Oil and Gas News Briefs Compiled by Larry Persily January 23, 2023

World leaders start to recognize that renewables cannot go it alone

(Reuters opinion; Jan. 20) - A different type of energy transition has taken place at this year's World Economic Forum. Unlike 2021's COP26 climate conference in Glasgow, where oil and gas executives were persona non grata, fossil fuel chiefs and renewable energy bosses sat cheek by jowl in Davos. Some in the solar, wind and hydro industry are warming to the carbon crowd. Tejpreet Chopra, head of one of India's clean-energy firms, was surprised to be invited to a side event with over 60 oil and gas executives.

"The course of this transition will have to take a more inclusive approach until we all get to the finish line of where we all want to be," Chopra told Reuters. The shift, partly triggered by the energy crunch after Russia's invasion of Ukraine, has been front and center in Davos, where U.N. Secretary-General Antonio Guterres dedicated his speech to it. As soaring prices drove up inflation, forced industries to shut production and hiked energy bills, European leaders reversed plans to reduce investments in new fossil fuels.

OPEC Secretary General Haitham Al Ghais, who was in Davos this week, has warned that the sheer magnitude of economic growth means energy demand cannot be met by renewables alone. "Certainly, the war (in Ukraine) added a premium but the root cause is structural," Joseph McMonigle, secretary general of the International Energy Forum, told Reuters. "We've tried to limit supply, whereas demand is not decreasing," he added.

OPEC, in its 2022 outlook, estimated \$12 trillion in investments will be needed to meet demand to 2045 to avert energy crises. A consensus appears building that demands to drop oil and gas investments and leave the fuels in the ground are counterproductive. "Energy companies have to be part of the solution here," McMonigle said.

Drillships back at work on offshore oil exploration

(Wall Street Journal; Jan. 21) - The \$1.2 billion Deepwater Titan sat idle in a Singaporean shipyard for five years, looking like an abandoned cruise ship with a derrick attached to its deck. Soon this vessel that spans nearly three football fields will depart for the deepest waters of the Gulf of Mexico, where its crew will be able to drill 8 miles below the seafloor in search of oil for Chevron.

The hunt for offshore petroleum is on again, fueled by a surge in global demand for oil, supply disruptions triggered by the war in Ukraine and crude prices that remain above prepandemic levels. Giant rigs such as Titan that were dormant near the end of the past

decade are now operating in deep waters along the coast of Brazil, while rigs lacking propulsion are mining shallower waters in the Middle East.

Of roughly 600 rigs worldwide that were available to lease for offshore projects in December 2022, about 90% were working or under contract to do so, according to research firm Westwood Global Energy Group. That was up from roughly 63% five years earlier. Operators of the massive drillships such as Titan that are prized for their ability to work in deep waters are now charging the oil companies that lease the ships more than \$400,000 a day, up from around \$300,000 early last year and less than \$200,000 two years ago. Analysts are forecasting rates will exceed \$500,000 next year.

Offshore drilling got a boost as the pandemic subsided and prices and demand for energy surged while the growth of U.S. shale production slowed, encouraging oil producers to invest in new offshore projects. The war in Ukraine and sanctions against Russia then disrupted oil and gas supplies, prompting searches for new energy sources around the world that might spur even more offshore exploration and production.

Iran boosts oil exports to highest level in 3¹/₂ years

(Bloomberg; Jan. 19) - While everyone looks at Russia, another oil-rich country under Western sanctions has quietly increased its output: Iran. The surge — accompanied by a burst of exports — is another reason why oil prices came under downward pressure late last year and still are struggling despite China reopening its economy. The timing couldn't be better for the Iran regime, in need of cash after months of street protests.

From the most recent low point, set in mid-2020, Iranian oil output has surged 40% despite Washington and Tehran failing last year to reach a new nuclear deal. Since President Joe Biden walked away, the U.S. campaign of maximum economic pressure on Iran hasn't come back. True, the U.S. Treasury keeps sanctioning some entities involved in Iranian black-market oil sales. But Tehran quickly finds new ways to sell its crude. Washington is, at best, powerless and, at worst, unwilling to stop the rising flow.

