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OPEC+ production decision based on faulty assumptions

(Bloomberg opinion column; Nov. 13) - OPEC+ oil ministers point to a massive surplus early next year as their justification for sticking to a plan of modest production increases. But those forecasts are built on fanciful numbers — and they're wrong. It doesn't matter which forecast presented last week to OPEC+ you look at, they all show the same thing in different degrees: The current tight oil market will soon evaporate, to be replaced by one in which supply is running ahead of demand and global stockpiles are rising again.

That switch, however, is based on highly inflated estimates of the group's own future production. In the most optimistic case, from the OPEC+ point of view, a supply deficit of 2.7 million barrels a day in the third quarter of 2021 becomes a surplus of 2.5 million barrels a day in the first quarter of next year. Supply continues to run ahead of demand for all of 2022, returning global stockpiles to a level slightly above the end of 2020.

Little wonder, then, that the producers are reluctant to heed calls from consumers to open the taps wider. But these forecasts give an unrealistic picture for next year. And it is difficult to believe that this is simply a mistake, since it is the forecast of the group's own production that is most at fault. By September the OPEC+ group of countries was pumping about 660,000 barrels a day below their target, with several countries unable to meet their individual allocations and others limited by maintenance work.

And yet the forecast assumes that the group produces in line with its target each month from October onward. That results in an implausible jump of 1.1 million barrels a day in the group's output between September and October. Persistent production shortfalls in countries like Nigeria and Angola are not the result of maintenance, as Saudi Arabia's energy minister claims. Rather, they reflect dwindling capacity from lack of investment in exploration and development. The shortfall will persist. In fact, it's going to get worse.

U.S. shale oil production headed to highest level since March 2020

(Bloomberg; Nov. 12) - Surging oil and natural gas prices are spurring production increases from West Texas to the Upper Great Plains that probably will lift output to levels not seen since the early days of the pandemic, according to Rystad Energy. U.S. shale oil production is expected to reach 8.68 million barrels a day in December, which would be the highest since March 2020, analysts at the Oslo-based research house said. Meanwhile, nationwide natural gas output is on its way to a six-year high.

In the Permian Basin, crude production is expected to rise to 5.043 million barrels a day this month, which would be the most in data going back to 2015, according to Rystad. U.S. oil prices have jumped 67% this year as economies emerged from lockdowns and OPEC and allied producers stick to output limits despite President Joe Biden's pleas to boost exports. U.S. shale oil production still lags levels seen in 2019 and the ongoing output gains may be slowed as inflation and labor shortages hinder growth prospects.

OPEC says high prices will cut into oil demand

(The Wall Street Journal; Nov. 11) - Soaring energy prices are likely to crimp demand for oil in some of the world's fastest-growing economies this year, the Organization of the Petroleum Exporting Countries said Nov. 11. In a closely watched monthly market report, OPEC said global demand for oil would grow by 5.7 million barrels a day this year, 160,000 barrels a day less than it expected last month. The revision means the producers group now expects demand for oil in 2021 to reach 96.4 million barrels a day.

High fuel costs amid a global energy crunch are showing signs of weighing on demand. Weaker than expected demand for oil in China and India is now likely, OPEC said. In China, fresh outbreaks of COVID-19 cases and lockdowns, coupled with weaker factory activity and power outages have also reduced demand for fuels. Demand for the remainder of the year, particularly in poorer nations, is also likely to be slower because of higher energy costs, OPEC said.

As economies reopen following pandemic closures, demand for everything from coal to gasoline has rapidly rebounded. Supplies, which were often curtailed during the worst of the pandemic, have failed to keep pace, sending prices higher. Still, OPEC expects demand next year to be above pre-pandemic levels. The organization left its forecast for demand growth next year steady at 4.2 million barrels a day. Oil demand is expected to reach to 100.6 million barrels a day in 2022, half a million more than in 2019.

Rosneft warns of rising oil and gas prices as demand grows

(Reuters; Nov. 12) - Russia's Rosneft the world's second-biggest oil company by output after Saudi Aramco, warned Nov. 12 of a potential "supercycle" in global energy markets, raising the prospect of even higher prices as demand outstrips supply. Surging oil prices, boosted by rebounding economies worldwide, lifted Rosneft's net profit to 314 billion roubles (\$4.4 billion) in the third quarter, versus a loss of 64 billion roubles a year ago, the company said.

