Oil and Gas News Briefs Compiled by Larry Persily March 11, 2021

California oil county votes blanket approval for 40,500 new wells

(Palm Springs Desert Sun; California; March 8) - Kern County, California, supervisors on March 8 — over the objections of farmers and environmentalists — gave upfront, blanket environmental approval for 40,500 new oil and gas wells in the county by a single, supplemental environmental impact report and related ordinance. The vote allows oil producers to streamline normally lengthy reviews necessary to gauge the impact of each project on a laundry list of issues including air quality, water, and wildlife.

The measures, developed with the state's leading oil lobbyists and backed by organized labor, augment similar approvals that were thrown out by a state appeals court last March. After listening to more than 250 comments, many phoned in by opponents outside of Kern County, the supervisors, who ultimately gave the plan the go-ahead in a 5-0 vote, dismissed objections as "ridiculous" and "patronizing" in some cases.

The supervisors are proud of what they said are the nation's toughest oil and gas regulations. "Bottom line, this county runs on oil, and we're the best at what we do here," said Chairman Phillip Peters. Kern County oil fields produce several hundred thousand barrels per day; more than 3 billion barrels since the first wells about 125 years ago. Peters said that while he appreciates arguments about the need for transitioning to cleaner fuels, "You can't ignore the present. The world still runs on oil. It is giving the people of Kern County an opportunity to succeed, to make a better life."

Japan will need nuclear power to meet its climate commitments

(Bloomberg; March 8) - About once a month, the same group of two dozen Japanese government officials, company executives and professors file into a conference room at the nation's economy, trade and industry ministry to plot its long-term energy future. Each has a printed agenda, tablet computer and politely flips over a name card to request a turn to speak. Beneath the rigid formality, there's an increasingly divisive debate: What's the role of nuclear energy a decade after the Fukushima disaster.

Since Japan pledged in October to become carbon neutral by 2050, many among the advisory group have reached the same conclusion. To meet its climate commitments, the country will need to restart almost every nuclear reactor it shuttered in the aftermath of the 2011 meltdowns, and then build more. That's a daunting technical challenge that will require the nation to rapidly accelerate the resumption of idled operations and find a permanent solution to the meddlesome problem of storing radioactive waste.

Equally difficult for the government will be persuading regulators and the public who harbor deep concerns over safety. "We had better hurry and rebuild trust in nuclear power," said Masakazu Toyoda, a member of the 24-strong panel that is devising new policies. "This is a matter of energy security." Japan must have 27 of its remaining 36 reactors online by 2030 to hit its obligations under the Paris climate accord, according to Toyoda. So far only nine have been fired back up since restarts began in 2015.

Nuclear now accounts for about 6% of Japan's energy mix, down from 30% in 2011 before it closed all its 54 reactors, about a third of which were permanently scrapped.

Some analysts see one last strong upward cycle for oil prices

(Reuters commentary; March 9) - Promises by U.S. shale producers to pursue a more restrictive approach to capital investment and production seem to have emboldened Saudi Arabia and its allies in OPEC+ to test the room for higher oil prices. If the shale firms respond to higher prices and revenues by returning capital to lenders and investors, rather than increasing output and challenging the cartel, there may be an opportunity for OPEC+ to let prices rise without losing market share.

"Drill, baby, drill is gone forever. Shale companies are now more focused on dividends," the Saudi energy minister said March 4. "It's the shale companies which are themselves changing. They have had their fair share of adventure and now they are listening to the call of their shareholders." The kingdom's interest in testing support for higher prices comes when many investors are expecting a strong upward cycle, or even supercycle, in oil and other commodity prices.

Strong economic growth after the COVID-19 pandemic, coupled with expansionary fiscal and monetary policies, is expected to accelerate consumption growth for oil and other commodities. At the same time, production of oil and other commodities will be constrained by lack of investment during the price slump in 2020 and early 2021 as well as the newfound enthusiasm for "capital discipline." In the case of oil, some analysts are forecasting one last supercycle over the next few years before widespread deployment of electric vehicles in the late 2020s and through the 2030s starts to hit consumption.

