Oil and Gas News Briefs Compiled by Larry Persily March 14, 2024

Economics report says Japan's LNG importers face a surplus

(Institute for Energy Economics and Financial Analysis; March 11) - Once the largest global importer of liquefied natural gas, Japan's demand for the fuel has fallen rapidly in recent years. As a result, its gas and power utilities face a surplus of LNG purchase commitments and are increasingly focused on marketing and selling the fuel abroad, according to a report from the Institute for Energy Economics and Financial Analysis.

The report finds that Japan's largest utilities — including JERA, Tokyo Gas, Osaka Gas and Kansai Electric — are likely to face an over-contracted position of roughly 11 million tonnes per year for the remainder of the decade. Due to limited growth opportunities in Japan's domestic gas market, these utilities are cultivating LNG demand abroad by investing in midstream and downstream gas infrastructure, such as regasification terminals and LNG-fired power plants, particularly in South and Southeast Asia.

"The importance of Japan's shift into LNG resales and marketing should not be underestimated," said Sam Reynolds, the report's co-author and LNG research lead at IEEFA. "Rather than absorbing more volumes from the global market, Japanese companies may increasingly find themselves in direct competition with global suppliers for potential customers in emerging markets."

Japan's domestic LNG demand is falling due to rising nuclear and renewables, longterm energy and climate targets, and demographic shifts. Government climate and energy plans expect LNG-fired power generation to more than halve by 2030. As a result, IEEFA estimates that Japan's LNG demand could fall by 25.7 million to 31.6 million tonnes per year — or roughly one-third of 2019 levels — if electricity generation targets are achieved. LNG imports have already fallen 22 million tonnes since 2014.

U.S. oil production led the world in 2023 for sixth year in a row

(Reuters; March 11) - U.S. crude oil production in 2023 led global oil production for a sixth straight year, with a record-breaking average production of 12.9 million barrels per day, the Energy Information Administration said in a release on March 11. In December, U.S. crude oil production hit a new monthly record high of more than 13.3 million barrels per day, the agency said. The EIA says it is unlikely that the record will be broken by another country in the near term.

Elsewhere, Saudi Arabia's government in January ordered Aramco to halt its oil expansion plan and to target a maximum sustained production capacity of 12 million barrels per day, one million below a target announced in 2020. Recently, OPEC+ members led by Saudi Arabia and Russia agreed to extend voluntary oil output cuts of 2.2 million barrels per day into the second quarter, giving extra support to the market amid concerns over global growth and rising output outside the group.

Property owners deal with failed plugging of oil and gas wells

(Bloomberg Law; March 13) - Sarah Stogner plucked a piece of cement off a rusted steel pipe jutting from the ground on a West Texas ranch. The chunk, part of the plug for a long-dormant oil well, crumbled in her hand. Stogner manages the Antina Ranch, which spans an old oil field southwest of Midland. Today, it's dotted with abandoned wells, many of which were plugged long ago to prevent the wells from polluting the air and water. Stogner and ranch owner Ashley Watt have found more than 100 failed plugs and are battling Chevron in court over their cleanup.

"You can see the gas bubbles coming up," Stogner, an oil and gas attorney, said as she watched a leaking well in December. Some plugs fail because the cement used to seal them has deteriorated or the metal well casing has corroded. Petroleum geologists say wastewater disposal from the fracking boom — particularly in the oil-rich Permian basin — could also be pressurizing aquifers beneath the old wells, forcing plugs to blow. Nobody knows for sure, or how big the problem could be, because few are watching.

Abandoned wells often pollute groundwater and leak methane into the air, helping to drive climate change. Congress approved \$4.7 billion in the 2021 infrastructure law to plug them, but there are no state or federal requirements to revisit those plugs and ensure the wells aren't leaking. States have documented about 131,000 orphaned wells, which are abandoned wells whose owners went out of business or for which there are no records. Federal regulators estimate the actual number could be 3.5 million.

"As an industry, we do not yet understand the long-term performance of our plugging practices," said Dwayne Purvis, at Purvis Energy Advisors in Texas. "We know that our cement is brittle, that steel left in the hole can corrode and that interfaces between steel, cement and rock can separate. We know the risk of failure must increase with time."

