

Oil and Gas News Briefs

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Japan's new clean-energy plan could disrupt LNG market

(Bloomberg; July 26) - Japan's aggressive new plan to champion clean energy is shaking up the liquefied natural gas market that it helped pioneer 60 years ago. The country, the world's top LNG importer, called for more renewables such as wind and solar to replace gas in a revised energy plan released last week. The shift aims for LNG-fired power generation to fall by roughly half this decade, creating upheaval for Japanese utilities as well as suppliers from Qatar to Australia to the U.S.

The stricter guidelines will see Japan's LNG imports drop by a third by the end of the decade, according to traders and analysts. It will force domestic utilities to abandon long-term LNG deals, which have been the backbone of the nation's imports, while increasing dependence on the more turbulent spot market. "The move will further dampen Japanese LNG buyers' appetite to sign long-term deals that extend beyond 2030," said Saul Kavonic, an energy analyst at Credit Suisse.

The policy was a surprise to suppliers around the world. Gas has been falling out of favor with some governments as they boost efforts to slow climate change and the cost of renewables drops. To help replace the 50% drop in LNG, Japan will need to restart nearly all of its nuclear reactors — a challenge, considering strong local opposition. Japan's desire for long-term LNG deals helped build and sustain the industry since the 1960s. Deals of more than 20 years are pillars for new LNG projects, and without them it is challenging to get backing from banks and investors for new or expanded terminals.

U.S. LNG exports grow to record 9.6 bcf per day

(Houston Chronicle; July 27) - U.S. liquefied natural gas exports grew to record highs in the first half of 2021, according to the Energy Department. Exports averaged 9.6 billion cubic feet per day, a 42% increase compared to the same six-month period in 2020, the EIA said. The 2021 volume represents almost 10% of total U.S. gas marketed production. Exports continued to increase as international natural gas and LNG spot prices rose in Asia and Europe due to cold weather.

In addition, the U.S. Henry Hub gas benchmark and U.S. LNG spot-market prices have been lower than international gas and spot LNG prices this year. This price difference has supported record volumes of U.S. LNG exports. Exports also increased because of new export capacity added in 2020. The final liquefaction units were commissioned at Freeport LNG's facility on Quintana Island near Freeport, Texas; Cameron LNG's

project in Hackberry, Louisiana; and Cheniere Energy's Corpus Christi LNG in Texas.

The new units increased total export capacity by a combined 2.7 bcf per day for a peak capacity of 10.8 bcf per day, the EIA said. Similar to 2020, Asia was the top destination for U.S. LNG from January through May 2021, accounting for 46% of the total. Asia was followed by Europe, with a 37% share. Exports to Latin America also increased, particularly to Brazil, which is experiencing its worst drought in more than 90 years.

Wood Mackenzie sees limited need for new LNG projects

(Reuters; July 28) - The investment outlook for liquefied natural gas has improved this year but project go-aheads will not match the rush of 2019, as the fight against climate change clouds the prospects for gas demand growth longer term. Renewed optimism as the industry emerges from the pandemic, rapidly rebounding oil and gas prices and a better economic outlook are building confidence in short- and long-term LNG demand in Asia. Companies are looking at new projects, most of which were shelved last year.

However, they need to take into account the ever tighter carbon emissions targets that governments are setting for 2030 and beyond. For oil and gas producers, LNG is seen as the best option for helping their customers cut carbon emissions, especially in the Asia Pacific, where it can replace coal as a fuel, at least until clean hydrogen becomes affordable. Global LNG demand is expected to grow by 53% to 560 million tonnes per year between 2020 and 2030, consultancy Wood Mackenzie said.

To help meet that demand, Qatar Petroleum earlier this year gave the go-ahead for the world's biggest LNG project, adding 32 million tonnes annual capacity, while Gazprom started construction of the 13-million-tonne Baltic LNG project in Russia. "Developers are now racing to get their projects through an increasingly narrow proverbial door within this decade," Wood Mackenzie vice president Valery Chow said. Based on Wood Mac's latest projections of existing capacity and plants under construction, there is room for only about 45 million tonnes of additional new capacity to move ahead this decade.