Japanese companies form alliance to promote carbon-neutral LNG

(S&P Global Platts; March 9) - Fifteen Japanese companies across different sectors have launched the Carbon Neutral LNG Buyers Alliance to promote use of the fuel, power utility and LNG importer Tokyo Gas said March 9. The group includes several industries that consume gas, and is the most concerted effort yet among corporations

aimed at boosting the use of carbon-neutral LNG, which is LNG supplied after its carbon footprint has been fully or partially offset with tools such as carbon certificates.

Japan is working on a long-term plan for decarbonizing its energy supply by 2050, and part of its strategy is to continue using fossil fuels whose carbon footprint has been reduced or eliminated. In recent months, Japan, Taiwan, and China have imported the first spot cargoes of carbon-neutral LNG. Since carbon-neutral LNG is a premium fuel that is likely to have a higher cost, lobbying and public awareness initiatives are necessary to pass on the cost to the end-user.

"The companies participating in the Alliance will work to increase the recognition of CNL (carbon-neutral LNG) in society and carry out initiatives to improve its evaluation by investment institutions and establish its position within the various systems in Japan with the aim of contributing toward Japan's achievement of a carbon-neutral society by 2050," the statement said. Members of the new alliance come from various industries and include Toshiba, Isuzu Motors, and Mitsubishi.

LNG producers respond to buyers' focus on climate impacts

(Natural Gas Intelligence; March 6) - Major liquefied natural gas players are jumping head first into the energy transition, prompted in part by governments across the world that are prioritizing carbon neutrality, according to executives who consistently touched on the topic at the annual CERAWeek by IHS Markit conference this month. The world's three largest LNG importers, China, Japan, and South Korea, along with the European Union, have all announced goals for net-zero carbon emissions.

In the past year alone the LNG industry has announced a cascade of initiatives aimed at addressing the climate imperative. Major players have signed contracts requiring producers to track emissions from the wellhead to import terminal, while others are delivering carbon-neutral cargoes of offset with emissions certificates. Cheniere Energy, the largest U.S. LNG exporter, said last month it would monitor emissions for every cargo loaded at its Gulf Coast terminals beginning next year — an industry first.

Export projects under development are also looking to use carbon capture, utilization and storage, or neutralize emissions altogether. "We will have to listen to the customer," said Mark Gyetvay, chief financial officer of Russian LNG producer Novatek. "The buyer is going to determine what terms and conditions they really need to see in the future, and I think this idea we talk about in the greening of LNG and the certification process is also going to be important in the future. It's not going to be an exception."

China a heavy buyer of discounted Iranian crude

(Bloomberg; March 10) - China is gorging on Iranian oil even as other nations wait for President Joe Biden to remove sanctions on the Islamic Republic. Crude shipments from Iran to the province of Shandong, home to a quarter of China's refining capacity, have surged so much this month they're causing congestion at ports and filling up storage tanks, according to traders and analysts.

Chinese imports of Iranian crude will hit 856,000 barrels a day in March, the most in almost two years and up 129% from last month, said Kevin Wright, a Singapore-based analyst with Kpler. His figures take into account oil that's undergone ship-to-ship transfers in the Middle East or in waters off Singapore, Malaysia, and Indonesia to obscure their origin. Most refiners and traders are reluctant to purchase Iranian crude for fear of repercussions that can include being cut off from the American banking system and having cargoes seized by the U.S.

Tehran has used aggressive marketing as it tries to increase export income and boost an economy reeling from the sanctions. Iranian cargoes are heavily discounted due to the sanctions putting off most buyers around the world. In China their price is usually between \$3 and \$5 barrel below benchmark Brent crude, according to traders, who say it's prompting local companies to stock up as global prices rise.

U.S. oil production fell 8% last year; biggest one-drop ever

(Houston Chronicle; March 9) - U.S. oil production plunged by 8% last year — the biggest one-year drop on record — as the coronavirus pandemic spread across the globe, the Department of Energy reported March 9. With governments shutting down much of human society to slow the virus, oil prices dropped sharply, causing companies across Texas and the nation to not only stop drilling but to shut in their wells.

