PLATTS METALS DAILY

REPRINT: Volume 11 / Issue 154 / Aug 12, 2022

BATTERY METALS – MARKET COMMENTARIES

Chinese lithium prices increase on heels of rising demand

According to the Platts price assessment from S&P Global Commodity Insights, battery-grade lithium carbonate was assessed at Yuan 480,500/mt Aug. 12 on a delivered, duty-paid China basis, flat on the day and up Yuan 500/mt on the week.

While some small trades were heard done at Yuan 485,000-490,000/mt, market sources largely agreed that mainstream tradable levels were still closer to the Yuan 480,000/mt mark in the week to Aug. 12.

"I think lithium is currently in its recovery stage, for stocks delivering in mid-end August, prices are already at Yuan 480,000/ mt, if not higher," a Chinese trader said.

Industrial grade lithium carbonate prices also edged up and were heard tradable between Yuan 465,000-470,000/mt, according to market sources.

Recent new energy vehicle production and sales statistics in China had boosted market sentiment, with sources expecting lithium prices to at least maintain at current high levels for the remainder of the year.

With demand only expected to increase in the coming months and considering seasonal production cuts at salt lakes during winter, some sources expected prices to increase even further in the coming months, despite current high levels already posing a challenge to consumers.

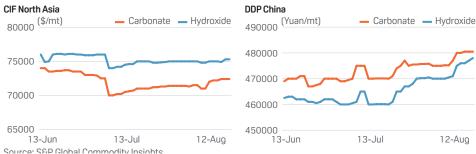
"Ultimately it comes down to market fundamentals," said a Chinese producer. "If demand continues to outpace supply, then sellers would have no choice but to sell to the highest bidder."

Battery grade lithium hydroxide prices also saw gains on the back of tight spodumene supply and higher prices for industrial grade lithium carbonate, used by some converters to produce hydroxide via causticization.

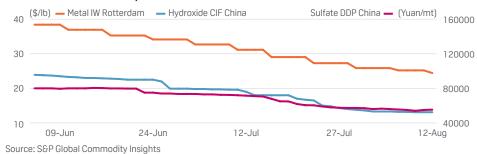
Battery grade lithium hydroxide was assessed at Yuan 478,000/mt on Aug. 12, up

BATTERY METALS Symbol W/W Change Date assessed Daily prices Lithium Carbonate CIF North Asia (\$/mt) 72400 +200 BATLC04 12-Aug DDP China (Yuan/mt) 480500 +500 12-Aug BATCA04 CIF North Asia Import Parity (Yuan/mt) 551769 +1589 12-Aug **BATCP04** Lithium Hydroxide CIF North Asia (\$/mt) BATLH04 75300 +300 12-Aug DDP China (Yuan/mt) 478000 +3000 12-Aug ВАТНҮ04 Cobalt Sulfate 10700 CIF North Asia (\$/mt) +0 12-Aug **BATC004** DDP China (Yuan/mt) 55300 -200 12-Aug Cobalt Hydroxide CIF China (\$/lb) ВАТСН04 13.10 -0.10 12-Aug -220.46 CIF China (\$/mt) 28880.52 12-Aug ВАТСТ04 Nickel Sulfate DDP China (\$/mt) 5385 +14 12-Aug BATNU00 DDP China (Yuan/mt) BATNS04 36300 +100 12-Aug Manganese Sulfate DDP China (\$/mt) 979 -8 12-Aug **BATMT00** DDP China (Yuan/mt) 6600 -50 12-Aug Weekly prices Lithium Spodumene 12-Aug FOB Australia (\$/mt) BATSP03 6300 +0 Cobalt Metal 99.8% IW Rotterdam (\$/lb) 24.420 -0.775 12-Aug MMAIK04

PLATTS LITHIUM CARBONATE AND LITHIUM HYDROXIDE



PLATTS COBALT METAL, COBALT HYDROXIDE AND COBALT SULFATE



Yuan 1000/mt on the day and up Yuan 3000/mt on the week, with tradable values heard around Yuan 475,000-485,000/mt.

Spot offers were scarce, with small trades heard done slightly above Yuan 500,000/mt, although most sources had pegged mainstream tradable levels at Yuan 475,000-485,000/mt.

Spodumene concentrate with 6% lithium oxide content (SC6) was assessed at \$6300/ mt FOB Australia on Aug. 12, flat on the week, according to S&P Global.

In the week ended Aug. 12, tradable levels were mostly heard above \$6,000/mt as spot supply remained tight.

With practically no spot cargoes available in the market, Pilbara's auction prices were still an important point of reference for market participants, a Chinese trader said.

While high raw material prices were a pain point for converters and downstream consumers, market fundamentals would likely keep spodumene prices supported in the near term, sources said.

"Until new supply comes online, there's no reason for spodumene prices to adjust downwards," a trader commented.

— <u>Leon Wong, leon.wong@spglobal.com</u>

Seaborne lithium prices stay rangebound

Seaborne lithium prices stayed rangebound the week to Aug. 12, as spot trading moved sideways.

Despite some sellers being bullish, buyers were not actively seeking to restock and were still resisting offers.

Platts assessed lithium carbonate at \$72,400/mt on Aug. 12, unchanged from Aug. 11 and up \$200/mt from Aug. 5. Lithium hydroxide was also assessed unchanged on the day and up \$300/mt week on week at \$75,300/mt.

The prices reflect the spot value of battery-grade material on a CIF North Asia basis, referring to deliveries to the main ports of China, Japan and South Korea. Lithium carbonate, however, is normalized to deliveries at the Shanghai port.

There was no significant change in market fundamentals, sources said. Spot trade remained thin as it has been since the second quarter, and demand is not expected to pick up in the remainder of August.

"North Asian customers still seem very hesitant on current lithium prices," said a seller source who has been waiting for over a week for customer feedback about a \$73,500/ mt offer for battery grade lithium carbonate.

Despite the silence, he said he was "inclined to increase the offer to \$74,000/mt if the buyer asks me to offer again."

"August is typically slower, but September should be more active," added another seller source who confirmed demand has not changed recently. He pegged the tradable values at as high as \$73,000-\$75,000/mt, though.

A third seller source has been lowering his offers since demand is unsupportive, he said. He was offering technical grade lithium hydroxide at as low as \$63,000/mt, "and the differential for battery grade quality wouldn't be too much, about \$1,000/mt," he said.

On the other hand, "we don't see any signs that prices are going down," a fourth seller source who would target \$70,000/mt for technical grade lithium carbonate, said. "Customers have not been accepting this price so far," he said, and his last concluded transaction a few weeks ago was at \$67,000/mt. He is currently sold out of battery grade material.

At least two other sellers reported quiet market activity. They were targeting a price of \$75,000/mt for battery grade lithium hydroxide shipments.

