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Concerns over economic weakness hold down oil prices

(Bloomberg; Jan. 5) - It's been a painful start to the new year for oil bulls. While China's emergence from zero-COVID restrictions spurred talk of a demand boom, a significant resurgence in the country's energy consumption remains weeks if not months away. Instead, oil markets have started 2023 looking much like they did at the end of 2022: Oversupplied due to a combination of lackluster demand and robust supply.

Add the unexpected, and it's challenging for traders of physical barrels to predict which way prices might head. "To me, the market is oversupplied by at least 1 million barrels a day," said Gary Ross, an oil consultant turned hedge fund manager at Black Gold Investors. "We are going to have large stock builds. In a couple of weeks, you're going to be building 10 million barrels a week. How is the market going to handle that?"

With the near-term crude oversupply compounded by a swath of U.S. refinery closures following a recent deep freeze, there are several reasons why the oil market isn't yet seeing the benefits of China's reopening. Worries over the health of worldwide demand continue to linger due to the risk of a synchronized deceleration in the U.S., Europe and China. On Jan. 3, manufacturing figures showed the Chinese economy was in steep decline in late-2022. While mobility has improved in recent days, there are still concerns that the latest surge in infections could lead to a further economic slowdown.

Qatar and Chevron Phillips will build \$6 billion petrochemical plant

(Agence France Presse; Jan. 8) - Qatar signed a \$6 billion deal with Chevron Phillips Chemical on Jan. 8 to build a plant including the biggest ethane cracker in the Middle East, converting natural gas into polyethylene and other plastics. The Ras Laffan Petrochemicals Complex, which will produce 2.1 million tonnes of ethylene a year along with 1.7 million tonnes of polyethylene derivatives, will come on stream in 2026. The complex is expected to be the largest of its kind in the Middle East.

It will have lower greenhouse gas emissions than similar facilities around the world, said Saad Sherida al-Kaabi, energy minister and CEO of QatarEnergy. QatarEnergy holds 70% of the venture, with Chevron Phillips at 30%. The U.S. partner is a joint venture between Chevron and Phillips 66. The addition will double Qatar's ethylene production capacity and increase its polymer output from 2.6 million tonnes to over 4 million tonnes a year. Overall, Qatar's petrochemical capacity will rise to near 14 million tonnes a year.

Crackers, which convert gas into ethylene, have been targeted by environmental activists for their emissions, while ethylene and polyethylene are used in a swathe of plastic products from piping to water bottles and food packaging. The complex is an "important milestone" in Qatar's downstream expansion strategy, al-Kaabi said. Qatar already is one of the world's top producers of liquified natural gas, with work underway to boost its LNG capacity by more than 40% by 2027 to take over the No. 1 spot.

Norwegian, German companies to build hydrogen-ready power plants

(Bloomberg; Jan. 5) - RWE and Equinor said they would build new hydrogen-ready gas power plants, as well as a pipeline to send the green fuel to Germany from Norway. The countries will "accelerate the creation of a functioning hydrogen market, a value chain," Norwegian Prime Minister Jonas Gahr Støre said Jan. 5 in Oslo, where he met German Vice Chancellor Robert Habeck. Both sides also agreed on a deeper cooperation on expanding renewables and the green industry.

The move is part of an effort by Germany — Europe's industrial powerhouse — to reduce planet-warming emissions and wean itself off Russian gas following Moscow's invasion of Ukraine. Its politicians have been scouring the globe for alternative supplies to keep businesses running and households warm. RWE and Equinor's new power stations will be constructed in Germany with a capacity of 3 gigawatts and initially powered by gas, the companies said. They will be ready around 2028 and 2029, Equinor Chief Executive Officer Anders Opedal said in an interview.

The gas-powered plants will switch their fuel when volumes and technology are available, and should be fully based on hydrogen by the mid-2030s, according to RWE. "To make progress in the conversion from fossil fuels to hydrogen, there is an urgent need for a rapid ramp-up of the hydrogen economy," RWE CEO Markus Krebber said. "Our planned investments into hydrogen-ready gas-fired power plants will ensure security of supply in a decarbonized power sector."

