

Oil and Gas News Briefs

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Analysts say long-term oil supply could run short without investment

(Reuters; Dec. 15) - Inadequate investment in exploration and drilling may leave the world without enough oil in 20 to 30 years despite a shift toward renewable power, top energy analysts say. The long-term outlook contrasts with today's situation where falling oil demand due to the coronavirus crisis has left the market oversupplied, prompting the Organization of the Petroleum Exporting Countries, Russia, and allies to curb output.

Weak demand has piled pressure on producers and energy majors as they seek to pivot to low-carbon energy. It has sapped them of funds to invest in new oil assets so they can meet an expected rise in crude demand as the global economy recovers. The Paris-based International Energy Agency said it was not clear if adequate investment in oil supplies "will come in time and, if it does come, where it will come from." Sufficient long-term oil supplies "should not be taken for granted," it wrote in its annual outlook.

Norwegian consultancy Rystad Energy said in a report this month that the world would run short of oil by 2050 unless there was sharp rise in exploration. It said \$3 trillion in capital spending was needed to tap 313 billion barrels of oil from existing underdeveloped fields or from undiscovered fields. "The scope of exploration will have to expand significantly unless we see a momentous transition in the global energy mix sooner than currently expected," said Palzor Shenga, Rystad's senior upstream analyst.

Energy consultancy Wood Mackenzie said currently low oil demand, high costs of new resources and the associated risks had deterred oil companies from acting. "Only about half the supply needed to 2040 is guaranteed from fields already onstream. The rest requires new capital investment and is up for grabs," the global consultancy said.

Wall Street analysts see positive cash-flow future with oil sands

(Bloomberg; Dec. 14) - After years in the shadow of the U.S. shale boom, the Canadian oil sands are emerging from 2020's historic market crash with a slew of upbeat outlooks from Wall Street equity analysts. Morgan Stanley and Goldman Sachs are the latest firms to point out the industry's ability to generate healthy cash flow next year as a reason to buy stocks like Suncor Energy, Canadian Natural Resources, and MEG Energy. That follows similar reports from BofA Securities and BMO Capital Markets.

“With improved cost structures and increased propensity to be capital disciplined, Canadian producers are emerging from the downturn stronger, with greater ability to generate free cash flow,” Morgan Stanley analysts Benny Wong and Adam J Gray said in a note Dec. 11. Among tailwinds improving the prospects for the beleaguered heavy-crude producers of northern Alberta are declining competition from Mexico and the start of construction of three pipelines, following years of insufficient shipping capacity.

Steady output from their mines means that oil sands producers are able to keep revenue coming for decades without too much investment, while the short life span of shale wells forces U.S. explorers to constantly burn cash just to keep up production. The eight largest oil-sands producers by market value posted a combined free cash flow of \$1.4 billion for the third quarter, compared with \$163.7 million from the top eight U.S. exploration and production companies, according to data compiled by Bloomberg.

Demand for Western Canadian crude has risen after OPEC countries cut output of their heavier, higher-sulfur grades similar to those of the oil sands. Oil sands producers, however, also face potential headwinds. A growing number of banks and investors have shunned the industry because of concerns over its carbon emissions, and the pipelines under construction still face potential court delays as well as political opposition.

Murphy Oil says low taxes, lower royalties make U.S. Gulf attractive

(S&P Global Platts; Dec. 15) - Murphy Oil, which revitalized and grew its U.S. Gulf of Mexico presence in recent years, sees the region as one of the world's best despite this year's price downturn, the company's top executive said Dec. 15. Last month's federal lease sale confirmed the value of U.S. Gulf assets, Murphy CEO Roger Jenkins said, speaking at the online MKM Partners Virtual Conference. At the Nov. 18 lease sale, 23 companies offered high bids of over \$120 million at a time of industry fiscal austerity.

While the \$120 million is historically low for an offshore auction, the event came after a highly contested presidential election where the winner, Democrat Joe Biden, is widely assumed to favor restricting new well permits, Jenkins said. "If [operators] didn't feel they could continue working in the U.S. Gulf, they wouldn't have spent that money" on the 93 leases that received bids, he said.

