Oil and Gas News Briefs Compiled by Larry Persily February 14, 2019

Commissioner says FERC is ignoring court ruling on climate change

(Houston Chronicle; Feb. 12) - Commissioner Richard Glick of the Federal Energy Regulatory Commission said Feb. 12 that the commission was ignoring a federal appellate court decision on climate change. In 2017 the D.C. Circuit Court of Appeals ruled that FERC had erred in not considering greenhouse-gas emissions in granting a permit for the 515-mile Sabal Trail gas pipeline though Alabama, Georgia, and Florida.

Glick, a Democratic appointee by President Donald Trump, said that under his reading of the court ruling FERC should consider potential greenhouse-gas emissions on all pipeline and gas liquefaction projects. That breaks with Republic commissioners who argue emissions should only be considered for projects with gas-supply contracts already in place whereby emissions can be determined at the actual source of supply.

"The D.C. Circuit has already told us we're not doing our job, and I suspect they'll do it again," Glick said told the National Association of Regulatory Utility Commissioners. The comment comes as FERC has twice postponed a decision on the \$4.5 billion Calcasieu Pass LNG export terminal in Louisiana, driving speculation commissioners are at odds over climate-change considerations. Since the death of Commissioner Kevin McIntyre last month, the commission has been split 2-2 between Republican and Democrats.

Glick said he is concerned with other commissioners' interpretation of the court ruling, saying they essentially were "putting blinders on" in regard to climate change. "It's caused me to dissent on a large number of pipeline certificate applications."

Los Angeles drops plan to rebuild gas-fired power plants

(The Associated Press; Feb. 11) - Los Angeles will abandon its plan to spend billions of dollars modernizing three natural gas power plants as the city moves toward renewable energy, Mayor Eric Garcetti said Feb. 11. The move marks an abrupt change of course for the Department of Water and Power, which has said the three coastal plants are critical to the city's electrical system, the Los Angeles Times reported. Environmental groups have urged the city to replace the aging power plants with cleaner alternatives.

The move comes months after state lawmakers passed a bill requiring California to get 100 percent of its electricity from climate-friendly sources by 2045 — up from a previous target of 50 percent from renewables by 2030. Los Angeles has already moved away

from coal for electricity, divesting from the Navajo coal plant in Arizona and announcing plans to stop buying power from Utah's Intermountain plant by 2025. Now that coal is on its way out, it's time to start planning for a future with no natural gas, the mayor said.

"It's the right thing to do for our health. It's the right thing to do for our Earth. It's the right thing to do for our economy," Garcetti. Two of the three gas-fired plants, the Scattergood and Harbor plants, sit in communities with some of the worst pollution in California, according to state data cited by the Times. The gas units will be phased out by 2029, the city said.

Companies add to solar power in Permian Basin

(S&P Global Platts; Feb. 11) - Two 100-megwatt utility-scale solar photovoltaic generation projects are either under construction or will soon be in two West Texas counties in the oil-and-gas prolific Permian Basin. One of the projects is owned by Duke Energy Renewables, the other by Germany's E.ON. The Duke project, announced Feb. 8, is the Lapetus Solar Energy Project in Andrews County. Duke said construction is expected to begin before the end of March with start-up by the end of this year.

Duke Energy Renewables said Lapetus, at 800 acres, will be its largest solar facility in the country. On Jan. 30, E.ON said it broke ground on its 100-megawatt, 670-acre West of the Pecos solar project in Reeves County. It is the company's first in Texas. E.ON expects the facility to come online in December. The project will include 350,000 photovoltaic panels. Oil and gas drilling operations in the Permian Basin have been booming, adding to growing demand for electric power.

In May, E.ON secured a long-term power purchase agreement for 50 megawatts with SK E&S LNG, a subsidiary of one of the largest energy companies in South Korea. SK E&S is a partner in the Freeport LNG export terminal scheduled to start operations later this year on Quintana Island, south of Houston. Offtakers of the Freeport LNG project are required to supply electricity and gas to the facility. The E.ON project is located about 75 miles southwest of Midland-Odessa in the Permian's Delaware Basin.

Washington governor speaks against Canadian oil line expansion

(The Canadian Press; Feb. 8) - Washington Gov. Jay Inslee said his state shares the concerns of British Columbia about the Trans Mountain oil pipeline expansion and will continue to voice its objections any way it can. Inslee made the comments at a news conference in Seattle on Feb. 7 with B.C. Premier John Horgan, who is visiting the state to discuss partnerships on endangered killer whales, clean energy, and high-speed rail.