The Platts \$72,400/mt assessment for battery-grade lithium carbonate CIF North Asia was equivalent to Yuan 551,769/mt on a DDP China basis, including 13% value-added tax, based on Platts importparity calculation.

The DDP China lithium carbonate price was assessed at Yuan 480,500/mt Aug. 12, meaning seaborne prices were well above Chinese domestic prices. The dollar was assessed at Yuan 6.7413 at 4:30 pm Singapore time.

— <u>Henrique Ribeiro, henrique.ribeiro@spglobal.com</u>

Chinese cobalt hydroxide prices edge lower amid slow buying interest, metal prices steady on quiet market

Cobalt hydroxide prices inched down slightly in the week ended Aug. 12 as offer levels continued to hold around the \$14/lb

mark amid weak buying interest.

Platts assessed 30% Co cobalt hydroxide at \$13.10/lb CIF China Aug. 12, down 10 cents week on week. The assessment is for spot cargoes aligned with the Platts methodology loading 15-60 days out.

Cheaper recycled origin sulfate in China continued to squeeze refiners, discouraging them from procuring hydroxide for production and further pressuring prices.

"The hydroxide price would have to be \$12/lb for sulfate refiners to not make a loss." a Chinese trader said.

Sellers were also heard to have held back from offering amid news of a possible stockpiling by China's National Food and Strategic Reserves Administration, or NFSRA.

Sources were split on how great the impact would be on hydroxide prices, with some traders bullish on hydroxide, while others felt that the effect would be short-lived due to weak market fundamentals.

In the short term, however, market sources concurred that the hydroxide market was seeing a surplus, which could limit strengthening for hydroxide.

The cobalt metal market in Europe remained quiet last week in the peak summer holiday season.

One European trader reported there were a couple of UK inquiries but not much to speak of, citing offer levels around \$25.50/lb for October-November.

The prospect of the potential Chinese stockpile buying was the focus of some market attention.

"There is a lot of talk about it, I think it could happen," a US-based trader said. "If you traced all [Chinese stockpile] buying on all metals, you would see the markets responded upward."

Others were more skeptical, however. A second European trader cited a lot of conflicting information in the market.

"It's hard to clarify," the first European trader said. "Let's see if it transpires."

Platts assessed 99.8% Co metal at \$23.60-\$24.60/lb in-warehouse Rotterdam Aug. 12, down from \$24.00-\$25.00/lb Aug. 5.

Platts is part of S&P Global Commodity Insights.

— <u>Jesline Tang, jesline.tang@spglobal.com</u>

Chinese cobalt sulfate prices extend decline to 20-month low

Chinese cobalt sulfate prices saw a slight uptick amid talks of a possible stockpiling by China's National Food and Strategic Reserves Administration (NFSRA) on August 9, though general market sentiment remained bearish due to weak downstream demand.

Platts assessed battery-grade 20.5% Co cobalt sulfate at Yuan 55,300 (\$8,201)/mt DDP China Aug. 12, down Yuan 200/mt on the week, S&P Global Commodity Insights data showed.

Tradable values for cobalt sulfate were heard up to Yuan 58,000/mt on August 9 as market chatters regarding the possible stockpiling caused domestic metal prices to surge to around Yuan 350,000/mt.

However the price increase was not sustained, as sources reported sulfate prices returning to the Yuan 55,000-56,000/mt level as the week closed.

"The price increase was driven by stronger market sentiment, but looking at fundamentals, demand is still very weak," said a Chinese seller source.

"I think sellers were testing the market with higher offers, and buyers' sentiments might have been affected when they saw metal prices surging, so sulfate prices went up," said a Chinese refiner.

Some sources felt that metal prices could be buoyed by the news in the short

term, though the impact on hydroxide and sulfate prices would likely be limited.

Refiners were still producing at a loss, and considering the current sulfate price, hydroxide prices would have to fall to the \$12-13/lb for them to breakeven, said a Chinese trader.

Platts assessed 30% Co cobalt hydroxide at \$13.10/lb CIF China Aug. 12, down 10 cents week on week. The assessment is for spot cargoes aligned with the Platts methodology loading 15-60 days out.

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Chinese nickel sulfate prices inch up on tighter supply, manganese sulfate rangebound

Nickel sulfate in China edged up on tighter supply while slow trading kept manganese sulfate prices rangebound in the week to Aug 12.

Spot battery-grade nickel sulfate with minimum 22% nickel content and maximum 100 ppb magnetic material was assessed at Yuan 36,300/mt (\$5,385/mt) DDP China Aug. 12, up Yuan 100/mt the week, according to Platts assessments. (36200)

Tradable values were pegged between Yuan 36,000-37,000/mt by market sources, up by around Yuan 1,000/mt compared to the previous week.

While nickel intermediates supply was in surplus, sources said limited refining

capacity supported prices as the high-nickel NCM sector, mostly used for power batteries in electric vehicles, continue to see strong growth.

"The nickel sulfate price is still at a discount to the domestic metal price (SHFE)," said a Chinese seller. "I think once that gap closes, it should encourage refining capacity to come online and relieve the tight supply situation."

Another seller observed that demand for nickel had been stable from the electric vehicle sector, though it was difficult to say how this would reflect on sulfate and intermediate prices due to the significant growth in intermediates production.

Nickel metal payables for MHP were heard in the 68%-70% range, while cobalt metal payables were heard tradable at 50%-55%, unchanged from the previous week.

Meanwhile, market sources largely agreed that manganese sulfate prices could decline in the near term as raw material costs continue to fall.

Sulfuric acid prices had tumbled to below Yuan 100/mt in some regions in China in the week to Aug. 12, while prices for manganese ore, the predominant raw material for manganese sulfate production, have been on a downtrend since late April this year on slow steel demand.

A similar situation was observed in ex-Chinese markets, with battery grade

S&P Global

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PLATTS METALS DAILY

ISSN: 2325-0658

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manganese sulfate heard tradable around \$1,000/mt on a CIF North Asia basis, said a trader.

On the demand side, the increasing dominance of high-nickel NCM would also

lead to reduced manganese content in batteries, leading to less demand, said a South Korean source.

Spot battery-grade manganese sulfate with minimum 32% manganese content

material was assessed at Yuan 6,600/mt (\$979/mt) DDP China Aug. 12, down Yuan 50/mt on the week, according to Platts assessments.

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BATTERY METALS - NEWS

Cobalt metal prices hover at low levels despite talk of Chinese stockpiling

Cobalt metal prices are hovering at an 11-month low with a mixed short-term outlook despite talk of up to 2,600 mt possible metal stockpiling by China's National Food and Strategic Reserves Administration, or NFSRA.

