Oil and Gas News Briefs Compiled by Larry Persily June 30, 2022

Maybe Saudi Arabia can boost production, maybe it can't

(Bloomberg analysis; June 29) - If the oil market was a religion, its central article of faith would be the maximum production capacity of Saudi Aramco, a tenet based on confidence in what we hope to be true and belief in properties we have not yet witnessed. The market is about to have its epiphany. Aramco, the state-owned Saudi Arabian oil giant, claims it can sustainably pump 12 million barrels a day, well above the kingdom's OPEC+ August target of 11 million barrels. For the global economy, Saudi spare capacity is the last line of defense against more energy inflation.

But apart from a few top company executives and a handful of Saudi royals, no one knows for sure whether Aramco can deliver. The rest of us either have blind faith — or simply don't believe. The truth will emerge in the next few weeks. On June 30, OPEC+ will greenlight the final of its series of monthly output increases, giving Riyadh a target of almost 11 million barrels a day for August. Aramco has only pumped at that level for eight weeks in its entire history, in late 2018 and early 2020. Now, it faces the prospect of sustaining that level or higher, for several months, perhaps even longer.

Over the past eight weeks or so, there has been frenetic activity inside Aramco to prepare for an output surge. "MSC," as maximum sustainable capacity is known at the company's headquarters in Dhahran, has been the key topic of discussion. Company insiders, speaking in private, say it can reach 12 million barrels a day within 30 days and sustain that level for at least 90 days. What about longer? Aramco is simply confident it will prove skeptics wrong. Have faith, is the message.

OPEC+ alliance continues to fall far short of production target

(The Wall Street Journal; June 29) - As President Joe Biden prepares to go to Saudi Arabia in July, OPEC members say the cartel and its allies have fallen far behind on their oil-production targets and are in their weakest position in recent years to help tame high crude prices. The alliance, known as OPEC+, pumped nearly 3 million barrels a day less than its collective production target of about 42 million barrels a day in May, according to an independent assessment report commissioned by OPEC.

The shortfall was due mainly to falling production in sanctions-hit Russia and chronic output problems in Nigeria, Angola, and other countries, according to the delegates. At the same time, the group's so-called spare capacity — the difference between what it is pumping now and the level it can ramp it up to — is shrinking, delegates said. Members

of OPEC met virtually June 29 to discuss what some delegates said were administrative matters, while the broader alliance will meet June 30 to confirm a decision taken earlier this month to roll out a bigger-than-expected production increase in July and in August.

But any deal to increase output is "meaningless," said an OPEC delegate outside the core group of Gulf Cooperation Council, which includes Saudi Arabia and the UAE. "That decision is only made for its psychological impact on oil markets." The agreement, for instance, assumes Russia will increase its output by 170,000 barrels a day in July. Yet estimates presented to the cartel's delegates show its output has fallen 800,000 barrels a day under Western sanctions and is expected to fall by 2 million barrels a day after the European Union agreed to impose a partial ban on Russian oil purchases.

OPEC+ members missed target in May by 2.7 million barrels per day

(Bloomberg; June 28) - OPEC+ is more than half-a-billion barrels behind on its pledge to supply world markets with oil, exacerbating concerns about the group's ability to balance the global market. In May 2020, the Organization of the Petroleum Exporting Countries and allies joined forces to coordinate production cuts aimed at rebalancing the global oil market. Since then, the group known as OPEC+ has pumped a collective 562 million barrels less than levels stipulated in the agreement, according to data from its Joint Technical Committee, which analyzes crude markets on behalf of ministers.

OPEC+'s members produced 2.7 million barrels a day below their collective target in May. The group has been struggling for months to deliver the volumes of oil to the market that it has pledged, as some members contend with diminished investment and operational issues. Spare capacity is confined to the core members in the Persian Gulf, and even their untapped supplies may be eclipsed by the losses caused by sanctions on Russia in retaliation for its invasion of Ukraine. There are now serious doubts about just how much more supply OPEC+ could bring to the market.