Research says methane leakage much higher than estimates in U.S.

(New York Times; March 13) - Oil and gas producers in major oil fields across the United States may be emitting three times as much planet-warming methane gas as official estimates, according to new research published March 13. It's the latest study to suggest that emissions from the fossil fuel sector may be grossly undercounted.

In some parts of New Mexico, more than 9% of the natural gas produced was escaping into the atmosphere, researchers said in the study published in the journal Nature.

Methane is the main component of natural gas, and when released unburned into the atmosphere it acts as an extremely powerful greenhouse gas. It can warm the planet more than 80 times as much as the same amount of carbon dioxide over a 20-year period. The release of methane — often through leaks at well sites or gas processing plants, along pipelines or in other energy facilities — is bad news for global warming.

Researchers at the Lawrence Berkeley National Laboratory, Kairos Aerospace and other labs looked at about one million measurements gathered from aerial surveys over six oil- and gas-producing regions. Using those measurements, along with computer modeling, they found that oil and gas operations in those regions released an estimated 6.2 million tons of methane a year. That's close to 3% of the total gas produced by those regions a year, or the equivalent to the annual greenhouse gas emissions from the energy used by 20 million homes. The study found that methane emission rates varied widely across regions from 0.75% in Pennsylvania to over 9% in parts of New Mexico.

North American LNG developers explore carbon capture

(Energy Intelligence; March 8) - More North American LNG developers are exploring carbon capture and sequestration to reduce their emissions footprints, with several projects in various stages of development along the U.S. Gulf Coast. It is just a matter of time before such projects become an integral part of the LNG export permitting process, according to one industry advocate.

"There's no permitting requirement for it. However, the passive aggressive response from the (Environmental Protection Agency) is, 'Where's your CCS program and investment strategy?' Something that's not even required," Charles McConnell, executive director at the University of Houston's Center for Carbon Management in Energy, said at a recent industry event in Houston. "I think just right now, taking comfort that it's not a requirement would be a mistake, because it's coming," he said.

The Biden administration is taking a harder look at how it evaluates climate impact in the permitting process for LNG export authorizations from the Department of Energy, although it's not clear whether the effort will bleed into the EPA. The latter agency already reviews environmental impact statements as part of the Federal Energy Regulatory Commission process for approving terminal construction and operation.

LNG developers including NextDecade, Sempra and Venture Global have all rolled out plans to develop CCS at projects in Texas and Louisiana. Cheniere has also said it is making accommodations for CCS at its proposed Sabine Pass expansion. In addition to pressure from regulators and environmentalists, companies have a business case for CCS: Many European and Asian buyers have made clear they want greener LNG.

Proposed CO² pipeline promotes enhanced oil recovery

(Reuters; March 11) - Summit Carbon Solutions, which is trying to build the biggest carbon dioxide capture pipeline in the U.S. to transport and bury greenhouse gases, has repeatedly pledged its project will not be used by drillers to boost output from oil fields. But Summit has a different message for prospective clients, including North Dakota's oil sector, according to a Reuters review of state regulatory filings and recordings of public appearances by company executives: If you want to use our project for enhanced oil recovery, where gas is pumped into oil fields to increase production, just write a check.

The dual messages illustrate Summit's efforts to court broad support for its \$5.5 billion project, which could capture as much as 18 million metric tons of CO² annually from 57 Midwest ethanol plants and store it underground at a site in North Dakota. Whether Summit succeeds at its goal to break ground in 2025 and begin operations in 2026 is a major test for carbon capture and storage, a key tool in the fight against climate change but which faces obstacles like unproven scalability and public apprehension.

The ethanol industry wants Summit to sequester its carbon to drive down its carbon intensity and draw lucrative tax credits from state and federal programs. But the oil industry wants to use the pipeline for enhanced oil recovery, reflecting a belief among drillers in North Dakota's Bakken that it is necessary to reverse the once-booming region's flagging output. North Dakota oil players launched the group Friends of Ag and Energy in December to promote carbon pipelines like Summit's, including through thousands of dollars of radio ads.