Chinese province starts work on \$1 billion LNG terminal

(Reuters; July 26) - China has begun building a \$1 billion liquefied natural gas import and storage base in the southern coastal province of Guangdong, a project in which ExxonMobil is advancing discussions with partners for a joint investment. ExxonMobil entered into a preliminary deal in 2018 with the province to invest toward projects in the manufacturing hub, including a petrochemical complex and an LNG terminal in Huizhou.

Guangdong started constructing the terminal last week and aims to start operating the import facility around the end of 2023. The new terminal has a designed receiving

capacity of 4 million tonnes per year under first-phase investment estimated to cost 6.636 billion yuan (\$1.02 billion). China's state economic planner, the National Development and Reform Commission, gave the greenlight for the project in early-July. Guangdong envisages expanding the project under a second phase by adding more storage tanks to raise the facility's annual handling capacity to 10 million tonnes.

Taiwan wants to add LNG import terminals, gas-fired power plants

(Taipei Times; July 27) - More gas-fueled power plants and LNG import terminals are planned for completion within six years to meet electricity demand as Taiwan phases out its three nuclear power plants, the country's Bureau of Energy said July 26. The boost in gas generation capacity — and phasing out of nuclear energy and some older coal-fired plants — is in line with Taiwan's energy transition policy, which projects LNG's share to rise to 50% and renewables to 20%, while coal falls to 30% of power supply.

State-run Taiwan Power is to invest NT\$467 billion (US\$16.64 billion) in the four projects, which would increase the nation's generation capacity by 12.22 gigawatts, the bureau said. A total of 10 gas-fueled combined-cycle generators are planned for installation. Combined-cycle gas generators run a second turbine with steam exhaust, allowing for better efficiency in electricity generation.

Bureau Deputy Director-General Lee Chun-li said the nation plans to build new LNG terminals, starting with one in the Datan Borough in Taoyuan's Guanyin District. The terminal — on which a referendum is to be held in December — is critical to Taiwan's energy transition, he said. "We have only two LNG terminals and they are operating at above 100% capacity," Lee said. "We are relying on the successful completion of the third LNG terminal, or else our (gas power) plants would be like guns without bullets."

No buyers for Shell's 35% stake in costly Indonesia gas project

(Asia Times; July 26) - More than a year after Shell said it was pulling out of the Masela natural gas project in eastern Indonesia, it has yet to find a buyer for its 35% stake in a \$19 billion venture already saddled by economic strains and the COVID-19 pandemic. China Petroleum & Chemical Corp. (Sinopec) had shown interest in joining forces with Japanese majority stakeholder Inpex but has now withdrawn, leaving the Japanese in a quandary over what to do with Southeast Asia's largest untapped gas field.

Masela has proven reserves of 18.5 trillion cubic feet of gas and 225 million barrels of condensate, but stuck out in the remote Arafura Sea it presents a major challenge when the gas will have to be priced at \$6 per million Btu or more to make it economically viable. A comparative breakdown of various LNG projects recently shared among industry executives shows Masela at the very top end of the cost curve. Indeed, some

estimates put its break-even point as high as \$7.50 to \$8 per million Btu.

Indonesian oil and gas regulator SSK Migas has given Shell until the end of the year to find a buyer, but that looks unlikely in the middle of the pandemic given the profound impact it has had on the Indonesian economy and on new foreign investment. “If it goes on any longer than the end of this year, Inpex will have to review the whole project,” said one source familiar with the current situation. “It is very important it has a partner to share in the cost, otherwise it will have to absorb all of it itself.”

Sinopec sets ambitious targets for gas production, LNG imports

(Reuters; July 26) - China's Sinopec aims to boost its domestic natural gas output to 1.7 trillion cubic feet by 2025, a nearly 60% rise from 2020, as it looks to cut its carbon emissions, a senior company researcher said July 27. The state oil and gas major has pledged to achieve carbon neutrality by 2050, relying on producing more gas versus oil in its portfolio and investing in hydrogen as a transportation fuel.