Not only has Iran boosted oil production, but its exports have surged even more because it's been able to sell a large chunk of the crude it was forced to put in the past into storage, both onshore and into tankers turned into floating storage facilities. Research firm Vortexa puts the country's total oil sales in December at 1.4 million barrels per day, the highest in $3\frac{1}{2}$ years. China is, by far, the biggest buyer, often claiming the oil is from Malaysia rather than from Iran. Even with the boost, current Iranian production is still way down from the 3.8 million barrels per day of 2017-2018.

Sanctions, forced oil-price discounts are making it harder on Russia

(Financial Times; London; Jan. 18) - Russia last year weathered the impact of energy sanctions and cuts in its natural gas exports to Europe. But 2023 will be a lot tougher, with lower energy prices and bigger discounts on Russian crude — underpinned by the \$60-a-barrel sanctions price cap — starting to worry Kremlin economists. President Vladimir Putin, however, last month called the cap "stupid," saw no reason to "worry about the budget," and boasted of his "unlimited" ability to finance his war on Ukraine.

Regardless of Putin's comments, with oil prices falling and the costs of the war widening, there are financial risks ahead. Alexander Novak, deputy prime minister, admitted the crude discounts were "the main risk." With oil and gas revenues accounting for 40% of the federal budget, the biggest challenge to Russia's plans is the combination of the widening discount and falling energy prices. "The word 'discount' is the key effect of the sanctions. It has become a part of Russia's oil reality for a long time," said Viktor Katona, a lead crude analyst at commodity analysis group Kpler.

Buyers of Russian oil are demanding increasingly wider discounts to Brent, the crude benchmark. Last year, the discounts deprived Moscow of an estimated \$50 billion, according to the Kyiv School of Economics, equivalent to 12% of its planned revenue. "The few remaining important importers, such as India and China, have a lot of market power," said Georg Zachmann, a senior fellow at Brussels-based think tank Bruegel. For cash, Russia can continue to borrow internally, mainly from state banks, and withdraw money from its \$148 billion wealth fund, including by selling holdings.

LNG spot prices are down from peak, but still double mid-2021

(Wall Street Journal; Jan. 19) - Last year was the year of liquefied natural gas. Russia's decision to curtail pipeline gas to Europe sent prices straight up and threatened to push Europe into recession. The panic-induced price spike of 2022 probably won't recur this year — but betting on lower prices would be unwise. LNG prices have slid after a much milder than expected winter in Europe. Asian spot prices have fallen nearly 67% from the record reached last August and sit around \$23 per million Btu, according to Refinitiv, down 32% since early December — although still more than double from mid-2021.

The price of the fuel will, however, probably struggle to chill further from here. Europe's move to reorient toward clean energy and make up for lost Russian gas supplies will be a multiyear battle, and the continent will need to refill its gas storage for next winter. And China's reopening means Asian demand should remain strong too, even with global trade weakening. The International Energy Agency reckons the European Union would face a shortfall of almost 1 trillion cubic feet of gas in 2023 if gas deliveries from Russia are zero and China's LNG demand rebounds to 2021 levels. New LNG supply is limited.

While China's reopening will affect LNG demand, it probably won't be the key factor for prices in 2023. Gas made up only 8.9% of China's overall energy demand in 2021. And China, with its massive coal power capacity and still-functioning Russian and Central

Asian gas pipelines, has some clear alternatives to pricey LNG. China's gas imports by pipeline were 33% higher last year than in 2020, according to data provider CEIC, while LNG imports were 5% lower. Europeans probably have less to worry about on the LNG front than they think when it comes to China — but the gas still will not be cheap.

Wholesale natural gas prices in New England doubled 2021 to 2022

(Natural Gas Intelligence; Jan. 20) - New England paid some of the highest wholesale natural gas prices on record last year amid pipeline constraints and strong competition for imported liquefied natural gas. Daily spot gas prices at Algonquin Citygate near Boston peaked last year at \$34.90 per million Btu in December, according to NGI data, and were higher than benchmarks in both Asia and Europe at that time. Average prices at Algonquin Citygate last year were \$8.88, or nearly double the \$4.47 of the prior year.

New England is the only region in the United States that has to import LNG for power generation and heating, particularly during cold snaps. "Basically, this region lacks pipeline capacity to provide supply during cold weather, so LNG imports must fill the gap," said Poten & Partners' Jason Feer, global head of business intelligence.

