Oil and Gas News Briefs Compiled by Larry Persily March 27, 2023

Industry giants show renewed interest in North Africa oil and gas

(Wall Street Journal; March 24) - After years of underinvestment in North Africa's energy infrastructure, global oil and gas giants from Halliburton and Chevron to Eni are ramping up their presence in the region as demand from Europe grows. Executives are betting it is worth drilling again in some of the hardest places to do business in the world as Europe increasingly turns to other sources for its energy needs after shunning its main supplier, Russia, over the invasion of Ukraine. In recent months, a string of European officials have visited the region to help advance talks over potential supply deals.

Halliburton and Honeywell are hammering out \$1.4 billion worth of deals to develop an oil field and refinery with the National Oil Corp. in Libya, which has the largest known oil reserves in Africa, according to the chairman of state-owned firm. Italy's Eni is planning investments aimed at replacing nearly half of the gas it was importing from Russia with gas from Algeria. Chevron is also looking to seal an energy exploration deal in Algeria, and in January the U.S. oil major announced a sizable natural gas discovery in Egypt.

"North Africa has been slow to develop its potential because of political risks, either related to insecurity or bureaucracy," said Geoff Porter, president of U.S.-based North Africa Risk Consulting. But with Europe needing to replace Russian energy, "this is their moment," he said. Many American firms had pulled back from the region, viewing it as politically too risky, to focus on shale production at home, but the region's proximity to Europe and massive reserves, with Algeria holding the third-largest recoverable shale resources in the world, make doing business there worth the risk, they now say.

China has more options than just buying Russian natural gas

(Bloomberg opinion column; March 23) – Though authoritarian leaders boast of their growing power and influence, watching Vladimir Putin and Xi Jinping negotiate over Russia's biggest gas export project has a surprisingly comic edge. Each time the Russian and Chinese presidents meet, Putin drops hints that the Power of Siberia 2 line — which would send almost 2 trillion cubic feet of gas per year to northern China via Mongolia — is on the verge of approval. Each time, Beijing holds off from signing.

The end of the summit in Moscow this week between the two leaders once again left the project up in the air. Putin, who had been making such promises about an imminent announcement that some outlets went ahead and reported a done deal, ended up with nothing more than an assurance that China would keep looking at the project. The

official readout from China's state news agency had nothing to say on the \$95 billion project that Russia is so ardently seeking to replace its lost European markets.

One lesson of the past few years has been that the importance of energy security is higher than it has been in decades. That's not good news for Power of Siberia 2, which would give Russia more than half of China's import market — similar to the dominance it enjoyed in Europe. Meanwhile, China is embracing other options. In September, it announced the start of construction of a pipeline link with Turkmenistan. And since 2021, China has been signing contracts for LNG at breakneck speed. In addition, China's domestic gas output has more than doubled since Xi came to power in 2012. Moscow has few alternatives to selling to China. Beijing, to Putin's chagrin, has plenty.

India boosted solar capacity 28% last year, but also burned more coal

(Reuters; March 23) - India has emerged as a renewable energy star after boosting solar capacity by a whopping 28% in 2022, rivaling China's growth rate and outpacing European heavyweights which deployed record funding on energy transition efforts last year. India installed 13.9 gigawatts of new solar capacity in 2022, according to think tank Ember, dwarfing the 7.9 GW capacity growth in Europe's top solar producer, Germany, and establishing India as a top-tier green energy leader.

India's wind capacity expanded by 1.8 GW in 2022, slightly behind Germany's record 2.4 GW capacity climb, and helped push India's combined solar and wind capacity up by an impressive 17.5% within a single year. While China also added record solar and wind capacity in 2022 to widen its overall renewables lead, India's record build-out of solar capacity last year has been widely celebrated by energy transition advocates.

