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Tight oil markets reacting to fear of declining stockpiles

(Bloomberg; Jan. 19) - The global oil market is getting tighter and there may be even less slack in the system than forecasts suggest. The latest outlooks by the International Energy Agency and the U.S. Energy Information Administration show the world needing more oil this year from members of the Organization of the Petroleum Exporting Countries than it did a month ago. The bigger worry, however, is the mismatch between the level of measurable oil stockpiles and what the models predict.

Stockpiles are one of the oil market's safety valves, alongside spare production capacity, for dealing with unexpected outages or soaring demand. With spare capacity among OPEC+ producers heading toward multi-year lows, any suggestion that oil stockpiles are lower than previously thought could put an even bigger fire under oil prices that have already climbed to a seven-year high, pushing up inflation.

With prices soaring, analysts see a re-emergence of the age-old issue of "missing barrels." That describes the difference between observed, or reported, inventories and those implied by the balance between estimated global supply and demand. It is a concern because most of those barrels are not truly missing — they may have been consumed or never produced. Or some of the oil may be in storage that is neither visible nor reported — such as caverns used for China's strategic stockpile.

The IEA's numbers imply that global stockpiles were a healthy 660 million barrels above pre-pandemic levels at the end of last year. But stockpiles of the developed economies of OECD nations were almost 220 million barrels below where they were two years earlier. The market is reacting to the inventory it can see, not modeled numbers, as well dwindling OPEC+ spare production capacity. The IEA is starting to raise concerns.

Geopolitical risks, shrinking spare capacity help drive up oil prices

(S&P Global Platts; Jan. 19) - Oil markets have resumed their bullish trend and prices have hit multi-year highs, defying expectations that supply would outpace demand in the first quarter of this year and prompting analysts to raise their price forecasts. On Jan. 19, March Brent rose to a seven-year peak of \$89.05 per barrel after oil flows along the Kirkuk-Ceyhan pipeline were shut in due to an explosion on the line near the southeastern Turkish city of Kahramanmaras.

"Multiple production threats are escalating simultaneously, led by diminishing odds of an Iran nuclear deal (with disruptive geopolitical implications), deteriorating political stability in Libya, and a potential Russian military incursion into Ukraine upsetting the international status quo," said Paul Sheldon, chief geopolitical adviser at S&P Global Platts Analytics. In addition, production capacity constraints in most OPEC+ members will make the market more vulnerable to supply risks, including geopolitical disruptions and weather impacts such as the U.S. hurricane season, according to analysts.

For the past few years, diversity of supply, higher levels of global spare capacity and the expansion of strategic petroleum reserves have helped to insulate markets from the risk of supply disruptions. But with OPEC+ spare capacity poised to fall to new lows later this year, this buffer may not be effective in shielding the market from geopolitical risk and outages. Sheldon said planned OPEC+ production hikes will reduce "sustainable spare capacity" to an uncomfortably low 800,000 barrels a day by June, just as demand is set to grow by 3.5 million the second half of 2022 over the first half of the year.

Market risks drive oil-price forecasts higher

(Financial Times; London; Jan. 21) - Oil has rallied strongly in early 2022, surpassing a seven-year high this week as traders rushed to lock in supply on expectations of resurgent demand, patchy OPEC+ production and an unstable geopolitical landscape. Brent — the international crude benchmark — traded above \$87 a barrel on Jan. 18 for the first time since 2014, rising as high as \$89.50 on Jan. 20 before trimming some of its gains. "People are just on high alert," said Amrita Sen at consultancy Energy Aspects.

"Anything that could remotely impact supply to downside or demand to the upside, the market is reacting," Sen added, The initial uptick came after Yemeni rebels claimed responsibility for a drone attack in the United Arab Emirates. The incident had no effect on oil output, but appeared to spook traders. Prices increased again after an explosion in Turkey briefly halted exports along a pipeline from Iraq's Kurdish region. Another worry is the possibility of U.S. sanctions on Russia if the country invades Ukraine.

Some analysts are predicting that oil could surpass the \$100 mark this year. Goldman Sachs said this week it expected Brent to reach \$100 a barrel in the third quarter and to average \$96 a barrel in 2022, rising to \$105 in 2023. Energy Aspects forecasts average prices of \$85 in 2022 and \$112 in 2023. Oil's price surge has been underpinned by a view among some industry analysts that supply will tighten as the worldwide economy continues to rebound, leaving limited spare capacity to meet any future shortfall.