The U.S. Gulf offers "the best terms in the world on taxes and royalties," he said. "Corporate taxes are low, royalties onshore Texas are 25% but the U.S. Gulf of Mexico is lower." Jenkins said as a preliminary figure, Murphy plans capital spending of about \$700 million in 2021, about even with this year's capex. Nearly half of that, or \$300 million, will likely be devoted to the U.S. Gulf, he said, compared to \$285 million in 2020.

Producers settle 5-year-old revenue-sharing dispute in Kazakhstan

(Bloomberg; Dec. 14) - Shell, Eni, and their partners in the Karachaganak oil and gas venture paid \$1.3 billion to settle a long-running dispute with Kazakhstan over revenue sharing. The deal unlocks plans to further boost output from the Karachaganak field and funnels additional revenue to the Kazakh economy, which is heading for its first annual contraction in more than two decades amid oil's slump. While the government is getting less cash than it demanded last year, it's a larger payment than initially agreed in 2018.

On top of the \$1.3 billion cash settlement, the partners approved the final terms of production sharing, with Kazakhstan getting as much as \$600 million through 2037 with oil at \$40 to \$50 a barrel, the country's energy ministry said Dec. 14. The Karachaganak field, one of Kazakhstan's biggest hydrocarbon deposits, is jointly operated by Shell and Eni with a 29.25% share each. The other partners are Chevron, Russia's Lukoil, and state oil company KazMunayGas National Co.

With the five-year spat settled, the partners can press ahead with a planned \$1 billion expansion project "to support the output plateau," the ministry said. Kazakhstan has a history of disputes with international investors over its energy projects. In 2012, the Karachaganak partners sold part of their stakes to the state to settle a row over taxes and costs. The most recent disagreement began in 2015 after the government demanded a greater share of revenue from the venture. It had sought as much as \$1.8 billion for claims related to cost recovery and profit distribution, according to Lukoil.

North Dakota expects two-year stall in oil production growth

(Bloomberg; Dec. 14) - North Dakota, once at the heart of the early shale boom, is now expecting oil production growth to stall over the next two years as explorers reel from a historic market crash and seek to adapt to higher environmental standards. Home to the Bakken Shale formation, the state won't see any sustained growth in production sooner than the second half of 2022, Lynn Helms, director of the state's Department of Mineral Resources, said during a webinar Dec. 14.

After the global pandemic had a devastating impact on oil demand, pushing a slew of U.S. explorers into bankruptcy, producers are also under increasing pressure to make improvements on environmental, social and governance (ESG) issues. "It was a pretty terrible year for the industry," Helms said. "Producers will be stressed from both ends — the investment end due to ESG and the market end due to the loss of demand."

Growth in demand is only expected to resume from late-2021 at the earliest, Helms said. On top of an improvement in consumption, growth in shale output depends on investments to replace wells that decline rapidly. Wall Street has shown no signs of willingness to bankroll another shale boom. Investors had grown wary of the industry's

inability to generate healthy cash flow even before this year's crash, and a growing number of institutional investors are shunning oil because of climate change concerns.

Modular LNG plant in Louisiana plans start-up in 2022

(Bloomberg; Dec. 14) - Construction on the next U.S. liquefied natural gas export terminal is ahead of schedule and off-take from a second project will be fully contracted by the middle of 2021, according to a top executive with the company developing both terminals. Venture Global LNG plans to have six of 18 liquefaction units at the Calcasieu Pass plant in Louisiana installed by mid-February, CEO Mike Sabel said. Commercial operations are expected in 2022. At full operations, the \$4.5 billion plant will have capacity to make 10 million tonnes per year of LNG.

Venture Global's modular construction has allowed Calcasieu Pass to proceed ahead of schedule despite the pandemic and a hyperactive 2020 hurricane season, Sabel said. The plant's production units are made at a Baker Hughes facility in Italy and shipped to Louisiana for installation. The modular method lowered construction costs by 40% and proved to be a "massive mitigation to construction risk" during the hurricane season, he said. The company plans to use the same approach for its Plaquemines LNG export terminal, its second in the state with a planned capacity of 20 million tonnes per year.