Sinopec will focus on tapping gas resources in the Sichuan Basin in the southwest and Erdos in northern China, Zhu Xueqian, a gas specialist with the firm's Petroleum Exploration and Development Research Institute, told an industry seminar. The company aims to produce over 450 billion cubic feet of shale gas from the Sichuan Basin by 2025, which would comprise nearly 30% of its total gas output, Zhu said.

Sinopec, also one of the country's top importers of liquefied natural gas, will increase its receiving capacity by expanding existing terminals at Tianjin, Qingdao and Beihai and building new ones in Longkou, of Shandong province, and Liuhe, in Zhejiang, she said. She did not give a total capacity target for Sinopec but said by 2025 China will operate more than 30 LNG terminals able to handle nearly 200 million tonnes of imported gas. That is more than double the current Chinese total import capacity of 96 million tonnes per year, as reported by the state-backed Chongqing Oil and Gas Exchange.

Singapore may build plant to extract value from high-Btu LNG

(Reuters; July 28) - Singapore LNG Corp., operator of the city-state's liquefied natural gas import terminal, is designing a new facility to extract chemicals from the fuel, in a project that could help boost the island's energy security. The company said July 28 it is working with Keppel Infrastructure and another industry partner on front-end engineering and design of a natural gas liquids extraction facility at the terminal in Jurong Island, in western Singapore.

The facility will remove heavier hydrocarbons such as ethane or propane from LNG, liquefy them using cold energy from the LNG and deliver the chemicals to plants on

Jurong Island as feedstock for petrochemical products, the companies said. If the project goes ahead, it would give Singapore more flexibility in the type of LNG it can import, which would in turn improve the country's energy security, the companies said.

Singapore relies on lean gas, which mostly consists of methane, but with the new facility it would be able to import rich gas, which has small amounts of other higher-Btu hydrocarbons such as ethane, propane and butane. Design work is expected to take 12 to 18 months, after which the partners will decide whether to move into construction.

Polish gas buyer cancels deal for LNG from delayed Texas plant

(Reuters; July 27) – PGNiG has terminated a deal with Sempra Energy for liquefied natural gas from the company's proposed Texas Port Arthur project due to delays, Poland's biggest gas company said July 27. State-run PGNiG signed a 20-year deal with Sempra in 2018, as part of its bigger plan to cut reliance on gas imports from Russia. PGNiG was to take about 2 million tonnes of LNG per year, starting from 2023.

Sempra said in May it would probably move its planned final investment decision on the Port Arthur LNG export plant from 2021 to 2022. "The decision (to end the deal) was made due to delays in the project's development," PGNiG said in a statement. PGNiG has signed a memorandum with Sempra under which it could potentially receive the volumes originally contracted at Port Arthur from other Sempra facilities.

U.S. hits new record for pipeline gas exports to Mexico

(Natural Gas Intelligence; July 26) - Natural gas exports via pipeline from the United States to Mexico recorded a new monthly record in June, the U.S. Energy Information Administration said in a note July 23, citing data from Wood Mackenzie. Pipeline exports averaged 6.8 billion cubic feet per day for the month, up 25% from June 2020 and up 44% from the previous five-year (2016-2020) monthly average, said the EIA's Max Ober and Katie Dyl, the note's principal contributors.

"New pipeline additions that went into service during 2020 and in the first half of 2021 increased the volume of natural gas flowing to gas-fired power plants, industrial plants and pipeline interconnections throughout Mexico," they said. Growth was driven by the Sur de Texas-Tuxpan subsea pipeline and the Trans-Pecos pipeline, the EIA team said.