"We observe a rapid growth in demand for traditional energy resources," Rosneft CEO Igor Sechin said in a statement. "As structural discrepancies between supply and demand on global energy markets are further revealed, we may witness a new

supercycle on the oil and gas markets." The Organization of the Petroleum Exporting Countries and allies including Russia, together known as OPEC+, have been slowly increasing output to meet growing demand since late last year, and Rosneft's oil production rose to 3.98 million barrels per day, up by 9%, in the third quarter.

Yet at a meeting last week, OPEC+ stuck to a plan to raise oil output by 400,000 barrels per day on a monthly basis, snubbing calls from the U.S. for a larger increase to keep oil prices in check. To meet rising demand, Rosneft plans to increase investments in new projects, Sechin said, as it ramps up its Vostok Oil project in Russia's Arctic.

Despite climate change risks, Guyana looks forward to oil wealth

(Al Jazeera; Nov. 12) - The capital of Guyana has yet to reflect its burgeoning fortunes. Deep puddles of water pool on pot-marked roads. Key heritage buildings are in sore need of fresh paint, and minimum wage workers toil for just over \$1 an hour. But South America's only English-speaking country is in the midst of an oil boom. Home to fewer than 800,000 people, Guyana saw some of the planet's fastest economic growth last year of more than 43%, said the World Bank, as offshore oil fields started producing.

ExxonMobil estimates Guyana holds at least 10 billion barrels of crude, potentially making the country one of the richest on a per-capita basis in the Western Hemisphere over the next two decades. But Guyana's drive to develop its oil wealth is colliding with the threat climate change is posing to its future. Earlier this year, devastating floods wrecked crops and destroyed thousands of homes. Rising sea levels mean Georgetown is one of nine major world cities forecast to be underwater by 2030 if greenhouse gas emissions continue at their current rate, according to research group Climate Central.

As world leaders wrap up U.N. climate negotiations in Glasgow, Scotland this week, Guyana is attempting to strike a delicate balance between extracting energy to lift people out of poverty and combatting the climate crisis. "We are a poor country; we're developing. We have a resource; we have to capitalize on it," said Kemraj Parsram, executive director of the country's Environmental Protection Agency, the government body responsible for safeguarding ecosystems.

Independent review recommends Oil Search merger with Santos

(Reuters; Nov. 10) - Oil Search shareholders are set to vote on Dec. 7 on a merger with Australia-based Santos after gaining approval from a Papua New Guinea court and a mixed endorsement from an independent expert. If it goes ahead, the A\$8.8 billion (\$6.5 billion) takeover of Oil Search would create a global top 20 oil and gas company and make Santos the largest shareholder in Papua New Guinea's biggest resource project, the PNG LNG project, run by ExxonMobil.

Oil Search's appointed independent expert firm, Grant Samuel, said the merger was in the best interest of Oil Search shareholders as it would boost funding for its \$3 billion Pikka oil project in Alaska and improve gas development prospects in Papua New Guinea. It said Santos' offer, which will give Oil Search shareholders a 38.5% stake in the merged group, did not fully reflect Oil Search's underlying value, which it said was worth 43% to 44% of the total estimated value of the merged group.

"There is clearly a risk that the funding and other strategic benefits do not fully compensate shareholders for this dilution," Grant Samuel said in a report attached to the merger document going to shareholders. It concluded nevertheless that Oil Search shareholders were likely to be better off if the deal went ahead, given growing funding constraints facing the industry in the drive away from fossil fuels. Oil Search acting CEO Peter Fredericson defended the merger ratio, saying it took into account relative contributions from earnings, reserves and production along with the strategic benefits.

Japanese LNG buyer takes 27.5% stake in Texas export terminal

(Reuters; Nov. 15) - Japan's JERA said Nov. 15 it will pay about \$2.5 billion for a 27.5% stake in the Freeport LNG project in Texas to Global Infrastructure Partners, which said earlier it will invest about the same sum in a liquefied natural gas project in Australia. JERA, the world's biggest buyer of LNG, is acquiring the stake in Freeport to secure its own long-term supplies of gas for power generation and to "respond flexibly to the LNG supply and demand situation in the Asian region," the company said.

The U.S. has become a major supplier of LNG since the emergence of drilling technology for shale formations that makes gas there among the cheapest in the world, although liquefaction and shipping costs to get it to Asia adds a lot to the price. The U.S. now rivals other big LNG suppliers like Qatar and Australia, where Global Infrastructure Partners agreed to pay, initially, about \$2.7 billion to Woodside Petroleum to help fund a second liquefaction train at the Woodside-operated Pluto LNG project in Australia.