Rising oil prices add to inflation worries

(Reuters analysis; Jan. 19) - Central bankers' inflation headache may get worse as they face the prospect of \$100-plus oil that lifts consumers' price expectations and intensifies simmering wage-hike pressures. Brent crude futures, which soared 50% in 2021, are up a further 14% already in 2022 at seven-year highs of \$89 a barrel. With production capacity tight, inventories low and geopolitics racking several producing regions, oil is hurtling toward \$100, which Goldman Sachs predicts will be breached by mid-year.

JPMorgan predicts oil could reach \$125 this year and \$150 in 2023. Many argue the psychological impact of \$100 crude cannot be understated, especially as consumers, businesses and politicians fret over inflation at multi-decade or record highs. The latest U.S. consumer price reading was 7%, a 40 year-peak. Data showing British consumer inflation at 30-year highs underscores how energy costs are cascading into food and hospitality prices. "It could be the cherry on the inflation cake if we don't get moderation in energy prices," said Frederik Ducrozet, a strategist at Pictet Wealth Management.

Iran helps Venezuela boost oil production

(Miami Herald; Jan. 20) - Venezuela has doubled its oil production in recent months thanks to Iran and other players that are helping it evade U.S. sanctions, but the industry is running near the top of its capacity and unlikely it could go much higher than current output, according to industry analysts. Oil it's industry sources confirmed that Venezuelan oil production reached an estimated average of 900,000 barrels per day in December and could hold at 850,000 in January, thanks mainly to regular shipments of thinners from Iran that have allowed the country to make up for a drop in local output.

Those thinners, usually the petroleum derivative known as naphtha, are essential to reducing the viscosity of the super-heavy Venezuelan crude. The new production figures contrast with the 450,000 barrels per day being produced at the start of last year. "Indeed, they have increased production and there are several elements that indicate this," said Juan Fernández, former executive director of planning for the state-owned Petróleos de Venezuela, PDVSA.

"A lot of it is because they have been receiving the Iranian thinner and that goes directly to production in the Orinoco heavy-oil belt," Fernandez said. The boost, together with the sharp rise in oil prices, is providing significant income to the Maduro regime. Crude production had been gradually declining over the years from the 3.2 million barrels that Venezuela was flowing when the late President Hugo Chavez came to power in 1999.

Texas regulators look at disposal well operations after earthquakes

(Reuters; Jan. 21) - A new area under watch by Texas oil regulators could affect wells responsible for disposing about 270,000 barrels per day of saltwater from oil and gas operations, according to data and analytics firm B3 Insight. Regulators this month classified a swath of the Permian Basin as a "Seismic Response Area" after a 4.2 earthquake hit 11 miles north of Stanton, Texas. Regulators previously identified two other SRAs following an uptick in tremors in the largest U.S. oil-producing region.

In December, regulators suspending permits for 33 disposal wells across four counties around Midland. The ban has West Texas oil producers looking for ways to reduce wastewater injections that could raise costs. Solutions include recycling the wastewater or piping and trucking it elsewhere. The newly designated seismic area affects 72 disposal wells, of which 35 are active and handle 273,000 barrels per day of water, according to analysis from B3. Some 74% of those wells are used for deep disposal.

The Texas Railroad Commission, which regulates the oil and gas industry, said it will work with operators to develop a plan to reduce the risk of earthquakes in that region, with the goal of eliminating magnitude 3.5 or higher quakes 18 months after initiation.

It's getting harder to win regulatory approval for gas pipelines in U.S.

(EnergyWire; Jan. 20) - The Federal Energy Regulatory Commission, courts and states are poised to set policies in 2022 that could make long-term changes to the gas pipeline industry, following a year that saw several projects canceled. FERC is under heightened pressure to reform the way it approves new lines, following court rulings and criticism that it has not done enough to analyze the environmental effects of gas infrastructure. But rising gas prices, pipeline system constraints and threats to electric reliability have also led some regulators and state leaders to call for more gas infrastructure to be built.

The potential for changes to FERC's reviews of projects and opposition in some states could mean a harder road for new pipelines to clear regulatory hurdles, particularly as the Biden administration is aiming to slash the country's carbon footprint, observers say. The past two years have seen high-profile pipeline cancellations following state, property owner and environmentalist opposition, starting with the Constitution and Atlantic Coast pipelines in 2020, and the PennEast pipeline and the Jordan Cove liquefied natural gas project in Oregon in 2021.