India approves \$2.3 billion in funding to support green hydrogen

(Associated Press; Jan. 5) - The Indian government has approved \$2.3 billion to support production, use and exports of green hydrogen, aiming to make India a global hub for the nascent industry. The funding, announced Jan. 4, is a first step toward establishing the capacity to make at least 5 million tonnes of green hydrogen by the end of this decade. Green hydrogen is produced through the electrolysis of water, powered by electricity generated from renewable sources of energy.

The aim of the initiative is "to make green hydrogen affordable and bring down its cost over the next five years. It will also help India reduce its emissions and become a major exporter in the field," said Anurag Thakur, the minister for information and broadcasting. He said the financing would help add about 125 gigawatts of renewable energy capacity by 2030. As of October, India had about 166 gigawatts of renewable energy capacity.

Many of India's leading renewable-energy companies, public-sector companies and renewable-only companies are investing in production of green hydrogen. Green hydrogen now amounts to a small fraction of global hydrogen use, estimated to be about 70 million tonnes per year. Most commercially produced hydrogen is grey hydrogen, produced using fossil fuels, and blue hydrogen that is also made using fossil fuels but with the use of carbon-capture systems to reduce emissions. The production of green hydrogen results in the emission of little to no greenhouse gases.

German firm will buy Norwegian hydrogen production equipment

(Reuters; Jan. 6) - German energy firm HH2E said it will buy 120 megawatts worth of hydrogen production capacity from Norway's Nel, reflecting efforts to boost Germany's renewables capacity to compensate for the loss of Russian fuel and meet climate targets. HH2E said its equipment order, with a value of more than 30 million euros (\$32 million), is the largest to date in Germany for green hydrogen, which is produced using renewable energy to power electrolysis plants that split water into hydrogen.

The two parties are expected to sign the final purchase of the order in the next three months, HH2E said, adding that it expects its Lubmin plant in northeastern Germany to start producing green hydrogen in the second half of 2025. "One of the prerequisites for reaching our growth ambitions is the availability of high-quality electrolyzers in Europe, such as the ones that Nel will supply," HH2E co-founder Alexander Voigt said.

Nel, which competes with Germany's Thyssenkrupp Nucera, Britain's ITM Power and France's McPhy Energy, said the two 60-megawatt facilities could be significantly expanded in later stages. The announcement comes following a visit by German Economy Minister Robert Habeck to Norway, where the two countries announced cooperation plans to secure future green energy supply.

Lenders, energy companies invest in renewable natural gas

(S&P Global; Jan. 6) - Renewable natural gas is sparking new interest from lenders and financiers, with expanding federal subsidies for RNG production expected to support massive growth and investment in coming years. U.S.-produced RNG benefitted from widespread support for lower-carbon investing in 2022, as large energy companies such as BP and Kinder Morgan, as well as private-equity firms, piled money into the sector.

Another example of growing support came Jan. 5, when Clean Energy, a transportationfocused RNG marketer with over 550 fueling stations across North America, announced a four-year, \$150 million loan from a unit of New York-based asset manager Riverstone Holdings. The deal speaks to RNG's possible status as the decarbonization method of choice for many transport providers, according to the group underwriting the loan.

RNG is made from biogas sourced from landfills, dairy farms and municipal waste centers that, after processing, can be placed in a traditional gas pipeline or used in an RNG-compatible vehicle. The industry has experienced tremendous growth in recent years, although production volumes remain tiny compared with traditional transport fuels. Riverstone Holdings forecasts a tenfold growth for U.S. RNG production capacity in the long-term, from current levels around 220 million cubic feet per day to a potential 2.2 billion cubic feet per day, about 2% of current U.S. natural gas production.

Norway contracts to map out offshore wind farm sites

(UPI; Jan. 6) - Two companies are now tasked with mapping the shallow waters off Norway to advance the nation's offshore wind energy footprint, the government said Jan. 5. The Norwegian Petroleum Directorate, the nation's energy regulator, awarded contracts to Dutch geological data firm Fugro and geoscience consultant Enviros to map the shallowest areas under the seabed for potential wind energy deployment.