NFSRA stockpiling has typically lifted the market sentiment, but sources are uncertain whether it can help boost the sluggish Chinese sulfate and hydroxide markets, which are struggling to regain footing even after the lifting of Shanghai's COVID-19 lockdown.

Weak demand from the 3C -- computers, communications, and consumer electronics -- sector and the battery industry's efforts to reduce cobalt usage in nickel-manganese-cobalt batteries are likely to continue to weigh on cobalt metal prices, sources said.

"It is difficult to get official confirmation and we are still not certain [if NFSRA buying will happen]," said a Chinese trader. "But this metal purchasing will not offer much help on hydroxide or sulfate prices. It still comes down to demand from the battery sector."

Platts assessed 99.8% cobalt metal at \$24.5/lb IW Rotterdam Aug. 10, down 38% from a 2022-high toward end-April, S&P Global Commodity Insights data showed.

NFSRA's role in stockpiling

The NFSRA is responsible for purchasing and storing reserves of strategic materials and executing certain procedures in accordance with the National Development and Reform Commission, China's top economic planner.

Some sources have theorized that the NFSRA purchases commodities mainly to support market prices. The Chinese state reserves authority is estimated to have bought just over 2,000 mt cobalt metal in fourth quarter, 2020. Unconfirmed rumors

suggested further stockpiling of 3000 mt metal early 2021.

"The NFSRA always buys at the bottom ... they did this with nickel, copper, and a lot of other products," a US trader said. "If you traced NFSRA buying on metals, the market has always responded upwards."

Chinese sources cited gains of up to Yuan 50,000/mt in domestic cobalt metal prices Aug. 9, though the prices have ease through the week as market sentiment cooled.

Some metal traders are bullish about a possible NFSRA stockpiling.

"It is obviously a good thing, I don't know how anyone could be unsure," a US metal trader said. "It is simple, it is a national stockpile. The Chinese economy is protecting itself against sanctions or trade disruptions attached to political or military movements."

If cobalt metal prices were to rise, they could lift cobalt hydroxide prices even though end-market demand remains potentially unchanged, according to sources.

Chinese mid-term hydroxide outlook bearish

There was more uncertainty downstream in the Chinese market on the effect of a stockpiling on the hydroxide and sulfate markets.

Cobalt hydroxide demand has been poor from the battery sector and prices are at a 20-month low with market sources not seeing convincing signs of a recovery in the Chinese market, which accounts for 74% of global refining capacity.

"We are now three-four months in, where China is not there [in the market], so we need to see how that evolves," a cobalt salts producer said. "People in the market are always saying China will be back next month, it is a crystal ball situation and hard to make a good prediction."

If the NFSRA stockpiles, it could change the metal market fundamentals significantly,

a Chinese refiner said. But the market is likely to see a downward pressure on metal prices in the weeks to come if the stockpiling doesn't happen. "It's too early to say for sure how big the impact will be, I think we just have to wait and see," the refiner said.

Chinese traders were generally bearish on the mid-term hydroxide prices as supply-demand fundamentals do not support a price hike. At current levels, hydroxide prices would have to be below \$13/lb for refiners to not make a loss, sources said.

The cobalt hydroxide market traditionally prices off a percentage payable indicator, with the underlying price being cobalt metal. However, Chinese market participants have increasingly questioned how reflective this pricing mechanism is, particularly as China's COVID-19 lockdowns have highlighted an increasing disconnect between the metal and downstream cobalt product prices.

The Platts fixed price assessment for cobalt hydroxide has shown a sustained downtrend since late April.

Platts assessed 30% Co cobalt hydroxide at \$13.10/lb CIF China Aug. 11, down from an all-time high of \$34.10/lb April 25. The assessment is for spot cargoes aligned with the Platts methodology loading 15-60 days out.

Cobalt sulfate inquiries have been few as consumers are flocking toward cheaper recycled sulfate tradable around Yuan 51,000/mt Aug. 10, another Chinese refiner said.

Platts assessed battery-grade 20.5% Co cobalt sulfate at Yuan 55,000 (\$8,169)/mt DDP China Aug. 11, S&P Global data showed. Prices had declined in the week to Aug. 10 but saw a slight increase after talk of stockpiling.

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China's CATL to invest Eur7.3 bil on second European gigafactory in Hungary

Chinese battery maker CATL will invest Eur7.34 billion (\$7.55 billion) on a 100 GWh gigafactory in Debrecen, Hungary, its second battery plant in Europe, it said Aug. 12.

The company plans to start construction of the plant within a year, subject to shareholder approval, it said.

CATL is also building a gigafactory in Germany's Thuringia state and received permitting approval for it in April.

The gigafactory will manufacture carbon-free batteries, as it will be powered by renewable electricity, with CATL considering developing solar power with local partners, it said.

In addition, the company is also looking into partnering with local partners to establish facilities for battery materials in Europe to build a sustainable and circular battery value chain.

Lithium prices have been strong in 2022, with Platts seaborne lithium carbonate and lithium hydroxide assessments up 114.2% and 137.5%, respectively, since the start of 2022 at \$72,400/mt CIF North Asia and \$75,300/mt CIF North Asia as of Aug. 12, according to S&P Global Commodity Insights data.

"The greenfield project in Hungary will be a giant leap in CATL's global expansion, and also an important step in our efforts to make an outstanding contribution to the green energy drive," CATL Chairman Robin Zeng said.

The plant will produce battery cells and modules for European automakers, with close proximity to Mercedes-Benz, BMW, Stellantis and Volkswagen, it said.

"CATL's Debrecen plant will enable it to better cope with the battery demands of the European market, improve its global production network development, and help accelerate e-mobility and energy transition in Europe," the company said.

The new gigafactory would expand the partnership between Mercedes-Benz and CATL, first announced in August 2020, and marked a milestone in the automaker's local-for-local purchasing strategy, Mercedes-Benz said in a separate statement.

Mercedes-Benz would be the first and largest customer of the gigafactory's initial capacity, Markus Schafer, Mercedes-Benz Group board member and CTO responsible for development and procurement, said.

The plant would allow the automaker to take "another step to scale up development and production of next-generation high-performance battery cells and modules on its path to an all-electric future," it said.

Mercedes-Benz plans to build more than 200 GWh in battery capacity by 2030.

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China electric passenger car sales view upped to 6 mil units in 2022: CPCA

The China Passenger Car Association raised its forecast for electric passenger car sales to 6 million units in 2022, up from the previous estimate of 5.5 million made at the end of last year, according to data released by the organization Aug. 9.

The CPCA said the forecast could be hiked further in early Q4.

China's total electric vehicle sales will reach 6.5 million units in 2022 on expectations of strong growth in the upcoming months.

