Oil and Gas News Briefs
Compiled by Larry Persily
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World headed toward LNG shortage this winter

(Bloomberg; May 23) - The liquefied natural gas market is hurtling toward a potentially historic shortage this winter as the world rushes to secure more of the fuel. Europe's plan to cut imports of piped Russian gas by two-thirds by the end of the year and replace it with LNG from the U.S. and Africa is intensifying competition for the power plant and heating fuel. It's expected that China's battle with COVID-19 will wind down later in 2022, which should stoke industrial demand from Asia's biggest economy.

In a normal year, LNG importers stock up on supplies for the peak winter season over the summer. That appears to have started earlier this year, with South Korean and Japanese utilities already snatching up shipments for delivery through early 2023. The looming supply crunch risks pushing up electricity bills and inflation and could see poorer nations miss out entirely. "This coming winter has everyone on edge," said James Whistler, global head of energy derivatives at Simpson Spence Young.

How to cope with the widening gap between supply and demand will be the hot topic at the World Gas Conference in South Korea this week. It's the first major gathering of the industry in Asia since Russia's invasion of Ukraine upended the LNG trade and sent prices surging. Global demand will hit 436 million tonnes in 2022, outpacing 410 million of available supply, Rystad Energy said in a note this month. Although soaring consumption has spurred the greatest rush of new LNG export projects worldwide in more than a decade, most new supply will not come online until after 2024, it said.

LNG buyers turn to longer-term contracts to guard against volatility

(Reuters; May 25) - Natural gas buyers in Asia and Europe are seeking to lock in supplies via long-term contracts as a buffer against volatile global prices, industry executives said, in moves that will reverse the past decade's trend of increasing spot purchases. Fears of disruptions in Russian gas to Europe and low inventories led the continent to import record volumes of spot liquefied natural gas, driving prices to all-time highs earlier this year and sparking energy security concerns among buyers globally.

Years of low investments mean new supplies are scarce while Russian supplies are at risk and as more countries have switched from coal to gas to meet climate targets over the past couple of years when LNG prices were low. "We see a higher demand now than we had two years ago, definitely, so more interest for longer term contracts, energy security," Peder Bjorland, vice president natural gas marketing and trading at Equinor told Reuters on the sidelines of the World Gas Conference.

He said European buyers are seeking supplies on 5- to 10-year deals, while longer term contracts spanning 15 to 20 years are more attractive for Asian markets. The duration of LNG contracts is a sticking point in talks between Qatar and Germany for term supplies, with Qatar reportedly wanting a longer term than Germany is willing to accept.

In addition, pricing has become a stumbling block between sellers and buyers to close deals. "I think it's very difficult in high volatility to agree on price ... because the buyers will always tell you that these are unnaturally high, and the sellers will say, this is the way things are for a while," said Kevin Gallagher, chief executive officer of Santos.

Developer commits to its second LNG export terminal in Louisiana

(The Wall Street Journal; May 25) - Venture Global LNG said it will build a second multibillion-dollar liquefied natural gas export facility in Louisiana, as demand for U.S. gas surges in Europe following Russia's invasion of Ukraine. The company said May 25 it had secured $13.2 billion in financing and given final approval for the Plaquemines project near New Orleans — the first new U.S. plant to get a green light in three years. It is also the first LNG project to officially go forward since the Biden administration said the U.S. would increase shipments of gas to Europe.

LNG prices in Europe and Asia began hitting record high levels months before the war, as countries competed for limited supplies. But the U.S. is already sending all the LNG it can to Europe, and industry officials say expanding volumes will require new export and import terminals. Venture Global brought its first export facility online at Calcasieu Pass in Louisiana earlier this year, and most of its LNG cargoes have gone to Europe as long-term buyers in places such as China and Japan have diverted shipments there.

It began site work on its Plaquemines project last August and expects to begin shipping LNG in 2024. Ultimately, it anticipates the project will reach a full capacity of 20 million tonnes a year; the first phase is for 13.33 million tonnes. First-phase customers include China National Offshore Oil Corp. (CNOOC), China Petroleum and Chemical Corp. (Sinopec), Shell, Polish Oil and Gas and Electricite de France. The company has secured agreements with ExxonMobil, New Fortress Energy and Malaysia's state-run Petronas for the project's second phase, which will require additional financing.

Exporters typically need long-term contracts of up to 20 years to secure financing. European and U.S. officials have previously opposed such contracts that could lock in fossil fuel supplies for decades and conflict with the goal of reducing greenhouse-gas emissions. But White House and EU officials have recently told industry executives that they now support long-term deals.