Norway is among the world's leading oil and gas producers, helping Europe to make up for the loss of Russian fuels due to Western-backed sanctions imposed over the war in Ukraine. But it powers its own economy largely on renewable energy. Norwegian energy company Equinor last year, for example, started up its floating offshore Hywind Tampen wind farm in the North Sea. That installation will eventually supply about 35% of the power necessary to run infrastructure at the Gullfaks and Snorre oil and gas fields.

Lars Jensen, a geophysicist in charge of the project for the Norwegian Petroleum Directorate, said scientists need a detailed look at seabed conditions for wind tower anchors. Planners will have to navigate between shallow-water deposits of natural gas, boulders, sinkholes and other geological factors before moving ahead. Norway has one of the fastest-growing markets for offshore wind. Data from the International Energy agency show wind-based electric power generation in 2020, the last full year for which the IEA supplied data, increased 80% from the prior year.

California town will get backup power from batteries, green hydrogen

(Bloomberg; Jan. 5) - A California wine country town plagued by wildfires and blackouts could soon get a backup power supply capable of running most of its homes and businesses for two days on batteries and green hydrogen. Utility giant PG&E and

Energy Vault Holdings plan to create a microgrid covering most of Calistoga, a small town of restaurants, tasting rooms and shops at Napa Valley's northern end.

During disruptions on the region's electrical grid, the microgrid would use a mix of lithium-ion batteries and fuel cells running on hydrogen to supply the town, with no greenhouse gas emissions. Fuel cells employ an electrochemical process — rather than combustion — to generate electricity, and when fueled by hydrogen their only emissions are water vapor. Energy Vault will buy the hydrogen, which will be stripped from water using solar power, from a third-party supplier.

PG&E and other California utilities have resorted to shutting off power lines in advance of high winds, following a string of deadly wildfires sparked by their equipment. Such "public safety power shutoffs" repeatedly have hit Calistoga and nearby towns, and fires have menaced their neighborhoods. The new system will provide protection during public safety shutoffs without resorting to diesel or natural gas generators, said Robert Piconi, Energy Vault's CEO. The new service is scheduled to start up in mid-2024.

Big Oil increases its spending on cleaner energies

(EnergyWire; Jan. 5) - After posting record profits in 2022, oil and gas companies say they're preparing to ramp up investments in clean energy and new technology this year. ExxonMobil has said it will spend about \$3.4 billion annually on alternative energy over the next five years, about 15% more than its plans last year. Chevron said it will more than double its clean energy spending from last year to \$2 billion in 2023.

The industry's plans will get a boost from the Inflation Reduction Act, the massive climate law that includes \$369 billion in tax credits and other incentives to promote technologies such as carbon capture and low-emissions sources of fuel and power. As the industry assesses the Inflation Reduction Act, more projects are expected to be announced in 2023 and others are projected to move from planning to construction.

At the same time, the oil industry is being criticized for not spending more of its profits on renewables and low-carbon energy. Both Exxon and Chevron plan to allocate more than 80% of their total energy spending to traditional oil and gas, not low-carbon fuels. Exxon plans to spend \$20 billion to \$25 billion annually on all forms of energy. Total capital spending at Chevron will be \$17 billion in 2023, including its affiliates.

China buying up non-Russian crude that normally would go to Europe

(Bloomberg; Jan. 5) - China is snapping up cargoes of crude that would normally head to Europe, spooking the continent's physical oil traders who have seen imports from Russia all but halt at a time when local demand is rising. The world's largest oil importer

already bought 5 million barrels of mostly Kazakhstan crude for next month, according to traders of the grade. In daily flow terms, it's the most since at least the start of 2021.

That matters because the Kazakhstan oil in question has been the preserve of European refiners, especially since the middle of last year when companies in the European Union cut purchases from Russia following the invasion of Ukraine. Physical traders report that Europe's own demand is also strengthening, intensifying competition for barrels. And with China's return from COVID still in early stages, it is a reminder of just how susceptible Europe could be to resurgent buying from the Asian country.