"In January 2020, U.S. crude oil production reached a peak of 12.8 million barrels per day. In March 2020, crude oil prices decreased because of the sudden drop in petroleum demand," the report read. "In May, U.S. crude oil production reached its lowest average monthly volume for the year at 10 million barrels per day." As the year wore on and public health restrictions eased, oil production worldwide rebounded. For the year, U.S. oil production averaged 11.3 million barrels per day.

Oil fields in Texas, which enjoy some of the cheapest production costs in the nation, were among the least impacted. Accounting for 43% of national production last year, wells in Texas averaged 4.87 million barrels per day in 2020, down only 4% from the year before. The Gulf of Mexico, on the other hand, saw production fall 13% to 1.65 million barrels per day, the largest decline of any major U.S. oil field, as numerous hurricanes interrupted production.

Charter rates are so low, some oil tanker owners are losing money

(Bloomberg; March 9) - Times are getting tougher for oil tanker owners. With too many vessels to haul fuel, losses for supertankers on a benchmark Middle East-to-China route deepened to \$6,779 a day on March 8. That is the worst since at least 2017 and effectively means vessel owners would be subsidizing the transport of oil on that route.

Tanker rates have been hit by a host of factors. The Organization of Petroleum Exporting Countries and its allies are withholding near-record amounts of oil, and surprised the market last week by extending that strategy into April. There's also an oversupply of ships, which has been compounded by the unwinding of volumes of crude stored at sea. For much of last year those volumes in storage kept tankers off the market, and sent daily earnings soaring.

"The decision from OPEC to extend the production cuts certainly did not do the shortterm market any favors as volumes will continue to underwhelm," Fearnley Securities analysts including Espen Fjermestad wrote in a report. Still there's logic to owners taking unprofitable cargoes. Oil tankers receive so-called term approvals from the companies that hire them. If a ship spends a long time without being chartered, those approvals can be jeopardized.

U.S. pipeline battles put more oil into rail cars, adding risks

(The Canadian Press; March 7) - The debate over cross-border pipelines is putting more Canadian oil and gas on trains destined for the U.S., and it could take an oil-by-rail calamity on a scale of the 2013 Lac-Megantic disaster in Quebec before Americans wake up to the dangers, some U.S. rail safety analysts say. "There's a bullet whizzing past our head," said Eric de Place, an energy policy expert at the Sightline Institute, a Seattle-based think tank focused on sustainability issues in the U.S. Pacific Northwest.

On average, over a million barrels of crude travel through Washington state each week, most of it from North Dakota but about 13% from Alberta and Saskatchewan, according to the state's Department of Ecology. The risks were punctuated late last year when seven tanker cars carrying crude oil derailed and caught fire just outside Bellingham, Washington, a city of nearly 90,000 people not far from the Canada-U.S. border.

"The only thing I can imagine is that there will have to be a significant loss of life before we get the regulatory attention that the industry deserves," de Place said. It's a fact that Canadians know well. In July 2013, an oil-laden train derailed and exploded in the heart of Lac-Megantic in the Eastern Townships region of Quebec, killing 47 and leveling half of downtown — the deadliest non-passenger train accident in Canadian history.

The tragedy put a laser-sharp focus on oil-by-rail in Canada, resulting in a number of regulatory changes, including an end to single-person train crews and the phaseout of

older tanker cars for crude oil. In the U.S., however, new rules that took effect in 2016 didn't explicitly prohibit the use of those same older rail tank cars for flammable cargo.

Canada vows oil and gas pipeline to U.S. will keep operating

(Detroit Free Press; March 8) - Canada isn't taking "no" for an answer when it comes to the Line 5 oil and gas pipeline. Michigan Gov. Gretchen Whitmer in November announced plans to revoke the 1953 easement allowing the controversial, 68-year-old twin pipelines to operate on the Straits of Mackinac bottom between lakes Huron and Michigan. Canadian oil transport giant Enbridge, which owns and operates Line 5, then announced its intention to defy Whitmer's order to cease operation by May.

On March 4, Canada's natural resources minister told a committee of the House of Commons he believes Line 5 will remain operating despite Whitmer's order. "We are fighting for Line 5 on every front and we are confident in that fight," Seamus O'Regan told a special House of Commons committee on Canadian-U.S. relations. "We are fighting on the diplomatic front, and we are preparing to invoke whatever measures we need to in order to make sure that Line 5 remains operational ... (it) is nonnegotiable."

