávez, was inaugurated in 1999.

By 2020, output had fallen to as little as 300,000 barrels a day because of what industry insiders and oil workers attributed to corruption and mismanagement. Production was up to 824,000 barrels in September, with exports this year averaging about 560,000 barrels a day. Most go to China, according to Rystad Energy. Under a U.S. sanctions waiver, the Biden administration last November permitted Chevron to resume some oil operations in Venezuela. That has helped buoy the country's output.

Russia needs China to buy more of its gas, but China has options

(Bloomberg columnist; Oct. 17) - Russia's gas industry — desperate to find new markets for the volumes it once sent to Europe — needs China in order to survive. Unfortunately for the Kremlin, no one in Beijing appears to have received the memo. During President Vladimir Putin's visit to Beijing this week for the anniversary of China's Belt and Road infrastructure initiative, he will be looking for lifelines. In gas, that means any step that brings the proposed Power of Siberia 2 pipeline a step closer to reality.

What Moscow wants is clear. Russia needs to find a new home for gas once destined for Europe, its biggest market until last year's invasion of Ukraine. Shipments to the European Union will plummet to roughly 800 billion cubic feet in 2023, from almost 5 trillion cubic feet in 2021. Power of Siberia 2's annual capacity is targeted at 1.76 tcf a year, so the pipeline running from Russia's Yamal Peninsula to China would help fill a big chunk of lost deliveries — more than any other proposed export project.

A new pipeline would require years and billions of dollars to build. More importantly, time is on China's side. Its vision of energy security leans heavily on having options, which are increasing. State-owned drillers continue to develop domestic gas resources — production year-to-date is up more than 30% from 2019. Importers continue to sign big liquefied natural gas purchase agreements from projects in Qatar and the U.S. China kept Gazprom waiting for more than a decade before the first Power of Siberia line was agreed upon and built. Gas started flowing in 2019. This time, the wait may be longer.

[Novatek says it has Kremlin go-ahead for next Arctic LNG project](#)

(Barents Observer; Norway; Oct. 17) - The 800-mile-long pipeline will provide natural gas to Russian households in Murmansk and Karelia and supply a new LNG export plant to be built at Murmansk, in the Kola Bay. The Kremlin has approved the project, Novatek CEO Leonid Mikhelson said. The pipeline will have the capacity to transport up to 1.4 trillion cubic feet of gas per year from Arctic fields, Mikhelson told journalists during the recent Russian Energy Week.

A decision to build the new infrastructure has been taken on the highest state level following several rounds of discussions, the company leader explained. About 75% of the pipeline gas will be reserved for the projected new Murmansk LNG plant, while the remaining 25% will be used for the gasification of towns and settlements in the regions of Karelia and Murmansk. Novatek confirmed the information on one of its corporate news channels. The decision to build the pipeline also was confirmed by the Kremlin.

In his speech at the Energy Week, President Vladimir Putin said the pipeline will be instrumental for much more than exports. "Parts of its capacity (up to 25%) ... will be used to supply companies, social objects and buildings in Karelia and Murmansk Oblast, and for development of environmentally friendly electricity generation," he said. A Russian energy analyst said the pipeline could be ready in 2027, the same year that

Novatek intends to complete the first of three liquefaction trains at its Murmansk LNG terminal. It would be Novatek's third LNG terminal in the Russian Arctic.

Mitsui trading exec says world needs more LNG export projects

(Bloomberg; Oct. 16) - Global demand for liquefied natural gas is likely to prove stronger than expected and the current lineup of export projects won't be enough to keep up, according to one of Japan's top traders of the fuel. "Announced projects in the world still won't make up for the supply needed when considering the energy transition that will take several decades," said Kenichi Hori, president of Japanese trading house Mitsui, in an interview in Tokyo last week. Hori echoed major exporters including Chevron and Shell in saying gas will play a long-term role in the energy transition.

His comments come as competition for LNG has intensified after Russia's invasion of Ukraine, with Europe seeking to curb its dependency on Moscow for gas and emerging nations targeting long-term deals to avoid future shortages. Countries and companies are seeing LNG as a cleaner fossil fuel that can lower emissions, but supply is expected to be tight until around 2026, when new projects are scheduled to start operating.

Global LNG demand is forecast to increase by 3.4% annually over 2022-2026 to reach 444 million metric tons, according to BloombergNEF. Ensuring diversity of supply sources is likely to prove crucial for energy security in Japan, according to Hori. "We have projects in the U.S., Middle East and Africa," he said. Japan imported 74.32 million tons of LNG in 2021, with Australia as the largest source.