Buy-in from states and environmental groups to support the expansion of natural gas has changed significantly in just the past decade, said Carolyn Elefant, a former FERC attorney who represents property owners affected by pipelines. Environmental groups didn't oppose pipelines 10 years ago because they saw them as providing a bridge fuel to renewables, and states saw the projects as sources of jobs and revenue, she said. "I think that a lot of that has changed. ... Because there's a recognition now that gas pipelines are just as environmentally problematic as coal or other fossil fuels."

Japan's imports of LNG and crude oil both fell last year

(Reuters; Jan. 20) - Japan's imports of liquefied natural gas fell 0.2% in 2021 to 74.32 million tonnes, giving up the title of world's largest buyer to China which increased its imports of the fuel by 18% to a record high. Japan's imports of the fuel dropped for a fourth straight year to the lowest since 2010, the year before the March 2011 Fukushima nuclear disaster that sent gas purchases soaring as reactors were shut down, preliminary data released by the finance ministry showed.

China's imports of LNG last year totaled a record 78.93 million tonnes, according to the country's customs data. Japan's imports of crude oil fell for a ninth straight year in 2021 to the lowest in more than 50 years amid a shrinking, aging population that consumes less fuel because of more efficient vehicles and a turn to gasoline-electric hybrids. Crude imports into Japan dropped 1.2% in 2021 to 2.5 million barrels a day. That was the lowest since 1968. Meanwhile, coal rose last year after three years of declines as the country continues rolling out new power stations burning the dirty fossil fuel.

Russia supplied half of China's natural gas imports last year

(S&P Global Platts; Jan. 20) - Over January-December 2021, China's total natural gas imports increased by 19.9% year-on-year, with pipeline gas imports rising more than 22% year-on-year and LNG imports growing more than 18%, according to General Administration of Customs data released Jan. 20. Australia was China's largest natural gas supplier, sending 31.343 million tonnes of LNG in 2021, which accounted for 39.3% of the country's total LNG imports, down from 43.3% in 2020, the data showed.

Meanwhile, LNG imports from U.S. saw the biggest year-on-year jump, rising 187.4% to 9.21 million tonnes in 2021, accounting for 11.6% of China's total LNG imports in the year, up from 4.8% in 2020. China's natural gas imports from Russia rose 50.5% year-on-year in 2021, with pipeline gas volume surging 154.2% to 7.54 million tonnes while LNG imports fell 9.9% year-on-year to 4.58 million, according to the data. PetroChina earlier said it would increase gas imports from Russia via the Power of Siberia pipeline to 1.5 billion cubic feet per day by the end of 2021 to help meet China's winter demand.

Newest Louisiana LNG project getting close to production start

(Reuters; Jan. 21) - Venture Global's Calcasieu Pass export plant in Louisiana is close to producing its first LNG, energy traders said after the amount of feed gas to the facility increased rapidly this week. The amount of gas flowing to Calcasieu rose to 88 million cubic feet per day on Jan. 21, according to pipeline data from Refinitiv. Calcasieu has been pulling in gas since August, according to Refinitiv data, as the company tests equipment before the facility enters commercial service later this year.

Venture Global is installing 18 modular liquefaction trains configured in nine blocks at Calcasieu to produce about 10 million tonnes per year of LNG, equivalent to about 1.5 billion cubic feet per day of natural gas. Analysts estimate the plant cost about \$4.5 billion. Federal regulators have approved the commissioning of at least two blocks so far, while contractors continue working on the rest of the units.

In total, Venture Global has about 70 million tonnes of annual LNG capacity under construction or development in Louisiana, including Calcasieu Pass and three other projects. The company has started early site work on the \$8.5 billion Plaquemines project, which analysts expect to start producing in 2024, with annual liquefaction capacity at 20 million tonnes at full production. Venture Global has entered long-term agreements to sell LNG to companies around the world, including China's CNOOC and Sinopec, Shell, BP, Edison, Portugal's Galp, Spain's Repsol and Polish Oil and Gas Co.

LNG cargoes sell at a discount in Europe as supply exceeds demand

(Bloomberg; Jan. 21) - There is so much liquefied natural gas arriving in Europe that cargoes are being offered at a discount to regional benchmark rates. Europe's LNG imports are approaching record levels this month, prompting traders to cut prices due to the lack of slots at import terminals and as supply exceeds demand. Fuel for delivery in March is being offered at \$2 per million Btu, or 8%, below prices at the gas trading hub in the Netherlands, said Melissa Lindsay, founder of LNG brokerage Emstream.

The discounting is a turnaround from a few months ago, when LNG imports commanded a premium amid concerns of a winter fuel shortage. Benchmark gas futures have since plummeted from a record high in December as LNG arrivals increased and China, the biggest buyer of the fuel, offered to sell of cargoes this year.