So-called CPC Blend crude, most of which comes from Kazakhstan, has rallied to a discount of \$3 a barrel to Dated Brent, an international marker for physical oil transactions, according to traders. As recently as a month ago, it was at \$8 below. The signs of strength go beyond the Black Sea. Norway's giant Johan Sverdrup stream is now fetching \$3 to \$4 a barrel below Brent, having been at a discount of more than \$6 in early December. There too, demand has shown signs of gaining. China's Unipec bought at least 2 million barrels of Norwegian crude for January loading.

Chinese company signs deal to develop oil and gas in Afghanistan

(Wall Street Journal; Jan. 5) - A Chinese company has signed a \$540 million deal with Afghanistan to develop an oil and gas field, as Beijing moves to secure access to the country's vast mineral wealth after the exit of American troops. In the biggest deal struck since the Taliban's takeover in 2021, Xinjiang Central Asia Petroleum and Gas Co. said that over the next three years it would develop the field in the Amu Darya basin in northern Afghanistan, according to the Afghan regime.

Afghanistan's aid-dependent economy collapsed after the August 2021 withdrawal of American forces and the Taliban's toppling of the U.S.-backed government. The regime, which hasn't been recognized by any country, is trying to stabilize the economy by attracting investments that create jobs for poverty-stricken Afghans. Developing mines and hydrocarbon resources is seen as one of the few economic options.

Raffaello Pantucci, co-author of a book about China's growing influence over its Muslimmajority neighbors, said the estimated oil reserves at Amu Darya are modest, but the hope is that a giant gas field just across the border with Turkmenistan extends into Afghanistan — and that such a find could make it a linchpin for the economy, as it is for Turkmenistan. "I don't know if this is the start of a flood of Chinese deals, but we will continue to see a lot of Chinese companies nosing around in Afghanistan," he said.

Analysts see China's LNG demand recovering, but not to 2021 levels

(Reuters; Jan. 5) - China's liquefied natural gas demand is forecast to recover in 2023 as the country emerges from COVID-19 controls to become the bright spot in Asia's consumption of the fuel. China's demand is set to rebound to between 70 million and 72 million tonnes in 2023, 9% to 14% higher than 2022, said analysts at Wood Mackenzie, Rystad Energy and ICIS. But imports would likely fall short of record 2021 levels due to high prices and lingering effects of the pandemic that will limit appetite, they added.

Those high prices will continue to suppress demand from China's industrial and power sectors, both highly sensitive to energy costs, said Wei Xiong, a senior analyst at Rystad Energy. In addition, "growth momentum across sectors may only be restored after the high infections subside and when employees are back to work," she said. "It will be a gradual process and may take a few months to restore."

State energy officials have estimated that in 2022 China's gas demand may have fallen for the first time in two decades, because of weak demand from industries disrupted by pandemic controls. China was the world's top LNG importer in 2021 but Japan won back the title last year. China's 2023 rebound would be offset by lower consumption from Japan, South Korea and South Asian nations, the analysts said. In response to high LNG prices, Japan and South Korea aim to increase nuclear power in their energy supply, leading analysts to cut estimates of 2023 LNG demand in those countries.

European LNG buyers expected to step up deals in 2023

(Natural Gas Intelligence; Jan. 6) - European LNG offtakers in 2023 are expected to continue the flurry of contracting activity that closed out 2022, as more import capacity comes online, larger buyers recapitalize and policies become clearer. Since November, European buyers including Engie, Galp Energia, Ineos and RWE have signed deals to buy U.S. liquefied natural gas for 15 years-plus. Over the same time, Trafigura secured a \$3 billion loan backed by the German government to buy more gas for the country. ConocoPhillips also signed contracts with Qatar to move more LNG to Germany.