"I have exercised my rights as governor to speak publicly and vocally about our concerns about this project," Inslee said. Those include the risk of oil spills and more vessel traffic and noise affecting endangered southern resident killer whales off the coast of B.C. and Washington. "This (project) does not move us toward a clean energy future," Inslee said. "For short- and long-term reasons, the state of Washington stands with, I believe, the people of British Columbia expressing concerns about this project."

The expansion would triple the capacity of the pipeline, which runs from near Edmonton to a terminal near Vancouver, B.C. The government of Canada last year bought the Kinder Morgan line and expansion project for C\$4.5 billion in a move to overcome opposition and get it built. The government plans to later sell the line to private owners. However, Canada's Federal Court of Appeal in August struck down the project approval in part because of the National Energy Board's failure to fully consider marine shipping impacts. The government ordered the board to conduct a review and report by Feb. 22.

Saudi Arabia wants to invest in foreign oil and gas production

(Financial Times; London; Feb. 12) - Saudi Arabia plans to develop an international exploration and production business for the first time, doubling down on oil and gas even as the kingdom seeks to curb its reliance on fossil fuels. Khalid al Falih, Saudi Arabia's energy minister and chairman of state oil company Saudi Aramco, said overseas expansion would be a critical part of the company's future. "We are no longer going to be inward-looking and focused only on monetizing the kingdom's resources," Falih said. "Going forward the world is going to be Saudi Aramco's playground."

While Saudi Aramco is the world's largest oil-producing company, it has never meaningfully ventured overseas to extract resources, relying on its vast domestic reserves. The move underscores how Saudi Arabia is likely to remain dependent on its oil and gas prowess for raising revenues, even as it struggles to diversify into new sectors such as technology, tourism, health care, and mining.

While the kingdom has invested abroad in refineries and petrochemicals, the remarks are the clearest sign yet of its ambitions to develop oil and gas overseas. The minister indicated that efforts would initially be focused on creating a "global gas" business. Many of the world's energy majors are increasingly investing in gas, as the growth of demand outpaces that for oil. Saudi Arabia has eyed investments in Russia's liquefied natural gas sector and is in talks about taking a stake in export facilities in the United States. But Falih also mentioned Australia as a possible investment destination.

Qatar may cooperate with Russia's Rosneft on investments

(Reuters; Feb. 12) - The Qatari sovereign wealth fund's acquisition of a stake in Russia's Rosneft sets the stage for collaboration between the Russian oil major and Qatar Petroleum, Doha's ambassador to Moscow told Reuters. The Qatar Investment Authority (QIA) became a shareholder in Rosneft following the Russian state-controlled oil giant's privatization in late 2016 and now holds a 19 percent stake.

Though Qatar is a small oil producer compared to its massive gas production, state oil firm Qatar Petroleum is on a drive to expand operations globally. Qatar's ambassador to Russia, Fahad bin Mohamed Al-Attiyah, said QIA's stake opened the door to cooperation between Rosneft and Qatar Petroleum in projects around the world. "There is no 'malicious agenda'," Al-Attiyah said. "Just pure economic reasons."

Qatar is seeking international partnerships amid a boycott imposed by Saudi Arabia, the United Arab Emirates, Bahrain, and Egypt, which severed diplomatic and transport ties with the country in 2017, accusing it of supporting terrorism. Doha denies the charge. Reuters reported last year that Russian state bank VTB secretly loaned around \$6 billion to QIA to help finance its acquisition of the Rosneft stake, undermining the deal's stated aim of bringing foreign money into Russia. Rosneft denied the report.

Egypt plans new oil-and-gas contract terms to attract investment

(Bloomberg; Feb. 10) - Egypt is finalizing details of a new type of oil-and-gas contract to attract even more foreign investment than the \$10 billion already coming into its energy industry this year. The contract will provide incentives for exploration in undeveloped areas, Egypt's Oil Minister Tarek El-Molla said. He did not provide details. "We're improving the cost-recovery process to be faster, less bureaucratic and more efficient." The government will launch a new bidding round in the Red Sea this quarter, he said.

