Oil and Gas News Briefs Compiled by Larry Persily August 5, 2019

Increased export demand will drive higher U.S. gas production

(Midland Reporter-Telegram; Texas; Aug. 1) - The future of the nation's plentiful natural gas riches lies in exports, according to an outlook issued by analysts at McKinsey Energy Insights. The report forecasts that North American gas demand will reach 125 billion cubic feet per day by 2030, up from the current 95 bcf per day. Of that additional 30 bcf per day, 20 billion will go to liquefied natural gas exports and pipeline exports.

Appalachia basins are forecast to increase production to 55 bcf per day, supplying more than 40 percent of the North American market by 2030, while associated gas, primarily from the Permian Basin in West Texas and eastern New Mexico, will supply 25 percent of the market by then, the report said. "Natural gas exports, primarily through LNG and, to a lesser extent, through pipelines to Mexico, are the key demand drivers causing gas production to increase," said Dumitru Dediu, partner at McKinsey.

"Global gas demand growth is the primary driver for additional LNG exports from the U.S.," Dediu wrote. "Many countries, particularly in Asia, rely on LNG as a relatively clean and cost-competitive fuel to meet energy demand — driven by economic growth, decline in domestic gas production or a switch to gas to improve the air quality in major cities." U.S. gas prices will stay below \$3 per million Btu over the next 10 years, the report said, adequate to drive new production and more export sales, Dediu said.

Low natural gas prices cut into producer profits

(Bloomberg; Aug. 2) - The world's biggest oil companies have been steadily shifting their investments toward natural gas, driven by a growing worldwide market and environmental concerns. But right now, they're taking a hit on their quarterly profit reports as prices tank. Supermajor energy producers — ExxonMobil, Shell, Chevron, Total, and BP — saw a steep drop in the prices they received for gas in the past quarter.

Gas prices at the U.S. benchmark Henry Hub in Louisiana are at the lowest seasonal level in two decades as production from Appalachia and West Texas breaks records. In Europe and Asia, spot prices for liquefied natural gas have sunk below \$4 per million Btu, thanks to a wave of new export terminals pumping new cargoes into the market. Still, natural gas, a fuel for furnaces and power plants as well as a raw material for chemical makers, offers the best long-term demand growth among fossil fuels.

For now, however, low prices continue to weigh on the supermajors, and gas supplies show no sign of abating, especially in the Permian Basin, where drillers seeking crude find themselves holding vast quantities of the less-valuable gas that comes out of the same wells — an unintended byproduct. The worldwide glut extends as far as Asia, where LNG demand is up just 3 percent this year while global supply is up more than 10 percent. Global LNG supply will exceed demand for the next three years before the market tightens in 2022, according to Bloomberg New Energy Finance.

European natural gas prices drop by half; storage could hit 'tank tops'

(Reuters; Aug. 1) - A protracted decline in European gas prices, which has hurt some energy firms but may prove a boon to buyers, has yet to find a floor as low summer demand could boost storage tanks close to chock-full amid soaring global supply. British and Dutch prices, benchmarks for European gas sales as well as some liquefied natural gas markets, have lost half of their value since last September. They hit 10-year lows in June, weighed down by an influx of LNG imports and pipeline gas supplies from Russia.

Gas prices tend to fall during the summer, but this year's slump was uncharacteristic as it began in the winter months, when prices traditionally rise, and has been accompanied by a larger-than-normal build-up in inventories. There is increasing concern European gas storage could hit "tank tops" by the end of summer, putting further downside pressure on prices. Storage sites at some key hubs in the Netherlands and Austria are already more than 95 percent full, Refinitiv data shows.

European natural gas prices have traded below \$4 per million Btu, while Asian spotmarket LNG on Aug. 1 traded under \$4 for the first time in years. The long-awaited start-up of U.S. LNG export plants and a full ramp-up at Russia's Arctic Yamal LNG facility have made supplies abundant. Flows through pipelines from Gazprom have also risen as the Russian gas monopoly defends its market share against rivals such as Norway, supplier of a quarter of European Union gas.

Traders look at storing LNG at sea while waiting for higher prices

(Reuters; Aug. 2) - Traders are starting to make inquiries to book vessels to store liquefied natural gas as they bet for winter demand to boost prices for spot cargoes which are trading near record lows, multiple industry sources said Aug. 2. Inquiries are trickling in to book vessels on a spot basis, ranging from one month to several months, which is expected to push shipping rates up, the sources said. An abundance of LNG supply globally from new projects has pushed down spot prices to record lows.

