Oil and Gas News Briefs Compiled by Larry Persily January 7, 2019

Developer selects Kiewit to build Louisiana LNG project

(Kallanish Energy; Jan. 4) - Virginia-based Venture Global LNG has awarded the engineering, procurement, and construction contract for its proposed liquefied natural gas export project to Omaha, Nebraska-based Kiewit. The contract is for the Calcasieu Pass facility in Cameron Parish in southwestern Louisiana. Construction is expected to begin early 2019 pending final federal approval and a final investment decision. Kiewit built Dominion's Cove Point LNG plant in Lusby, Md., which went into service last year.

The \$8.5 billion Louisiana project is awaiting authorization from the Federal Energy Regulatory Commission, expected by Jan. 22. "Finalizing this contract, which meets our budget, schedule, and finance requirements, is one of the most important milestones to date for our company and the culmination of our plans," said Venture Global co-CEO Mike Sabel. Global energy consultancy Wood Mackenzie has listed the Calcasieu project as one of three U.S. LNG developments most likely to go ahead this year.

The facility, designed at 10 million tonnes of LNG per year, could be in service in 2022. Venture Global has signed binding 20-year offtake agreements with Shell, BP, Italy's Edison, Portugal's Galp, Spain's Repsol, and Poland's PGNiG. Venture Global has secured a \$220 million bridge loan from Morgan Stanley Senior Funding and associated lenders. The company also has raised \$635 million of equity capital. The Morgan Stanley money will enable the company to finish engineering and start site work.

This year's decisions could add 60 million tonnes LNG capacity

(Reuters; Jan. 3) - A record amount of new liquefied natural gas production capacity is expected to get the green light in 2019 amid strong global demand, especially from China, analysts said. Final investment decisions could be taken on more than 60 million tonnes of annual LNG capacity this year, well above the previous record of 45 million tonnes in 2005 and triple last year's 21 million tonnes, said Giles Farrer, Wood Mackenzie's research director for global gas and LNG.

"If you have seen the potential demand for LNG, you have seen costs where they are now ... that is motivating companies to push projects forward and motivating buyers to come forward to support some of these projects," Farrer said. Frontrunners for investment decisions this year include the \$25.5 billion Arctic LNG-2 project led by

Russia's Novatek, at least one project in Mozambique and three on the U.S. Gulf Coast, Wood Mackenzie said in a report to its clients.

"Now is a good time to invest. If you look at industry costs, they have really come off a cliff from two to three years ago. So, if you're investing now, you're investing in the bottom of the cost cycle," Farrer said. Other projects awaiting FID include a seventh liquefaction train at Nigeria LNG, and a three-train expansion in Papua New Guinea, though some projects are widely expected to be pushed into the 2020s.

Lack of pipelines, 1920 U.S. law leave little choice but to import LNG

(Bloomberg; Jan. 3) - More than a decade in and the U.S. shale boom keeps breaking output records with fields from Pennsylvania to Texas producing more natural gas than the country needs. That has triggered billions of dollars of investments to ship liquefied natural gas overseas. Yet the U.S. is still importing LNG from places such as Russia and Nigeria. There are two reasons for that: pipeline bottlenecks to the Northeast and requirements of a 1920 federal law meant to support a robust U.S. maritime industry.

The domestic gas shortages are occurring mostly in the Northeast. The region received most of the 200 million cubic feet of gas per day as LNG that the U.S. imported in the first 10 months of 2018. In January 2018, frigid weather sent New York City spot gas prices to a whopping \$175 per million Btu, compared with less than \$3 elsewhere in the country, as gas distributors engaged in bidding wars for pipeline space. But community opposition has made it difficult for developers to build new pipelines into the region.

And although a lot of LNG is produced on the Gulf Coast, and even at a plant nearby in Maryland, the Jones Act of 1920 mandates that vessels moving between U.S. ports be built and registered in the country and crewed by Americans. There are currently no U.S.-flagged LNG carriers. The last one was built in the 1970s. The most active LNG import terminal is in Boston harbor. It received about 24 cargoes in 2018 with all but one coming from Trinidad and Tobago. The other cargo was Russian LNG. Dominion Energy's Cove Point, Maryland, terminal took in a Nigerian LNG cargo in December.

U.S. energy officials will join trade talks this week in China

(S&P Global Platts; Jan. 4) - Trade talks resuming Jan. 7 between the United States and China could signal whether crude oil and liquefied natural gas flows will pick up between the two countries this year or stay mired in the trade dispute. The U.S. Trade Representative's office announced Jan. 4 that top energy and agriculture officials would be part of the U.S. delegation attending meetings in Beijing on Jan.7 and 8.