Saudi Arabia, UAE near maximum oil output, Macron says

(Reuters; June 27) - Two top OPEC oil producers, Saudi Arabia and the United Arab Emirates, can barely increase oil production, French President Emmanuel Macron on June 27 said he had been told by the UAE's president. Saudi Arabia and the UAE have been perceived as the only two countries in the Organization of the Petroleum Exporting Countries with spare capacity to boost global deliveries that could reduce prices.

"I had a call with MbZ," Macron was heard telling President Joe Biden on the sidelines of the G7 summit, using shorthand for UAE leader Sheikh Mohammed bin Zayed al-Nahyan. "He told me two things. I'm at a maximum, maximum (production capacity). This is what he claims. ... And then he said (the) Saudis can increase by 150 (thousand barrels per day). Maybe a little bit more, but they don't have huge capacities before six months' time," Macron said.

The UAE's top energy official confirmed Macron's statement to the country's state news agency. "In light of recent media reports, I would like to clarify that the UAE is producing near to our maximum production capacity based on its current OPEC+ production baseline," said Energy Minister Suhail bin Mohammed AI Mazrouei. The UAE is producing some 3 million barrels per day, has a capacity of 3.4 million and has been working on raising it to 4 million. Saudi Arabia is producing 10.5 million barrels per day and has a nameplate capacity of 12 million to 12.5 million.

French official calls for bringing back oil from Venezuela and Iran

(Reuters; June 27) - The international community should explore all options to alleviate a Russian squeeze of energy supplies that has spiked prices, including talks with producing nations like Iran and Venezuela, a French presidency official said on June 27. Venezuela has been under U.S. oil sanctions since 2019, and could reroute crude if those restrictions were lifted. Indirect talks between Iran and the United States to revive a nuclear deal that could see sanctions on Tehran lifted and its oil exports resume have been on hold since March, but are due to resume in Doha soon.

"There are resources elsewhere that need to be explored," a French official said on the sidelines of a G7 summit in Germany, when asked about how to alleviate high oil prices. The outstanding issue between Iran and the U.S. is no longer linked to the nuclear issue but to U.S. terrorism sanctions, he said. "There is a knot that needs to be untied ... to get Iranian oil back on the market," the official said, speaking on condition of anonymity. "We have Venezuelan oil that also needs to come back to the market." A second official said all options need to be explored, including those involving Iran and Venezuela.

U.S. oil production reaches high for the year

(Natural Gas Intelligence; June 29) - Domestic crude output reached a new high for the year as producers continue to gradually ramp up to meet summer demand, the U.S. Energy Information Administration reported June 29. Production climbed to 12.1 million barrels per day for the week ended June 24, up 100,000 week-on-week, according to the EIA's Weekly Petroleum Status Report.

Exploration and production companies are trying to strike a balance between investments in long-term renewable energy projects and quenching the world's current thirst for oil. "Global oil demand is expected to breach 100 million barrels per day this summer for the first time since before the pandemic," said Rystad Energy analyst Louise Dickson. Production is on track to hold just below that level through the summer. Dickson noted that U.S. producers and members of OPEC have modestly increased output this year, with supplies from Russia uncertain amid that country's invasion of Ukraine. Western sanctions against Russia have limited its export options and required European countries to rely more on the United States and Saudi Arabia-led OPEC for crude supplies as the summer travel season heats up. U.S. output remains about 1 million barrels per day below the pre-pandemic high.

U.S. shale oil producers find 're-fracs' a low-cost way to boost output

(Reuters; June 27) - U.S. shale oil producers are returning to existing wells and giving them a second, high-pressure blast to lift output for a fraction of the cost of finishing a new well. These "re-fracs" are taking hold as shale oil producers look to benefit from \$100 a barrel crude without making big investments in new wells and fields. A global oil shortage has triggered calls from President Joe Biden for shale producers to spend more of their profits on increasing output. But shale firms have been under pressure for years from shareholders to focus on returns rather than production growth.