The \$13 billion Freeport LNG project has three trains, at about 15 million tonnes annual production capacity, and is planning to start up a fourth unit around 2026. JERA, which already has a share of Train 1 at the liquefaction and export terminal, said in its statement it "will also work with Freeport LNG to advance new LNG projects including production capacity expansion and the development of Train 4."

Cheniere signs 11-year LNG supply deal with French utility

(S&P Global Platts; Nov. 11) - Cheniere Energy reached a medium-term supply deal over the summer with French utility Engie tied to the LNG exporter's Corpus Christi liquefaction terminal in Texas, according to a recently released letter to the U.S.

Department of Energy that was previously filed under seal. Under the terms of the 11-year agreement, a range of approximately 400,000 to 1.2 million tonnes per year of LNG is to be delivered to Engie from the Cheniere terminal.

The terms of the contract, beyond its length, volume and delivery basis, were not disclosed in the letter. The contract was to begin in 2021, though the letter did not say exactly when. Cheniere did not publicly announce the transaction at the time it was reached. A spokesperson declined to comment Nov. 11. Cheniere also operates an export facility at Sabine Pass in Louisiana. It expects in 2022 to sanction construction of an expansion at Corpus Christi, adding 10 million tonnes of additional output capacity.

Cheniere has also signed supply deals this year with Canada's Tourmaline, a subsidiary of Swiss commodity trader Glencore, China's Sinochem and an affiliate of China's ENN Natural Gas. Each of those deals was announced at the time it was reached.

Tanzania targets LNG project agreement in 6 months

(Bloomberg; Nov. 12) - Tanzania is targeting to sign agreements with companies led by Equinor and Shell within six months, a move that would help revive a \$30 billion natural gas project that's been languishing for five years. The host government agreement would outline commercial, legal and technical aspects of the project. Tanzania expects the final investment decision to happen soon, January Makamba, the nation's new energy minister, said Nov. 9 after discussions with executives from Equinor and Shell.

Tanzania, with an estimated 60 trillion cubic feet of gas reserves, needs to accelerate development as pressure builds to transition to cleaner energy. While it's less polluting than other fossil fuels, some environmentalists want to end the use of gas because its main component, methane, has far more planet-warming power than carbon dioxide. "We believe ... our gas has a very particular characteristic, which is a very low amount of CO2, which makes it even more attractive," Makamba, 47, said.

Tanzania is looking to develop its resources as an anchor for President Samia Suluhu Hassan's agenda to transform the economy and raise the nation's profile as a major gas exporter. Hassan, who came to power in March after the death of her predecessor, has been on a charm offensive to lure back investors who were vexed by past policies that they claimed changed goal posts in the energy and mining industries. "We want to get the excitement back," Makamba said. For now, his biggest priority is the gas project.

Declining domestic output pushes Thailand to buy expensive LNG

(S&P Global Platts; Nov. 12) - Thailand's LNG imports hit an all-time high in October and could remain high in the coming months as it ramps up purchases of expensive

spot LNG cargoes to stave off a widening domestic gas supply shortfall. The Southeast Asian country's gas crunch comes amid declining output at mature fields, exacerbated by weak investment, COVID-19 slowdowns, the exit of several international oil majors, and national companies struggling to boost reserves or hit high-profile discoveries.

Thailand's national oil company PTT faces production issues similar to Malaysia's Petronas and Indonesia's Pertamina, and is being forced to tap into the LNG market at a time when global prices have risen to record levels. Thailand's LNG imports hit an all-time high of 800,000 tonnes in October, a 55% increase from September and a 63% increase from the same period a year earlier, according to S&P Global Platts Analytics.

PTT and state-power company Electricity Generating Authority of Thailand, the two main LNG importers, issued several tenders for spot LNG cargoes for delivery from October to December, reflecting higher-than-usual procurement levels. Several October and November cargoes were awarded at around \$30 to \$35 per million Btu, which are some of the highest prices Thailand has ever paid for LNG.

Rising oil and natural gas prices good for Alberta's economy

(Financial Post; Canada; Nov. 10) - This fall, after the third wave of COVID-19, the Royal Bank of Canada surveyed the damage to the Canadian economy and downgraded its economic growth outlook for every province in the country but one: Alberta. "Alberta was the lone exception. We kept our growth forecast in Alberta at 5.9%," RBC senior economist Robert Hogue said, adding that he expects Alberta to be home to the fastest-growing provincial economy this year.

Canada's biggest oil and gas producing province is enjoying an economic resurgence after years of contractions and interrupted recoveries since the oil price crash of 2014. Economists say the province's oil and gas industry, buoyed by higher crude oil and natural gas prices this year, is leading the growth, but the current rebound is not limited to higher oil and gas activity as other sectors including residential real estate investment, manufacturing and services are also rebounding.