Egypt wants to become a gas re-exporting hub on the doorstep of Europe, moving larger volumes of liquefied natural gas from multiple Mediterranean fields, and the contract overhaul is part of that broader plan. Italian firm Eni's discovery of the giant offshore Zohr gas field in 2015 reignited investor interest in Egypt's oil and gas industry, the country's biggest single magnet for foreign investment. Total CEO Patrick Pouyanne and BP's Bob Dudley will join CEOs of other oil majors at a conference in Cairo Feb. 11.

Officials said in October the new contract would allow investors to control their share of production rather than sell to the government at preset prices. They said terms could be tweaked depending on the investment. Egypt's existing production-sharing agreements give investors about a third of a project's output to help pay exploration and production costs. The rest is split with government, which has the right to buy the

producer's entire share at the preset price. Oil companies have long complained about the contracts.

Egypt ready to serve as regional gas export hub

(Reuters; Feb. 11) - Egypt's gas output will get a boost this year as the country's huge Zohr field nears peak production, helping the country return to gas export markets and position itself as a regional hub. Egypt hopes to leverage its strategic location and well-developed infrastructure to become a key international trading and distribution center for liquefied natural gas, a potentially remarkable turnaround for a country that spent about \$3 billion on liquefied natural gas imports as recently as 2016.

Egypt has benefitted from a series of big discoveries in recent years, including Zohr, the largest gas field in the Mediterranean, helping to draw back investors that had pulled away after a 2011 political uprising led to mounting debt. "What we have achieved in only three years has started to attract the attention of everybody — everybody in oil and gas industry, financial organizations ... everyone is looking to Egypt with interest," Petroleum Minister Tarek El Molla told an energy forum in Cairo on Feb. 11.

With its new supplies, Egypt is now hoping to tap its two long underutilized liquefaction plants to export LNG across the Mediterranean. In addition, Israeli offshore gas could come to Egypt for liquefaction and export later this year. Egypt imported its final LNG shipment last September as new domestic supplies filled the need. Still to come, BP said in September it will spend about \$1.8 billion this year getting several fields online, making Egypt its largest investment destination worldwide for a second year running.

World's majors win rights to explore for gas in Egypt

(Reuters; Feb. 12) - Shell, Eni, BP, and ExxonMobil were among winners of Egypt's international tender for oil and gas exploration rights on Feb. 12, with 12 concessions awarded in total. It marks ExxonMobil's entry into gas exploration in Egypt, while Shell was awarded the most concessions in the tender — three for oil and two for gas. Egypt has in recent years reached maritime demarcation agreements with several countries in the region in a push toward increased oil and gas exploration.

Egypt expects investments of at least \$750 million to \$800 million in the first stage of exploration in the 12 concessions, Petroleum Minister Tarek El Molla said. The tender included areas in the Western Desert, Nile Valley, Gulf of Suez, and the Eastern Desert. Five gas exploration concessions were awarded — in which 20 wells will be drilled — to Shell, Exxon, Malaysia's Petronas, BP, Italy's Eni, and Germany's DEA. Eni's discovery of the giant gas field Zohr in 2015, the largest in the Mediterranean and estimated to hold about 30 trillion cubic feet of gas, has raised interest in gas exploration in Egypt.

U.S. LNG could go to Europe to avoid shipping costs to Asia

(S&P Global Platts; Feb. 11) - Europe is likely to be a prime destination for U.S. liquefied natural gas cargoes well into the next decade as shipping costs make Europe preferable to Asia as a destination for U.S. exporters, Massimo Montavani, head of gas and LNG marketing at Italy's Eni, said Feb. 11. Speaking to journalists at the Egypt Petroleum Show in Cairo, Montavani said the situation could change around 2024 as new LNG projects come on stream, including in Qatar, Mozambique, and the U.S.

"At the moment, the European market pays a good price, for sure better than the Asian market [taking into account] shipping costs," Montavani said. "Probably for the next couple of years we will see U.S. LNG in Italy, because the market is in such a situation that we think there will be room," he said. "Then we may have a couple of years' gap before all the new projects kick in," including capacity expansion in Qatar, new U.S. Gulf Coast export terminals, and Mozambique. "You have a lot of LNG coming after 2024."

Texas LNG project developer offers oil-indexed pricing

(S&P Global Platts; Feb. 11) - NextDecade's offer to tie long-term LNG supply contracts to the global crude price benchmark has boosted commercial efforts for its proposed Rio Grande LNG export terminal in Texas as it prepares to announce initial offtake agreements by the end of next month, the company said Feb. 11. Developers of the second wave of U.S. liquefaction projects have primarily been indexing their sales contracts to the U.S. Henry Hub gas benchmark price for feed gas to the plant.