Barring a severe cold snap or escalating geopolitical tensions involving Russia, the winter peak for gas prices in Europe and Asia has passed, Citigroup analysts said. The wave of LNG cargoes is likely to continue as prices make U.S. exports more profitable to Europe rather than in Asia in March, April and May, according to BloombergNEF.

Cheniere's Sabine Pass LNG terminal takes in record volume of gas

(Bloomberg; Jan. 21) – Cheniere Energy's Sabine Pass LNG export terminal in Louisiana is seeing record flows amid a push to send U.S. liquefied natural gas cargoes to energy-starved Europe. Natural gas flows to the LNG plant hit a record 5.1 billion cubic feet per day on both Jan. 20 and 21, estimates from BloombergNEF show. The higher gas flows reflect a capacity boost from Train 6, the terminal's newest production unit, which is still undergoing the commissioning process.

The higher flows also demonstrate how the company is seizing an opportunity to cash in on the large gap between U.S. and European gas prices, said David Seduski, an LNG industry analyst at Energy Aspects. Natural gas is selling on the U.S. Henry Hub benchmark at around \$3.94 per million Btu, while gas on Europe's benchmark hub is topping \$26. Equipped with two loading docks, the Sabine Pass terminal has seen at least half a dozen double tanker bookings at its berths so far this year.

"The double-bookings at Cheniere are more of a symptom of everything else," Seduski said. "Sabine Pass wants to load up as many cargoes as possible and rake in the money from the open arbitrage. Since they have two ship berths and additional capacity from the sixth train, they can load two cargoes on some days and not dip too heavily into onsite inventories." Cheniere's plant in 2016 was the first to start up U.S. LNG exports as the shale gas boom provided ample, affordable supplies.

Sempra wants to reduce expansion plans at Louisiana LNG terminal

(S&P Global Platts; Jan. 19) - Sempra has proposed design changes to the expansion of its Cameron LNG export terminal that would lower the overall production capacity and postpone the timeline for commercially sanctioning the project to 2023. Cameron LNG, the subsidiary that owns and operates the Louisiana LNG export facility capable of producing roughly 12 million tonnes per year of LNG, asked the Federal Energy Regulatory Commission in a Jan. 18 filing to approve the amended plans.

The amendment would let the company pursue a single liquefaction train expansion, at 6.75 million tonnes annual capacity, in place of an existing authorization for a two-train expansion that would have added 9.97 million tonnes of annual production capacity. FERC approved a permit for the two-train project in 2016. The subsidiary has estimated that FERC could approve its permit amendment by January 2023, allowing construction to begin by April of that year. Commercial service could begin in the third-quarter 2027, nearly three years later than the currently permitted time for completing the project.

The developer told FERC that the proposed design changes would lower greenhouse gas emissions associated with the project. Beyond producing less LNG, the developer said emissions would be lower than they would have been if the original expansion project was built because the new design calls for electric drives for the additional LNG

facilities. Previous plans had called for on-site gas-fueled turbine drives. Cameron LNG is a joint venture of a Sempra Energy subsidiary, TotalEnergies, Japan's Mitsui, and a company jointly owned by Mitsubishi and Nippon Yusen Kabushiki Kaisha.

Developer plans to double capacity of proposed LNG plant in Mexico

(Reuters; Jan. 18) - U.S.-based Mexico Pacific said on Jan. 18 it plans to double the potential capacity of its proposed liquefied natural gas project in Puerto Libertad, on Mexico's West Coast. The project now aims to produce 28 million tonnes per year of LNG from six gas-processing trains, up from the original 14 million tonnes from three trains, Chief Executive Douglas Shanda told Reuters. The privately held developer is looking to have financing approvals for the first two trains in the second quarter, he said.

"We've put together the development plans to go ahead and start filing for the permitting," Shanda said. First delivery from the Puerto Libertad LNG plant is expected in the second half of 2025. The company has said it secured agreements for supplying 14 million tonnes per year through memoranda of understanding with two or more customers. It has declined to identify the parties pending signed agreements. "We're working to convert those to binding off-take agreements now," Shanda said.

Ghana looks to become LNG import hub for West Africa

(Bloomberg; Jan. 19) - Ghana's state-owned oil company is progressing with plans to sell liquefied natural gas throughout West Africa after shipments of the fuel begin to flow to an import terminal this year. Tema LNG Terminal Co. is expected to start commercial operations at the plant in the second quarter and can help create an energy hub for the region, Hamis Ussif, manager for gas at Ghana National Petroleum Corp., said in an interview in the capital, Accra. GNPC will buy the LNG from Tema and sell it onward.