Re-fracing can be something of a booster shot for producers — a quick increase in output for smaller investment than a new well. While some producers have dabbled in re-fracturing wells in the past, the technique is winning broader adoption as technology improves, aging oil fields erode output, and companies try to do more with less. Shortages of steel, diesel, frac sand and workers have doubled oil field inflation since January, making this discount method of boosting output even more attractive.

A re-frac can be up to 40% cheaper than a new well, according to experts. More importantly, it can double or triple oil flows from aging wells, said Garrett Fowler, chief operating officer for ResFrac, which helps producers optimize the technique. His firm has seen about twice as many inquiries related to re-fracs compared to prior years. For oil producers, re-fracs are a cheap way to add output to existing pipelines. Their shorter completion time means re-fracs can be scheduled between work on new wells, said Catherine Oster, who manages Devon Energy's mid-continent properties.

High oil prices give Alberta first budget surplus in 7 years

(Bloomberg; June 28) - Alberta recorded its first fiscal surplus in seven years after oil and gas prices surged in the first months of the year. The province completed its fiscal year on March 31 with a surplus of \$3.9 billion after West Texas Intermediate crude traded at an average price of US\$77 a barrel, US\$31 more than budgeted, according to documents released June 27. Total non-renewable resource revenue, including oil and gas royalties, totaled \$16.2 billion, or \$13.3 billion more than budgeted.

Alberta's energy-based economy — its oil sands hold the world's third-largest oil reserves — has emerged from the pandemic with the most robust economic growth in years thanks to the windfall of royalty and tax revenue. Oil prices surged above US\$100 a barrel during the last month of the fiscal year, after Russia's invasion of Ukraine prompted countries to shun Russian oil. In March, the government presented a budget for the 2022-2023 year that includes another surplus.

The government said it used its surplus from the last fiscal year to pay down debt by \$1.3 billion. Net debt fell to \$57 billion as of March 31 versus \$59.8 billion a year earlier. The province's Alberta Heritage Savings Trust Fund grew to \$18.7 billion, the highest net value in its history, the government said.

University of Texas study links hydraulic fracturing to earthquakes

(The Hill; Washington, DC; June 28) - A rising number of earthquakes has rocked western Texas in recent years, causing some in the region to consider purchasing earthquake insurance. Now, research from the University of Texas at Austin has found that oil and gas activity in the region is significantly linked to a majority of the most recent quakes. The Delaware Basin in western Texas and southern New Mexico is home to large oil and gas reservoirs, making it a prime target for production activities.

Researchers tracked seismic and producing activity in the region from 2017 through 2020 and found that 68% of quakes over a 1.5 magnitude were associated with oil and gas extraction and wastewater disposal efforts. Investigators evaluated the effects and frequency of daily hydraulic fracturing and pressure-driven wastewater disposal into shallow or deep geologic formations.

Hydraulic fracturing pumps pressurize liquid into a wellbore to extract oil and gas. It's come under fire for creating large amounts of toxic wastewater that poses a disposal challenge. Around 5,000 earthquakes were assessed in the study:43% were associated with injection into shallow sedimentary formations; 12% with deep injections below the hydraulic fracturing depth; hydraulic fracturing was linked with 13% of quakes reported.

Researchers hypothesize the latter finding is likely due to reactivation of long parallel faults. The modeling techniques employed in the paper "could help oil and gas producers and regulators identify potential risks and adjust production and disposal activity to decrease them," said co-author Alexandros Savvaidis in a press release.

World leaders support more investment in LNG

(Bloomberg; June 29) - Investments in liquefied natural gas — already booming as Europe seeks to cut its energy dependence on Russia — are set to get another boost,

even amid longstanding climate concerns. Leaders from the Group of Seven, representing the world's richest economies, on June 28 supported temporary public investments in gas projects to help navigate an unprecedented energy crisis that's contributing to inflation and leading to more coal use in power generation.

