Oil and Gas News Briefs Compiled by Larry Persily March 5, 2020

U.S. natural gas futures fall to \$1.68; lowest in 4 years

(Wall Street Journal; March 2) - Fears that the new coronavirus might slow the global economy have sent already-depressed U.S. natural gas prices tumbling to their lowest level in years. The virus marks the latest force of nature to slam U.S. gas producers, who were already contending with abnormally mild winter weather across the Northern Hemisphere. And it shows how tightly linked to overseas economic activity the U.S. gas market has become after functioning in isolation for decades.

Natural gas futures for April delivery closed 3.9% lower on Feb. 28 at \$1.68 per million Btu, the lowest price since March 2016. Back in 2016, just the U.S. gas market was flooded as U.S. producers didn't have the rest of the world to take the gas spewing from their shale wells. The big ramp-up in U.S. liquefied natural gas exports was just beginning. Now, thanks largely to several U.S. LNG export terminals, the global market is glutted, too. The fuel, which is used to heat homes, generate electricity and make chemicals, is fetching historically low prices from the Netherlands to China.

That's good news for consumers, who will save on heating and electricity, as well as manufacturers that use gas to fuel factories. But the global collapse in prices risks a crucial outlet for U.S. producers in search of better prices. Analysts generally expect global LNG demand will grow and lift U.S. prices from their low levels, but probably not this year. Meanwhile, some U.S. LNG developers are having trouble signing up long-term customers, which are necessary before construction financing can be obtained.

Pakistan weighs high-cost term LNG deals versus low spot prices

(S&P Global Platts; March 3) - The sharp fall in spot-market LNG prices to record lows is forcing Pakistan to weigh options whether to cancel or renegotiate long-term deals, with policymakers and industry officials saying that entirely backing out of contracts may provide short-term gains but bring pain in the longer term. Although oil-linked gas supply deals in a low-priced environment are forcing Pakistan to pay more than what it would pay for the same Btu in the spot market, the country's fast-growing LNG demand means Pakistan has to work to strengthen relations with suppliers, not weaken them.

"Although penalties would be quite steep for terminating these contracts, Pakistan might actually end up saving money. There are obviously other costs to consider with these types of decisions, along with considerations around security of supply," said Jeff Moore, manager for Asian LNG Analytics at S&P Global Platts. Current record-low

spot-market prices for LNG delivered to Asia are about \$3 per million Btu, less than half what Pakistan importers are paying for cargoes under traditional oil-price-linked contracts.

"If Pakistan ends the contracts and then goes and knocks on the doors of supplying countries or global companies, they would not honor our deals," said Chiyas Paracha, chairman of All Pakistan CNG Association. Pakistan State Oil Co. has a contract with Qatar Gas for 3.75 million tonnes per year of LNG through 2030, and Pakistan LNG has term deals with Indonesia, Gunvor and Eni totaling 3 million tonnes per year. Its oil-linked contracts with Gunvor and Eni at a weighted average of 11.62% of a barrel of Brent crude and 12.046% of Brent, respectively, are much higher than spot LNG prices.

Oil-indexed LNG prices another disruptor in global market

(S&P Global Platts commentary; March 3) - The spread of the coronavirus has revived fears of a major global economic and energy-demand slowdown and raised concerns over its consequences for the global LNG trade. But it's not the only disruptor for the liquefied natural gas industry. Traditional oil-price-indexed LNG supply contracts are becoming a growing concern for the industry as the spread with spot prices widens.

Oil indexation creates a disparity between expected delivered prices when the contracts are originally signed and LNG market-based pricing when deliveries begin years later. This disparity has widened as growing U.S. LNG supplies, weak demand growth particularly in Asia and, more recently, coronavirus-induced disruptions have pushed LNG spot prices lower. The S&P Global Platts Japan Korea Marker, the benchmark for LNG deliveries into northeast Asia, remains at historic lows of under \$3 per million Btu.

Meanwhile, Chinese importers have been paying nearly \$9 for their contract cargoes — more than \$30 million for a standard-size carrier load — according to Chinese customs data. That is triple the amount they would have paid for a spot cargo ordered at the end of February for April delivery. While the temporary demand shock from the virus has put a spotlight on the inherent risk of pricing long-term LNG against a different commodity (oil), the disruptive force of oil indexation can only increase in the long run, as the correlation between Brent crude and LNG prices dilutes further.