The average monthly EV sales will surpass 600,000 units over August-December period, in view of high gasoline prices, increasing buying interest and higher production from automakers, the CPCA said.

China reducing purchase tax on certain normal passenger cars did not have much impact on EV sales, as seen from robust numbers seen in July, according to sources.

EV production reached 564,000 units in July, up 124% year on year, driven by a series of stimulus packages released by the central and local governments, CPCA data showed.

July and August typically used to be offpeak season for automobile sales.

Lithium chemicals prices

The price of Chinese lithium chemicals the key ingredients for power batteries used in EVs— will stay elevated in the months ahead amid expectations of increasing demand and support from high raw materials prices, sources said.

Chinese lithium salts prices inched up

over the past few weeks, as the market retained its bullish momentum.

According to Platts assessments from S&P Global Commodity Insights, battery-grade lithium carbonate was assessed at Yuan 480,000 (\$71,024)/mt Aug. 8 on a delivered, duty-paid China basis, up Yuan 5,000/mt on the week and Yuan 9,900/mt on the month.

Due to the resurgence of lithium-ironphosphate and nickel-cobalt-manganese batteries in downstream markets, demand for Chinese lithium salts has been robust.

— <u>Staff, support@platts.com</u>

China's new energy vehicle production hits new high in July, sales soar: CAAM

China's new energy vehicle output reached a new high of 617,000 units in July, surging 117.3% year on year and 4.5% higher on the month, the China Association of Automobile Manufacturers said Aug. 11.

New energy vehicles include pure and hybrid electric vehicles.

NEV sales reached 593,000 units in July, up 118.8% on the year, but slightly down from a month earlier, CAAM data showed.

NEVs comprised 24.5% of China's total vehicle sales in July. This was for the fifth straight month when NEV's market share in total vehicle sales has remained above 20%, S&P Global Commodity Insights calculations showed.

In the first seven months of 2022, total NEV output and sales were 3.28 million and 3.2 million units, up 118% and 116.1%, respectively, compared with the same period last year, CAAM data showed.

It could be seen from July sales that the reduction of the purchase tax for some fuel passenger cars had limited impact on EV sales. July and August used to be the offpeak season for automobile sales.

The China Passenger Car Association raised its forecast for electric passenger car sales to 6 million units in 2022 from its previous estimate of 5.5 million units made at the end of last year.

The CPCA expected its forecast to be further raised in early fourth quarter.

China's total electric vehicle sales will reach 6.5 million units in 2022 on expectations of strong growth in the months

ahead, the CPCA said.

The CPCA data counts electric vehicles as passenger cars and commercial vehicles such as buses.

China's vehicle output and sales both will continue to see fast growth in the months ahead, as production by automakers is recovering from the impact of the pandemic while a series of incentive policies is also boosting vehicle purchases, industry sources said.

Lithium price, battery output

Prices of Chinese lithium chemicals -the key ingredients for power battery used in
electric vehicles -- will stay elevated in the
months ahead amid increasing demand and
support from high raw materials prices,
sources said.

Chinese lithium salts prices have inched up in the past few weeks as the market retained its bullish momentum.

Platts assessed battery-grade lithium carbonate at Yuan 480,500/mt (\$71,290/mt) Aug. 11 on a DDP China basis, up Yuan 3,500/mt on the week and Yuan 10,400/mt on the month.

Platts is part of S&P Global.

China's output of power battery -- the major consumer for battery metals -- reached a new high of 47.2 GWh in July, up 172.2% from a year earlier and 14.4% month on month, according to separate data released by the China Automobile Battery Innovation Alliance.

— <u>Staff, support@platts.com</u>

US EV bill sets 'tight' phase-in timeline for battery metal rules

Critical mineral sourcing rules governing an electric vehicle tax credit for manufacturers in the US Inflation Reduction Act are ambitious and may require significant changes to battery metal supply chains, and fast, according to metal sector experts.

Automakers have raised concerns over the phase-in of the tax-credit rules in the bill, which proposes firm requirements on metal content in EV batteries to qualify automakers for a \$7,500 tax credit on EVs. The proposed bill passed by the Senate Aug. 7, is not yet law, but if it goes ahead in something close to its current form, the

industry would have to quickly expand the refining of key battery metals including lithium, nickel, cobalt and copper for automakers to capture the tax credit.

"It's going to be very, very tight to hit some of the bill's sourcing goals and percentages," said Chris Berry, president of House Mountain Partners, an advisory firm that focuses on battery metals.

The bill breaks down the tax credit into two \$3,750 tranches, each separately defining EV battery content in terms of critical minerals and battery components. Starting in 2023, 40% of an EV's battery metals by value would have to come from the US or a country with which it has a free trade agreement. The requirement grows each year to 80% in 2027.

In the other tranche of the tax credit, 50% of the value of battery components would have to come from the US or the other free trade countries in 2023. The figure climbs to 100% in 2029.

Automakers have reportedly said the bill's targets are too tough, and they are looking for a longer phase-in amid a global push to expand EV manufacturing.

Refining challenge

The major challenge for automakers is that China dominates the refining of key battery metals such as lithium, and building new mines and processing capacity takes years. Mining sector experts point to lithium, nickel and copper as metals that will be especially tough to source under the proposed rules.

One example is copper concentrates, which are produced by many mines in North and South America but go to smelters that are often located in China, which consumes roughly half the world's copper.

Much the same is true for lithium. The white-hot commodity is chiefly mined in Australia and Chile, which have free trade agreements with the US, while China accounts for about 60% of the sector's refining capacity.

As such, the U.S. and its free trade partners will need to rapidly focus on expanding metal refining to meet the growing demand for metals if automakers are to fully capture tax credits in the proposed bill, mining sector experts told S&P Global Commodity Insights. It may be easier

said than done, however.

"You can do that if you have a command economy like China, but it's hard to do that in democratic countries," said Joe Mazumdar, head of Exploration Insights.

While the bill may put automakers in a bind, it is set to benefit metal producers and miners in the U.S. and countries with which it has free trade agreements, Mazumdar and Berry said. Still, it remains to be seen whether they can pivot quickly enough to match the bill's targets for metal content in EV batteries.

"The next three years are super crucial with respect to the build-out of that middle piece of the supply chain," Berry said.

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— <u>Kip Keen, support@platts.com</u>

Magnis Energy's New York lithium battery gigafactory starts commercial production

Australia-listed battery and graphite developer Magnis Energy Technologies has started commercial production at its joint venture Imperium3 New York, or iM3NY, gigawatt-scale lithium-ion battery manufacturing plant in Endicott, New York, it said Aug. 12.

The company expects the plant's initial production to be several thousand cells in the next month, which will be used for quality assurance, and ramp up to reach 1 GWh by the end of 2023 and then eventually reach 1.8 GWh/year, or 15,000 cells/day.