In a statement following their summit in the Bavarian Alps, the leaders stressed "the important role increased deliveries of LNG can play" and acknowledged that "investment in this sector is necessary in response to the current crisis." In Europe, where LNG import projects have often faced opposition on environmental grounds, the support for more LNG financing marks a political U-turn. Governments now are backing some projects for the fuel, after Russia's invasion of Ukraine sent prices soaring to record levels and forced nations to seek alternative gas suppliers.

More than 20 European LNG import projects have been announced or accelerated since March, with the potential to replace about 80% of total imports from Russia in 2021, according to FTI Consulting. Just a few years ago, gas was losing its appeal for rich nations as they intensified efforts to meet environmental obligations. As recently as December, Germany was struggling to get its first LNG import terminal up and running. The nation is Europe's biggest gas consumer.

State-owned Japanese company interested in U.S. LNG projects

(S&P Global; June 29) - State-owned Japan Oil, Gas and Metals National Corp. is keen to support LNG projects in North America where it sees the U.S. as "immensely attractive and promising" to develop supplies, President Hajime Wakuda told S&P Global Commodity Insights, in the face of the country's needs to develop new sources of energy to reduce its supply dependency on Russia.

"For us, we are highly interested in all of North American LNG (projects) broadly speaking," Wakuda said in an interview at the JOGMEC head office in Tokyo. While confirming JOGMEC's scope of interest including Canada and Mexico, he said: "We intend to explore various projects not just limited to expansions but also new ones because energy security is not a matter just for the next five to ten years."

Wakuda's remarks came after Minister of Economy, Trade and Industry Koichi Hagiuda said Japan is considering providing public finance to help expand U.S. LNG projects as the country moves to phase out its dependency on Russian energy. At least three North American LNG projects with Japanese interests have expansion plans underway. Wakuda declined to comment on whether JOGMEC has received any requests for its support but said it will "positively respond" should it receive inquiries for North American LNG projects because of low country risk and geographical proximity.

New review says Alaska LNG project would not raise GHG emissions

(EnergyWire; June 30) - The proposed Alaska LNG project would not raise greenhouse gas emissions, according to a new federal environmental review that assumes liquefied natural gas exports from elsewhere would continue to meet global demand even if the 800-mile pipeline and terminal aren't built. The Trump administration greenlighted exports from the proposed terminal in Nikiski in mid-2020, but the Biden administration announced nearly a year ago that it would conduct a supplemental analysis.

The Department of Energy's draft includes a life-cycle analysis of the greenhouse gas emissions tied to the project's gas exports. It finds that "exporting (gas) from the North Slope would not increase GHG emissions" over not building the project. In a scenario where the Alaska project does not proceed, DOE said it modeled emissions linked with LNG supplied from the Lower 48 states, noting that "energy demand from foreign markets would remain and would need to be fulfilled," regardless of the Alaska project.

The analysis, issued on June 24, also said that project construction and operation "would contribute incrementally to global climate change." The draft supplemental EIS uses Japan, South Korea, China and India in its analysis as possible destination countries for the project's LNG exports. A state-owned corporation in Alaska has been promoting the \$39 billion project since 2016, looking for partners, investors and customers. It has its major federal permits and authorizations but lacks any binding financial commitments.

Germany looks to Canada to help out with LNG exports

(Bloomberg; June 27) - German Chancellor Olaf Scholz used a meeting with Canadian Prime Minister Justin Trudeau to push for closer energy ties as his ruling coalition in Berlin races to find alternatives to Russian fuels. Germany hopes to import liquefied natural gas from Canada to help replace the Russian gas it still relies on for more than a third of its imports, down from half before the invasion of Ukraine. Germany and Canada have been discussing options for an LNG export terminal on Canada's East Coast.

Meeting June 27 on the sidelines of the Group of Seven summit in Bavaria, Scholz and Trudeau discussed how to maintain pressure on President Vladimir Putin and cut reliance on Russia for energy. Scholz plans to visit Trudeau in Canada in August, and German officials are hopeful the two countries will be able to announce an LNG deal by then. An agreement can't come quickly enough for Europe's biggest economy. Scholz's government last week warned that recent Russian moves to slash Europe's gas supplies risk sparking a collapse in energy markets.