With Asia LNG trading at below \$4 per million Btu, traders may take the opportunity to buy the cargoes now for later use, especially as demand typically increases during winter for heating, which in turn pushes up prices, the sources said. Storing cargoes on ships to sell at a later date to take advantage of the rising price for later-dated supplies, known as the contango carry trade, is common in oil markets but is considered risky for LNG because of high storage costs and because LNG cargoes evaporate over time.

November LNG spot prices are estimated at about \$1 higher than October prices, while October spot prices are likely about 70 to 90 cents higher than September prices, the sources said. "At 90 cents contango, floating storage is starting to make sense and at \$1.50 people will be jumping on it," a Singapore-based LNG trader said. Last year more than 30 vessels were flagged as floating storage ahead of winter as traders bet demand would increase like it did the year before. But prices fell amid mild weather last winter.

LNG prices continue falling; Indian buyer takes a cargo at \$3.69

(Reuters; July 31) - Cargoes of liquefied natural gas are trading in Asia below \$4 per million Btu as new supply floods the global pool and as demand from North Asia remains weak, industry sources said. Indian Oil Corp. bought a cargo for delivery in the second half of August from commodity trader Trafigura at \$3.69 per million Btu through a tender, sources said. Separately, China National Offshore Oil Corp. (CNOOC) bought a cargo for delivery in early September from trader Vitol at \$3.90, the sources added.

Spot LNG prices in Asia were at \$10 at the same time last year, after reaching a fouryear high in June 2018, Eikon data showed. They have been steadily dropping after a mild winter reduced demand last year and as new supply filled the market this year.

"The market's pretty weak at the moment and the Indian cargo is probably a record low (price)," said a Singapore-based LNG trader. "Prices are weak in Europe and in the United States as well." European spot LNG prices have been trading at a discount to the benchmark Dutch month-ahead gas price at levels below \$3.40 this week. While the prices could quickly turn around for the winter amid colder weather, high gas inventories in Europe could weigh on prices, said Edmund Siau, an LNG analyst with FGE.

Gulf LNG in Mississippi wins Energy Department export approval

(Houston Chronicle; Aug. 1) - Kinder Morgan's Gulf LNG project in Mississippi took another step forward after the U.S. Department of Energy issued an order authorizing exports from the proposed liquefied natural gas terminal. The department issued the order July 31, giving Gulf LNG permission to export up to 1.53 billion cubic feet of gas per day from the Pascagoula, Miss., site (about 11 million tonnes of LNG a year). The order covers non-free-trade agreement nations such as China, Japan and South Korea.

The Department of Energy decision comes less than a month after the Federal Energy Regulatory Commission approved the project. Kinder Morgan originally developed the 230-acre site as an LNG import terminal in 2009. But with record production from U.S. shale plays creating a surplus of gas, the Houston-based company began the federal application process in July 2015 to redevelop part of the site as an export terminal.

With authorizations now in hand for Gulf LNG, all eyes are on Kinder Morgan to see if and when the company will make a final investment decision. "While this is an important step, there are still multiple factors that need to be met before reaching a final investment decision needed to begin this project," the company said in a statement. If built, Gulf LNG would become the second LNG export terminal developed by Kinder Morgan. Its Elba Island terminal in Savannah, Georgia, is close to starting operations.

Opposition delays vote on tax break for LNG project in Texas

(KVEO TV; Brownsville, Texas; Aug. 2) – A developer of a proposed liquefied natural gas export terminal in the Port of Brownsville, Texas, has suffered a setback, possibly temporary. Annova LNG is expecting a property tax break from Cameron County, but public outcry led county officials this week to delay the decision to a later date. Annova is one of three LNG terminals proposed in the port.

"Can we really as a county, as one of the poorest counties in the nation, afford to dish out an extra tax cut for these companies?" asked Josette Cruz, of the group Save RGV from LNG, which has been campaigning against the projects in the Rio Grande Valley. "It's not a done deal, it's not too late to tell your county commissioners to redact this tax cut for Annova LNG," said Rebecca Hinojosa, also from Save RGV from LNG.

"We're going to get all the damage, we're going to get all the pollution, we're going to get all the environmental damage, we're going to get none of the profits and if this tax cut goes through, we're not event going to get tax revenue," said Christopher Basaldu, of Save RGV from LNG. An Annova spokesman said the company is planning to start construction in 2020, pending federal regulatory approval and other permits.