The Sur de Texas pipeline receives gas from the Agua Dulce hub in South Texas, and spans from Brownsville, Texas, to the port city of Tuxpan in Mexico's Veracruz state. The Trans-Pecos pipeline connects to the Waha hub in West Texas, allowing Permian Basin gas to flow into Mexico. "Because of increased access to natural gas imports, Mexico has increased its use of natural gas to generate electricity," the EIA said.

Brazil working to double oil output by 2030

(Bloomberg Green; July 26) - If an energy transition is underway around the world, it hasn't reached the streets of Ilha da Conceicao, the working-class district at the heart of Rio de Janeiro's oil revival. There, buses and trucks are piling into Baker Hughes' shipyard, where the energy services giant is churning out hundreds of miles of oil and gas piping. One street over, ExxonMobil is loading supplies to explore the country's biggest offshore oil fields. Shell and TotalEnergies have similar plans for later this year.

It shows that while first-world politicians may be trying to wean the globe off fossil fuels, in cash-starved, resource-rich nations like Brazil, oil is still king. Brazil in 2020 produced 3 million barrels a day. And while the rest of the world was throttling back on oil output in the throes of the pandemic last year, Brazil was one of the few that raised production.

Brazil wants to double output by 2030 to become the world's fifth-largest exporter. Low-cost plays have positioned it to emerge as one of the world's last holdouts in the energy transition. "We are going through the best moment in years," said Rio-based oil worker Matheus Rangel who runs a YouTube channel offering tips on jobs in the industry. "The energy transition? I don't know about that. If you have oil, you drill until the last drop."

Offshore fields in Brazil, unlike U.S. shale, have a longer life, making them more cost effective. Output per well dwarfs deep-water fields in Nigeria, the Gulf of Mexico and the North Sea, adding to resiliency in times of lower prices. President Jair Bolsonaro, who has been dismissive of climate concerns, is opening Brazil's oil industry even wider to outside capital. The government is offering additional offshore licenses this year.

Shell gives go-ahead for new Gulf of Mexico production

(Houston Chronicle; July 26) - Shell plans to develop a new oil field in the Gulf of Mexico, its first since a Dutch court ordered the company to accelerate its net-zero emissions goals. The oil giant on July 26 said it made a final decision to fund the Whale development, which is about 200 miles southwest of Houston. The project, owned 60% by Shell Offshore and 40% by Chevron, is expected to start production in 2024. Whale has an estimated 490 million barrels of oil and natural gas in its reservoir.

"Whale is the latest demonstration of our focus on simplification, replication and capital projects with shorter cycle times to drive greater value," Wael Sawan, Shell's upstream director, said in a statement. Shell and other European oil majors have committed to reducing their greenhouse gas emissions in response to growing government regulations and public concern over climate change. However, Shell — the largest producer in the gulf — is continuing to drill and extract oil from the Gulf of Mexico, which

has some of the lowest greenhouse emissions intensity in the world for oil production.

A key part of Shell's strategy is to pursue the most energy-efficient, highest return and lowest-emissions oil to fund its so-called energy transition, the company said.

Discovered in 2017, Whale is Shell's 12th deep-water oil field in the Gulf of Mexico, and its second to use a simplified, cost-efficient production design using energy-efficient gas turbines and compression systems that will help to boost its returns. The project is expected to reach peak production of about 100,000 barrels of oil and gas per day.

Russian, Dubai companies cooperate on Arctic shipping route

(The Maritime Executive; July 23) - Russia continues to develop shipping through the Arctic, promoting it as a faster route than the Suez Canal between Asia and Europe. In the latest development, Rosatom, the Russian nuclear energy company designated as the infrastructure operator of the Northern Sea Route, announced an agreement July 23 with Dubai-based DP World for a pilot container shipping project on the route. The two will work together to develop and test the infrastructure to support cargo transport.

"DP World has already committed to invest \$2 billion with the Russian Direct Investment Fund, and we will continue to work with our partners in Russia to find solutions that allow the Northern Transit Corridor to develop sustainably," said Sultan Ahmed Bin Sulayem, group chairman and CEO of DP World. Rosatom said the transport corridor is being created in stages under the Northern Sea Route Infrastructure Development Plan 2035 approved by the Russian government. Rosatom said that it will develop a new logistics business to support the next stage of development of the route.