OPEC and IEA furthest apart in oil demand forecasts in 16 years

(Reuters; March 11) - OPEC and the International Energy Agency, the world's most closely watched forecasters of oil demand growth, are further apart than they have been for at least 16 years in their views on fuel use, according to Reuters research. The gap between the IEA, which represents industrialized countries, and the Organization of the Petroleum Exporting Countries means the two are sending divergent signals to traders and investors on oil market strength in 2024 and, for the longer term, about the speed of the world's transition to cleaner fuels.

In February, the IEA predicted global demand will rise by 1.22 million barrels per day in 2024, while in its February report OPEC said it expected 2.25 million. The difference is about 1% of world demand. "The IEA has a very strong perception that the energy transition will move ahead at a much faster pace," Neil Atkinson, a former head of the

IEA's Oil Markets Division, said. "Both agencies have boxed themselves in with a position, which is why they have this enormous gulf in demand forecasts."

Reuters' analysis of 16 years of IEA and OPEC monthly reports found the February gap was the biggest in per-barrel terms in that period. The IEA, asked to comment on its 2024 forecast, said in an email that the slowdown is already visible in oil deliveries data. OPEC did not respond immediately to a request for comment. OPEC and the IEA also disagree over the medium term. The IEA expects oil demand to peak by 2030 as the world switches to cleaner fuels. OPEC dismisses the view, and its forecasts to 2045 show no peak in demand for the fossil fuel.

Non-OPEC+ production keeps global oil market fully supplied

(S&P Global; March 11) - Asian crude buyers are unlikely to face a supply squeeze following extended production cuts by OPEC+ as plentiful non-OPEC supplies are set to fill the potential void, trade sources and analysts told S&P Global Commodity Insights. While the recent developments have largely laid out a clear near-term supply roadmap for global crude oil for the next few months, a feeble market reaction to those decisions suggests that demand growth, mainly in Asia, may fall short of a pick-up in overseas supply on the back of rising production in countries such as the U.S. and Brazil.

Saudi Arabia, Iraq, the UAE and several other OPEC+ countries said March 3 they planned to maintain some 1.7 million barrels per day in output curbs through the end of June. The quotas were originally scheduled to expire at the end of March, but the alliance decided to keep a tighter grip on supplies. "Even as OPEC+ continues to curtail production level in an effort to prop up crude prices, non-OPEC production is set to increase," said Rajat Kapoor, managing director for oil and gas at Synergy Consulting.

"The U.S. production is one of key significance as it is now competing with the OPEC exporter as a swing producer and effectively managing prices," he said. Combined, the U.S., Brazil, Guyana and Canada are forecast to add 1.4 million barrels per day of new oil production. "All this new oil is finding ready markets which used to traditionally rely in Middle Eastern suppliers, leading to what we see an oversupply in the market, leading to price weakness," Kapoor said.

Even with expanded oil line, Canada could come up short on capacity

(The Canadian Press; March 11) - After being hamstrung for years by a lack of export capacity, Canada's oil industry will have reason to celebrate when the much-anticipated Trans Mountain pipeline expansion comes online, expected to be sometime this spring. But the party may be short-lived, as the more-than-\$30-billion line is expected to quickly fill up — returning Canada's oil producers to restricted growth and depressed prices.

"I think the industry wanted to believe Trans Mountain was the answer. They wanted everybody to believe that having this new capacity was going to free them from this problem," said Richard Masson, executive fellow with the University of Calgary's School of Public Policy. "But we've never really been free from this problem." Export issues have been a thorn in the side of Canadian energy companies for years, due to a lack of pipeline capacity from Alberta's oil sands region to coastal tanker loading facilities.

That shortage of pipeline space, combined with refinery and transportation costs, is the reason Canadian oil producers typically take a price discount on their product compared to U.S. competitors. The Trans Mountain expansion is expected to help by making it easier for Canadian oil to get to Asian markets through the West Coast. The high-profile project, which began construction in 2019 and is owned by the federal government, will increase the existing pipeline's capacity by 590,000 barrels per day to 890,000.

Many companies have already begun to ramp up production in preparation, and 2024 is expected to be a boom year for oil output in this country. A TD Economics report suggested Canadian oil production in 2024 could grow by between 6% and 10% year-over-year, the equivalent of between 300,000 and 500,000 barrels per day. Many in the industry now believe Canadian output will exceed pipeline capacity as early as 2026.