Off-take from the first phase of Plaquemines LNG will be fully contracted by the end of June, Sabel said. Electricite de France and Poland's PGNiG and have long-term agreements to buy a combined 40% of the Plaquemines project's first phase. Venture Global's momentum comes during what has been a difficult year for most U.S. LNG developers amid the coronavirus pandemic and a global oversupply of the fuel.

China imports more U.S. LNG, but falls far short of trade deal target

(Natural Gas Intelligence; Dec. 15) - U.S. liquefied natural gas exports to China have ramped up this year but remain far below the levels specified in a first-phase trade deal signed in January by the countries in an attempt to improve trade relations. Since U.S. LNG exports to China resumed in March after a hiatus of more than a year, the country has imported, or is scheduled to import, a combined 49 U.S. cargoes, providing about 3.5 million tonnes of LNG (168 billion cubic feet of gas), according to data firm Kpler.

That compares with two U.S. cargoes to China in 2019 with a total volume of 6.9 bcf and 26 cargoes in 2018 at about 90.5 bcf, according to the U.S. Department of Energy. U.S. exports to China have accelerated in recent months, totaling at least 24 deliveries since October, Kpler said. "There is a strong seasonality traditionally resulting in higher deliveries during [the] November-January period," market analyst Ilya Niklyayev said.

The U.S. accounts for a small slice of China's LNG imports, with producers in Qatar and Australia benefitting the most from winter buying. Despite increased U.S. LNG cargoes to China, the first-phase trade deal targets "are wildly out of reach for 2020 and never really had much chance ... at least on the energy side, because of the huge dollar amounts," said Poten & Partners' Jason Feer, global head of business intelligence.

China committed to buy \$200 billion of U.S. goods over the next two years, including \$52.4 billion of energy products including LNG, crude oil, refined products, and coal. Reuters recently calculated that in the first 10 months of 2020, China's purchases of U.S. crude, LNG, propane, butane, and other energy products totaled \$6.61 billion.

Oregon LNG developer plans just \$25 million spending in 2021

(S&P Global Platts; Dec. 14) – Calgary-based Pembina Pipeline's proposed Jordan Cove LNG export project in Oregon remains uncertain amid commercial and state regulatory challenges, the company said Dec. 14. The company said in financial guidance that it was cutting spending on projects in 2021, on top of substantial reductions in such expenses in 2020. Among other moves, it is indefinitely suspending development of a petrochemical facility project in Alberta.

The proposed liquefaction terminal in Oregon and 229-mile feed gas pipeline will require substantial long-term offtake agreements or investment partners to move forward. Pembina will spend just \$25 million in 2021 on continued development, primarily focused on securing state permits, the company said. The state has rejected several permits for the development, which the company is contesting.

To date, the company has not announced any firm long-term off-take contracts tied to the LNG project. In March, the Federal Energy Regulatory Commission conditionally approved the gas pipeline and Jordan Cove terminal at almost 8 million tonnes per year of capacity. That, however, does not necessarily mean the project will be built. Oregon has declined to sign off on key regulatory approvals.

Louisiana LNG developer tries to market net-zero emissions

(The Advocate; Baton Rouge, LA; Dec. 13) - About five years ago, a homegrown Louisiana liquefied natural gas export terminal developer projected it would be poised in 2020 to ship gas to overseas customers eager to buy cleaner fuel. That didn't happen, and the project now has a new twist. The company is trying to raise money from institutional investors and approaching global banks about chipping in \$200 million in capital for pre-engineering and design work for a revamped LNG export terminal.

Baton Rouge-based G2 LNG, which has since changed its moniker to G2 Net Zero LNG, has a new plan for its 766-acre site in Cameron Parish near the Gulf of Mexico. The company seeks to recapture or offset carbon emissions from its \$11 billion planned LNG export terminal — all the way back to the wellhead in the gas fields. That concept has attracted interest from customers in nations looking for not just cleaner fuel sources but those that have reduced carbon emissions, the developer said.