Canada is among the world's largest gas producers, but lacks export infrastructure on its East Coast. Building a terminal could take years to get past the regulatory process and would likely face opposition from environmental groups. However, there is an

import terminal owned by Spanish firm Repsol that could be converted to exports relatively quickly. If the company decides to proceed, Canada's Natural Resources Minister Jonathan Wilkinson has said it could start shipping in three to four years.

Germany faces reckoning with end to era of cheap natural gas

(Bloomberg; June 25) - In Germany, some industrial furnaces have been running without interruption for decades. If they cool down suddenly, the molten materials harden and the system breaks. That's the kind of concern sweeping through Europe's largest economy as it faces an unprecedented energy crisis. What started as vague foreboding over reduced supplies of Russian gas is now very real.

After President Vladimir Putin slashed flows on the main link to Europe by 60%, experts in Chancellor Olaf Scholz's administration this week worked out the scenarios and none of them led to sufficient reserves to make it through the winter. "That was the sobering moment," Klaus Mueller, who heads Germany's network regulator known as BNetzA, said June 24 in an interview with Deutschlandfunk radio. "If we have a very, very cold winter, if we're careless and far too generous with gas, then it won't be pretty."

The risks extend beyond a recession, a winter of freezing homes and closed factories. For decades, Germany has prospered from cheap gas. The answer to the growing need more often than not was a new pipeline to Russia. That era is now over, and companies are coming to terms with the reality. There will be quick fixes — like reviving polluting coal plants and switching fuels in industrial processes — but structural issues loom as the transition to affordable renewable power will take years. Firms making metals, paper and even food could be forced to downscale or close German production sites.

Germany may not have LNG import terminals operational this year

(Reuters; June 28) - Germany may not be able to have at its first two liquefied natural gas import terminals start operation by the end of the year as hoped, as construction has not started yet, the Bild newspaper said citing the country's industry trade association. Germany's LNG projects had long languished as gas via pipelines was cheaper than LNG, but as Germany rushes to phase out Russian energy imports Berlin plans for import terminals are picking up speed.

"The planned stationary terminals still have no final investment decisions," Timm Kehler, managing director of the Zukunft Gas lobby, was quoted by the newspaper, Bild. Kehler said the pace of building and expanding LNG import capacity must be accelerated in order to achieve an annual capacity of 460 billion cubic feet of natural gas (more than 100 tanker cargoes) via the terminals in the coming year. "The industry finally needs clarity here and on a few other regulatory issues," Kehler added.

IEA warns Europe may need to cut gas consumption 30%

(Bloomberg; June 28) - Europe will need to cut as much as 30% of its gas consumption by mid-February if flows from Russia are halted. Widespread curtailments would be necessary if Moscow decides to halt flows completely, according to Fatih Birol, executive director of the International Energy Agency. It's a scenario that leaders should be preparing for, he said in response to emailed questions.

"Depending on its timing, a complete cut-off of Russian gas supplies to Europe could result in storage fill levels being well below average ahead of the winter, leaving the EU in a very vulnerable position," Birol said. "In the current context, I wouldn't exclude a complete cut-off of gas exports to Europe from Russia." Europe is trying to shore up its supplies ahead of winter. This is looking more challenging after Moscow this month cut flows through the Nord Stream pipeline to Germany by 60%, citing technical issues.

The EU's gas supply situation could worsen if Russia completely halts gas to the region in the coming weeks. The bloc's projections show that while storage filling rates are currently on track to hit 90% by Nov. 1, a cut-off would bring that level to below 75%. This would mean "significantly higher" gas prices, according to Birol. Benchmark European gas futures have already more than tripled since this time last year, according to ICE Endex data. Europe should focus on cutting gas use from industry and households now to ensure as much supply as possible is going into storage, Birol said.