Environmentalists have been critical of Russia's efforts to build Arctic shipping and promote the environmentally sensitive region to commercial transport.

New Mexico educators want more reliable funding than oil dollars

(Carlsbad Current Argus, NM; July 24) - Educators in New Mexico have demanded the state find a more reliable source of revenue for public schools, which are currently dependent on oil and gas for the bulk of their budget. The fossil fuel industry, one of New Mexico's main economic drivers, suffered last year under low oil prices, leading to a drop in oil and gas production in New Mexico and jobs losses, and turned a \$2 billion surplus into a \$400 million deficit in the state's budget last year.

In a July 19 letter to Gov. Michelle Lujan Grisham, a collection of education and child well-being advocacy groups including the New Mexico chapter of the National Education Association — the largest teachers union in the U.S. — voiced concern about the cyclical nature of oil and gas and that New Mexico's dependence on the industry

has led to difficulties in planning for the future. “Public education in New Mexico requires stable and sufficient revenue,” the letter said.

“Today, our state revenue system continues to be overly reliant on a volatile and declining industry: fossil fuel extraction,” the letter said. “While this industry has provided significant revenue for New Mexico’s public schools over the years, our students have also suffered from funding cuts when the industry experiences downturns.” The letter applauded Grisham’s efforts to provide permanent education funding through the state’s Permanent Fund but argued New Mexico should take additional steps to ensure revenue for any state school funding comes from more stable sources of revenue.

California caps leaky 100-year-old well on Santa Barbara beach

(Santa Barbara News-Press; CA; July 26) - The California State Lands Commission capped a leaky 100-year-old oil well on the west end of a beach last week. The well is one of hundreds of legacy wells on the Santa Barbara County coast that were drilled in the late 1800s and abandoned in the early 1900s. There was almost no governmental oversight of these wells, and workers sealed the pipes with rocks and rags in the 1930s. The commission has \$2 million per year to identify leaking legacy wells and cap them.

When oil leaks, it affects swimmers, surfers and other beachgoers, as well as coastal wildlife and fish. It could also cause environmental degradation and be a hazard to public health. Extreme high tide or storms had caused some of the well’s oil to rise above the surface of the sand, and State Lands Commission Petroleum Engineer Steve Curran documented this particular well as a high priority. Contractors drilled into a layer of blue clay, which acts as a barrier between the hydrocarbons and the sand.

The team drove a pipe pile over the well and encapsulated it with an impermeable cap rock, encircled the well with concrete and welded a steel plate atop the pipe. During the work, excavators unearthed a layer of standing oil which had spilled out onto the beach.

Big Oil likes hydrogen, but it will not be an easy switch

(The Wall Street Journal; July 26) - Big oil companies have touted hydrogen energy as a way to reduce carbon emissions. Now they are grappling with how to make it a reality. BP, Shell and TotalEnergies are all pursuing hydrogen projects, often with government support, as they seek to redefine their future in a world less reliant on fossil fuels. Hydrogen made using renewable energy can be produced and used without emitting carbon dioxide. But experts say there are hurdles to the gas fulfilling its potential.

Firstly, most hydrogen today is made from fossil fuels, primarily natural gas. The challenge is to make it using renewable energy, on an industrial scale, in hopes of

cutting costs. And hydrogen is explosive, difficult to store and transport. Companies are pursuing green hydrogen, which they see as a long-term goal, while applying carbon-capture to fossil fuel hydrogen production as a way to clean up the gas in the interim.

As of the end of June, there were 244 large-scale green hydrogen projects planned, according to the Hydrogen Council, an industry group, up more than 50% since the end of January. Historically used to help make fertilizer and chemicals, hydrogen is increasingly being pushed for a much broader range of uses, including for trucks, planes, ships, household heating and as a way to store renewable power.