Qatar continues to market LNG from expansion projects

(Bloomberg; Oct. 16) - Qatar still needs buyers for two-thirds of the supply from its \$50 billion in liquefied natural gas expansion projects, as it leverages growing fears over energy security to nail down long-term deals. The Mideast gas giant has signed two long-term contracts over the past year with partners TotalEnergies and China's Sinopec. But other shareholders in the expansion push have yet to announce sales volumes.

The decades-long deals preferred by Qatar — which vies with the U.S. as the world's top LNG supplier — have become more attractive after Russia's invasion of Ukraine upended energy markets and prompted European nations to prioritize security of supply over green targets. "There is still a hell lot to sell, but there is progress," said Anne-Sophie Corbeau, a researcher at the Center on Global Energy Policy at New York's Columbia University. Qatar is expected to increase its LNG-producing capacity by 64% to 126 million tonnes a year by 2027.

Gas price volatility is burnishing the appeal of that output, although some buyers prefer the more flexible delivery terms from U.S. projects. Qatar has so far contracted out about a third of its new capacity in deals with China, France, Germany and France. Of two-phase expansion, international companies are entitled to as much as 12 million tonnes a year. QatarEnergy will hold 75% equity in both phases. Partners in the North Field East expansion are Shell, TotalEnergies, ConocoPhillips, Eni and ExxonMobil. Shell, TotalEnergies and ConocoPhillips are investors in the smaller North Field South.

Shell signs 27-year deal to buy LNG from Qatar

(Bloomberg; Oct. 17) - Shell has agreed to buy liquefied natural gas from Qatar for 27 years for delivery to the Netherlands, marking the Gulf nation's second major contract to supply fossil fuel to Europe beyond 2050 despite the bloc's green goals. Starting in 2026, QatarEnergy will deliver as much as 3.5 million tonnes of LNG a year to Rotterdam's Gate import terminal for 27 years under two deals, the company said in a statement on Oct. 18. That comes a week after the producer signed a similar contract with France's TotalEnergies, with indications that more deals could be on the horizon.

European oil majors are moving to sign some of the longest and biggest LNG supply deals as the region prepares for its second winter without the Russian pipeline gas it relied on for more than half a century. The deals also come as the Netherlands seeks to meet a zero-emissions target by 2050. European firms had resisted signing decades-long deals preferred by Qatar in order to hit the region's pollution-reduction goals. The shift shows how the contracts have become more attractive after Russia's invasion of Ukraine upended energy markets and prompted Europe to prioritize security of supply.

Qatar is working to find customers after investing tens of billions of dollars to increase its LNG output 64% by 2027. Shell last year bought a small stake in the expansion project. With the Shell contract, Qatar has so far signed up customers for about 18.8 million tonnes a year of its additional LNG capacity, covering about 40% of the volume.

Mitsui considers buying stake in Qatar LNG expansion

(Reuters; Oct. 18) - Japanese trading house Mitsui is considering buying a stake in the North Field liquefied natural gas expansion project in Qatar as a way to ensure a stable supply of LNG, a Mitsui spokesperson said. "We have always said that we would consider investing in any quality LNG projects, and the North Field is one of the projects," the spokesperson said, declining to give further details.

Japan is seeking to diversify its energy sources and sign more term contracts for the fuel to ensure a stable supply following an energy crisis caused by the war in Ukraine. Earlier this month, the Nikkei business daily reported that Mitsui was looking at taking a

stake in the North Field as part of a Japanese consortium in which JERA might consider participating. JERA, Japan's largest power generator and biggest LNG buyer, is in various discussions with Qatar as the Middle Eastern country is an important LNG supplier, a JERA company spokesperson said, declining to elaborate.

Qatar has embarked on a \$50-billion-plus expansion of its LNG production capacity, boosting it from 77 million tonnes per year to 126 million by 2027.

Federal regulators face decision on Louisiana LNG project

(Energy Wire; Oct. 17) - A massive gas project could help revitalize a southwestern Louisiana community that's been repeatedly pummeled by hurricanes — if the facility can withstand climate change. The \$10 billion CP2 liquefied natural gas export terminal would be one of the largest projects of its kind if approved by the Biden administration. Proposed by Virginia-based Venture Global LNG, it would bring thousands of workers to Cameron Parish, which has struggled after being hit by four hurricanes in 18 years.