[U.S. demand for natural gas expected to grow faster than supply]

(Natural Gas Intelligence; May 23) - Driven in part by liquefied natural gas exports, U.S. demand for natural gas will grow faster than supply this summer, leading to higher prices year-on-year, the Federal Energy Regulatory Commission said in its 2022 outlook on summer energy markets. Compared with summer 2021 levels, total domestic dry gas production is expected to increase 3.4% this summer, while total consumption is projected to rise 4.8%, according to a summer assessment prepared by FERC staff.

The higher natural gas prices, alongside projected hotter temperatures and a slight increase in electricity demand, point to higher wholesale electricity prices this summer, according to the agency. FERC pointed to futures at electricity trading hubs showing gains from 77% to 233% versus year-earlier periods. FERC cited Energy Information Administration forecasts for U.S. dry natural gas production to reach 96.9 billion cubic feet per day this summer. This comes as exports are expected to drive increases in demand for the fuel in the months ahead, the agency's assessment found.

"The largest increase in natural gas demand is expected to come from an increase in natural gas exports," FERC staff said in their report. Net gas exports are on track to rise 29.4% over "relatively elevated summer 2021 levels," according to the report. FERC staff pointed to increased liquefaction capacity and overseas demand as the primary driver of higher exports, citing EIA projections for LNG exports to average 11.8 bcf per day from June through September, versus 9.5 bcf a day in the summer of 2021.

[U.S. natural gas prices climb past $9 for first time since 2008]

(Bloomberg; May 25) - Natural gas surged above $9 per million Btu in the U.S. for the first time since 2008, extending a breakneck rally as fears of a supply crunch intensified. Stockpiles of the heating and power-plant fuel are below normal for this time of year as exports are booming and output from shale basins is muted. Traders anticipate higher-than-usual gas needs this summer to fuel U.S. power plants as consumers and businesses crank up air conditioners to combat hotter weather.

Meanwhile, hydropower generation and coal supplies are severely constrained, leaving limited alternatives to gas. Reflecting growing concerns about replenishing depleted stockpiles ahead of the winter, gas for July delivery has traded at an unusual premium over contracts for February 2023.

"It's a function of the storage, and the storage situation is miserable," said Bob Yawger, director of the futures division at Mizuho Securities USA. Gas prices could soon rise above $10, he said. Gas prices have skyrocketed globally over the past year because of an energy crunch that has been aggravated by the war in Ukraine, with buyers in Europe and Asia vying for U.S. supplies of liquefied natural gas. Though the fuel is still much cheaper in the U.S. than elsewhere because of the nation's relatively abundant shale supplies and limited export capacity, the gap has been closing as U.S. prices rise.

Qatar may announce equity partners in LNG expansion this week

(Energy Intelligence; May 23) - The long-awaited first awards for prized equity stakes in Qatar's expansion of its liquefied natural gas production capacity could be signed this week. State-owned QatarEnergy has invited international press to attend "an important signing ceremony" for May 26. There have been no hints as to the precise purpose of the event, but sources said that equity stakes in the expansion's first phase, at 32 million tonnes per year, dubbed North Field East (NFE), have been awarded.

Two awards were made around two weeks ago, with one going to an existing partner and another to a new one, says one of the sources. Six Western majors were initially shortlisted to take stakes totaling as much as 30% in NFE. These were existing investors ExxonMobil, Shell, ConocoPhillips, TotalEnergies and new investors Eni and Chevron. But QatarEnergy subsequently expanded equity discussions to include a number of key players in its Asian customer base.

Construction of the $28.75 billion NFE project is well underway, with Doha targeting a staggered start-up beginning in late 2025. A second phase of Qatar's LNG capacity expansion would add an additional 16 million tonnes a year, putting the country solidly in the lead as the nation's largest LNG producer at 126 million tonnes. In addition to naturally low-cost reservoirs, NFE's profitability will be boosted by large volumes of associated liquids and condensate. Competition for equity stakes is likely to be hot, with awards set to reshape the region's oil and gas investment terrain.

Polish prime minister wants Norway to share natural gas profits

(Bloomberg; May 22) - Norway should share the "gigantic" profits it's recently made as a result of higher oil and gas prices — especially with Ukraine — said Polish Prime Minister Mateusz Morawiecki. Answering a question about his government's energy policy on May 22 at a meeting of a youth group, he said coal-reliant Poland plans to switch to renewables and nuclear energy, while shedding oil and gas deliveries from Russia and at some point from Middle East countries as well.