U.S. crude exports to China disappeared in August with none reported through October, according to the latest U.S. Energy Information Administration data. Before exports dried up, the U.S. sent an average of 377,600 barrels per day to China in the first seven months of 2018, according to EIA data. The all-time highest monthly average was June's 510,000 barrels per day. U.S. LNG cargoes to China stopped in September, according to EIA data, but returned in October at lower levels than earlier in the year.

China hit U.S. LNG with a 10 percent tariff in September and has threatened to increase it to 25 percent in retaliation for Trump administration tariffs on \$200 billion in Chinese goods. Kevin Book, managing director of ClearView Energy Partners, does not expect any major breakthroughs in next week's talks. But, he said, a resumption of oil and LNG flows will be one way to gauge whether the negotiations are making progress. "If there's to be trade progress with China, the hydrocarbons should be the easy part," Book said.

Arctic ice-class LNG carriers give Russia an advantage

(Petroleum Economist; Jan. 4) - A steadily growing fleet of liquefied natural gas carriers designed to combat the ice floes of the Northern Sea Route is giving Russia's Arctic Yamal LNG plant a long-term competitive advantage, as the vessels deliver gas into Asia and Western Europe in conditions that were until recently considered too hostile. As two notable events showed in late November 2018, the vessels have opened up the gas-hungry markets of the Asia-Pacific region just as the Yamal plant's third liquefaction train is being commissioned and working up to full capacity through 2019.

The ice-class carriers also underpin President Vladimir Putin's determination to deploy the nation's oil and gas reserves as part of Russia's global diplomacy, especially in a growing rapprochement with China. Last summer the 980-foot-long Arc7 ice-class LNG carrier, Novatek's Rudolf Samoyvich, delivered the first shipment from Yamal to China National Offshore Oil Corp. after sailing the northern route without icebreaker escort. It was a breakthrough in LNG deliveries — the first of its kind in an easterly direction in these waters. The delivery showed the Yamal plant can compete in the Asia-Pacific.

The Arc7 design was considered so fundamental to Yamal's operational success that LNG production was delayed until the vessels could be delivered. More Arc7 LNG carriers will be launched in 2019. In the longer term, the ability to use the Northern Sea Route will be vital to the extraction of the Arctic Circle's gas reserves accounting, according to some estimates, for about 30 percent of the world's undiscovered fields.

Europe waits to see how Russia responds to competition from LNG

(Bloomberg; Jan. 2) – European natural gas prices look set to fall for the first time in four years in 2019 as buyers keep a close eye on gas flows from Russia that reached a record last year. Factors include an expected increase in liquefied natural gas imports, which would help offset declining domestic production in the region, while Russia intends to maintain its grip on about 40 percent of the European market.

Kremlin-backed Gazprom delivered a record 7.1 trillion cubic feet of gas to Europe in 2018 and plans to maintain those volumes into 2020. But there is a question whether Russia will be able to follow through on that ambition later in 2019 when a flood of LNG is set to enter Europe. LNG imports are expected to climb by 14 percent to almost 2 tcf of gas, according to Morgan Stanley. Russia could respond by focusing on price to maintain its market share, or it could decide to protect prices rather than market share.

Europe is an easy destination for spare LNG cargoes thanks to its numerous terminals, liquid trading hubs and a sophisticated transportation network — amid growing supplies of the fuel worldwide. In addition, more flexible contracts are allowing cargoes to go to the highest-priced destinations, which is turning trading into a more active business and increasing the market liquidity, said John Twomey, who leads Bloomberg New Energy Finance's European power and natural gas analysis team.

Europe buys U.S. LNG, even though it costs more than Russian gas

(Bloomberg; Jan. 5) - America's shale gas bounty is finding a home in Europe, even with cheaper supply from Russia. Two-thirds of the gas of the first two liquefaction units at Cheniere Energy's new LNG export terminal in Corpus Christi, Texas, is contracted to Europe, with Spanish buyers making up the largest chunk. The facility's first cargo went to Greece, while the second shipment is on its way to the U.K. Geopolitical tensions have pushed nations from Poland to Lithuania to seek alternatives to Russian gas.

Though U.S. supplies are more expensive, countries across Europe have inked long-term deals with American producers. Since Cheniere started exporting LNG from its Louisiana terminal in 2016, European countries have imported about 12 percent of the fuel that has departed from U.S. soil. "There will be an increase" in European imports from the U.S. this year, Jason Feer, head of business intelligence at Poten & Partners in Houston, said Jan. 3. "The question is now how much are you willing to spend."