Buyers, however, have been pushing for more flexible contract terms, including varied pricing mechanisms. In December, Tellurian announced for its proposed Driftwood LNG export terminal in Louisiana the first long-term contract for U.S. LNG linked to Platts' Japan-Korea Marker, the benchmark price for spot LNG in Northeast Asia. In NextDecade's case, the contract index linked to the global Brent crude price is one of several pricing options it is offering as it tries to line up potential customers.

NextDecade expects to announce initial contracts by March 31 to support up to three liquefaction trains at 13.5 million tonnes annual capacity. The company said it plans to make a final investment decision in the third quarter. For many years, oil-indexation was the standard for pricing contracts in global LNG markets. An oil indexation puts the commodity price risk on the producer, which would lose money if the price of crude falls too low. But crude oil-indexation has historically meant higher costs for LNG buyers.

Cheniere not interested in LNG projects without long-term contracts

(S&P Global Platts; Feb. 12) - Cheniere Energy, the biggest U.S. exporter of LNG produced from shale gas, will continue to only advance new liquefaction projects that are backed by long-term offtake contracts, an executive said Feb. 12 at an S&P Global Platts conference in Houston. The strategy comes as the trend of some deep-pocketed developers building terminals without such deals in place picks up steam and as competition for securing buyers increases.

The investment decision last week by ExxonMobil and Qatar Petroleum to build their Golden Pass export terminal in Texas without the announcement of long-term offtake contracts followed Shell-backed LNG Canada's similar decision in October for its British Columbia project. The moves signaled the willingness of major energy companies with existing LNG volumes in their portfolios to accept a level of risk that was unheard of in the market until recently. Analysts have wondered if that would catch on with others.

"At Cheniere, we would not be comfortable basically taking (price) spread risk," said Oliver Tuckerman, the company's vice president of commercial structuring. "If you own the resource and you are very comfortable with your cost structure, I get it ... and to a certain extent you have that with the Qataris and Exxons. We just don't see that as a good business and that is not something we are going to entertain." He doesn't anticipate the demise of long-term contracts in U.S. LNG trade anytime soon. "They don't have to all be 20 years, but there has to be ... some level of certainty," he said.

Floating LNG production unit arrives in Argentina

(LNG World Shipping; Feb. 13) - Argentina moved one step closer to exporting LNG, following the arrival Feb. 6 of the first floating liquefaction unit to operate in the Americas. Tango FLNG, owned by Belgium-based Exmar, was transported from China on the semi-submersible transport ship Forte and berthed at Bahia Blanca, Argentina. The FLNG unit will operate under a 10-year contract to produce LNG for Argentina's largest oil and gas producer YPF. Tango FLNG will produce 500,000 tonnes per year.

YPF will use Tango FLNG to liquefy gas from the Vaca Muerta formation, which has one of the largest deposits of shale oil and gas in the world. The Vaca Muerta's shale gas reserves are estimated at hundreds of trillions of cubic feet. However, Argentina lacks pipeline capacity to move larger volumes of gas, so a smaller-scale floating liquefaction unit seems an ideal alternative to a large-volume onshore LNG plant.

Before it produces its first LNG cargo in the second quarter of this year, the bargebased Tango FLNG must undergo outfitting and commissioning. The production unit originally was under contract to begin service in 2016 offshore Colombia, to produce from an offshore field in the Caribbean. But the project developer canceled the deal amid weak market conditions and shaky economics. Exmar has been looking for a new customer for the FLNG unit since then.

Chevron CEO says the future is low costs and Permian oil

(Bloomberg; Feb. 13) - For Mike Wirth, the future of Big Oil lies at home, under the dusty fields of West Texas. As he celebrates his first year as CEO of Chevron, Wirth sees the Permian Basin as a plentiful source of high-quality crude for years to come, but that's not all. The low break-even costs to pump in the Permian are forcing Chevron to be more efficient everywhere, Wirth said, from the deep-water platforms in the Gulf of Mexico to the company's liquefied natural gas plants.

The new reality, Wirth said, is lower your costs or die. Shale "has forced us to get smarter about how we do everything else," he said in an interview in Houston. Chevron isn't becoming more efficient "because we were dumb then and we're smart now. We're doing it because we have to." His message is one of never-ending belt-tightening, always preparing for lower prices and strong competition. "Let's not bet on high prices."