It aims to eventually increase production capacity to 38 GWh/year by 2030.

Magnis and technology partner Charge CCCV are the main shareholders of the gigafactory, which is expected to start sales and receive first revenue in late September, the company said.

The plant will be powered using green hydroelectricity, with its supply chain partners carefully selected to meet sustainability standards, it said.

iM3NY will use Charge CCCV's biomineralized lithium mixed metal phosphate, or BMLMP, chemistry and prismatic cell design, which allows for a long cycle life, fast charging and greater safety, Magnis said.

No cobalt or nickel is used in the

batteries and the technology enables high voltages at 3.9 volts, which the company said was 20% higher than lithium iron phosphate, or LFP, cells and 5%-8% higher than nickel cobalt aluminum or nickel manganese cobalt cells, Magnis said.

Lithium prices have been strong in 2022, with Platts seaborne lithium carbonate and lithium hydroxide assessments up 114.2% and 137.5%, respectively, since the start of 2022 at \$72,400/mt CIF North Asia and \$75,300/mt CIF North Asia as of Aug. 12, according to S&P Global Commodity Insights data.

iM3NY plans to optimize the plant's manufacturing lines for future technologies, such as solid-state batteries, it said.

"Despite a challenging global environment and supply chain issues, we have successfully started production close to schedule which is a major achievement," iM3NY CEO Chaitanya Sharma said.

"We now look forward to increasing production rates toward and over the gigawatt hour mark."

Magnis Chairman Frank Poullas said: "With previously announced binding sales agreements, I look forward to updating the market as we move towards generating revenues and increasing the capacity of the plant to meet some of the huge demand currently experienced for lithium-ion batteries, especially in the US."

Magnis said it was in ongoing talks with a number of groups to secure the investment needed to meet the planned capacity increase to 38 GWh/year, including potential government funding.

— <u>Jacqueline Holman</u>, jacqueline.holman<u>e</u> spglobal.com

Chile lithium exports rise 37% in July, prices decline

Chilean lithium exports reached 20,317 mt in July, up 37% year on year, as producers Albemarle and SQM ramped up production to meet rising demand, customs data showed Aug. 8.

The monthly volume was also up 50% on the month, but was below the record 27,956 mt set in May.

Exports to China almost doubled on the year to 11,138 mt, while exports to South Korea rose 61% to 6,263 mt.

Exports for the first seven months of 2022 reached 132,874 mt, up 54% on the year.

With spot prices at record levels, the value of Chile's lithium exports grew ninefold year on year to \$4.5 billion in July, making lithium the country's third biggest export behind copper and fruit.

However, lithium export prices appear to have peaked, reaching an average \$41.97/kg in July, down from a peak of \$52.17/kg in May, due to lower prices in China, which accounts for more than half of Chilean exports.

Albemarle previously said it expected to sell 20%-30% more lithium in 2022 after commissioning its La Negra III/IV expansion project, while average pricing was expected to rise threefold as it renegotiated supply contracts.

— <u>Tom Azzopardi, support@platts.com</u>

Alkemy plans lithium sulfate plant at Australia's Port Hedland

Alkemy Capital Investments plans to build a lithium sulfate plant at Port Hedland in Western Australia to serve as a refining hub for Australian spodumene miners, it said late Aug. 8.

The plant is planned to process spodumene to initially produce 40,000 mt/ year of primary lithium sulfate, and eventually add 120,000 mt/year more with trains 2-4, it said.

The company is in discussions with the relevant Western Australian government agencies about an appropriate site for the planned plant, which it said would likely be located close to Port Hedland.

Port Hedland is Australia's largest export port and shipped 365,809 mt of spodumene concentrate to Asia in 2021, according to the Pilbara Ports Authority.

The lithium sulfate plant would export a higher-grade, lower-volume product resulting in less tonnage shipped and less transport carbon emissions, it said, adding that this would supply a de-risked lithium supply chain between Western Australian spodumene producers and the European lithium battery cell market.

"More than 700 GW of lithium battery gigafactories are planned for construction across Europe which will require over 325,000 mt/year of LHM from 2030," Alkemy said, pointing out that there was currently no

lithium hydroxide production capacity in Europe or the UK.

Alkemy plans for the plant to feed its subsidiary Tees Valley Lithium's lithium hydroxide plant in Teesside, UK, which is planned to initially produce 24,000 mt/year of battery-grade lithium hydroxide from 2024, it said.

Once completed, the lithium hydroxide plant is due to produce 96,000 mt/year of lithium hydroxide, around 15% of Europe's projected demand by 2030, Alkemy said.

Lithium hydroxide prices have risen 137% since the start of 2022, with the Platts seaborne lithium hydroxide price assessed at \$75,000/mt CIF North Asia Aug. 9, according to S&P Global Commodity Insights data.

Alkemy and Traxys recently partnered to source and supply lithium feedstock for Tees Valley Lithium's hydroxide processing facility, which Alkemy said would also include the sourcing and supply of spodumene concentrate to the Port Hedland lithium sulfate plant.

"Working with leading global metals trader Traxys to source the spodumene feedstock for the Port Hedland LSM plant, Alkemy is now progressing discussions to finalize and secure the optimal site for the Port Hedland LSM plant and the definitive spodumene feedstock agreement to underwrite the development of the plant," Alkemy and Tees Valley Lithium Director Sam Quinn said.

The plant would provide "major downstream processing and value adding to the Pilbara region of Western Australia, with significant multiplier benefits for the local community, while reducing the carbon footprint of the end-to-end lithium battery cell supply chain to meet new European emissions standards," he added.

— <u>Jacqueline Holman, jacqueline.holman@</u> spqlobal.com

Electra pushes Ontario cobalt plant startup back to spring 2023

Electra Battery Materials now expects to commission its cobalt sulfate refinery in Ontario by spring 2023, back from December of this year, due to inflationary input costs and logistics challenges, thus pushing back the plant's startup that was originally anticipated by the end of the year, company

executives said Aug. 12.

"We're not in any way immune to what's been going on in the world with the geopolitical issues in Europe, the supply chain issues out of Asia and the direct result of having a domino effect on prices and pricing pressures," Mark Trevisiol, Electra's vice president of project development, said during a second-quarter earnings call with investors.

Trevisiol said the rising price of oil has had a significant impact on transportation and materials acquisitions globally. Electra also experienced a delay in the delivery of tanks to the refinery after the tanks failed the supplier's quality inspection, he added.

"We've been able to work with our suppliers to try to reroute things where we can," he added. "We were looking at starting commissioning [for the refinery] in December of this year, but that isn't possible given the delay with some of these OEM components and our project costs. The inflationary pressures are something that certainly wasn't foreseen."