Line 5 moves about 540,000 barrels of oil and gas liquids per day east, splitting into twin underwater pipelines through the Straits before returning to a single transmission pipeline through Michigan's Lower Peninsula that runs south to Sarnia, Ontario, where it feeds refineries. The pipeline and, particularly, its more than 4-mile underwater section have for years been a source of contention. Enbridge is working on a plan for a tunnel under the Straits of Mackinac, into which a new Line 5 pipeline would be placed and operated. That proposal has not yet received all necessary state and federal approvals.

Texas refineries work their way back to normal operations

(Bloomberg; March 8) - Physical oil prices in the U.S. are rebounding to levels seen before a deep freeze hit Texas last month, showing fuel-making plants are thirsty for crude again. Seven of 18 refineries affected by the cold blast — totaling more than 2 million barrels a day of crude processing capacity — were operating normally as of March 8. Mars Blend, a regional sour crude benchmark, traded this month at the largest premium to oil futures in nearly three weeks, while other key grades also firmed up.

As much as 5.5 million barrels a day of refinery capacity was suspended when arctic weather in the U.S. south halted power supply and damaged equipment at refineries in America's energy hub in February. Crude inventories piled up by a record 22 million barrels as a result. Since then plants including those operated by Motiva and Valero Energy have restarted, and the rest of the sites will likely resume operation this week.

Another reason for the strength is due to increased demand for U.S. crude from overseas buyers after OPEC+'s surprise decision to continue limiting supply. Buying is popping up from South Korea, India, Canada, and Europe, although interest from China has been muted because of high inventories. With OPEC keeping supply cuts in place in April, some customers that were expecting supply from Middle East producers, especially of medium-high sulfur crudes, may have to seek U.S. alternatives.

LNG project developer in Texas extends decision deadline

(S&P Global Platts; March 8) – NextDecade has extended agreements with its construction contractor that will give it more breathing room as it tries to secure sufficient commercial support to sanction its Rio Grande LNG export project in South Texas. The extension, disclosed in a statement March 8, keeps the pricing in the engineering, procurement and construction contract with Bechtel in place until Dec. 31, and the work contract itself valid until July 31, 2022.

NextDecade's cost would be \$600 per tonne of output capacity, or \$7 billion, if it initially moves forward with two of the five proposed liquefaction trains, while its cost would be \$543 per tonne, or \$9.57 billion, if it makes a final investment decision on three trains, according to an investor presentation posted on the company's website. The total cost figures include storage tanks and marine berths. FID on at least two trains, which has been delayed several times, is currently targeted for 2021.

To date Shell's 20-year agreement to buy 2 million tonnes per year from Rio Grande LNG, announced in 2019, is the only firm off-take deal that NextDecade has announced. In November 2020, France's Engie said it halted talks over a potential long-term supply deal with NextDecade amid pressure from environmental groups not to import LNG produced from shale gas. In the latest investor presentation, NextDecade said it was "working on remaining commercial agreements needed to achieve FID."

Saudi Arabia wants to be the world's biggest supplier of hydrogen

(Bloomberg; March 7) - Sun-scorched expanses and steady Red Sea breezes make the northwest tip of Saudi Arabia prime real estate for what the kingdom hopes will become a global hub for green hydrogen. As governments and industries seek less-polluting alternatives to hydrocarbons, the world's biggest oil exporter doesn't want to cede the burgeoning hydrogen business to others and lose a potential source of income. So it's building a \$5 billion plant powered entirely by sun and wind that will be among the world's biggest green hydrogen makers when it opens in the megacity of Neom in 2025.

The task of turning a patch of desert the size of Belgium into a metropolis powered by renewable energy falls to Peter Terium, the former chief executive officer of RWE,

Germany's biggest utility, and clean-energy spinoff Innogy. His performance will help determine whether a country dependent on petrodollars can transition into a supplier of non-polluting fuels. "There's nothing I've ever seen or heard of this dimension or challenge," Terium said. "I've been spending the last two years wrapping my mind around 'from scratch,' and now we're very much in execution mode."