Cheniere's Corpus Christi LNG expansion at 53% completion

(LNG Prime; March 11) - The Stage 3 expansion project at Cheniere's Corpus Christi LNG export plant in Texas is almost 53% complete, and the U.S. LNG exporting giant is working to start production at the first liquefaction train later this year. Cheniere's Corpus Christi liquefaction plant now has three operational trains, each having a capacity of about 5 million tonnes per year. In June 2022, Cheniere took a final investment decision on the Stage 3 expansion estimated to cost about \$8 billion, and Bechtel officially started construction on the project in October the same year.

The expansion includes building seven midscale liquefaction trains, each with an expected production capacity of about 1.5 million tonnes per year. Cheniere reported last week to the Federal Energy Regulatory Commission that overall project completion is at about 53% with engineering and procurement at 86% and 73% respectively.

Cheniere initially said that LNG deliveries from the expansion project were expected to begin in 2025, with full production in 2027. However, Cheniere's CEO Jack Fusco said in August last year that the company expected to complete the expansion ahead of schedule, with first LNG production at the end of 2024.

Appalachian gas producer buys pipeline company to lower costs

(S&P Global; March 11) – Gas producer EQT will acquire midstream operator Equitrans in a deal the Appalachian gas producer heralded as creating a first-of-its-kind, fully integrated gas business. The deal, announced March 11, involves 940 miles of Federal Energy Regulatory Commission-regulated interstate pipelines plus 1,220 miles of gathering lines, and rejoins EQT to the midstream enterprise it spun off back in 2018.

CEO Toby Rice said improving EQT's competitive position against integrated global operators was a motivating force behind the transaction. "As we enter the global era of natural gas, we believe it is imperative for U.S. natural gas companies to evolve their business models to compete on the global stage against larger, fully integrated rivals," Rice said on a March 11 conference call detailing the merger.

Another motivation behind the deal, which would create a combined business valued at roughly \$35 billion, was to cut EQT's cost structure and reduce the need to hedge natural gas volumes, the companies said. The company identified its 2024 maintenance free cash flow break-even price to be \$2.50 to \$2.60 per million Btu. U.S. natural gas prices have been below \$2 since the first week of February. After the deal goes through, about 90% of the company's gas production will flow through its own pipeline infrastructure, and EQT expects to eventually achieve a break-even price below \$2.

Chinese buyer joins dispute over cargoes from U.S. LNG project

(Reuters; March 11) - Chinese state-owned energy trader Unipec on March 11 asked U.S. regulators for a chance to intervene in a request from liquefied natural gas producer Venture Global LNG to extend the commissioning period for its Louisiana export project. The request comes amid an ongoing dispute between Venture Global and customers of its Calcasieu Pass, Louisiana, facility, which say they have lost billions of dollars in profit from undelivered cargoes under long-term contracts.

Venture Global's long-term customers, including Unipec, have not received contracted cargoes because the plant has been in commissioning stage, in which it prepares for commercial operation, for almost two years. At the same time Venture Global has sold spot cargoes on the international market, raking in billions of dollars in revenue. BP, Shell, Repsol, Edison, and Orlen earlier opposed an extension of the commissioning period or asked for an opportunity to view confidential documents on the plant's start-up.

Unipec asked the Federal Energy Regulatory Commission for additional time to intervene; it holds two contracts with Venture Global LNG, which has said its contracts allow it to sell cargoes while the plant is being commissioned. FERC has stayed out of the controversy. On March 8, Shell asked regulators to deny Venture Global's request for an extension, calling it moot because the facility has been operating above its capacity for more than a year while in the commissioning process.

Argentina expects FID on LNG export project in 2025

(LNG Prime; March 11) - Argentina's state-owned oil and gas company YPF expects to take a final investment decision in 2025 on the first phase of the planned Argentina LNG export project it is developing with Malaysia's Petronas, according to YPF CEO Horacio Marin. YPF and a Petronas' unit signed a joint study-and-development agreement in 2022 to work on the potential of the integrated LNG project to liquefy natural gas from Vaca Muerta's vast shale gas resources.