Global LNG and gas prices skyrocketed in 2022, hitting record highs when Europe scrambled to replace Russian gas imports after the Kremlin cut deliveries in response to Western sanctions for its invasion of Ukraine. New England's LNG imports are delivered to Exelon's Everett terminal in the Boston Harbor, to Excelerate Energy's offshore tie-up in Massachusetts Bay and to Repsol's Saint John facility in New Brunswick, Canada. Retail customers see the higher costs passed on in their bills for gas and electricity.

Netherlands sticks with plan to close earthquake-prone gas field

(Reuters; Jan. 22) - The Netherlands remains convinced of the need to close production at Groningen, once one of Europe's largest natural gas fields, by October following earthquake risks which made it dangerous to keep operating, the Financial Times reported on Jan. 22, citing a government official. Mining Deputy Minister Hans Vijlbrief said he would stick to the previously announced timetable and aimed to shut down the earthquake-prone gas field by Oct. 1, with the option of keeping it operational one more year if there was a shortage of gas in Europe after this winter.

Although the Dutch have come under pressure to change course due to the energy crisis triggered by Russia's invasion of Ukraine, the government has repeatedly said production could only be resumed as a last resort if gas supplies for Dutch households run out. Production at Groningen was scaled back sharply over a period of years in the 2010s after the Dutch government and producer NAM, a Shell-Exxon joint venture, realized the earthquakes it caused posed too great a threat to life and property.

"It's very, very simple: everybody who has some knowledge of earthquake danger tells me that it's really very dangerous to keep on producing there. I'm quite convinced it's wise to close it down," Vijlbrief said. Netherlands on Jan. 20 said it will stop the search for new onshore oil and gas fields in a drive to reach its climate goals and limit seismic risks. The Netherlands for decades was one of Europe's main gas suppliers through the Groningen field until production there was cut to a minimum to limit the seismic risks.

Japan pragmatic in its decision to stick with Russian LNG

(Japan Today; Jan. 21) – Japan, as this year's Group of Seven president, has joined the bloc's condemnation of Russia's Ukraine invasion, imposing sanctions and agreeing on an oil-price cap, with one exception: The Sakhalin energy projects. Sakhalin-1 and 2 in Russia's Far East are an anomaly in Tokyo's otherwise lockstep efforts with allies to cut their reliance on Russian energy. It's a contradiction that Japanese officials, and some experts, say is unavoidable for a country that is the least energy self-sufficient in the G7.

But others warn the decision is a vulnerability for Tokyo that undermines diplomacy. Last year, Japan pledged to phase out Russian coal imports and gradually decrease its energy dependence on Moscow. Government data released on Jan. 19 showed that Japan's oil imports from Russia fell around 56%, while coal imports were reduced by 41%. But imports of Russian liquefied natural gas were up more than four% in 2022.

Sakhalin-1 produces oil, while Sakhalin-2 produces crude and LNG. Experts say access to Russian gas is what most concerns Japan. Last year, 9.5% of Japan's LNG imports came from Russia, up from 8.8% in 2021 — most of it from Sakhalin-2. So when Japan joined a price cap on Russian oil last year with its G7 allies, the European Union and Australia, it got an exemption for Sakhalin-2. And while U.S. and U.K. firms Exxon and Shell have relinquished stakes in Sakhalin-1 and 2, Tokyo has stayed put. It's a purely pragmatic position, said Hiroshi Hashimoto, of Japan's Institute of Energy Economics.

Japan's Green Transformation Council supports nuclear power

(Natural Gas World; Jan. 18) – Japan's demand for liquefied natural gas could fall by up to 15% (almost 530 billion cubic feet of gas) if its newly established Green Transformation Council succeeds at cutting fossil fuel use. The new council, chaired by Prime Minister Fumio Kishida, wants to maximize nuclear power by restarting as many of Japan's idled reactors as possible. The day before the Fukushima disaster in 2011, Japan had 48 reactors available for operation. The disaster took Fukushima's six reactors out of service permanently. The rest were shut down soon after. New safety standards were written which effectively ended the lives of 16 more because they were too expensive to upgrade for their remaining operating lives. That left 26 reactors available for use but out of service, with a combined nameplate capacity of 25,000 megawatts. Japan filled the generation gap with gas, oil and coal. The central government badly wanted those 25,000 megawatts back online, but approvals from the newly established nuclear regulator were painfully slow to arrive, and when they did local government and local residents blocked restarts all over the network.