While CP2 could help reduce emissions in coal-dependent foreign countries, it would become one of the biggest carbon polluters in the Bayou State, raising questions about the role of LNG in a warming world. Located next to an existing LNG export plant owned by the same company and 2 miles away from another terminal under development, CP2 could also force federal agencies to consider whether it's acceptable for a low-income community that's highly vulnerable to climate change to host several gas projects.

CP2 could increase daily U.S. LNG shipments by as much as 20%. The terminal would be built next to the town of Cameron, a rural community that has lost nearly half its population since the first recent hurricane in 2005. "That's going to be pretty much our saving grace, the LNG business," said Scott Trahan, who sits on the local government council. He works at Venture Global's existing LNG project in town, known as Calcasieu Pass. The firm is awaiting approval from the Federal Energy Regulatory Commission to build the CP2 terminal. It also needs Department of Energy approval to export gas.

Keystone oil line opponent turns attention to LNG export projects

(Bloomberg; Oct. 17) - Environmentalist Bill McKibben, who galvanized public efforts to block the Keystone XL oil pipeline from Canada's oil sands to U.S. refiners and shipping terminals, is now pushing to do the same thing to stop construction of liquefied natural gas export terminals along the U.S. Gulf Coast. He is calling for a ban on approving any new LNG export projects and pressing regulators to reject permits now under review.

"There's no possible way that the public interest is best served by sucking Permian dry and shipping it overseas," he said about oil and gas-rich basin in an interview with

Bloomberg. McKibben is speaking out against Venture Global's proposed CP2 project in Louisiana, among other LNG export terminals. He said the projected fossil fuel emissions from gas production and LNG plants are harmful at a time when global temperatures are rising. The Federal Energy Regulatory Commission is considering a third Venture Global project in Louisiana, Plaquemines LNG, on its agenda Oct. 19.

The U.S. is on track to be the top global LNG exporter this year, ahead of Qatar and Australia, and has five new or expansion projects under construction in Texas and Louisiana, while still more projects vie for investment and global buyers.

Colder water will cut Germany's LNG regas capacity

(Argus Media; Oct. 17) - Three German LNG import terminals are set to have reduced send-out capacity over the winter because sea water will be too cold to be used at floating storage and regasification units, state-owned operator Deutsche Energy Terminal said. The Wilhelmshaven 1 terminal and the planned Wilhelmshaven 2 and Stade terminals are all set to have lower regasification rates in the winter, cutting into how much gas they can feed into the distribution grid.

FSRUs use an open-loop system in the summer, where sea water is warm enough to aid in the process of warming up and regasifying super-cold LNG. But sea water can be too cold in the winter, meaning that FSRUs rely on a closed-loop system — steam from the ship's boilers is used to heat water. This can slow regasification. The closed-loop system usually starts when the water temperature drops below 57 degrees Fahrenheit, although it depends on the type of FSRU and other factors, DET said, adding that there is no universal answer to exactly when a FSRU would switch to an open-loop system.

Billions of federal dollars will go to states to plug abandoned wells

(Michigan Advance; Oct. 16) - An infusion of federal money has helped Louisiana plug nearly 500 abandoned oil and gas wells this year. That doesn't come close to the 4,500 abandoned wells that pock the state's terrain, leaving the potential for groundwater contamination and the near certainty of greenhouse gas emissions. But the money has allowed the state to nearly double the record number of wells it's ever plugged in a year.

"Everything helps," said Patrick Courreges, with the Louisiana Department of Natural Resources. Louisiana is among 24 states that received millions of dollars for well plugging from the Bipartisan Infrastructure Law, which made the largest investment in legacy pollution reduction in U.S. history. But in many ways, the difficult work is just beginning. Of the \$4.7 billion the law set aside for plugging wells that companies abandoned, \$560 million has gone out so far. The rest will be spent in the coming years.

During the first round of grants, the feds didn't require states to calculate the methane emissions each plug prevents. But now, states seeking grants will have to measure methane releases at each well. That will require developing new methods and spending more time and money. Long-standing state programs, usually backed by fees from oil and gas companies, generally have targeted the most problematic wells, such as those with visible leaks or spills. But many others remain, allowing methane or carcinogens to escape. "It's easy to see a blowout. It's tougher to see 100 small leaks," Courreges said.