But even with such green energy momentum, India's utilities still struggled to keep up with the country's voracious energy demand growth, and had to crank coal use to record highs. In turn, its heavy power generation from coal — which produced nearly 75% of the country's electricity in 2022 — placed India as the third-biggest fossil fuel polluter from power generation after China and the U.S. This dual prominence in renewables and coal use rankings highlights India's awkward role as both hero and villain in climate circles, and underscores how messy the path toward energy transition targets can be.

Army Corps extends permit review for Great Lakes pipeline

(The Canadian Press; March 23) - Canadian pipeline giant Enbridge has been dealt another setback on its Line 5 replacement project in Michigan. The company said it was "disappointed" by news that the timeline of a U.S. review of Enbridge's proposed \$500 million Great Lakes tunnel and pipeline project has been pushed back by more than a

year. The U.S. Army Corps of Engineers said March 23 it now expects to finish its draft environmental impact statement for the permit in spring 2025, a delay from late 2023.

Enbridge spokesman Ryan Duffy said extending the permitting process further delays replacement of the dual pipelines in Michigan's Straits of Mackinac, and will essentially push the start of construction until at least 2026. Enbridge first submitted its application in April 2020. The tunnel project is intended to house a replacement segment of its existing Line 5 oil pipeline that crosses the bottom of the straits connecting Lake Huron and Lake Michigan. The company said the tunnel will be bored through rock, as much as 100 feet below the lakebed, to "virtually eliminate" the chance of a pipeline spill.

The Army Corps said it revised its timeframe for the review after receiving more than 17,000 public comments during its initial scoping period. The pipeline — which transports up to 540,000 barrels per day of light crude oil, synthetic crude and natural gas liquids to be refined into propane — was built in 1953. But in recent years, it has become a flashpoint for environmentalists and U.S. opponents of the fossil fuel sector. The state of Michigan has been in court for years with Enbridge in an effort to shut down Line 5, citing the risk of a disastrous spill into the key waterway linking the Great Lakes.

European Hydrogen Bank created in response to U.S. subsidies

(Wall Street Journal; March 22) - Europe had an early lead in green hydrogen but now the U.S. is doing the better job of powering up the new industry. Officials in Brussels announced plans last week to set up a European Hydrogen Bank as part of its response to the \$369 billion of funding for clean energy contained in the U.S. Inflation Reduction Act. The bank, due to launch by the end of the year, should boost renewable-hydrogen supply by using an auction process that links buyers and sellers, and by subsidizing the higher cost of producing the carbon-free gas compared with fossil fuel alternatives.

So-called green hydrogen is made by using an electrolyzer to split water into hydrogen and oxygen using renewable electricity. Most hydrogen today is derived from natural gas and considered "gray." European politicians worry that the generous subsidies for green-energy technologies in Washington's climate bill will lure investment to America. Governments in both regions hope that low-carbon hydrogen can help to decarbonize industries such as steel manufacturing and shipping. Ramping up domestic production would also help Europe to lower its reliance on imported fossil fuels.

One important job for the new hydrogen bank will be to gather information about funding across the European Union in a single place. If it can become a one-stop shop, companies would have less complexity to wade through. But Europe's higher energy costs are also a disadvantage. At a recent industry conference in Germany, producers said the European Union might need to subsidize higher operating costs to be on a truly equal footing with the U.S., according to Bank of America analysts who attended.

B.C. LNG project will run on electricity, not gas power

(The Canadian Press; March 24) - Proponents of a British Columbia liquefied natural gas export facility have unveiled plans to achieve net-zero emissions commitments in the construction phase and during operations. Woodfibre LNG said in a statement it plans to meet net-zero emissions by the time operations start at the facility just north of Vancouver in 2027. President Christine Kennedy said Woodfibre will be able to reach the goal with electrically powered compressors rather than burning gas for power.

Kennedy said Woodfibre LNG will also reduce emissions through carbon credits from the nearby Cheakamus Community Forest, a nature-based carbon offset project in Whistler, B.C., where the municipality and Squamish and Lil'wat First Nations are partners. The B.C. government introduced a framework last week that will require new LNG projects to have credible plans for net-zero emissions by 2030.