U.S. LNG projects are poised to benefit most from the contracting rush. Sponsors signed long-term deals in 2022 to supply nearly 50 million tonnes per year of LNG, mainly to Asian buyers and portfolio players. European offtakers accounted for 11.4 million of the total. It is estimated that Europe needs from 50 million to 75 million tonnes per year of long-term U.S. LNG supplies to help replace the decline in Russian gas.

Many countries across Europe have been working to build more LNG import capacity. It was a necessary step before buyers could "really settle into working on some long-term deals," said industry group LNG Allies CEO Fred Hutchison. Some of Europe's larger gas buyers, including France's Électricité de France, Germany's Securing Energy for Europe and Germany's Uniper, have been nationalized and recapitalized. Others have been quasi-nationalized after a stretch of record high commodity prices last year weighed on balance sheets. That also slowed contract negotiations.

High LNG prices drive more cruise ships in Europe back to diesel

(Clean Energy Wire; Jan. 6) - An increasing number of cruise ships have switched their fuel from liquefied natural gas to diesel because of high LNG prices, reports newswire dpa in an article carried by the Süddeutsche Zeitung. German operator Aida Cruises said several of its ships have been running on marine gasoil, a form of diesel, for some weeks, given that LNG costs had multiplied since Russia cut gas supply to Europe.

Italian operator Costa Cruises said it had suspended the use of LNG on two of its ships. "The ongoing energy crisis is causing widespread disruptions in access to and overall supply of liquefied natural gas," the company said, adding that the ships will now burn marine gasoil. "As soon as the energy market stabilizes, we will resume LNG operations." Norwegian operator Fjord Line had announced earlier that it would convert its two LNG ships into dual-fuel vessels.

Aida Cruises said its Aidanova was the world's first cruise ship that could be powered exclusively with LNG when it was commissioned in 2018. LNG engines are not only lower in emissions compared with diesel or gasoil, but also can act as a bridge toward climate-neutral cruising, as the engines can run on emissions-free gases in the future.

Opponents to Texas LNG project lose appeal in federal court

(Associated Press; Jan. 5) - Environmental groups challenging permits for a liquefied natural gas export facility and gas pipeline in south Texas lost a legal fight at a federal appeals court on Jan. 5. A panel of the 5th U.S. Circuit Court of Appeals in New Orleans said the U.S. Army Corps of Engineers approved the "least environmentally damaging" alternative submitted during the permitting process.

The permit was granted for Rio Grande LNG and Rio Bravo Pipeline. The rejected court challenge was filed by the Shrimpers and Fishermen of the RGV, the Sierra Club and a group called Save RGV from LNG. The groups announced their challenge in 2021, saying the project posed an environmental threat to low-income communities, shrimpers and fishers in the Rio Grande Valley region.

The groups argued that the permit violated the Clean Water Act, challenging the Corps' finding that the disruption of environmentally vulnerable wetlands would be temporary and not require mitigating action. The 5th Circuit said the Corps considered studies showing that the area's vegetation would return within a year of project completion.

New England utility blames natural gas prices for electricity rate hikes

(Utility Dive; Jan. 4) - Connecticut and Massachusetts regulators on Jan. 3 called on Eversource Energy to defend the doubling of its standard-offer supply rate to 24.2 cents per kilowatt hour that took effect Jan. 1. The Connecticut Public Utilities Regulatory Authority scheduled the meeting in response to a request by Connecticut Senate Democrats who criticized the "exorbitant and punishing rate increase."

Eversource told regulators natural gas prices have the biggest impact on the cost of electric supply in its service territory, and gas pipeline capacity is "severely constrained" for electric generation on the coldest days, limiting capacity and leading to higher prices. Liquefied natural gas imports also are costly, pushed up by global demand and the loss to Europe of natural gas from Russia following its assault on Ukraine, the utility said.

Eversource said building new infrastructure in New England is "costly, litigious and slow," and new pipeline or LNG import facilities are unlikely. "It's a winter problem. It is not a summer problem," James Shuckerow, director of energy supply at Eversource, said at the nearly three-hour meeting, referring to pipeline constraints. Natural gas pipelines have "plenty of capacity" in the summer, but it's limited when temperatures plummet, he said. At times such as cold snaps in January 2022, natural gas generators in New England were "100% dependent on LNG," he said.