Goldman Sachs forecasts global oil demand will decline in 2020

(Bloomberg; March 3) - Goldman Sachs became the first major Wall Street bank to anticipate that global oil demand will contract in 2020 for only the fourth time in nearly 40 years. The dire forecast came just as influential oil-market consultants, Facts Global Energy and IHS Markit, also published similar warnings, creating an ominous backdrop for the meeting of OPEC and its allies in Vienna this week. OPEC+ faces a steep challenge: How to get countries to agree on a deep enough production cut to keep the market from sinking into a glut, while the outlook for demand grows dimmer by the day as the coronavirus spreads. Goldman sees global oil demand falling 150,000 barrels a day, while FGE expects consumption shrinking by 220,000 barrels a day. The spread of the coronavirus worldwide is threatening economic growth — and fuel demand — as companies ban travel and supply chains are disrupted.

Global oil demand will fall by 3.8 million barrels a day in the first quarter from a year earlier, which would be the biggest decline in history, IHS Markit said. Even if there's a second-half recovery, it appears that full-year consumption will be less than in 2019, the consultancy said. OPEC+'s Joint Technical Committee suggested March 3 an additional reduction in supply of between 600,000 and 1 million barrels a day during the second quarter, delegates said. That's potentially a larger cut than it recommended last month.

U.S. set another record in 2019 at 12.33 million barrels per day

(Houston Chronicle; March 2) - Annual oil production in the U.S. broke another record in 2019, surpassing 12 million barrels per day for the first time. The annual growth rate shrank from the 17% it achieved in 2018, but production still reached 12.23 million barrels per day, up more than 10% over the 10.99 barrels per day produced in 2018, the U.S. Energy Information Administration said March 2. November set a monthly record with an average 12.86 million barrels per day, the EIA said.

The nation's oil output has risen steadily during the past 10 years, driven in large part by hydraulic fracturing and horizontal drilling in areas such as the Permian Basin of West Texas and eastern New Mexico. Texas produces the most oil of any state. Last year Texas accounted for more than 40% of the national total at an average of 5.07 million barrels per day and set a record in December with 5.35 million barrels per day. New Mexico's annual output set a third-straight yearly record at 1.1 million barrels per day.

U.S. Gulf of Mexico wells produced 1.88 million barrels per day, making it the secondlargest producer in the country, behind Texas. The EIA predicts the nation's oil production will rise to an average of 13.2 million barrels per day in 2020 and to 13.6 million in 2021, with most of the production growth coming out of the Permian Basin.

Falling oil prices make it harder for producers to finance debt

(Reuters; March 3) - Weak oil demand, exacerbated by the coronavirus outbreak, is threatening to force a new round of cost cutting at U.S. shale companies needing to refinance debt or raise cash from oil and gas reserves. U.S. producers continue to increase output, with total production this year forecast to rise 9% to an average of

around 13 million barrels per day. But those gains are colliding with global demand growth, which analysts at Goldman Sachs last week revised downward.

Oversupply and falling prices have left investors unwilling to put more into the heavily indebted sector as refinancing needs grow. North American oil and gas producers have an estimated \$86 billion of rated debt maturing in the next four years, according to Moody's Investors Service, money that will have to be paid off or rolled into new loans.

A 20% drop in U.S. oil prices so far this year will make it harder for companies to borrow against the value of their oil and gas reserves as banks reset their borrowing bases in coming months, said Buddy Clark, a partner at law firm Haynes and Boone, which tracks oil and gas bankruptcies. "It's not good timing for the producers" to be looking for new financing, Clark said.

Colorado pumped record 514,000 barrels a day in 2019

(Bloomberg; March 1) - Colorado explorers pumped the most crude on record last year, enjoying the bounty of shale oil even after the state tightened restrictions on oil and gas drilling. The boost came despite a steep decline in drilling applications following an overhaul of the state's energy laws last March. The new rules strengthened environmental standards around fracking and gave local communities more control over regulation, a move that essentially rendered some acreage off-limits for development.

Drilling applications declined by more than a third in 2019, while permit approvals fell by half, according to data from the Colorado Oil & Gas Conservation Commission. Still production rose, reaching an average 514,000 barrels a day, a record, the U.S. Energy Information Administration reported. That's up more than 10% from 2018 and almost three times the 2013 production tally. It still may be too early to feel the full effects of the new regulations, as some explorers built up a substantial backlog of drilling permits prior to the rule change, giving themselves room to keep pumping in the near-term.

U.S. LNG hopeful cuts spending, seeks to extend due date on loan

(Reuters; March 2) – Tellurian, one of several developers looking to build liquefied natural gas export terminals on the U.S. Gulf Coast, said March 2 that it planned to cut spending and was seeking to extend the maturity date of a loan, as it looks to cope with weak demand and low prices for the fuel. A collapse in gas prices globally over the past few months amid an oversupply has caused several firms developing LNG export terminals in North America to delay final investment decisions and watch spending.