G2 Net Zero LNG looks to use technology developed by Siemens Energy and NET Power that would enable the plant to capture carbon dioxide during the liquefaction process. NET Power created a system that burns gas to generate electricity using pure oxygen. Then the CO₂ is recycled in a semi-closed system. NET Power has a pilot plant in Texas that produces 50 megawatts of electricity, with plans to build a 300-megawatt plant with the same technology by 2022. G2 Net-Zero also is exploring technology capable of reducing leaks of methane from gas pipelines and onshore wells.

[Korea export-import bank provides financing for Mozambique LNG](#)

(Korea Times; Dec. 14) - The Export-Import Bank of Korea (Eximbank) said Dec. 14 it will provide \$500 million in financial support for a major liquefied natural gas project in Mozambique. The project financing by the state-run lender is aimed at helping Korean companies participate in the construction of LNG plants in the southern African nation. Daewoo Engineering & Construction and a group of small- and medium-sized Korean firms are participating in the first project, according to Eximbank.

The total value of the Total-led Mozambique LNG project is estimated at more than \$20 billion, with initial capacity at about 13 million tonnes per year of LNG and start-up planned for 2024. "We expect the project to create 1,300 new jobs annually and promote foreign exchange earnings," a bank official said. Eximbank also said it expects two Korean shipbuilders — Hyundai Heavy Industries and Samsung Heavy Industries — to win orders for 17 LNG carriers, though negotiations are still underway.

Eximbank reaffirmed its willingness to continue its support for Korean companies in order to enhance their global competitiveness, by offering timely financial assistance. At least eight export credit agencies from across the globe are helping with the project, including Korea's Eximbank, the Export-Import Bank of the United States, Japan Bank for International Cooperation, and SACE from Italy. An ExxonMobil-led project could follow Total's Mozambique venture, pending an investment decision expected in 2021.

[U.K. plans to move away from natural gas after phasing out coal](#)

(Bloomberg; Dec. 14) - Having nearly phased out coal, the U.K. government is moving to get rid of gas as an energy source in an effort to slash climate-damaging emissions

and satisfy rising electricity demand. The government's energy white paper published Dec. 14 set out a path to draw in investment for nuclear reactors and technology that captures carbon dioxide from polluting industries. Those steps could help Prime Minister Boris Johnson achieve his goal eliminating emissions in the coming decades.

The measures would overhaul the way consumers warm their homes and industry gets thousand-degree heat for processes like oil refining and glass manufacturing. It puts the U.K. among the most ambitious nations in transitioning away from fossil fuels, boosting Johnson's authority on the environment a year before he is due to host U.N. talks on climate change — he has pledged the fastest cut in greenhouse gas emissions of any major economy. Part of that relies on existing policies to phase out the U.K.'s last coal power plant by 2025, a date the government indicated may be moved to 2024.

With coal increasingly out of the way, gas is moving into focus. The policy paper includes the promise of a consultation on how to stop using gas for heating in new homes from 2025 and to blend the nation's gas supply with 20% hydrogen by 2023 to cut emissions. That would help answer one of the trickiest questions in energy. How to supply some of the biggest and most polluting industries with thousand-degree and how to move homes predominately heated by gas boilers. About 85% of homes are connected to the gas grid and a fifth of overall emissions comes from heating buildings.

[South Korea plans big cuts to coal, large boost in renewables by 2034](#)

(The Korea Herald; Dec. 15) - Renewable energy will provide nearly 42% of South Korea's power generation capacity by 2034, according to a blueprint for the national energy mix unveiled Dec. 15. The final draft of the Ninth Basic Plan for Electricity Supply and Demand for the years 2020-2034, drawn up and released by the Ministry of Trade, Industry and Energy, reaffirms President Moon Jae-in's commitment to move away from nuclear power and toward renewables.