Woodfibre is planned for 2.1 million tonnes of LNG production per year. The roughly C\$2 billion development is backed by Singapore investors. The liquefaction plant and marine terminal would be constructed at the site of a former pulp mill. Woodfibre received its federal export license 10 years ago, and has been in the environmental permitting, design, engineering and financing stages since then. Canadian pipeline giant Enbridge bought a 30% stake in Woodfibre LNG last July.

<u>Developer drops LNG, tries for green hydrogen project in Canada</u>

(Natural Gas Intelligence; March 24) - After spending years advancing a Canadian East Coast LNG export project, Bear Head Energy is officially moving forward with a hydrogen facility as a zero-carbon fuel of the future. Houston-based Buckeye Partners last May completed its takeover of the proposed liquefied natural gas export project in Nova Scotia. At the time, Buckeye had outlined plans to remake the dormant gas export project into "a large-scale green hydrogen hub."

Public comment with the Nova Scotia Environmental Assessment Branch ended March 23 for the hydrogen project. The sponsors predicted there could be 40 to 60 cargos per year when markets mature for hydrogen. The agency is expected to set out its next steps in April. The revamped plant as designed would use wind turbine-generated power for electrolysis to split 4 million gallons per day of water into hydrogen and water. The hydrogen would be paired with nitrogen for export as liquid anhydrous ammonia.

Alberta steps up efforts to collect unpaid oil and gas property taxes

(Calgary Herald opinion column; March 22) - Two Alberta cabinet ministers sent letters over the past week to more than 100 energy companies behind on their property taxes

to municipalities. "We expect to hear from you within 10 days on steps your company is taking to resolve these outstanding tax arrears," the letter stated. But what happens when moral suasion or written requests don't work? It requires using the government's clout to get the attention of companies that aren't making an effort to meet obligations.

It's the latest approach by Alberta to push energy firms to pay their municipal taxes — a tally that has ballooned by more than 230% over five years. "It's just not acceptable and there need to be real consequences," Premier Danielle Smith told leaders at the Rural Municipalities of Alberta spring convention on March 22. "We hope that this is just enough of a stick to pay their taxes, and make sure that municipalities are made whole."

The provincial government is trying to deal with the persistent problem of oil and gas companies not paying their tax bills to municipalities. The amount of taxes owed stood at \$81 million in 2018, according to an RMA survey of its 69 members conducted the following year. At the end of 2022, it was more than \$268 million. After several attempts in recent years to address the issue, a new strategy is underway. Energy Minister Peter Guthrie directed the Alberta Energy Regulator to obtain proof that companies they've settled their taxes before it approves any new well licenses or transfers existing ones.

Nigeria has trouble finding buyers for crude not going to Europe

(Bloomberg; March 24) - Nigeria is struggling to find buyers for its oil as strikes at French refineries and seasonal maintenance at plants elsewhere in Europe cut into the producer's sales. Between 20 and 25 cargoes of Nigerian crude for April loading are still searching for buyers, according to four traders. That's a much weaker position than normal for this time of the month — when trade should be moving on to May's barrels — and prices for the crude are dropping, they said. Each cargo is about a million barrels.

Typically one of Nigeria's biggest buyers, France took an average of 110,000 barrels a day of Nigeria's oil over the past year, according to tanker-tracking data compiled by Bloomberg. But that demand has shriveled this month, with France's overall crude imports dropping by half in March as the nationwide dispute over pension reforms escalates, according to Wood MacKenzie.

Well over 80% of France's 1.1 million-barrels-a-day processing capacity is halted or in the process of shutting down because of the industrial action, according to data compiled by Bloomberg. In addition to the impact of the strikes, other plants in Europe are also buying less crude because of seasonal maintenance, according to the traders.