The new council's policy — subject to public comment and cabinet approval — stipulates that the country "will make the maximum use of energy sources with high decarbonization effects," enabling electricity suppliers to replace existing nuclear reactors with new ones and also operate reactors much longer than currently allowed.

LNG export project in Texas signs up Japanese customer

(LNG Global; Jan. 19) - NextDecade has signed a 15-year agreement with Japan's Itochu to supply gas from the proposed Rio Grande LNG export project in Brownsville, Texas. Under the agreement, Itochu will purchase 1 million tonnes per year of LNG indexed to U.S. Henry Hub benchmark prices. "We are thrilled to have Itochu as our first Japanese customer," said Matt Schatzman, NextDecade's CEO. "We are committed to providing Itochu and their customers with clean energy and reducing the carbon footprint ... through our proposed carbon capture and storage project."

NextDecade is working toward a final investment decision on the first three liquefaction trains of the export project in the first quarter of 2023, with FIDs for the remaining trains to follow. At full scale, Rio Grande LNG would be capable of producing 27 million tonnes per year of LNG. NextDecade signed deals last year with ExxonMobil, China's ENN Natural Gas and Portugal's Galp Trading to supply LNG from the Rio Grande project.

India will increase LNG imports as prices drop

(Reuters; Jan. 20) - India's liquefied natural gas imports are set to recover as global prices ease, the chief executive of the country's top gas importer Petronet LNG said. Asian spot-market LNG prices have fallen due to mild weather in Europe and ample inventories, from an average of \$30 to \$35 per million Btu in the fourth-quarter of 2022 to around \$17, A.K. Singh said.

India wants to raise the share of gas in its energy mix to 15% by 2030 from 6.2% at present. However, a sharp spike in global gas prices last year, triggered by Russia's war on Ukraine, cut into demand for cleaner fuel from price-sensitive Indian customers. "Now the export cargoes are hovering at \$17. We definitely expect that we will get the movement of more cargoes coming to our country." Singh said at the company's earnings press conference. "In previous months it was a lot of volatility," he added.

India's gas imports in October and November declined by about a fifth to about 1.8 million tonnes from this fiscal year's peak of 2.2 million tonnes in May, according to government data. Data for December has not yet been released. Petronet supplies gas, mostly procured under long-term LNG deals with Qatar and Australia, to Indian energy companies for sale to end-users.

Third LNG import terminal docks in Germany, more on their way

(DW public broadcaster; Germany; Jan. 20) - A third temporary facility to process liquefied natural gas has docked in the northern industrial port of Brunsbüttel. Germany has been sourcing alternative energy supplies to wean itself off Russian gas. The third floating LNG import terminal arrived on Jan. 20 to help shore up the country's supplies.

The terminal, which can receive highly compressed LNG from seaborne tankers and return it to its gaseous state for injection into the distribution grid, will complement two other units, one in Wilhelmshaven and the other in Lubmin on the Baltic Sea, which arrived last month. The first LNG cargo is scheduled to arrive in Brunsbüttel early next month. The government and gas distributor RWE aim to feed about 120 billion cubic feet of gas into the national network this year from Brunsbüttel alone.

Once a new gas pipeline to Hamburg is completed at the end of the year, that figure is expected to double. A fourth terminal is due to be delivered to the port of Stade, located on the Elbe River, shortly. Germany plans seven terminals in total, public broadcaster NDR reported. Germany consumes about 3.2 trillion cubic feet of natural gas per year, according to the Economy Ministry. When fully online, the floating LNG import terminals could provide about a third of Germany's annual gas needs.

German pipeline operator calls for shift to hydrogen

(Reuters; Jan. 18) - Germany must accelerate a hydrogen law revision, which is pending in Berlin, to allow for related investments in gas transport networks up to the end of the decade, said the head of the biggest gas pipeline operator, Open Grid Europe. Gas pipeline operators must prepare for the shift to renewables to complement Germany's plan to produce, import and market clean hydrogen, derived from carbon-free wind and solar power, as a future energy source.