"But should we be paying Norway gigantic money for gas — four or five times more than we paid a year ago? This is sick," he said. "They should share these excess profits. It's not normal, it's unjust. This is an indirect preying on the war started by Putin." Poland will later this year complete a gas pipeline from Norway that will help it replace its supply of the fuel from Russia — cut last month following Poland's refusal to pay in rubles.

The country sees its gas needs rising by about 50% over the current decade as its utilities build new power plants in place of aging coal-fired units. The deal with Norway and Denmark to build the pipeline link from the North Sea was crucial for Poland to cut its energy ties with Russia.

IEA director warns against new wave of fossil fuel investments

(S&P Global; May 23) - High energy costs caused in part by Russia's invasion of Ukraine should not be used to lock in a new wave of fossil fuel investments which threaten to create significant business and climate risks in the future, the head of the International Energy Agency said May 23. Although the immediate response to the loss of Russian oil and gas to world markets should include bringing on stream spare production capacity where it exists, any near-term upstream spending must be balanced with the need for higher growth in clean, renewable energy, Fatih Birol said.

"My worry is that some people may use Russia's invasion of Ukraine as an excuse for a large scale, new wave of fossil fuel investments. … My worry is it will forever close the door to reach our climate targets ... and it may not be a lucrative investment," Birol told the World Economic Forum in Davos. "Even if countries do 50% of what they say [with regard to net-zero emission targets], those fossil fuels investments may be idle in the future," the executive director said.

Noting that new oil discoveries require years to bring on stream, Birol said the world must choose between a clean energy transition and short-term energy costs. "I understand the current priority today is to fix the energy security problem ... but we shouldn't forget that one of the reasons that we have such high prices is the heat wave which is a result of climate change," he said.

Energy crisis due to lack of investment, says Saudi Aramco head

(Reuters; May 23) - The world is facing a major oil supply crunch as most companies are afraid to invest in the sector as they face green-energy pressures, the head of Saudi Aramco told Reuters, adding that the OPEC-leading nation cannot expand production capacity any faster than promised. Amin Nasser, head of the world's largest oil producer, said on May 23 he was sticking to the target of expanding Saudi capacity to 13 million barrels a day from the current 12 million by 2027, despite calls to do it faster.

"The world is running with less than 2% of spare capacity. Before COVID the aviation industry was consuming 2.5 million barrels per day more than today. If the aviation industry picks up speed, you are going to have a major problem," Nasser said on the sidelines of the World Economic Forum in Davos. "What happened in Russia-Ukraine masked what would have happened. We were going through an energy crisis because of a lack of investment. And it started to bite following the pandemic," he added.

Nasser said COVID restrictions in China would not last long and global oil demand would resume its growth. Saudi Arabia is currently producing 10.5 million barrels per day, or every tenth barrel in the world, and will likely raise output to 11 million later this year when a broader pact between OPEC and allies such as Russia expires. The Saudis have not accepted calls from the West to raise output more quickly and expand capacity faster to help combat the energy crisis.

Saudi Arabia says ‘no shortfall of oil;’ nothing it can do ease markets

(Bloomberg; May 24) - Saudi Arabia’s foreign minister said there’s nothing more the kingdom can do to tame oil markets, implying that the world’s biggest crude exporter has no plan to accelerate its gradual production increases. “As far as we are aware there is no shortfall of oil,” Prince Faisal bin Farhan said at the World Economic Forum in Davos, Switzerland. “We have to be sure that while we transition to a renewable future, there is enough energy in the market. The kingdom has done what it can.”

Prince Faisal was responding to a question about what the U.S., which has put pressure on the Saudis and other members of OPEC+ to pump faster, could offer Riyadh in return for more crude. His comments echoed those of Saudi Energy Minister Abdulaziz bin Salman, who said in this month that a refining crunch was to blame for soaring fuel prices. “It’s much more complex than just bringing barrels to the market,” Prince Faisal said. “Our assessment is that actually oil supply right now is relatively in balance.”

Oil prices have climbed almost 70% in the past year to around $110 a barrel, first as demand rebounded from the coronavirus pandemic and then after Russia invaded Ukraine. The Organization of Petroleum Exporting Countries and its partners, a 23-nation group led by Riyadh and Russia, are raising daily crude production by around 430,000 barrels each month. Major importers have called on the alliance to increase output more quickly, but the group’s struggling to reach even its current monthly target.