Add it all together and the province that experienced the deepest economic contraction of 2020 is on pace to post the biggest expansion of 2021 and carry those gains into next year. Hogue said the province's jobless rate, as of data released Nov. 5, is roughly back to pre-pandemic levels. Finance Minister Travis Toews said the province now expects five oil sands projects to repay their capital costs this year, a critical milestone that ushers those projects into higher royalty rates. "That has a significant impact on government revenues," he said. Toews said the province expects oil sands royalties to rise from an initial budget estimate of \$1.5 billion this fiscal year to over \$7 billion.

Alberta provides incentives for \$2.5 billion petrochemical plant

(Calgary Herald; Nov. 10) - Alberta Premier Jason Kenney says a planned C\$2.5 billion petrochemical plant in the Grande Prairie region is a sign of hope in the province's economic recovery. Northern Petrochemical Corp. announced Nov. 10 it will build a carbon-neutral ammonia and methanol production facility set to be the anchor tenant in a planned Greenview Industrial Gateway hub. The facility is expected to create up to 4,000 jobs during its construction, beginning in the spring of 2023 and completing in the fall of 2026. Once it's operational, it promises to employ 400 people full time.

"(It) is about adding value to natural gas feedstock, in a net-zero emissions context, for products that are in massive demand around the world," Kenney said. Geoff Bury, the company's president and CEO, said the natural gas facility will use carbon capture, utilization and storage, producing up to 200 tonnes of blue methanol and blue hydrogen per year that can be converted to ammonia and shipped internationally.

"We believe this project will be a key part of Alberta's transition to the clean energy future," said Bury, who said countries such as China, South Korea and Japan will be target markets for export. Bury said provincial government incentives played a key role in the decision to build in Alberta. The Alberta Petrochemicals Incentive Program offers to pay up to 12% of capital costs for new large petrochemical, fertilizer or hydrogen-producing facilities or expansions. The project could cost taxpayers \$300 million.

Chevron and partners will pay for failing CO2 capture at LNG project

(Reuters; Nov. 10) - Chevron and its partners in the Gorgon liquefied natural gas project in Western Australia have agreed to buy carbon credits likely to cost more than US\$180 million as a penalty for failing to meet a five-year target for carbon capture and storage. The costs, which could amount to well over A\$250 million (\$184 million) based on Reuters calculations, will be shared with its Gorgon LNG partners — ExxonMobil, Shell, and Japan's Osaka Gas, Tokyo Gas and JERA.

The A\$3.1 billion Gorgon carbon capture and storage project, the world's largest commercial CCS project, is being penalized by the Western Australian government for injecting far less carbon dioxide than planned since the LNG plant started up five years ago. Chevron said in a statement that it would invest A\$40 million in "lower carbon projects" and would buy and surrender 5.23 million greenhouse gas offsets to fulfill the Gorgon project's obligations to the state government, ideally by mid-July 2022.

Based on the current price of carbon offsets on the Australian market, which last week hit a record high of A\$37 a tonne, 5.23 million offsets would cost at least A\$195 million. Amid short supply of Australian credits, Chevron is unlikely to meet its obligation just with those offsets and said in a report to the government it would use internationally verified carbon units and offsets. In 2006, the state government allowed Chevron to

build the \$US55 billion (A\$75 billion) plant on Barrow Island, a nature reserve, on the condition that CO2 in the gas produced offshore would be buried under the island.

Australia's Woodside, Japanese partners consider hydrogen project

(Reuters; Nov. 12) - Woodside Petroleum said Nov. 12 it has acquired land for a proposed hydrogen plant in Tasmania, one of three hydrogen projects the island state is promoting to take advantage of its abundant hydropower and wind power. The aim is to use the available renewable energy to power electrolyzers to split water and produce so-called green hydrogen, which would then be converted to ammonia for export, part of a push by Australia, a major coal and gas exporter, to help cut carbon emissions.

Woodside is working with Japan's Marubeni and IHI Corp to export 200,000 tonnes a year of green ammonia to Japan from Tasmania's Bell Bay area. They aim to make a final investment decision in 2023 and complete construction in 2025 on the project called H2TAS. Woodside has not disclosed a cost for the project.

Tasmania's Energy Minister Guy Barnett said the state was working closely with all three proposed projects to create a single export hub, which could qualify for funding from the Australian government's A\$464 million (\$338 million) clean-hydrogen hubs program. First-round bids close on Nov. 22. Government support would be needed for its H2TAS project, Woodside said.