"I would like the revision of the hydrogen strategy update to be completed in the first quarter of 2023," Open Grid chief Joerg Bergmann told Reuters in an interview. "Investment decisions have to be taken now, ideally by the summer, because adjusting and expanding pipelines to carry hydrogen needs between around three and six years," he said on the sideline of the Handelsblatt Energy Summit 2023. Economy Minister Robert Habeck told the conference that hydrogen-ready, gas-fired power plants must also be part of the climate strategy, replacing coal and nuclear energy. Germany plans to achieve 10 gigawatts of green hydrogen production capacity by 2030 to complement imports.

India will extend export benefits to green hydrogen producers

(Reuters; Jan. 20) - India will extend export benefits under a program to aid domestic green hydrogen fuel manufacturers, two government officials said, as the Asian nation aims to become a global supplier of the clean fuel. The Remission of Duties and Taxes on Export Products program, designed to offer refunds against some local levies to exporters, will be extended to green hydrogen once exports start, both officials, who did not want to be named as those discussions are private, told Reuters on Jan. 20.

One of the world's biggest emitters of greenhouse gases, India has approved a \$2.11 billion incentive plan to boost local production and encourage use of green hydrogen. The move is targeted to help the country achieve net-zero carbon emissions by 2070. The country aims for annual production of 5 million tonnes of green hydrogen and hopes to supply at least 10% of global demand by 2030.

In December, ammonia and methanol, the transportable forms of hydrogen, were also included in the list of fuel sources that would get export incentives, though India is a net importer of those. The same dispensation would also apply to other green forms of fuel generated using renewable energy, one of the government officials said. Plans to supply green hydrogen globally prompted the federal renewable energy ministry to seek its inclusion in the country's export promotion managed by the trade ministry.

European Union working to establish daily LNG price assessment

(Reuters; Jan. 19) - The European Union is working on a daily liquefied natural gas price assessment as a first step toward launching a new European LNG benchmark price by the end of March. The idea is that LNG buyers and sellers could use the new benchmark as the basis for their contracts. LNG prices in Europe have historically been pegged to the Dutch Title Transfer Facility gas hub price, a center of high volatility after Russia slashed pipeline gas deliveries to Europe last year.

However, the EU Agency for the Cooperation of Energy Regulators was unable to publish its first LNG assessment as scheduled on Jan. 13, citing a lack of sufficient data from market participants. Unlike pipeline gas, LNG is not widely traded on exchanges, so there is less visibility on how much the fuel costs. The EU had tasked the regulators with publishing a daily LNG price assessment starting Jan. 13, aimed at making pricing

more transparent. The assessment also aims to reduce the need for EU countries to bid against each other for supply, potentially driving prices up further.

Nigeria looks to mini refineries to reduce imports of refined products

(Bloomberg; Jan. 20) - On a river bank deep in the Niger Delta a local contractor is building one of a growing number of mini refineries that the Nigerian government hopes will finally help wean Africa's biggest economy off foreign fuel. The continent's most prolific oil producer has almost no refining capacity, so for decades it has shipped its own crude abroad for processing, while importing and subsidizing the finished product. That eats away at the budget, especially when oil prices rise.

The government aims to end the practice primarily via billionaire Aliko Dangote's 650,000 barrel-a-day complex near Lagos and rehabilitating its own inoperative facilities. Meanwhile, a growing number of mini refineries that the government hopes will help wean Africa's biggest economy off foreign fuel are sprouting up in the Delta. It has promoted much smaller modular plants, like AIPCC Energy's 30,000 barrel-a-day Koko refinery that's being fabricated in China and will be installed in the southern Delta state.

With Dangote's refinery beset by delays, these mini projects are at the forefront of efforts to cut billions of dollars from the country's annual import bill. The scale of mini refineries pales in comparison to Dangote's development, which at \$20 billion has cost more than double original projections and missed multiple deadlines for completion. And sourcing a reliable inflow of crude is key for the modular players. Some built plants near their own oil fields, but they'll need to lock down third-party supplies as they expand.