Record volume of Russian crude accumulates in tankers at sea

(Reuters; May 23) - Some 62 million barrels of Russia's flagship Urals crude oil, a record amount, are sitting in vessels at sea, data from energy analytics firm Vortexa showed, as traders struggled to find buyers for the crude. The United States and other countries have banned imports of Russian crude and oil products over its invasion of Ukraine, and others have avoided acquiring cargoes out of fear of future sanctions. The European Commission is considering an embargo of Russian oil.

The volume of Urals crude oil on the water is triple the pre-war average, Vortexa said, even as Russian seaborne oil exports fell to 6.7 million barrels per day so far in May, down about 15% from the 7.9 million in February. "The headline numbers, showing Russian exports are still relatively strong, don't tell the full story," said Houston-based energy strategist Clay Seigle. "Russian oil at sea is continuing to accumulate."

The number of Urals cargoes at sea with no set destination is 15% of the total, also a new high, Seigle added. Some of the oil could be in transit to undisclosed buyers, while others could be unsold cargoes. Most barrels of Russian crude oil have headed to Asia, mainly India and China, while volumes to Europe have also ticked up ahead of a ban.

U.S. shale executives paid for cash flow, not boosting production

(The Wall Street Journal; May 23) - Shale drillers have been hamstrung by pipeline constraints, rising prices for oil field supplies and shortages of roughnecks and rigs. But there is another reason the highest oil and gas prices in years haven't tempted U.S. drillers to boost output: Their executives are no longer paid to drill. Executives at firms were once encouraged by compensation plans to produce certain volumes of oil and gas, with little regard for the economics. After years of losses, investors demanded changes to how bonuses are formulated, pushing for more emphasis on profitability.

Executives who were paid to pump are now rewarded more for keeping costs down and returning cash to shareholders, securities filings show. The focus on profitability over growth also helps explain drillers' muted response to the highest prices for oil and gas in more than a decade. Though U.S. oil and gas production has risen from lockdown lows, output remains below pre-pandemic levels even though crude prices have doubled, to about $110 a barrel, and natural gas has quadrupled to more than $8 per million Btu.

"We're not hearing a lot of management teams talk about growing production or drilling new wells in a significant way," said Marcus McGregor, head of commodities research at money manager Conning. "They won't get paid to do so." Production factored into fewer than half of disclosed bonus plans for last year, down from 89% of big shale drillers' formulas in 2018, according to Meridian Compensation Partners. The weight given to production in annual cash bonuses shrank to 11%, from 24% three years earlier, the consultants found. Meanwhile, there were big increases in the prevalence and weight given to cash-flow targets, return on capital and environmental goals.

U.S. shale oil producers not coming to the rescue

(Bloomberg; May 25) - In a world crying out for more oil, a dusty stretch of West Texas and southeastern New Mexico is one of the only places that can deliver. But even with crude above $100 a barrel, producers in the Permian and other U.S. shale basins are riding the brakes. For most of the past decade, the Permian was an unstoppable drilling machine. Its vast, low-cost reserves helped transform the U.S. into the world’s swing oil supplier, primed to turbocharge output as prices soared or to halt when they collapsed.

A crude rally was sure to incite a fracking frenzy that would help replenish global stockpiles and cool off prices. But not this time. After Russia invaded Ukraine in late February, crude prices surged to a 13-year high. Gasoline is above $4 a gallon in every U.S. state for the first time. Jet fuel in New York spiked to a record last month.

Yet shale explorers show no sign of riding to the rescue. Their business model has fundamentally changed, reshaped by pressure to curb growth and divert cash to investors with dividends and buybacks. Inflation is also taking a toll. U.S. oil output this year is expected to expand by less than half the amount it did in 2018, when crude traded around $65. That means more pain for consumers, with JPMorgan Chase predicting U.S. gasoline at $6.20 a gallon by August.

In addition, the supply-chain crisis is particularly acute in the Permian. Disruptions to equipment supplies mean if a company wants to increase production, it would now take a year or more between drilling to pumping oil, up from three to four months before the pandemic, Linhua Guan, CEO of Permian driller Surge Energy, said in an interview. Guan planned for 16% cost inflation this year and says that will increase next year.