"Given current global financial market conditions and increasing restrictions on travel caused by the onset of coronavirus, we are taking the steps necessary," Tellurian Chief

Executive Officer Meg Gentle said. The company said it was looking to reduce its corporate overhead to about \$6 million per month and had started talks with its lender to extend the maturity of a loan due May 2020.

Tellurian is working to develop its Driftwood LNG project in Louisiana, but still needs customers and financing. "We are highly confident that when travel restrictions are eased, we will be able to finalize several negotiations to complement the Petronet agreement and allow us to reach final investment decision," Gentle said. India's Petronet LNG is one of Tellurian's largest potential customers, but there were reports last week that Petronet had solicited other offers to test the global supply market.

Uncertainty over U.S. LNG export terminal shut-ins, analysts say

(Natural Gas Intelligence; Feb. 28) - U.S. liquefied natural gas export terminals are unlikely to shut in significant amounts of the super-chilled fuel this year, but it's not a possibility that can be easily ruled out or even defined as the market confronts historically low prices worldwide and a global oversupply. "It is funny to hear people state that there will or will not be shut-ins with such confidence," said long-time LNG trader Brad Hitch, a former Cheniere Energy executive.

"The LNG market has not been lifting cargoes from U.S. producers for that many years and it has very little experience observing how that production can be absorbed by an oversupplied market," Hitch said. The first U.S. Gulf Coast exports left the dock in 2016. Ship broker Poten & Partners' Jason Feer, head of business intelligence, said any estimates on U.S. LNG curtailments would be a guess at best. "Everyone has a book, and you don't know what their book looks like and how that cargo fits into that book."

If market prices continue falling, U.S. terminals could be the first to shut in as the feed gas used from the wholesale market has higher marginal costs than stranded gas used by some overseas LNG projects that pull associated gas from oil production, Hitch said. But what exactly defines a shut-in, how long they could last and the impact on U.S. gas prices remains unclear. Besides, U.S. facilities are underpinned by long-term, take-or-pay contracts that are likely to mitigate any significant shut-ins, with offtake customers required to pay a fixed fee regardless if they take delivery of any LNG.

FERC caught in battle between LNG developer and state of Oregon

(S&P Global Platts; March 2) - After federal regulators hit pause on the Jordan Cove LNG export terminal and its gas pipeline, debate has ensued over whether the Federal Energy Regulatory Commission can act right away in light of a recent state of Oregon objection. If approved, financed and built, the project could provide the first U.S. West Coast LNG exports, adding an outlet for western Rockies and Canadian production.

The Coos Bay, Oregon, project was left in limbo Feb. 20 when FERC voted to put off a decision. More time was needed, commissioners said, to allow review of Oregon's determination that the project is inconsistent with the state's Coastal Management Program pursuant to the Coastal Zone Management Act. Oregon contends that neither FERC nor the Army Corps of Engineers can approve the project unless the U.S. Secretary of Commerce overrides the state's decision.

Jordan Cove has argued that there is no legal reason the Oregon objection should affect FERC authorization. The developer said none of the state's determinations affect issues FERC must consider in evaluating the project, though opponents of the \$10 billion development disagree with that interpretation. Amid the regulatory challenges, Calgary-based Pembina Pipeline said Feb. 28 it is sticking with Jordan Cove.

Christi Tezak, of ClearView Energy Partners, said FERC in the past has issued certificates conditioned on receiving permits before starting construction, and those have been upheld on judicial review. "We have long expected that Jordan Cove could get a certificate but fail to secure all state reviews and not get done," she said.

FortisBC looks at next expansion of Vancouver-area LNG plant

(Business in Vancouver; March 2) - FortisBC is putting the finishing touches on a \$400 million expansion of its 1970s' Tilbury Island LNG plant in the Fraser River, across from Vancouver, B.C., and is already pushing ahead with a second-phase expansion. That proposed \$3 billion expansion has just entered the B.C. Environmental Assessment Office's review process. FortisBC expects the review will take two years to complete.

It may also be subject to the federal government's new Impact Assessment Act, which a number of business and industry groups have warned could be even more onerous, costly and lengthy than the Environmental Assessment Act that it replaced. B.C. has also made changes to its provincial Environmental Assessment Act. Both federal and provincial acts have increased the role of Indigenous people in the review process.

FortisBC's Tilbury LNG plant historically was used to produce and store liquefied natural gas as a backup to meet peak demand and address pipeline outages. But FortisBC has been capitalizing on growing demand, both domestic and foreign, for LNG in trucking and marine shipping by increasing the plant's production capacity. The first phase of the expansion will boost production from 0.25 million tonnes per year to 1 million tonnes. Should the next phase go ahead, it would take capacity to 3.5 million tonnes per year.