Papua New Guinea says it will stand behind LNG deal

(Australian Financial Review; Aug. 5) - Fears that a multibillion-dollar, multi-partner expansion of liquefied natural gas export capacity in Papua New Guinea could be derailed have been reduced after Papua New Guinea's new petroleum minister, Kerenga Kua, said the government had agreed in principle that a controversial agreement on fiscal terms should be upheld. In a statement Aug. 4, Kua said the Cabinet "agreed in principle the state should stand behind" the agreement.

Kua added, however, that the government reserves its rights to discuss a shortlist of issues with the developers, including Australia-listed Santos and Oil Search along with French major Total. Managing director Peter Botten said Oil Search is "encouraged" by Kua's statement signaling that the Papua LNG fiscal deal signed with the government in April would stand. The project, led by Total, is the first piece in the two-part expansion, which also includes more capacity at the existing PNG LNG project, led by ExxonMobil.

The two projects, at an estimated cost of \$13 billion to \$14 billion, would more than double the country's LNG capacity. Both development teams are cooperating to avoid billions of dollars of duplicated infrastructure. A delay in the Total-led project agreement risks delaying the expansion for two years, according to some analysts. Talks with the government on the Exxon-led expansion are on hold, pending resolution of the Total agreement. Discussions with the Papua LNG partners will continue Aug. 5, Kua said.

Gas distributor bets on rural markets in China

(Bloomberg; Aug. 1) - China Gas Holdings is sticking to a strategy to expand in rural markets deemed too challenging by its rivals and is evoking the experience of national technology giant Huawei Technologies to help make its point. The company has made a name for itself as China's biggest gas distributor by switching rural households from coal to using more of the cleaner fuel. Analysts, however, have warned of the risks with the strategy, with Sanford C. Bernstein calling it the "biggest controversy" on the stock.

"People have asked me: Is there really gas demand in China's rural areas?" China Gas Holdings Executive Chairman Liu Ming Hui said, adding that the company has done a thorough analysis of the market. Huawei encountered similar concerns in its early days, Liu said. "Huawei didn't listen to them and that turned out to be the right decision." Huawei, founded in 1987, has grown from a small seller of phone switches in rural China to the world's largest maker of telecommunications equipment.

In terms of gas use, there is precedence in other countries. Consumption tends to take off in large population centers first, then expand to smaller cities and rural regions, Liu said. That has been the case in Europe and North America, and China will be no exception, he said. Gas consumption is booming as the government seeks to combat pollution. State-ordered replacements of coal-fired boilers with gas furnaces have spawned an increase in demand for services provided by distributors such as China Gas, ENN Energy Holdings, and China Resources Gas Group.

Fracking wastewater recycling gains in Permian Basin

(Houston Chronicle; Aug. 2) - Whether by pipeline, truck, or hose, more water is moving around the arid Permian Basin than crude oil at any given moment. Water has become the lifeblood of the energy industry with hydraulic fracturing using a high-pressure slurry of water, sand, and chemicals to unlock oil and gas from shale formations in Texas and across the country. In the arid Permian, the nation's most productive oil field, operations consume more than 195 million gallons of water a day in West Texas and southeastern New Mexico — enough water to fill nearly 300 Olympic-sized swimming pools.

All this has made water and water management in the Permian a big business that's only expected to get bigger, following the recent enactment of new laws in Texas and New Mexico. The laws, which essentially clarify water rights and encourage the reuse of water, could pump billions more dollars of investment into the region's rapidly growing water recycling industry. At least a dozen water recycling companies operate in the Permian Basin, according to the Houston research firm Simmons Energy.

Wastewater is produced is produced in two main ways, through fracking, which uses millions of gallons of water for each well, and drilling, which brings up brackish water left behind by the ancient inland sea that covered central North America in the days of the dinosaur. As many as 15 barrels of water are produced for each of the 4.2 million barrels of oil per day that come out of the Permian. What to do with all that water has become a problem, particularly in the Permian, with recycling gaining ground.

Argentina plans \$2 billion pipeline to transport shale gas production

(Argus; July 31) – Argentina has launched a tender for a developer to build and operate a \$2 billion natural gas pipeline to meet the demands of rising production from the Vaca Muerta shale formation. The first 354-mile stage of the new line will transport a minimum of 530 million cubic feet of gas per day from Tratayen in Neuquen province to Salliquelo in Buenos Aires province and is expected to cost about \$800 million. The pipeline capacity could eventually expand to as much as 1.4 billion cubic feet per day.