About 80% of the equipment at the refinery has been commissioned so far, and 80% of the project's procurement has been met, Trevisiol said.

In a separate statement, CEO Trent Mell said the delay in the commissioning of the refinery will not affect the timelines for any other of Electra's projects.

"The extended project timeline will not impact our plans to proceed with our battery recycling demonstration plant in the third quarter or evaluate assay results from our Ruby drill program to assess potential new exploration initiatives in the Idaho Cobalt Belt," he said.

The Toronto-based Electra plans to initially produce 5,000 mt/year of battery-grade cobalt sulfate at its refinery, with an option to expand capacity to 6,500 mt/year. The company is also exploring battery recycling, nickel sulfate production, a partnership with a cathode precursor manufacturer and cobalt mining.

— <u>Nick Lazzaro, nick.lazzaro@spglobal.com</u>

Fuse Cobalt to supply cobalt raw material to Electra's Ontario refinery

Cobalt explorer and developer Fuse Cobalt has agreed to supply cobalt raw

material to Electra Battery Material's cobalt sulfate refinery in Ontario, Canada, the companies said Aug. 11.

The two companies have signed a memorandum of understanding under which Fuse is due to supply cobalt feedstock from its Teledyne and/or Glencore Bucke cobalt projects also located in Ontario, which are currently in the exploration phase.

Under the MOU, Electra could purchase up to 2,000 mt/year of cobalt contained in raw material from either of the projects, the companies said.

Fuse has agreed to make every effort to bring into commercial production on or before the start of 2028, although this could be extended by a year by mutual agreement.

The price to be paid for the cobalt in raw material will be linked to a standard-grade cobalt metal price multiplied by a payable mechanism to be agreed on before the transaction is completed.

Platts, part of S&P Global Commodity Insights, assessed 99.8% Co metal at \$24.50/lb in-warehouse Rotterdam Aug. 10, down 26.8% from the beginning of January.

The two companies will also collaborate on ways to extract copper byproduct on a profit share basis, they said.

"This MOU is the first step towards a potential definitive agreement to supply cobalt raw material for Electra's nearby cobalt refinery and sets out the terms by which we will exchange information with Electra to advance a potential transaction to involving the supply of cobalt raw materials," Fuse CEO Robert Setter said.

A definitive agreement is subject to a few conditions, including Fuse developing a processing flowsheet designed to produce material suitable for further processing to battery-grade cobalt sulfate and the completion of a bankable feasibility study.

Fuse will also have to align with and follow a number of Electra's policies, including supply chain, environmental, sustainability and human rights, as well as becoming Responsible Minerals Initiative certified through the Responsible Minerals Assurance Process.

"Having a domestic source of cobalt raw material produced ethically and with low-carbon emissions will help us to better address the demand for onshore EV battery materials," Electra CEO Trent Mell said.

Electra is on track to commission its cobalt refinery at its Battery Materials Park in December where it plans to produce battery-grade cobalt sulfate at an initial capacity of 5,000 mt/year of contained cobalt. Subsequent phases of development will lift the plant's nameplate capacity to 6,500 mt/year.

— <u>Jacqueline Holman, jacqueline.holman@</u> <u>spglobal.com</u>

Turkey's Siro JV successfully produces first EV battery prototype

The Silk Road Clean Energy Storage Technologies has successfully produced the first battery prototype at its Battery Development Center in Gebze, Turkey, the joint venture said Aug. 8.

Also known as Siro, it is a JV between Turkish electric vehicle manufacturer Togg and Chinese battery maker Farasis Energy. Siro is aiming to start mass EV battery production from the beginning of 2023 and will produce a 20 GWh battery-modules pack, as well as EV battery cells for Togg.

Togg is expected to start mass production of EV SUV models at the start of 2023 and have a capacity of 175,000 vehicles/year.

Ford Otosan, a JV between Koc Holding and Ford, also plans to open its EV battery plant in the fourth quarter to produce 210,000 commercial vehicles and 130,000 batteries every year.

Increased EV demand has boosted battery metals prices, with the Platts seaborne lithium carbonate and lithium hydroxide assessments rising 113.6% and 136.6%, respectively, since the start of 2022 to \$72,200/mt CIF North Asia and \$75,000/mt CIF North Asia as of Aug. 8, according to S&P Global Commodity Insights data.

— <u>Cenk Can, support@platts.com</u>

INTERVIEW: Cobalt Blue works towards Australian battery metal refining hub

Cobalt Blue Holdings is working with other battery metal players in Australia to develop a battery metal refining hub in Western Australia, in line with the global push for more localized battery metal

refining outside of China, Cobalt Blue Investor Relations and Commercial Manager Joel Crane told S&P Global Commodity Insights.

This will feed into Western Australia's Future Battery Industry program launched in January 2019, attracting investment in local mining and processing projects, expanding the state's contribution to the global battery supply chain and creating local jobs.

Cobalt Blue is a participant of the Future Battery Industries Cooperative Research Centre, or FBICRC, which launched its flagship cathode precursor production pilot plant project in July, to which the company will supply cobalt.

"They will be developing a number of different battery chemistries and we're providing the cobalt for them all," Crane said.

Cobalt Blue is aiming to mine cobalt from the Broken Hill Cobalt Project in in New South Wales and develop a cobalt refinery in southern Western Australia where other battery metal parties are located.

The mined ore will go directly to the refinery, making it the only integrated refinery outside of China, with the plant due to have a capacity of 3,500 mt of metal equivalent, which equates to 10,000 mt/year of mixed hydroxide precipitate, or MHP, and 17,000 mt/year of cobalt sulfate.

The Platts battery-grade 20.50% Co cobalt sulfate assessment was at \$10,700/mt CIF North Asia Aug. 11, down 34% since the start of 2022, according to data from S&P Global Commodity Insights.

Cobalt Blue recently started operations at its demonstration plant, part of the definitive feasibility study that is due for completion in about a year.

"The demonstration plant will provide us with a lot of data on the crushing and concentration circuits as well as the refinery processes and the cost structure around those operations," Crane said.

He said the DFS was expected in $\Omega 3$ 2023, with the company simultaneously going through permitting processes.

Commercial partner discussions

On the corporate side, Crane said Cobalt Blue was in discussions to secure a commercial partner for an offtake agreement.

"Our strategy is different to other critical/

battery minerals folk in that we're not interested in signing a non-binding agreement with an OEM saying, 'if we get up and running we'll give you 30% of our product'," Crane said.

"We're looking for a real partner that's willing to prepay and/or become either an equity to help fund the construction, which will start towards the end of next year, post the DFS."

Cobalt Blue's product would "sell itself," Crane added, because it does not come from the Democratic Republic of Congo and is a greenfield mine, giving Cobalt Blue the opportunity to build an environmentally-efficient operation.