Japan's school closures another hit to LNG demand

(Bloomberg; March 1) - With liquefied natural gas prices reeling from the triple whammy of a mild winter, rising supply and China's hobbled economy, Japan may be about to land another blow. Electricity consumption, the biggest outlet for LNG in the world's top importer of the fuel, is expected to drop after Prime Minister Shinzo Abe's shock announcement urging schools to shut for about a month from March 2 in response to the spread of the coronavirus. While most factories remain open across the country, a growing number of offices are requiring staff to work from home for a few weeks.

Although the impact on demand remains uncertain, the woes come as Japanese LNG buyers were already struggling with high inventories from a milder-than-normal winter. China and South Korea, the second- and third-biggest importers, are also grappling with the virus and brimming gas stockpiles, leaving few outlets to sell or swap cargoes.

"There will be downside risk, but it's still early," said Lucy Cullen, a Singapore-based analyst at Wood Mackenzie. "Power demand comprises nearly two-thirds of Japan's LNG demand. For there to be a big impact on LNG in Japan, this will need to be a fall in electricity demand and in turn lower requirements for gas-fired power generation." The Japan/Korea Marker, the spot Asian LNG benchmark published by S&P Global Platts, has dropped by about 50% in the past year and last month sank to a record low. It was reported at \$3.125 per million Btu on Feb. 28.

Yukon Territory utility signs 4-year supply deal for LNG

(March 2 press release) - Ferus Natural Gas Fuels and Yukon Energy Corp. have entered into a four-year contract for supply and delivery of liquefied natural gas for power generation in Whitehorse, Yukon Territory. The utility burns LNG to generate electricity to supplement its hydro power, especially in the winter. Ferus has partnered with Chieftain Energy as its first-call LNG transport carrier. Chieftain is a Whitehorsebased, majority First Nation-owned energy, transportation, and logistics company.

The LNG trucked to Yukon Energy will come from plants in two locations: Elmworth, Alberta, and the other near Dawson Creek, British Columbia. Ferus owns and operates the Elmworth plant and has partnered with KATE Energy Holdings to secure LNG from the Dawson Creek plant. The Elmworth plant is being expanded from 50,000 gallons per day of LNG to 150,000 gallons per day "to support a growing domestic market," Ferus said. Construction is scheduled for completion in the fourth-quarter 2020.

"Utilizing LNG provides lower cost, reliable power back-up when water levels are low and reduces our dependence on diesel, which affords immediate and significant environmental benefits," said Andrew Hall, CEO of Yukon Energy. "As an isolated electrical grid, we only have ourselves to rely on to generate the power Yukoners need. Securing a four-year contract for LNG provides us with reassurance knowing that a dependable source of fuel is readily available to generate power when we need it."

Coronavirus forces cancellation of annual CERAWeek in Houston

(Reuters; March 1) - Coronavirus concerns prompted organizers on March 1 to cancel one of the world's most prestigious gatherings of oil ministers and top executives from the energy and financial industries scheduled for this month in Houston. The CERAWeek energy conference is the latest event to be scrapped due to the disease, which triggered the biggest weekly stock market rout since 2008 last week.

In its decision to cancel CERAWeek, consultancy IHS Markit noted that border health checks are becoming more restrictive and companies have begun barring non-essential travel to protect workers. In addition, several countries have sidelined events likely to draw large crowds. IHS Markit separately canceled two other international conferences scheduled this month in New Orleans and Long Beach, California.

CERAWeek, first held in 1981, has in the past drawn thousands to Houston for its energy panels and technology forums. Some 5,500 delegates from 85 countries took part last year at the week-long event. The loss of this year's event will remove one chance for oil and gas executives "to discuss how to deal with declining demand caused by the virus epidemic" as it bears down on the industry, said Francisco Monad, a fellow in Latin American energy policy at Rice University's Baker Institute for Public Policy.

Debate over Guyana's oil production-sharing deal spills into election

(Wall Street Journal; Feb. 28) - To mark the first flow of the world's biggest oil discovery in years, Guyana President David Granger declared a new holiday, National Petroleum Day, on Dec. 20. In a video address to his countrymen, Granger said oil would soon transform this poor South American country, and he would put the proceeds to work through a sovereign-wealth fund that prioritizes education and infrastructure investment. "The good life for everyone beckons," the former army brigadier general said.