Some West African nations are embracing the use of gas as part of an effort to bring electricity to more people who live there. While the use of fossil fuels is criticized for contributing to climate change, others argue that Africa accounts for just 3% of the world's greenhouse gas emissions.

GNPC is working with partners interested in building infrastructure to sell LNG to users within the region looking to boost power, Ussif said. "The options available include a mix of pipelines, barges and trucks where feasible to reduce the cost of transporting to our neighbors." Ghana has a 17-year contract for 225 million cubic feet a day of gas from the terminal, which is backed by Helios Investment Partners and African Infrastructure Investment Managers, with the LNG supplied by Shell.

Russian refiners say they are working on green projects

(S&P Global Platts; Jan. 18) - Russian companies are looking at developing projects aimed at using renewables and reducing their refineries' environmental impact. Russia's Gazprom Neft has secured loans totaling Rb30 billion, or about \$409 million, for implementation of green refining projects. Modernization of the company's Omsk and Moscow refineries is playing a key role in the company's plans to reduce the environmental impact of its downstream operations.

Gazprom Neft is developing "biosphere" treatment plants, which significantly reduce water consumption, at the Moscow and Omsk refineries. A biosphere complex at the Moscow refinery has been operational for three years, reducing water consumption from the city water supply system fivefold, the company said. It is implementing a similar project at Omsk, which it says will increase water purification efficiency to 99.9%, halve water consumption, and reduce the burden on city water treatment facilities.

Financing will also be used to construct a primary oil refining complex that will allow the company to decommission six older installations, it said. Gazprom Neft has been modernizing the Omsk refinery since 2008, and has already reduced the environmental impact of the plant by 40%. By 2025 it plans to reduce this impact by a further 25%, the statement said. Separately, the company said it is partnering with aviation industry leaders to create an association to develop jet fuels with a minimum carbon footprint.

Mexico's refinery project faces delay, 40% cost overrun

(Bloomberg; Jan. 21) - Mexico's mega-refinery project Dos Bocas is expected to cost 40% more than previously estimated and is unlikely to be finished by the government's 2022 deadline, casting serious doubts on whether the country can soon fulfill its goal to produce all of its own gasoline. The facility, located in the southeastern state of Tabasco, is crucial to Pemex's plans to halt crude oil exports in 2023 as part of President Andres Manuel Lopez Obrador's nationalist goal of self-sufficiency in fuel.

The speed bumps for the project come as critics were already questioning Petroleos Mexicanos' ability to refine all of its own crude given declining production, its lack of maintenance of its refineries and its heavy debt burden, which is the highest of any oil company. Construction of the 340,000-barrel-a-day Dos Bocas plant is now projected to cost about \$12.5 billion, according to people with knowledge of the situation who asked not to be identified because the information isn't public. That is sharply higher than the \$8.9 billion estimate given by Pemex's CEO some 15 months ago.

The cost escalation is a reflection of construction delays, rising materials costs, and a budget that may have been unrealistic from the start. The project may fail to produce a

single gallon of gasoline in 2022 and could produce only limited amounts of fuel for several years after, according to some analysts.

Repsol cleans up oil spill in Peru caused by volcanic eruption waves

(Reuters; Jan. 21) - Spanish energy firm Repsol said Jan. 21 that a clean-up operation for an oil spill on the coast near Peru's capital Lima would take until the end of February, in an environmental incident declared a "catastrophe" by the government. Dead seals, fish and birds have washed up on the shore covered in oil, while fishing in the area has been suspended. Repsol said it has enlisted fishermen to help clear-up the oil.

"I used to collect crustaceans but now, when I walk to the shore, they are dead," said fisherman Walter de la Cruz. "Fishermen used to go sell the seafood that we collect. But now everything smells like death." The waters are a significant source of marine life and seafood for Peruvians. The government has said Repsol spilled some 6,000 barrels of oil into the ocean last week near its La Pampilla refinery, which the company has blamed on unusual waves triggered by the volcanic eruption in Tonga.

The company has declined to state the magnitude of the spill, saying it's still evaluating the impact. Repsol added in a statement to Peru's securities regulator SMV that oil refining operations are continuing normally. "This incident has not affected the continuity of our operations, or our capacity to supply the market," Repsol said in a statement. "The event has not had a significant impact on the productive activities of the refinery."