While the country's electricity generation capacity is projected to surge to 185.3 gigawatts by 2034 from 120.5 gigawatts this year, renewables will account for 41.9% followed by liquefied natural gas at 31.8% and coal at 15.6%. Nuclear power is projected to provide 10.4%. That represents a major change in the energy mix, which currently depends on coal. Last year coal, LNG, and nuclear power were the mainstay of electricity generation in Korea, contributing 40.4%, 25.9%, and 25.6%, respectively. Renewables comprised just 6.5% of total electricity production.

The plan will be finalized after a public hearing Dec. 24 and policy review Dec. 28. It envisions the shutdown of 30 coal-fired power plants by 2034, which will have reached their operational life of 30 years by then. To ensure a stable electricity supply, 24 of the facilities will be turned into LNG-fueled power plants. Meanwhile, the number of nuclear plants will reach its peak of 26 in 2024 and drop to 17, as the Moon administration has banned the construction of new nuclear plants and lifetime extension of existing ones.

Japan makes big plans for offshore wind power

(Reuters; Dec. 14) - Japan plans to install as much as 45 gigawatts of offshore wind power by 2040, the country's industry ministry said as the government aims to reduce emissions and meet a target to achieve carbon neutrality by 2050. The plans, if followed through on, would make Japan a global leader in offshore wind. The strategy is to create government targets for offshore wind capacity over the next two decades, which could spur more investment in the sector.

"It is important for the government to commit to the creation of an attractive domestic market and to stimulate investment from home and abroad," Industry Minister Hiroshi Kajiyama told a meeting of government officials and private companies, according to a ministry statement. The government passed legislation in 2018 to promote offshore wind development, but no major projects have been approved since then and some industry participants say the rules for investment and regulations are too complicated.

The government is now targeting 10 GW of offshore wind capacity by 2030 and between 35 GW and 45 GW by 2040, the ministry said. It expects the cost of electricity from offshore wind at between 8 and 9 yen (7.7 to 8.7 U.S. cents) per kilowatt hour over a 30- to 35-year period. The government plans to be involved from the planning stages, and a demonstration project will be started next year, the ministry said. The government will also require equipment from domestic suppliers to account for 60% of a project.

Judge blocks Texas from waiving rules and fees to help drillers

(Bloomberg; Dec. 10) – The Texas state oil regulator has been prohibited from waiving environmental rules and fees, measures adopted to help drillers cope with the pandemic-driven slump in crude prices. The decision by a state judge means that the Railroad Commission of Texas will not be able to enforce a series of emergency rule waivers announced in May. The judge faulted the agency for failing to give the public adequate notice, according to his ruling handed down Dec. 10.

The order will remain in effect until a suit by accountability watchdog Public Citizen is heard, or the regulator posts proper notice, the judge said. The Public Citizen case is set to be heard in late spring. At a May 5 meeting, the commission passed rules that waived fees, extended deadlines for environmental cleanups and expanded the types of locations where companies could store crude. Public Citizen said the suspension of such rules was unlawful and amounted to a "handout to the oil and gas industry."

Commission Chairman Wayne Christian said at the May 5 meeting that the regulatory relief was designed to help operators through an unprecedented collapse in oil prices. He thanked operators for suggesting changes to the rules. The commission "does not agree with the court's order and has filed a notice of appeal," it said in a statement.

Colorado county adopts stricter setbacks for oil and gas wells

(Colorado Public Radio; Dec. 16) - Just a few weeks after the Colorado Oil and Gas Conservation Commission's final approval of a statewide 2,000-foot setback between new wells and some buildings, Boulder County commissioners have adopted even stricter requirements. Future oil and gas well pads in Boulder County will generally need to be 2,500 feet from homes, schools, and day care facilities after county commissioners unanimously approved changes to the Land Use Code.

That 2,500-foot setback will also be required for publicly owned trails and trailheads. "Boulder County is concerned about the potential for significantly expanded oil and gas development within the county," reads the county's website. "We support appropriate tighter restrictions and increased local control to mitigate the impacts of these activities." The new setback requirements are part of a package of oil and gas amendments the county adopted to protect public and environmental health.