Chevron is now focusing on the Permian Basin of West Texas and New Mexico, the world's biggest shale oil field where it inherited a region-leading 2.2-million-acre position from its merger with Texaco in 2001. The area has been transformed into Chevron's biggest global growth project in just three years. Production has surged 84 percent in the 12 months and now accounts for more than one in every 10 barrels Chevron pumps worldwide. T he Permian is on track to be cash-flow positive by 2020, Wirth said.

Texas oil production eclipses 1973 record year

(Houston Chronicle; Feb. 11) - Oil production in Texas has beat the previous record set in 1973, according to the Texas Independent Producers Royalty Owners Association. Texas oil wells produced more than 1.54 billion barrels of crude in 2018, beating the previous record of 1.28 billion barrels, the association said in its annual State of Energy Report on Feb. 11. That represents about 4.2 million barrels per day, almost 40 percent of U.S. total production. Natural gas production also grew, reaching 8.8 trillion cubic feet in 2018, the report said, almost 25 percent of the nation's total.

In addition to record production numbers, the oil and gas industry also grew in job numbers. The industry ended 2018 employing 880,681 people nationwide, a 5 percent increase over 2017, the association reported. Texas accounted for more than 352,000 of those jobs, or about 40 percent. With more than 27,000 new oil and gas jobs, Texas experienced the largest industry gains in 2018, followed by Oklahoma at 5,266, New Mexico with 3,626, North Dakota at 2,808, and Colorado with 2,282.

Alberta production cuts boost prices but hurt crude-by-rail economics

(Bloomberg; Feb. 11) - Alberta's effort to alleviate a crude glut through mandatory production cutbacks may be backfiring, as heavy crude has become too costly to ship by rail. Two months after the provincial government announced the cuts, crude-by-rail volumes are declining even with pipelines still at or near capacity. Rail volumes fell 56 percent last week from three weeks ago, after setting a record in December, according to Genscape, which monitors traffic at some of Western Canada's larger rail terminals.

As the price for Canadian crude recovers, it becomes too expensive to move by rail. "The rail economics are seriously damaged, and a lot of the rail movements are stopping or have stopped," Suncor Energy CEO Steve Williams said Feb. 6 on a conference call with analysts. "With the recent strength in Canadian crude differentials due to the production curtailment, it's tough for many Western Canadian shippers to make crude-by-rail economic," said David Arno, oil analyst at Genscape.

The production cutbacks have helped Canadian heavy crude rebound from record low prices caused by too much output and too few pipelines. Western Canadian Select's discount to the U.S. benchmark price narrowed to less than US\$7 a barrel last month — not enough to cover some pipeline flows to the U.S. Gulf Coast and far too little to pay the cost of rail. The province has eased back on the mandatory production cutbacks, but the crude continues to trade at a discount of about US\$10 a barrel. To make rail economic, Canadian oil needs to be US\$15 to US\$20 a barrel under the U.S. price.

Alberta's plan to buy oil tank cars still makes sense

(Calgary Herald columnist; Feb. 12) - As oil-by-rail shipments out of Alberta tumble, the provincial government is close to securing a deal to acquire its own fleet of 7,000 rail tank cars. But does it still make sense? Yes, say experts. "Rail is needed until we get new pipelines in place," said Greg Stringham, who headed the province's oil-by-rail committee. The energy sector has been monitoring the volume of oil leaving Alberta by train since a pipeline bottleneck began squeezing prices for Canadian crude last year.

With pipeline space rationed and output swamping capacity, Alberta producers faced discounts of more than US\$45 a barrel last November. Amid concerns over the discount imposed on Canadian crude, Premier Rachel Notley said last November the province would acquire up to 7,000 rail cars to bolster take-away capacity by 120,000 barrels per day. A source said the capital cost would be \$350 million, with \$2.6 billion in operating costs over three years — versus revenue from shippers at \$2 billion for three years.

The plan made sense, but circumstances have changed. The Notley government in January began temporarily restricting oil production in a move to boost prices. Quickly, the price discount on Canadian heavy oil fell below \$10 a barrel, undercutting the

economics of moving crude at high cost by train to the U.S. Midwest and Gulf Coast. And while the trend is still developing, it appears oil rail volumes have fallen by more than 50 percent in the past three weeks. Alberta's rail plan might not be perfect, but it is the best mid-term option the province has until new pipelines are finally completed.