The first segment is expected to be completed before the onset of the southern hemisphere winter in 2021. The second leg from Salliquelo to San Nicolas in Buenos Aires province would be completed by late 2024. The pipeline will allow Argentina to slash LNG imports through its Escobar terminal in Buenos Aires province, saving as much as \$240 million per year, according to economy ministry estimates.

Argentina had two leased, floating LNG import terminals until October, when it released one, while the country's increasing gas output has allowed it to start small-scale LNG exports. The new pipeline is designed to overcome midstream bottlenecks that have hampered development of Vaca Muerta. Some producers, including state-controlled

YPF, have been forced shut in some production because of the logistical constraints. Argentina's gas output is up 5 percent in the first six months of 2019 to 4.7 bcf per day.

Mexican utility needs more LNG as new pipeline is delayed

(S&P Global Platts; July 31) - A recent LNG supply tender announced by Mexico's state-owned electric utility CFE is signaling further delay ahead for the 497-mile Sur de Texas-Tuxpan subsea pipeline, potentially into September. The tender, announced July 26, calls for four cargoes delivered to Mexico's Gulf Coast import terminal at Altamira with two-day delivery windows in the first, second, third, and fourth weeks of August.

Including volumes to be delivered next month, CFE will have imported 22 cargoes to Altamira in 2019, just four fewer than the number imported through August last year, S&P Global Platts Analytics data shows. The start-up of deliveries through the \$2.5 billion Sur de Texas-Tuxpan pipeline this year was expected to nearly halve the LNG supply requirement at Mexico's Gulf Coast import terminal. The pipeline will have the capacity to deliver 2.6 billion cubic feet per day of U.S. gas from a connection point in Texas.

The LNG tender comes as arbitration between the utility and pipeline developers delay the line's in-service date. On June 24, just two weeks after the line reached mechanical completion, the utility sent a request for arbitration over capacity payments made on the line to Marina del Golfo, the joint venture owned by pipeline developers TC Energy (formerly TransCanada) and IEnova (a Sempra Energy company). At issue is the developers' right to charge the utility for capacity on the pipeline before it starts service.

Indonesia says new production will help it avoid importing LNG

(S&P Global Platts; Aug. 1) - Indonesia will no longer need to import LNG by 2025 to meet a shortfall in domestic natural gas production as previously expected, as the country looks to bring new gas projects on stream by 2024, the energy minister told reporters July 31. The upbeat projections are based on a revised gas production outlook and a revamped plan to attract upstream investment that have led to major discoveries and project approvals in recent months.

If successful, the bevy of new projects will mean that Indonesia, which has one of the world's largest untapped gas reserves, will maintain its position as an LNG exporter and simultaneously meet growing domestic gas demand. "Indonesia will never need to import gas," Energy and Mines Minister Ignasius Jonan told reporters on the sidelines of the Gas Indonesia conference in Jakarta. Indonesia last year exported more than 15 million tonnes of LNG, placing it seventh among global suppliers.

The government previously issued a study on supply-demand that estimated a need for imports from 2025 as fields deplete and no new ones were being commercialized. Since then, Jonan said, new discoveries have been made including Repsol's Sakakemang gas field that may contain as much as 2 trillion cubic feet of reserves. Chevron and Japan's largest oil and gas explorer Inpex also are among the companies expanding Indonesian production. The country may still face a long-term deficit of up to 2 billion cubic feet a day by 2035, as demand from electricity and petrochemical sectors grows.

Vietnam short of electricity as new power plants are delayed

(Reuters; July 31) - Vietnam will contend with severe power shortages by 2021 as electricity demand outpaces construction of new power plants in the country, the Ministry of Industry and Trade told Reuters on July 31. The lack of energy infrastructure could put the brakes on foreign investment in one of Asia's fastest-growing economies and challenge Vietnam's position as the top beneficiary of the U.S.-China trade war.

Vietnam's demand for electricity will exceed its supply by 6.6 billion kilowatt hours (kWh) in 2021, increasing to 15 billion kWh by 2023, equivalent to about 5 percent of forecasted demand for electricity, the ministry said. In addition to the shortfall, many energy projects have been facing long delays. Vietnam will need an average of \$6.7 billion a year to expand its annual power generation capacity by 10 percent between 2016 and 2030, the statement said. "This is a big challenge, given that current electricity prices in Vietnam are barely enough for the developers to make a profit."