The project would include upstream gas production, dedicated pipeline and infrastructure development, LNG production, as well as marketing and shipping. YPF initially said the first phase of the project would include production of 5 million tonnes of LNG per year. In the future, the capacity could rise to 25 million to 30 million tonnes per year, the firm previously said. It would be Argentina's first LNG export facility.

"It is well known that Vaca Muerta has world-class gas reserves, far exceeding local demand. To capture this opportunity, unlocking our shale gas potential, we plan to lead the unique Argentinian LNG project," Marín said during YPF's 2023 earnings presentation on March 7. He said FID on the first phase is expected by mid-2025 and "requires investments of around \$200 million on a gross basis." The shale play holds an estimated technically recoverable 308 trillion cubic feet of gas and 16 billion barrels of oil and condensate, according to a 2019 U.S. government estimate.

Mozambique maps out how it will spend LNG wealth

(Bloomberg; March 12) - Mozambique's council of ministers have approved a decree for the nation's sovereign wealth fund legislation, governing how one of the world's poorest nations spends earnings from an estimated \$91.7 billion in gas exports in the coming decades. Introducing the law is a key part of an economic program with the International Monetary Fund. It's an important step in improving governance in the southeast African nation that was cut off from most international financing in 2016 when the government admitted it had borrowed more than \$1 billion that it didn't disclose to the IMF.

"The regulation represents a significant advance in the search for transparency, accountability and good governance in the natural resources sector," Mozambique's finance ministry said in a statement March 12. The law directs 40% of state revenues from liquefied natural gas exports going to the fund for the first 15 years, with the rest allocated to the national budget. After that, the money will be split evenly between savings and annual spending.

The decree requires a supervision committee, an independent body including civil society representatives that will be responsible for controlling and monitoring all of the fund's operations related to revenues, deposits, resource allocation and management.

Its obligation to report directly to the parliament and publish its findings quarterly will ensure transparency and accountability, the finance ministry said.

German utility CEO talks of exposure to global LNG market

(Reuters; March 13) - Germany has freed itself from its dependency on imported Russian gas but has swapped that for exposure to the dynamics of global markets for liquefied natural gas, E.ON chief executive Leonhard Birnbaum said March 13. "Pipeline gas from Russia has been lost and we now depend on international LNG markets, for example on China's economy and gas sales there," he said in reply to questions during a news conference after presenting the electric utility's financial results for 2023.

Europe has not recovered from the aftermath of the energy crisis started by the withdrawal of much of Russia's westward energy exports after its invasion of Ukraine in 2022. Energy prices have receded in Europe from post-invasion highs, but are still above pre-war levels, particularly causing financial strains on energy-intensive industries. The U.S. has emerged as the biggest LNG supplier to Europe, covering almost half of the continent's LNG import needs in 2023.

Judge criticizes Australia's largest environmental legal center

(Sydney Morning Herald; March 13) - Australia's largest environmental legal center faces an external review of its processes after a Federal Court judge determined it had coached Indigenous witnesses and put together evidence in a case against Santos' A\$5.8 billion Barossa project in the Timor Sea. The Environmental Defenders Office (EDO) took Santos to court last year on behalf of Tiwi Island traditional owners, winning an injunction forcing the company to suspend plans to lay a 162-mile undersea pipeline.

The EDO argued Santos failed to properly consult over the pipeline's proposed route that risked damaging the islanders' underwater cultural heritage. Federal Court Justice Natalie Charlesworth lifted the injunction in January, issuing a scathing ruling finding some evidence presented by the EDO had involved "confection" and accused the organization of subtly coaching Indigenous witnesses. On March 13, EDO Chair Bronwyn Darlington said the board appointed a team of legal experts to review its work.

The move comes as Environment Minister Tanya Plibersek has ordered her department to assess whether the EDO is eligible to continue receiving federal grant money, while Opposition Leader Peter Dutton vows to strip the organization of federal funding. The EDO is jointly funded by philanthropists and state and federal governments. Santos' Barossa project and Woodside's \$16.5 billion Scarborough project off Western Australia have been a particular focus for climate advocates who are fighting to prevent the development of new oil and gas production.