In the short term, price, not politics, will continue to be the most significant factor for European gas imports, John Twomey, an analyst at Bloomberg New Energy Finance in London, said Jan. 4. "I don't think Europe has coordinated together on some kind of master plan regarding its collective view on energy dependence on Russia," Twomey said. "There seems to be kind of a fragmented set of opinions from countries."

B.C. gas line protestors face court order against blockade

(Vancouver Sun; Jan. 6) - Members of a northern British Columbia First Nation fear police intervention at camps they have set up blocking access to construction of a gas pipeline that would feed the LNG Canada project being built in Kitimat, B.C. Jennifer Wickham, a member of the Gidimt'en clan of the Wet'suwet'en First Nation, said Royal Canadian Mounted Police have gathered in Smithers and Houston, the closest towns to the checkpoints. A court injunction prohibits the protestors from blocking access.

"It's a pretty spiritual time for the folks that are up there right now, and they're sort of bracing themselves for what could come," Wickham said Jan. 6. TransCanada, which will own the C\$4.7 billion, 416-mile pipeline, has benefits agreements with all 20 elected First Nation bands along the route. But Wickham said the company does not have the authority to build through Wet'suwet'en territory because the house chiefs, who are hereditary chiefs rather than elected band council leaders, have not given consent.

To block the line, protestors set up a camp in the path of the line several years ago and a checkpoint on a forest service road. In December a B.C. Supreme Court judge ruled the camp occupants had to allow TransCanada access to its construction site. Three days later, a second camp and checkpoint were set up. The defendants have until Jan. 31 to file a response to the injunction. Meanwhile, the order said they are prohibited from interfering with access to any construction activities. A statement on the RCMP website said police have discussed with protestors the possibility of enforcing the order.

Decisions on new Australian LNG production could come in 2019

(Australian Financial Review; Jan. 3) - Australia's newly acquired status as the world's top LNG exporter should be cemented this year with the ramp-up of its latest two megaprojects, but experts warn it may be short-lived as aging plants on the northwest coast face a decline in output while rival ventures overseas forge ahead. Woodside, Chevron and Santos are among those targeting investment decisions this year or next to extend the life of, or expand, older LNG plants in Western Australia and the Northern Territory.

But Wood Mackenzie senior analyst Daniel Toleman said the Western Australia projects — involving the North West Shelf LNG project and Woodside's Pluto plant — are "not slam-dunks" and require sharing of pipeline and production infrastructure, never before tried in Australia, if the expansion costs are to be competitive. Meanwhile, Santos and ConocoPhillips are targeting this year for a go-ahead on their Barossa gas project in the Timor Sea amid uncertainty how that project may be affected by proposed changes to the Petroleum Resources Rent Tax, announced by the government in early November.

Credit Suisse energy analyst Saul Kavonic has told clients the go-ahead for Barossa, which would supply gas into the 2006 Darwin LNG plant, could occur before July to avoid the proposed tax changes should they pass Parliament. But Kavonic suggested

Woodside's Scarborough project, which would supply gas for an expanded 2012 Pluto plant, and the Browse project, which would supply replacement gas for 1989 North West Shelf LNG, could be delayed by a lack of alignment among joint-venture partners.

Egyptian LNG exports back up to 500 million cubic feet per day

(Reuters; Jan. 2) - Egypt is currently exporting more than 500 million cubic feet of gas per day as liquefied natural gas from its Idku export plant, a petroleum ministry official said Jan. 2. That's a substantial increase from its previous export volume of 300 million cubic feet per day, the official said. The LNG is being exported by Malaysia's Petronas, Shell, and Egypt's two main state oil and gas companies.

The Idku export terminal, owned by Shell, Petronas, and Egypt's oil and gas companies, opened in 2005 with capacity to export up to 1 billion cubic feet of gas per day. But declining domestic gas production, coupled with increasing local demand for gas, led to a halt to exports in 2015, only returning this year with higher gas production to meet local needs and allow exports to resume. Egypt wants to return to its full export capacity later this year or in 2020.

Shell joins list of majors investing in Argentina oil and gas

(Natural Gas Intelligence; Jan. 4) - Shell has joined the list of companies announcing big plans for Argentina with its decision to begin full-scale development at the Sierras Blancas, Cruz de Lorena, and Coirón Amargo Sur Oeste blocks in the Vaca Muerta deposit in Neuquén province. The first stage would include bolstering infrastructure to increase Shell's installed processing capacity in Vaca Muerta to 40,000 barrels of oil equivalent per day from 12,000. Shell is aiming to reach 70,000 barrels by 2025.