Union calls off strike against Chevron's Australia LNG projects

(Reuters; Oct. 17) - An Australian union alliance on Oct. 17 agreed to endorse deals on pay and conditions at Chevron's two liquefied natural gas facilities in Australia, ending an impasse that had led workers to threaten renewed strikes this week. The Offshore Alliance union said it called off strikes originally planned for Oct. 18 at the Gorgon and Wheatstone projects in Western Australia, which supply around 6% of the world's LNG.

Australia is among the world's biggest LNG exporters and its main buyers are in Asia. Traders anticipated any cuts to supplies due to strikes would send Asian buyers competing with Europeans for cargo. The breakthrough followed days of talks mediated by Australia's industrial arbitrator, the Fair Work Commission, to try and revive an in-principle deal reached in September that ended weeks of strikes. That fell apart earlier this month after unions said Chevron had reneged on commitments.

Chevron has said only a small number of issues stood in the way of an agreement, including reimbursement for meals and travel. "There was some real compromises by Chevron at the 11th hour that enabled a deal to be re-struck and strikes withdrawn," energy analyst Saul Kavonic said. "The negotiation items were not significant enough that they couldn't be resolved. The risk only arose because trust had broken down between the parties, and emotions can run high by some of the individuals involved."

China's energy regulator advises gas suppliers to fill storage

(Bloomberg; Oct. 17) - China's regulator has asked its biggest state-owned natural gas suppliers to fill up storage heading into the peak winter heating season, underscoring risks to the nation's energy security from rising geopolitical tensions. The National Energy Administration said China's gas demand is increasing and, while the domestic market is "generally in balance," providers need to make every effort to keep houses warm and cope with any complications to international supplies, it said on Oct. 17.

Asian spot prices for liquefied natural gas have rallied about 25% since the Oct. 7 attack by Hamas on Israel intensified fears about global energy security, as Europe prepares for its second winter without much of the pipeline gas from Russia that it once took for

granted. Top producers PetroChina, Sinopec and CNOOC, along with the state-owned pipeline operator PipeChina, were told to increase output, stabilize prices and keep storage tanks full. The firms will also have to guarantee contracted supply volumes to key users and stick to market-based pricing, the energy administration said.

Beijing has relaxed price caps on gas sales to better reflect costs as demand improves after the pandemic and industrial activity expands. Consumption climbed 7.4% in the first eight months of the year, while LNG imports rose 12%.

Chinese company participates in Japan's carbon credits exchange

(S&P Global Platts; Oct. 16) - PetroChina International, the global trading arm of national oil company PetroChina, said late Oct. 14 that it has won the first physically traded Japanese carbon credits transacted on the Tokyo Stock Exchange's new carbon trading platform. The announcement underscores the participation of PetroChina, a subsidiary of state-owned China National Petroleum Corp., one of the world's largest oil and gas companies, in Japan's domestic carbon market, which is among the first initiatives by a developed country in Asia to set up a standardized carbon marketplace.

PetroChina International said it had been making preparations to participate in Japan's first carbon-trading platform, including setting up a specialized team, understanding the exchange's carbon-trading rules and familiarizing itself with trading strategies. The state-run oil and gas trader said it was actively developing a global pool of carbon assets, and accumulating the necessary experience to conduct more extensive activities in carbon-credit trading globally. The transaction in Tokyo was part of its plan.

"The Japanese subsidiary will take this transaction as an opportunity to further explore the Northeast Asian market, actively plan for carbon, electricity and renewable businesses, and contribute to PetroChina International's green transformation," the statement said. The company did not disclose the types, trade volumes and prices.

Aramco says it has plenty of spare production capacity, if needed

(S&P Global; Oct. 17) - Saudi Aramco has spare crude production capacity of 3 million barrels per day to meet any increase in oil demand, although the market is currently balanced and "reasonable," CEO Amin Nasser told an Energy Intelligence Forum in London on Oct. 17. The company can ramp up oil production if needed "in a couple of weeks," Nasser said, adding the more that spare capacity is used up, however, the more concern there will be in the market over possible supply tightness.

"What we are seeing now is balanced in terms of what we are supplying and it's reasonable in terms of economic conditions we're seeing today," he said. Oil demand in

the second half of the year will be about 103 million barrels per day, he said, even with China's economy slowing and jet fuel demand still about 95% of what it was before the pandemic. Nasser noted that high energy prices have prompted some buyers to switch to coal where possible. Since 2010, oil demand has climbed 17% while coal is up 15%.