Japanese shipping company wants government insurance guarantee

(Bloomberg; March 22) - Major Japanese shipping company Nippon Yusen KK is seeking a government guarantee to insure vessels at risk from Russia's war in Ukraine. Conditions for getting war insurance for ships entering Russian territorial waters have gotten stricter, said Takaya Soga, the company's chief financial officer who will become president in April. He said the private sector alone can't cover for the risks.

"We think that a framework similar to the one made for Iranian crude oil is something that can be taken as a next step, and we have asked the government to consider," he said in an interview with Bloomberg News. Japan in 2012 passed a sovereign insurance bill for tanker owners carrying Iranian oil amid European Union sanctions.

The Russia issue has been bubbling since December, when Japanese insurance firms announced a halt of coverage for marine hull war risks. Companies were later able to negotiate reinsurance coverage, but there hasn't been a comprehensive solution as the war in Ukraine continues. Vessels are covered for each trip, meaning "the ships might be insured today, but could lose that coverage next week," Soga said. Creating a plan similar to the one made for Iranian crude will likely take time, but Soga said he hopes there will be a framework within the fiscal year starting next month.

Spain urges importers not to sign new contracts for Russian LNG

(Bloomberg; March 24) - Spain, the biggest European buyer of liquefied natural gas from Russia, is urging importers not to sign new contracts with Moscow as it seeks to cut ties over the war in Ukraine. LNG importers in Spain received a letter from the government recommending that companies not sign up for new purchases from Russia, according to people with knowledge of the matter. The Spanish government's request isn't binding as there are no sanctions in place, and only refers to signing new contracts.

Naturgy Energy Group, Repsol, TotalEnergies, Axpo Holding, Pavilion Energy, Enagás, Met Energy, Enet Energy, Energias de Portugal, Compañía Española de Petroleos and BP Gas & Power Iberia were sent a letter on March 14 by Deputy Prime Minister Teresa Ribera, who is in charge of Spain's energy policy. The letter, seen by Bloomberg News, doesn't explicitly mention spot contracts but makes a general plea to "intensify the diversification of supply of liquefied natural gas and do without those from Russia."

Europe's pipeline gas flows from Russia have fallen to historic lows since the Kremlin's invasion of Ukraine last year. To make up for the shortfall, LNG shipments from all over the world have surged — including from Russia — and are not subject to any European Union sanctions. Still, the U.K. and the Baltic countries already stopped Russian LNG purchases. Spain has almost doubled imports of Russian LNG since the outbreak of the war in Ukraine last year, highlighting how dependent Europe still is on Moscow.

Developer counts on geothermal heat pumps for NY apartment tower

(Bloomberg; March 25) - The key to heating an 834-unit apartment tower under construction on the Brooklyn waterfront will be 322 holes, each about 4 inches across and 499 feet deep — any deeper and New York state would consider it a mining project. The holes are the heart of a geothermal heat-pump system expected to reduce carbon emissions by 53% over a comparable building using conventional systems.

When complete in 2025, 1 Java St. will be one of the biggest U.S. residential buildings using the technology. Buildings account for 8% of global carbon emissions, mostly from burning fossil fuels for heating, and heat pumps are widely seen as an important tool to cut emissions. Spending on residential heat-pump systems climbed 9.6% to \$64 billion worldwide last year amid a growing push to electrify more of the international economy.

The Brooklyn project will be an important test for Lendlease Corp., the Australian developer that's building 1 Java and seeks to eliminate emissions entirely from its global operations. "We don't want to use natural gas anymore, in any of our buildings," said Sara Neff, Lendlease's head of sustainability for the Americas. If the system at 1 Java works out, the company plans to use more of them in future U.S. projects.

Heat pumps work by shifting warmth between the inside and outside of a building. Geothermal systems rely on the fact that underground temperatures stay around 55 degrees Fahrenheit, no matter how hot or cold the air is above. In the summer, water is pumped down into the boreholes, where it gets colder and is then brought up to cool the building. In winter, the underground temps can bring the water to 55 degrees and then an electric heater makes it even warmer as it's pumped through the building for heat.