Last month, state media said 47 of Vietnam's 62 electric generation projects of 200 megawatts or more faced delays, with some at least two years behind schedule. Vietnam is increasingly reliant on coal, which makes up 38.1 percent of the country's generating capacity. It will also have to import liquefied natural gas for its power plants, the ministry said. The power shortage is expected to subside gradually after 2025 when several new gas-fired power plants go online.

Global oil supply growth could exceed demand, holding down prices

(Wall Street Journal; Aug. 1) - Growth in oil supply is forecast to accelerate next year in a global wave of production, keeping crude prices mired in a bear market and possibly lowering fuel prices for consumers. The U.S. is expected to continue driving much of the surge in output, while increases by smaller producers such as Brazil and Norway also will contribute to excess supply, investors say. Citigroup and JPMorgan Chase analysts project supply will grow roughly one million barrels a day more than demand in 2020.

Plentiful supply, however, has been a boost for U.S. consumers, who are on average paying less for gasoline this summer than a year ago. Many investors expect the surge in U.S. shale production to continue as new oil pipelines from the prolific Permian Basin of Texas and New Mexico ease transportation bottlenecks in the region. The global oversupply is also the latest threat to OPEC and other producers, many of which are curbing their own output to try to balance the market and support higher prices.

Analysts said new barrels from ancillary producers threatens to make the expected global surplus bigger, particularly as concern about a slowing world economy triggers fears about crumbling demand. Analysts estimate output from offshore projects in Brazil, a Norwegian North Sea oil field and easing production curtailments in Canada could produce several hundred thousand barrels a day of crude next year. Though relatively small, growth from those projects increases the odds that output will exceed demand. U.S. crude fell 7 percent and closed around \$54 a barrel on Aug. 1, hurt by a strong dollar that makes commodities priced in the currency more expensive for overseas buyers, strong crude supplies and renewed fears of U.S.-China tariffs.

Canadian oil producers buy ads to start pressure for fall election

(Reuters; Aug. 1) - Three Canadian oil producers are buying newspaper ads ahead of the autumn federal election to turn up the pressure on politicians to support the struggling industry. Opposition from environmental and indigenous groups have stalled new pipeline projects in Canada and the United States that are needed to move Canadian crude to refineries. Congested pipelines have forced the main oil-producing province of Alberta to curtail production this year to help prop up prices.

Senior executives of Canadian Natural Resources, the country's biggest oil and gas producer, Cenovus Energy and MEG Energy signed a letter to Canadians that urges them to consider the 30 percent reduction in emission intensity achieved in the oil sands during the past 20 years. The letter appeared in Canadian newspapers Aug. 1. "We are asking you to join us in urging Canada's leaders of all political stripes to help our country thrive by supporting an innovative energy industry," the advertisement said.

"We are a part of the (climate change) solution," MEG Chief Executive Derek Evans said in an interview. "This is prime barbecue and picnic time for politicians," the ad said, encouraging Canadians "to get out there and talk about the role Canada could play in solving the global greenhouse emissions issue." The ad does not identify any specific actions the industry wants. Alberta's oil sands have been a focal point of environmental opposition to fossil fuels, alleging they take an especially large toll on the environment. The industry counters that Canadian oil production is cleaner than in other countries.

Missing archaeological assessments stop work on B.C. gas pipeline

(The Canadian Press; Aug. 2) - The company building a 416-mile natural gas pipeline from northeastern British Columbia to an LNG terminal under construction in Kitimat, B.C., said clearing along a section of the route has been suspended because some work began before required assessments were in place. Coastal GasLink said in a statement that an internal audit determined archaeological impact assessments were not done before construction began at two points along the route east of Kitimat.

The assessments are conditions for the B.C. Oil and Gas Commission permit and the provincial environmental assessment certificate that allows construction of the pipeline that will transport gas to the Shell-led LNG Canada plant in Kitimat. The company said it has suspended all clearing activity along a portion of the pipeline until an internal review is complete and measures are in place to ensure similar incidents can't happen again.

The sections of land that had not been assessed total less than a mile. Coastal GasLink said both sections bordered areas that had been assessed and were found to have a low likelihood of archeological significance. The company has apologized to local Indigenous communities and requested their participation in a proposed post-impact assessment. The pipeline is estimated at C\$6.2 billion.