BMW looks to solar, other renewables to get away from natural gas

(Reuters; May 23) – BMW is exploring new investments in solar, geothermal and hydrogen energy to lower its dependence on natural gas, the carmaker's production chief told Reuters on May 23, warning that an embargo on Russian gas would bring the industry to a standstill. BMW, which relied on gas for 54% of its energy consumption in 2021, is examining where it can add solar panels to its plants and is developing plans with local authorities to transport hydrogen to its plant in Leipzig, Germany.

"Hydrogen is very well-suited to lower or even fully compensate for gas demand," Milan Nedeljkovic said. "Our industry accounts for around 37% of German natural gas consumption," he said when asked what would happen to BMW's plants in the event of a halt to gas deliveries from Russia. "Not just BMW but the entire sector would come to a standstill." BMW's plans reflect wider preparations underway across German industry to shift away from Russian gas and come up with a system to ration available supplies in the event of a sudden halt to deliveries.

Beyond Germany, a new plant in Debrecen, Hungary, which BMW has said will be the world's first auto factory to run entirely without fossil fuels, will rely heavily on solar, Nedelkjovic said, adding that the carmaker was also looking into using geothermal energy. Geothermal power is more stable than weather-dependent renewables but has not seen growth or investment comparable to wind or solar partly due to high upfront costs and complex licensing processes for drilling.

Germany will rely on coal in case natural gas supplies run short

(Reuters; May 24) - Germany is planning to use coal-fired power stations which would have been idled this year and next as reserve facilities in case of disruption to gas supplies from Russia, economy ministry sources said on May 24. The proposals, drawn up by the ministry as part of precautionary measures in case of a gas shortage, would run until March 31, 2024, as Germany tries to cut its dependence on Russian fossil fuels after the invasion of Ukraine, the sources said.

In particular, gas, which accounted for 15% of power generation input last year, must be prioritized for industry and heating homes if a bottleneck arises, making it necessary to draw on idled coal capacity to fill the gaps, they said. Under the provision, a total 8.5 gigawatts of coal-fired power and a small amount of oil-fired generation capacity, all idled or due to be idled in 2022 and 2023, would be enabled by their operators to provide electricity on demand.

Participation in the scheme would be voluntary and operators would be compensated from public funds for holding fuel ready and for providing the necessary technical assistance. The sources said maintaining coal capacity in a state of readiness would not mean that plants emit additional carbon emissions, stressing that the plan would not derail Germany's overall goal to stop using coal for power generation by 2030.

Finland agrees to 10-year lease on floating LNG receiving terminal

(Reuters; May 20) - Finland has agreed to a 10-year charter for a floating storage and regasification vessel with U.S.-based Excelerate Energy to help replace Russian gas, Finance Minister Annika Saarikko said on May 20. The announcement coincided with Finland's state-owned energy group Gasum saying Russia's Gazprom Export had informed it that natural gas supplies from Russia to Finland would be cut off on May 21.

Finland and Estonia announced in April their intention to jointly charter a floating terminal for importing liquefied natural gas, to help replace current deliveries of Russian gas. Saarikko said the aspiration was to have the vessel, which will be located on the Southern coast of Finland, operational in the fourth quarter of this year.

"The total cost of the LNG terminal vessel project with the 10-year lease is estimated to be at 460 million euros ($487 million), in addition to which there are separate costs associated with the volume of use," and the cost of imported LNG cargoes, Gasgrid Finland said, adding it was in talks with Estonian on its participation. The vessel has a storage volume corresponding to about 3.2 billion cubic feet of natural gas as LNG, and it will be loaded with LNG about two to three times a month, Gasgrid Finland said.

Asia’s LNG import volumes expected to pick back up for summer

(Reuters columnist; May 24) - The merry-go-round of liquefied natural gas between Europe and Asia appears to be tilting back toward Asia as buyers in the top-consuming region start to chase cargoes ahead of the summer demand peak to power air conditioners. The dynamics of the LNG market for the first four months of the year was that Europe was prepared to bid up prices for spot cargoes in order to secure supplies.

This competition for LNG came as Europe first battled a winter shortage of natural gas, and then was blindsided by Russia's invasion of Ukraine and the sudden specter that it would lose volumes from its biggest supplier. The January-to-April period saw Europe's imports of the fuel at record levels, with Refinitiv data showing the first months of 2022 were the strongest on record, up 58% from the same months in 2021.

In contrast, Asia's imports were down 8.9% in the first four months of this year from 2021. The main drag on Asia's LNG imports has been China, where imports were down 17.3% from the same period last year. However, there are emerging signs of renewed interest from Chinese buyers. Meanwhile, Asia is already experiencing hotter than usual temperatures in many countries, making it more likely that buyers will seek additional LNG cargoes from the spot market.