Administration will delay start of refilling U.S. strategic oil reserves

(Bloomberg; Jan. 6) - The Biden administration is delaying the replenishment of the nation's emergency oil reserve after deciding the offers it received were either too expensive or didn't meet the required specifications, according to people familiar with the matter. The Department of Energy rejected the several offers it received for a potential oil purchase in February, said the people, who asked not to be identified as details of the process haven't been published.

The department outlined its intention in December to begin restocking the Strategic Petroleum Reserve, starting with a purchase of 3 million barrels next month. The plan follows the historic 180 million-barrel release ordered by President Joe Biden as he sought to tame high gasoline prices following Russia's invasion of Ukraine. The department will put off the purchase it had planned for next month, but its program, which used a new approach of fixed-price offers, will continue, one of the people said.

The Biden administration had planned to start buying crude when it dropped around \$70 a barrel. Oil fell during the fourth quarter and U.S. benchmark prices fell close to those levels last month. The department "will only select bids that meet the required crude specifications and that are at a price that is a good deal for taxpayers," the department said in a prepared statement. "Following review of the initial submission, DOE will not be making any award selections for the February delivery window."

Lack of channel dredging slows Venezuela oil exports to U.S.

(Reuters; Jan. 5) - A shipping channel snafu is slowing Chevron's efforts to load tankers at one of its four Venezuelan joint ventures and bring heavy crude to the United States, three people familiar with the matter said on Jan. 4. Washington in November authorized the last major U.S. firm still operating in Venezuela to restore lost output and begin exporting oil as a way to encourage talks between President Nicolas Maduro's government and the country's political opposition.

But a plan to move heavy oil quickly from inventories at the Petroboscan joint venture with state-run company PDVSA is facing delays because of lack of dredging at Maracaibo Lake's navigation channel, the people said. A dredge is often needed to clean out areas by scooping out mud, weeds and rubbish so vessels can transit. Shallow waters in the channel caused a non-Chevron-related vessel carrying scrap metal go aground in December. Petroboscan has instructed vessels since then to limit their draft after loading at the Bajo Grande oil terminal.

In a sign that Chevron expects to expand operations quickly, the oil producer has begun advertising for Venezuelan contract administrators and cargo schedulers. It is recruiting to restaff long-idled operations, particularly for its marketing and trading divisions, which will handle oil exports for its own U.S. refineries and others. Small tankers coming from Bajo Grande are moving Venezuela crudes to a ship-to-ship transfer area on the coast, where they fill larger vessels. The first Chevron-chartered cargo loaded this way has not yet departed for the U.S., according to sources and Refinitiv Eikon tracking data.

Russia approves \$1 billion for more Northern Sea Route icebreakers

(High North News; Jan. 5) - Russia continues modernizing and expanding its fleet of powerful nuclear icebreakers in an effort to realize year-round shipping along the Northern Sea Route. With the sixth and seventh Arktika-class icebreakers, Russia will operate up to a dozen nuclear icebreakers before the end of the decade. Earlier this week, the government signed off on construction of two additional nuclear icebreakers.

Unlike foreign-built, ice-capable tankers, like Novatek's Arc7 LNG tanker, Russia's nuclear icebreakers are constructed domestically and are thus far not affected by Western sanctions. The Russian cabinet approved budget investments in excess of 70 billion rubles, equal to close to \$1 billion, for the construction and initial maintenance of the two new vessels. The ships are scheduled to enter service by 2029.

The new Arktika-class ships as well as older icebreakers will be tasked with keeping the Northern Sea Route open year-round for the transport of natural resources, especially liquefied natural gas and crude oil from the Yamal and Gydan peninsulas. A new super-icebreaker, able to break wider channels to escort even the largest tankers, has been

ordered from the Zvezda shipyard in Russia's Far East. The commissioning of the first super-icebreaker is planned for 2027, with additional vessels likely to follow after 2030.