Hydrogen is morphing from a niche power source — used in zeppelins, rockets and nuclear weapons — into big business with the European Union committing \$500 billion to scale up its infrastructure. Huge obstacles remain to the gas becoming a big part of the energy transition, and skeptics point to Saudi Arabia's weak track record in the renewables business, especially solar, where there are plans but few operating projects.

Saudi Arabia is setting its sights on becoming the world's largest supplier of hydrogen — a market that Bloomberg estimates could be worth as much as \$700 billion by 2050. However, it's still early for the industry. Hydrogen is expensive to make without expelling greenhouse gases, difficult to store and highly combustible.

LNG carriers expect to keep busy, restocking after cold winter

(Reuters; March 6) - Liquefied natural gas carriers are set to receive an earnings boost from restocking demand after colder conditions drove a scramble for supplies and record high freight rates, a top LNG tanker player said. A cold snap in Europe and Asia in January and in North America last month increased heating demand, prompting prices for the fuel to jump in several markets while inventories fell.

"You need to replenish stocks because of the cold Northern Hemisphere winter in both Asia and in Europe. So we think this is going to add to tonne miles," GasLog Partners chief executive Paul Wogan told Reuters. Tonne miles are an indicator of shipping demand, measuring transported cargo volume multiplied by distance. LNG tanker rates in January hit record highs of over \$320,000 a day with some charters concluded at around \$350,000 a day, estimates from shipping sources showed.

Wogan said despite shipyards delivering more new LNG tankers in 2021 rates could be "somewhere between \$5,000 a day better than they were at last year." "We think there's going to be about 20 million tonnes more LNG moved this year than last year," he said, adding that much of the additional supply would come from the U.S.

Oil and gas companies look for savings in decommissioning costs

(Bloomberg; March 10) - Oil and gas companies and the government face a bill of more than A\$50 billion (US\$38.5 billion) to clean up offshore wells and pipelines in Australia over the next half century. Some of industry's biggest firms are banding together to try

and come up with ways to cut costs. National Energy Resources Australia, an industryled group, has established the Centre of Decommissioning Australia (CODA) to study how to plug wells and decommission pipelines in a more cost-effective manner.

CODA, to be based in Perth, includes oil and gas majors such as ExxonMobil, Santos, and BHP Group, as well as servicing firms and research organizations like Baker Hughes and Curtin University. Massive cleanup costs have long been a problem for oil companies that are prevented by regulators from turning their back on old wells, while also posing a risk for governments if firms go under or attempt to shirk their duties.

The global bill to decommission offshore wells this decade is \$105 billion, according to Wood Mackenzie, with Australia fourth behind the U.K., U.S., and Brazil in terms of jurisdictions where companies have the most to spend. In Australia, the liabilities for well plugging, abandonment, and pipeline removal make up most of the necessary spend, with over half of the work needing to be started within 10 years. The biggest potential cost saving, around 15% of the overall bill, is to leave all export and inter-field pipelines in place by methods such as retrenching or burying pipe ends.

Libya wants to increase oil production, but it needs better security

(S&P Global Platts; March 9) - Libya is looking to increase its crude oil production to 1.45 million barrels per day by the end of 2021, the chairman of state-owned National Oil Corp. said March 9. That level will be contingent on the company receiving its full annual budget along with improved security at its oil facilities, Mustafa Sanalla said.

"In September we were producing 70,000 barrels per day, and today we produce more than 1.3 million," Sanalla said in an interview on Bloomberg TV. "Our target is to produce 1.45 million by the end of this year, [which is based] on two barometers — the budget and a little [better] security." The rise will also be caused by the start-up of two oil fields, he said. Political instability and a lack of money for maintenance and repairs has made it difficult for the company to maintain its assets, keeping a lid on output.

A large part of Libya's aging infrastructure has been wrecked by civil war, militant, and terrorist attacks, and ensuing general neglect the past decade. Libya produced just over 1.2 million barrels per day of crude and condensate in February, according to S&P Global Platts estimates. In the longer term the company has ambitions of increasing output to 1.6 million within two years and 2.10 million within three to four years, Sanalla said.