Federal regulators rewriting 42-year-old rules for LNG industry

(Energy Wire; June 28) - The last time the federal government wrote regulations for the liquefied natural gas industry, Pac-Man was the hot video game and Ronald Reagan was on his way to the White House for the first time. It was 1980, and the idea of chilling natural gas to subzero temps and loading it onto ships was a novelty in the United States. Forty-two years later, the LNG industry is growing rapidly — along with local pollution, climate-warming methane emissions, and the risk of fires and explosions.

By the end of this year, the Transportation Department's pipeline safety regulator may have new guidelines for the industry. But the process is fraught with uncertainty: It has failed once before, in 2016, and the industry is already lining up to argue for a light-handed approach. In the meantime, near-misses and environmental problems highlight the risk. Most recently, a fire at an LNG plant in Texas burned for 40 minutes and led to the temporary closure of the plant, knocking out almost 20% of U.S. export capacity for several months, disrupting plans to replace Russian gas in Europe.

"It's important to remember that LNG poses unique safety risks, often above and beyond those posed by other hydrocarbon transportation, due to the high pressure and density," said Bill Caram, executive director of the Pipeline Safety Trust, a safety advocacy group. Seven U.S. LNG plants are currently operating, handling billions of cubic feet of methane every day and making the country the leading exporter of gas. More than a dozen new plants or production lines are planned or under construction.

The massive coastal terminals handle billions of cubic feet of gas piped in every day from production fields. By supercooling the gas, they shrink it six hundredfold into a cryogenic liquid for shipping overseas on vessels roughly the size of aircraft carriers.

Pakistan buys cheaper fuel oil instead of LNG for power plants

(Reuters; June 27) - Pakistan's monthly fuel oil imports are set to hit a four-year high in June, Refinitiv data showed, as the country struggles to buy liquefied natural gas for power generation amid a heatwave that is driving demand. The resurgence in residue fuel demand at power plants underscores the energy crisis faced by the South Asian country and slows its efforts to switch to cleaner-burning gas.

Pakistan had cut fuel oil imports since the second half of 2018 as LNG prices were low, but it had to at times switch back to oil since July 2021 because of sky-high LNG prices. The country's fuel oil imports could climb to about 700,000 tonnes this month (past 5 million barrels), after hitting 630,000 tonnes in May, according to Refinitiv estimates. Imports last peaked at 680,000 tonnes in May 2018 and 741,000 tonnes in June 2017.

A spokesman for Pakistan's energy ministry cited global gas prices as the reason for the surge in fuel oil imports. The trend is set to continue. "Import data indicates that thermal power generating companies in Pakistan made the initial switch from gas to fuel oil late last year and the price dynamic provides an ongoing incentive to max out fuel oil purchases over LNG," said Timothy France, a senior oil analyst at Refinitiv.

Union dispute shuts down Prelude LNG production

(Reuters; June 28) - Shell said on June 29 that liquefied natural gas shipments from its Prelude floating facility off northwest Australia would be disrupted for at least two weeks due to work bans by unions fighting for better pay. Loading disruption at the 3.6-million-tonnes-a-year facility adds to tightness in a global LNG market just as Europe pushes to secure cargoes to make up for lost Russian gas supply. In addition, one of the largest U.S. LNG plants, Freeport LNG, is closed due to damage from an early June fire.

"We have issued a notice to customers that cargoes will be impacted until at least mid-July due to the industrial action," a Shell spokesperson said in an emailed comment. The last cargo left Prelude on June 26, Refinitiv data shows. When operating normally, the site typically loads a tanker every seven to ten days, which suggests that loading of at least two cargoes will be prevented during the industrial action. The work stoppage comes just three months after the facility resumed shipping LNG following a four-month shutdown due to a major power failure. The world's largest floating facility cost an estimated \$20 billion to build — Shell has never confirmed an amount. Workers on Prelude began 12 days of industrial action on June 10 over a pay dispute. The action has now been extended to July 14. Prelude is co-owned by Shell, Inpex, Korea Gas, and a subsidiary of Taiwan's state-run Chinese Petroleum Corp.