Australian producer expects high LNG prices for several years

(Reuters; May 25) - Woodside Energy, Australia's top independent natural gas producer, sees liquefied natural gas prices staying high for a few years as the market adjusts to supply disruptions after sanctions on Russia for its Ukraine invasion. "With the invasion, we are seeing the world try to move away from Russian hydrocarbons and that means that demand for LNG from places like Australia is up," Woodside Chief Executive Meg O'Neill said.

"We do expect ... prices to remain elevated for the next year, perhaps next few years as the world tries to rebalance gas in supply and demand," she said on the sidelines of the World Gas Conference. The global LNG market was already tight before the invasion because of underinvestment in the past five years, O'Neill said. Demand had dropped as the pandemic hit, with the result being that "many buyers got complacent and thought that the spot market was much deeper than it actually is,” she said.

"We took an investment decision last year on our Scarborough project, but those volumes aren't going to come into the market until 2026, so there is a period that I think things will continue to be tight." Woodside owns 100% of the Scarborough project following its merger with BHP Group's, petroleum arm. O'Neill said last week that Woodside has received strong interest from companies for a stake in the project.

German power producer signs up for U.S. LNG

(Reuters; May 25) - U.S.-based Sempra Energy said on May 25 it would sell about 2.25 million tonnes per year of liquefied natural gas to Germany's largest power producer, RWE, which is trying to wean itself off Russian gas. U.S. LNG companies have been exporting record volumes to the European Union following sanctions on Russia after its invasion of Ukraine, which tightened supplies to an already undersupplied market.

Sempra said it would supply the gas for 15 years from its Port Arthur LNG Phase 1 project being developed in Jefferson County, Texas. Earlier this month, the company clinched a deal to supply 3 million tonnes of LNG per year to Poland's PGNiG. Sempra has yet to take an investment decision to build Port Arthur, as it continues with marketing the project in anticipation of a construction commitment.

Activists challenge White House task force on natural gas

(Bloomberg; May 23) - Activists are accusing a White House-backed task force of illegally operating in secrecy as it develops a plan to wean Europe off Russian energy supplies. The panel's work has unfolded behind closed doors since late March, when President Joe Biden and the European Commission president charged the group with helping Europe diversify its gas supply amid Russia's war on Ukraine.

A lack of transparency violates federal advisory committee law, anti-corruption group Global Witness alleges in a letter being sent to Biden on May 23. Environmentalists have separately filed an open records request seeking more information on the group's work. "The task force's operations have to date been shrouded in secrecy," said Global Witness senior adviser Zorka Milin. That is stoking fears the natural gas industry will have too much influence over its work, she said.

Only government officials are on the task force — with no outside representatives of industry or other groups — and the Biden administration does not believe it falls under the Federal Advisory Committee Act, said a person familiar with the matter who asked not to be named describing the panel's deliberations. The task force is charting plans to increase liquefied natural gas supplies to Europe — potentially through swift approvals for LNG export and import terminals. U.S. LNG exporter Cheniere Energy has been one of the task force's "active participants," CEO Jack Fusco said in a May 4 earnings call.

North Dakota drops to third place among states for oil production

(INFORUM; North Dakota; May 23) - According to the newly released 2021 North Dakota Energy report, the Bakken formation has reached maturity. The report was prepared by EnergyND, Great Plains Energy Corridor and Bismarck State College's North Dakota Polytechnic Institution. Formation maturity is defined as having a majority of operators dedicated to producing their acreage on a consistent and steady pace — but with the caveat that foreseeable radical growth in production is "less than likely."

According to the report, private and public sectors have slowly rebounded from the 2020 pandemic and spring 2020 price collapse, but much of the new investments are coming in value-added industries focused on byproduct capture from oil and gas production. North Dakota, previously the second-largest oil producer in the nation, fell to third in oil production in 2021 behind Texas and New Mexico for the first time since 2012.

The report was positive in many aspects, noting that newer, more advanced rigs operating in the Bakken are able to drill about twice as many wells in a year than those operating in 2012. According to the report, 98% of statewide drilling occurs in the Bakken and Three Forks formations. A typical Bakken oil well is expected to produce more than 30 years' worth of oil, however, favorable economic conditions, enhanced oil recovery efforts and other factors can, and often do, extend the life of a well.