BP is exploring hydrogen to replace natural gas in industries such as steel, cement and chemicals, and also as a substitute for diesel in trucks. Like other major oil companies, BP thinks its existing expertise and infrastructure could help it win market share. However, it doesn't expect green hydrogen to be a material part of its business until the 2030s, and it has yet to make a final investment decision on any new hydrogen projects.

Chevron's Gorgon LNG shows unsuccessful start for carbon capture

(Financial Post; Canada; July 28) - When Chevron won approval for its US\$54 billion Gorgon liquefied natural gas plant in Australia, it promised to store 100 million tonnes of greenhouse gas emissions in one of the world's biggest carbon capture and storage facilities. The company touted the project as a standard-bearer for CCS technology and the industry's dream of gas production thriving even in a carbon-constrained world.

In the decade since, dozens of CCS initiatives have been launched. But the evidence from Australia so far is mixed. Chevron, which runs Gorgon with ExxonMobil, Shell and a string of Japanese groups that are the plant's main customers, said this month it had failed to meet requirements to lock away 80% of emissions within its first five years. Chevron blamed technical challenges and a three-year delay to CCS operations but said it had reached a "significant milestone" by injecting 5 million tonnes of CO₂ equivalent into giant sandstone basins off Western Australia since 2019.

It said it was confident of resolving problems with the US\$3.1 billion facility's pressure management system. The initial penalty for the companies is relatively low — up to US\$74 million collectively to offset the shortfall on Australia's carbon credit market. But the stakes are higher. Failure would provide further ammunition to environmentalists skeptical of the technology at a time when the global industry is seeking huge subsidies to make CCS scalable and economic. The biggest threat to CCS is cost, given that those of wind, solar and batteries were tumbling, said Bruce Robertson, of the Institute for Energy Economics and Financial Analysis. "CCS is technically challenging," he said.

U.K. high court will hear challenge to North Sea leasing

(Reuters; July 27) - The British High Court has agreed to hear a case by environmental campaigners claiming that government support of North Sea oil and gas companies conflicts with plans to slash the country's carbon emissions by 2050. The challenge revolves around tax breaks oil and gas producers receive to help cover costs for dismantling and clearing up aging infrastructure, in what is known as decommissioning.

The case names as defendants the Oil and Gas Authority, which oversees the North Sea. The OGA earlier this year said it will focus on "managing the declining production and maximizing value" from the North Sea, one of the world's oldest offshore oil and gas basins, as part of the government's plans to reduce greenhouse gas emissions to net zero by 2050. The claimants argue that the decommissioning tax breaks are not consistent with the government's net-zero emissions targets. Many countries offer producers decommissioning tax relief.

"Instead of using public money to prop up the oil and gas industry, the U.K. should be funding a just transition that retrains workers and builds the low-carbon industries of the future," Mikaela Loach, one of the three claimants, said in a statement.

India will sell off some of its oil reserves to avoid costly imports

(Reuters column; July 27) - India's move to commercialize its strategic crude oil reserves is another sign that major Asian importers are taking steps to mitigate the high prices caused by OPEC+ output cuts. India, the second-biggest crude importer in Asia behind China, aims to commercialize half of its strategic petroleum reserves, Reuters reported on July 22 citing two government sources.

Selling crude out of the reserve, currently holding about 36.5 million barrels of crude, is aimed at raising funds to build more storage tanks. It also allows refiners to access cheaper oil from storage when prices are high and buy it back when prices fall again. Indian Strategic Petroleum Reserves, which oversees the stockpile, will be allowed to sell more than 7 million barrels of crude to local buyers, while private companies leasing storage will be allowed to re-export about 10 million barrels if Indian firms don't want it.

Indian officials have expressed concern this year as crude prices rallied strongly amid moves by the producer group OPEC+ to cut output. Global benchmark Brent crude futures have surged 44% this year, closing at \$74.50 a barrel on July 26. India's move to commercialize its reserves brings it into line with similar policies in Japan and South Korea, the third- and fourth-biggest crude buyers in Asia.