The news comes as Big Oil ramps up its Vaca Muerta activity. In December Malaysia's state-owned Petronas announced a \$2.3 billion joint-venture with Argentina's national oil company YPF in a bid to produce 60,000 barrels per day by 2022. YPF is planning a capital expenditure budget of \$4 billion to \$5 billion over the next four years with plans to operate 18 rigs and drill 1,700 shale wells in Vaca Muerta through 2023.

Others with stakes in Vaca Muerta include BP, ExxonMobil, Chevron, Equinor (formerly Statoil), Total, and Qatar Petroleum. Rystad Energy has said "several gas-rich areas in the play already compete with the best U.S. shale gas reservoirs." Argentina produced 4.66 billion cubic feet of gas per day in October, giving the country sufficient excess gas to begin exports to neighboring Chile. YPF expects Argentina to start exporting liquefied natural gas in the second-quarter 2019 through a barge-mounted liquefaction unit.

Oil price forecasts in 2019 'even more hazardous than usual'

(Bloomberg; Jan. 2) - Oil had a tumultuous 2018 with prices rising to a four-year high in October before plunging more than \$30 in the following months. Oversupply and global demand worries are high on the concern list for the industry, making volatility a buzzword this year. President Donald Trump's tweets demanding lower oil prices plus U.S. shale producers pumping out unprecedented volumes of crude threaten to undo all of OPEC and Russia's year-long work to reign in production and boost prices.

There are "major uncertainties" and forecasting trends in 2019 will be "even more hazardous than usual," said Neil Atkinson, head of oil markets at the International Energy Agency. Geopolitical uncertainty is a serious risk to the industry, said Ryan Lance, ConocoPhillips CEO. "We expect oil markets to remain volatile, in part driven by flexible North American shale production that can ramp up and down quickly in response to changes in investment levels," he said. "Among the most serious near-term risks are … factors that could reduce global economic growth and energy demand."

David Lebovitz, vice president and global market strategist at JPMorgan explained: "In a world where hopefully the U.S. has some pumping discipline and OPEC isn't as effective in curbing production as they have been, all eyes will be back on the U.S." to help curb any oversupply. IEA's Atkinson said the recent agreement led by OPEC and Russia to cut oil production will, if successful, help to rebalance an oil market that was becoming oversupplied — though that depends on output in Venezuela, Libya, and Iran.

Renewable power surpasses coal in Germany in 2018

(Bloomberg; Jan. 4) - Renewable energy muscled out coal to become Germany's biggest source of electricity for the first time last year, helped by a surge in solar panel installations and coal-plant closures. Wind, solar, hydro, and biomass produced just over 40 percent of Germany's electricity in 2018, passing coal's 39 percent share, according to the Fraunhofer Institute. An almost 20 percent boost in solar capacity, the shuttering of older coal plants and favorable weather combined to help green sources edge ahead.

The balance of electricity generation is watched closely by the government, which has seen its greenhouse emissions reductions goal for the end of the decade slip out of reach despite billions of euros in investment in renewables in recent years. Green power is poised for an even bigger share in the future as Europe's biggest economy is phasing out nuclear, as well as coal. A German commission has been set up to draft a phase-out plan for the world's biggest power-plant fuel. It will report findings next month.

New line starts moving gas to ease Australia's East Coast shortages

(S&P Global Platts; Jan. 3) - Australia's Northern Gas Pipeline linking the Northern Territory region with Eastern Australia has started commercial operations, operator Jemena said in a statement Jan. 3. The "missing link" connects for the first time the gas-producing Northern Territory to the gas-consuming eastern seaboard states, alleviating tight domestic gas markets on the East Coast and putting pipeline natural gas in direct competition with proposed liquefied natural gas imports.

Construction work on the A\$800 million (\$557 million) pipeline was completed in mid-December. It runs from Tennant Creek in the Northern Territory to Mount Isa in Queensland, the state where the Origin-ConocoPhillips Australia Pacific LNG, Santosled Gladstone LNG, and Shell's Queensland Curtis LNG export facilities are based.

Australia's East Coast is home to the country's three largest states — New South Wales, Victoria, and Queensland, as well as South Australia and Tasmania — and has been facing gas shortages in recent years. Gas shortages on Australia's East Coast — prompted in large part by the three LNG plants' export contracts — have led to five different proposals for importing LNG into the region. Those plans could be in doubt if sufficient pipeline gas can be made available from elsewhere in the country.