In addition to refining the cobalt mined at Broken Hill, Cobalt Blue has also been working with Queensland's Department of Resources to assess opportunities for the recovery of cobalt and other metals from mine waste.

"There are a number of stranded tons across Australia, in tailings dams and waste rock dumps, so our patented flow sheet may help us to commercialize these trapped metals, including cobalt, while cleaning up the environmental mess present," Crane said.

"Our goal is to establish a refinery in WA, ship our intermediate product there via train or truck - given the high value of intermediate products this is economic -- and also be able to liberate other cobalt tons and bring them into that refinery," he said.

— <u>Jacqueline Holman, jacqueline.holman@</u> <u>spglobal.com</u>

US mulling options for \$675 million domestic critical minerals funding

The US Department of Energy issued a request for information Aug. 9 on the development and implementation of a \$675 million funding package under the government's Bipartisan Infrastructure Law to bolster domestic critical mineral supply chains for clean energy technologies.

"We can follow through on President Joe Biden's clean energy commitments and make our nation more secure by increasing our ability to source, process, and manufacture critical materials right here at home," Energy Secretary Jennifer Granholm said in a statement. "The Bipartisan Infrastructure Law is supporting the DOE's effort to invest in the building blocks of clean energy technologies, which will revitalize America's manufacturing leadership and bring along the benefits of good paying jobs."

The RFI was issued to solicit feedback from industry, academia, research laboratories, government agencies, state and local coalitions, labor unions, tribes, community-based organizations, and others, on the timing, distribution and selection criteria of the funds.

The funding would encompass support for critical mineral and material research, development, demonstration and commercialization efforts.

"The program will address vulnerabilities in the domestic critical materials supply chain, which are both an economic disadvantage and an impediment to the clean energy transition," the Energy Department said.

The Energy Department said lithium, nickel, cobalt and rare earth elements all represented minerals of interest for the critical minerals funding as the US looks to expand the domestic manufacturing of batteries, electric vehicles, wind turbines and solar panels.

"DOE's comprehensive strategy calls for increased domestic raw-materials production and manufacturing capacity, which would reduce our dependence on foreign sources of critical materials, secure America's clean energy supply chain, and introduce more jobs associated with the clean energy transition," according to the statement.

— <u>Nick Lazzaro, nick.lazzaro@spglobal.com</u>

Freyr Battery CQP on schedule for sample cell production in Q1 2023

Clean battery developer Freyr Battery's customer qualification plant, or CQP, in Mo i Rana, Norway, is on track to start ramping up sample cell production in the first quarter of 2023, the company said Aug. 8 in its second-quarter results.

The construction of the plant is progressing steadily and the company expects to start factory acceptance testing

in the second half of 2022, it said.

Freyr recently finalized a long-term physical supply agreement with Statkraft for hydropower renewable electricity for its Giga Arctic gigafactory and the CQP.

In a business update, the company said it was in advanced negotiations to convert its key conditional offtake agreement into long-term sales agreements.

The company's board has also approved incremental capital spending of around \$70 million on the company's Giga Arctic gigafactory development, it said.

Freyr has formally launched the Giga Arctic project financing process and said it had was engaged in a market sounding process with a consortium of potential lenders, including 14 commercial banks, four export credit agencies and two multinational development financings institutions.

These include Société General, DNB, Eksfin, the Nordic Investment Bank and the European Investment Bank, among others.

Freyr expects to receive initial feedback from the market sounding process in the third quarter of 2022, it said.

Battery metal prices have been strong in 2022, with the Platts seaborne lithium carbonate and lithium hydroxide assessments rising 113.6% and 136.6%, respectively, since the start of 2022 to \$72,200/mt CIF North Asia and \$75,000/mt CIF North Asia as of Aug. 8, according to S&P Global Commodity Insights data.

"Our second quarter was punctuated by the achievement of key milestones, the demonstration of meaningful financial support from the Norwegian Government and other key OECD governmental entities, the consummation of new strategic relationships across the battery value chain, and accelerating commercial momentum," Freyr CEO Tom Einar Jensen said.

The company also aims to accelerate its development plans in the US, due to "improving market conditions and the financial incentives attendant to the proposed Inflation Reduction Act," it said.

It has a joint venture with Koch Strategic Platforms, which has narrowed down the list of potential sites for a US gigafactory to five, with final site selection expected in the second half of 2022.

"As energy security and governmentbacked decarbonization mandates gain traction in key end markets across Europe and the US, we are advancing several strategic initiatives to further our aspirations to become an industrial partner of choice in the clean battery space," Jansen said.

In the second half of the year the company will be focused on the CQP construction and the Giga Arctic projects, while looking to formalize commitments with its financial, governmental and strategic partners, he said.

— <u>Jacqueline Holman, jacqueline.holman@</u> <u>spglobal.com</u>

Australia's Morella to invest \$1 mil to earn 60% of North Smoky lithium project in Nevada

Australia's Morella Corp. has agreed to earn a 60% interest in Lithium Corp.'s North Smoky lithium project in Nevada by investing at least \$1 million over four years on exploration and development, it said Aug. 11.

The investment schedule comprises \$100,000 in year one, \$200,000 in year two, \$300,000 in year three and \$400,000 in year four.

Under the four-year earn-in agreement, Morella will also issue \$500,000 worth of shares to Lithium. Corp., with the first \$100,000 to be issued 60 days after executing the earn-in agreement and then another \$100,000 at every anniversary.

The company has the option to acquire up to 100% in the project, which it said was "perfectly positioned to support the growing US-domestic lithium and electric vehicle supply chain."

Under the option, Morella can buy another 20% interest in the project within a year after the four-year earn-in agreement ends for \$750,000 and then the remaining 20% for another \$750,000 within two years.

If it does acquire a 100% interest, it will give Lithium Corp. a 2.5% net smelter royalty, although Morella can choose to buy the rights to half of the royalty for \$1 million.

Morella now has earn-in agreements for two lithium projects in Nevada, including the Fish Lake Valley project.

Lithium prices have been strong recently, with Platts seaborne lithium carbonate and lithium hydroxide assessments up 114.2% and 137.5%, respectively, since the start of 2022 at \$72,400/mt CIF North Asia and \$75,300/mt

CIF North Asia as of Aug. 11, according to S&P Global Commodity Insights data.

"The addition of the North Big Smoky Project to Morella's portfolio complements our existing Fish Lake Valley lithium project and expands our footprint in a well-known, highly prospective lithium region," Morella CEO Alex Cheeseman said, adding that the area had existing infrastructure in place, including energy sources, communications networks, inbound and out bound distribution networks and access to exploration/mining labor.

"With the US government encouraging domestic production of key battery metals and with continued global demand growth for lithium, we are excited to be adding another promising lithium raw material project to our portfolio," Cheeseman said.