The changes aim to regulate the "surface impacts of oil and gas operations in a reasonable manner," to address issues like noise, odor, light, air emissions, and air quality. The changes allow the Boulder Board of County Commissioners to regulate the location of oil and gas facilities and adjust "as necessary," which means setbacks could be larger than 2,500 feet. Commissioner Elise Jones said public comments made it clear that oil and gas development is an issue that's important to county residents.

First LNG marine refueling on the Great Lakes

(Bay Observer; Hamilton, Ontario; Dec. 10) - It's another first for the Port of Hamilton, Ontario. On Dec. 9, for the first time ever on the Great Lakes, a marine vessel refueled with liquefied natural gas. Carrying a load of asphalt, the dual-fuel, 443-foot-long Damia Desgagnes docked at the port to refuel before departing for Detroit. As a result of a new partnership between the Hamilton-Oshawa Port Authority and REV LNG, marine vessels will now be able to refuel with LNG during stopovers at Hamilton Port.

This is a milestone in the energy evolution of the Great Lakes marine shipping industry, which is looking for new ways to reduce greenhouse gas emissions and advance environmental goals. "We look forward to continuing to find new ways to support improving air quality, reducing GHGs, and working collaboratively with Canadian and U.S. marine and energy sector partners to help accelerate the adoption of LNG and spur further fuel innovations," said Hamilton-Oshawa Port Authority CEO Ian Hamilton.

LNG is a cleaner alternative to oil-based bunker fuel. It also improves air quality by eliminating 100% of sulfur dioxide, 90% of nitrous oxide emissions, and all particulate matter. In 2020, the International Maritime Organization set out new targets for marine fleets to cut GHG emissions by 40% by 2030 and 70% by 2050.

LNG, propane advance as oceangoing ships move to cleaner fuels

(The Wall Street Journal; Dec. 9) - Natural gas and propane are emerging as the leading choices for fuel sources to power vessels for shipping companies moving to slash carbon emissions in their operations. More than a quarter of the ships on order in terms of tonnage are slated to run on liquefied natural gas or liquefied petroleum gas, commonly known as propane, according to an industry trade group, a clear signal of how operators are planning to meet mandates to meet clean-air standards.

The industry is mandated by global regulators to cut overall greenhouse-gas emissions by half by 2050 compared with 2008 levels, a target that has triggered a search by shipbuilders, ocean carriers, fuel providers, and equipment makers for new types of engines and fuel sources to power vessels that move global trade. Options under consideration include hydrogen, biofuels, and electric power along with LNG and LPG.

“Although there remain pros and cons to every option, alternative fuels are beginning to gain traction, with 27% of the newbuilding order book by tonnage now on alternative fuel,” said Stephen Gordon, managing director at Clarkson Research Services, a unit of London-based shipbroker Clarkson. “LNG is gaining the most traction for the moment as a potential steppingstone to meeting emissions targets and LPG is also gaining traction,” Gordon said. The numbers still represent a tiny fraction of the more than 60,000 oceangoing vessels in operation, but shipyard executives said the tide is turning.

Russia approves Chinese participation in petrochemical project

(Reuters; Dec. 15) - The Russian government has approved participation of China’s Sinopec company in a large-scale petrochemical project, the government said Dec. 15, in line with Moscow’s plans to forge closer ties with Beijing. Russia’s privately held Sibur petrochemical company wants to build one of the world’s largest polymer-producing plants in the country’s Far East, targeting the Chinese and broader Asian markets.

The Amur Gas Chemical Complex, an investment of up to \$11 billion, is set to start producing 2.3 million tonnes of polyethylene and 400,000 tonnes of polypropylene per year beginning 2024-2025. Sinopec is set to take a 40% stake in the complex. Sibur has said it could turn to Russia’s National Wealth Fund to help finance the project. Chinese companies are actively participating in Russia’s projects, including production of oil and gas, amid Moscow’s pivot to Asia in times of strained relations with the West.