Yet as Guyana heads into an election March 2, the almost surreal reversal of fortune is turning out to be a source of strife for this jungle-covered former British colony. Many here worry that the country is wildly unprepared to be a petrostate. An oil-sharing deal with ExxonMobil is estimated to shower Guyana with nearly \$170 billion in revenue in coming decades, a giant windfall for a country of 780,000 people with an annual budget of about \$1.4 billion and the lowest per capita income in South America after Bolivia.

But it's also kicked off a debate over the value of the contract and how it was handled. The renegotiated production-sharing agreement was signed in 2016 by Guyana's natural resources minister — days before Exxon disclosed an increased estimate for the size of its find. Amid mounting criticism of the terms, Guyana's resources ministry recently hired a U.K. law firm to examine the circumstances leading to the 2016 deal.

The review found that Exxon pressured officials into signing the deal in a short time frame, "presumably because knowledge of a 'world-class' discovery could have altered the government's negotiating position," according to a copy of the Jan. 30 report seen by the Journal. Exxon declined to discuss the report, defending the deal as fair for a first-time producer such as Guyana. "It offers globally competitive terms," a spokesman said. "It was done at a time where there was significant technical and financial risk."

Unanswered questions remain from oil train derailments in Canada

(CBC Canada; March 1) - It's been nearly three months since the first of two Canadian Pacific oil trains derailed and spilled 6,300 barrels of diluted bitumen near the hamlet of Guernsey, Saskatchewan. After the second crash, on Feb. 6, Transport Canada ordered all large trains hauling dangerous goods across the country to slow down. The department also announced it would work with railway companies to develop new safety measures focused on infrastructure maintenance and winter operations.

But questions remain about those measures, as well as inspections of the Guernsey track prior to the recent derailments. What were the "non-compliances" found on the CP track? Transport Canada still won't say. The track was inspected three times in the past year. During the first two inspections, "minor non-compliances" were found on the track. Transport Canada referred the question to CP Rail, which didn't answer the question.

Bruce Campbell, the author of a book on the 2013 Lac-Megantic rail disaster in Quebec, which killed 47 people, wonders why there are not new regulations limiting the weight and volume of oil trains. "The Lac-Megantic train had 72 cars. Those that are derailing now have over 100 cars," Campbell said. On Feb. 18 — 12 days after the second Guernsey derailment — a Canadian National train jumped the tracks near Emo, Ontario, spilling an unspecified amount of crude from five tank cars. The Transportation Safety Board is investigating the Ontario crash, too.

South Korea will temporarily close coal-fired power plants

(S&P Global Platts; March 2) - South Korea will temporarily close up to 28 coal-fired power plants in March, or nearly half of its 60 coal-fired power plants, to help reduce air pollution, a move that could potentially boost demand for liquefied natural gas, the energy ministry and officials said March. 2. The Ministry of Trade, Industry and Energy

said in a statement that 21 to 28 coal-fired power plants would be closed from March 1 to March 31 in an effort to reduce emissions of fine dust.

While the exact scope of the coal-fired power plants' shutdown would be determined on the basis of electricity demand during the period, the country would be ready to raise the operating ratio of natural gas-fired power plants to avoid any supply disruptions, a ministry official said. "The government will try to keep as many coal power plants idle as possible on the condition of stable electricity supply," the official said.

The country shut 8 to 15 coal-fired plants over the peak winter season for three months from December 2019 to February. It was the first time that South Korea suspended operations of coal plants in the winter, when power demand normally gets a boost.

NTSB among those questioning LNG-by-rail rule change

(Washington Post; March 3) - The Trump administration is moving to allow railroads nationwide to ship liquefied natural gas as part of a push to increase energy exports — a transport that has been banned until now. A proposed Transportation Department rule allowing LNG shipments by rail and imposing no additional safety regulations has drawn widespread criticism from local elected officials, attorneys general from 15 states and the District of Columbia, firefighters' organizations, unions that represent railroad employees, environmentalists and the National Transportation Safety Board.

Small amounts of LNG have been transported by rail on a trial basis, but if the new rule is adopted trains of 100 or more tank cars, each with a capacity of 30,000 gallons, could start moving LNG, primarily from shale fields to saltwater ports for loading aboard ships for export. The trains would travel through different jurisdictions, some that rely on volunteer firefighters as first responders, while others are major population centers.

Energy companies and railroads have been pushing to lift the ban at a time when a domestic gas glut has depressed U.S. prices. Last April Trump told the Transportation Department to devise the rule and imposed a quick 13-month deadline. Critics say that leaves nowhere near enough time to assess the dangers and design safeguards. "The risks of catastrophic LNG releases in accidents is too great not to have operational controls in place before large blocks of tank cars and unit trains proliferate," the NTSB, an independent federal agency, said in its official comment on the proposed rule.