— <u>Jacqueline Holman, jacqueline.holman@</u> spglobal.com

Australia's Nickel Industries raises \$225 million for acquisition of Oracle project in Indonesia

Australia-based Nickel Industries, formerly Nickel Mines, has raised \$225 million in debt capital with proceeds going toward the purchase of the Oracle Nickel project in Indonesia, the company said Aug. 8.

The Sydney-listed company said the amount was raised through the issuance of senior secured notes due, August 2025, at an interest rate of 10%. The notes will be issued on the Frankfurt Open Market Exchange.

"The issuance of the notes will position the company to increase its ownership interest in Oracle to 70% and meet its payment obligations to Shanghai Decent [Investment Group] for the transaction," Nickel Industries' managing director, Justin Werner, said in a statement.

Spot battery-grade nickel sulfate with minimum 22% nickel content and maximum 100 ppb magnetic material was assessed at Yuan 36,200/mt (\$5,356/mt) DDP China Aug. 8, unchanged from Aug. 5, and up Yuan 2,400/mt week on week, according to the Platts assessment from S&P Global Commodity Insights.

The company said the first rotary kiln electric furnace line at Oracle Nickel is expected to commence commissioning in

October, ahead of the contracted February 2023 project delivery date.

Oracle Nickel comprises four RKEF lines with nameplate production capacity of 36,000 mt/year of equivalent contained nickel in nickel pig iron and a dedicated 380-MW power plant at the Indonesia Morowali Industrial Park in Central Sulawesi, Indonesia, the company said.

The company's main operations, located in Indonesia, are the Hengjaya Nickel and Ranger Nickel RKEF projects, located within IMIP, the Angel Nickel RKEF project, located within the Indonesia Weda Bay Industrial Park, and the Hengjaya Mine.

As with Angel Nickel, NPI production from Oracle Nickel's RKEF lines will run at less than 100% of the 36,000 mt/year of nickel metal production nameplate capacity during its commissioning phase, depending on power availability while construction of Oracle Nickel's dedicated power plant is completed, it said.

Production

In July, Nickel Industries reported production of 15,567 mt of nickel metal from its RKEF operations at the end of June.

Angel Nickel for the period produced 6,389 mt of nickel, which commissioned the fourth of its RKEF lines during the quarter and continued to ramp up production, the company said at the time, adding that output levels at Angel Nickel were anticipated to boost significantly to above nameplate capacity in the September quarter.

The company said Oracle Nickel, like the Angel Nickel project, is expected to transform its nickel production profile, resulting in a combined nameplate capacity in excess of 100,000 mt/year of nickel in NPI.

The London Metal Exchange threemonths nickel price was trading at \$21,900/ mt at around 0730 GMT Aug. 8, down around 2% week on week with the increase in supply from China outweighing recovering stainless steel demand.

— <u>Filip Warwick, filip.warwick@spglobal.com</u>

China's copper cathode output in August to rise 1.9% on month: Antaike

China's copper cathode output from 22 major Chinese producers in August is

expected to rise 1.9% from July to 805,000 mt, the state-owned research agency Antaike said in a report Aug. 10.

The output number was lower than the market expectations, as electricity shortages in the Zhejiang and Anhui provinces as well as pandemic resurgence could impact the running rate of domestic smelters, Antaike said.

It's unlikely for Chinese smelters to curb production due to inflating sulfuric acid stocks in August, but markets will be keeping a close eye on the output trend in the months ahead, sources said.

Chinese sulfuric acid prices fell significantly over the past month due to the decline in raw materials prices and weak demand, which impacted profit margins of smelters.

Copper cathode output from the 22 major Chinese smelters totaled 790,100 mt in July, up 7.6% year on year and 1.7% month on month.

Smelters in Xinjiang and Inner Mongolia have completed maintenance while a private smelter in Shandong province has seen its production recover to normal levels, which contributed to the increase in July output.

Output of the 22 smelters totaled 5.41 million mt in the first seven months of this year, up 3% compared to the same period last year.

The 22 smelters have a total refined copper capacity of 10.13 million mt/year, accounting for about 83% of the nation's total capacity. Refined copper output of the 22 smelters in 2021 took up 92% of the country's total.

Copper concs treatment charge

The CIF China clean copper concentrates treatment and refining charges were assessed by Platts, part of S&P Global Commodity Insights, at \$74.30/mt and 7.43 cents/lb respectively on Aug. 11.

Most smelters were running at a production loss on sulfuric acid, although treatment charges have remained elevated, sources said.

As such, smelters were looking to produce less sulfuric acid by using more anodes in furnaces.

Some smelters have the flexibility to use more anodes to substitute copper

concentrates as raw materials and anodes would not produce sulfuric acid as raw materials.

— <u>Staff, support@platts.com</u>

China's power shortages to weigh on August copper production: sources

China's electricity shortages amid a heat wave are expected to hit the country's copper production in August as smelters struggle to operate because of tight power supply, industry sources said Aug. 10.

More than 20 Chinese provinces have been facing extreme heat since late June that has led to a massive uptick in domestic power consumption.

A copper smelter in the Zhejiang province was forced to lower its operating rate as local industrial enterprises were asked to use electricity judiciously from Aug. 8 due to limited power supply, sources said.

Another leading smelter in the Anhui province has also reduced its operating rate from Aug. 10 due to power shortages, sources said. It was unclear when these smelters will resume normal operations.

China's copper output was expected to grow in August in line with the trend over the past few months. Domestic smelters were aiming to finish maintenance activities and add new projects or expand current ones, but the country's power situation has disrupted that trend.

A major nonferrous metals group has further postponed the commissioning date of its 400,000 mt/year new project to September, sources said.

Jiangxi province's Guixi city -- where the largest smelting plant of Jiangxi Copper Company Ltd. is located -- has adopted electricity controls from Aug. 10. Jiangxi Copper's Guixi smelting plant produced 1.02 million mt copper cathodes in 2021, accounting for 9.8% of the country's volume.

Guixi city's move may not have a huge impact on the production at local smelters and processors, sources said. However, it could tighten the supply of copper cathodes when domestic stocks fall to low levels in the event of transportation issues because of the measure, sources said.

Prices of sulfuric acid -- the key byproduct of copper production -- fell

significantly over the past month due to weak downstream demand, weighing on production margins and leading to increased inventory for copper smelters.

— <u>Staff, support@platts.com</u>

Chile unveils legislation to close 420,000 mt/year Ventanas copper smelter

The Chilean government sent legislation to Congress on Aug. 9 that will allow state copper company Codelco to close its 420,000 mt/year Ventanas smelter.

If approved, the bill will eliminate Codelco's requirement to process ores and concentrates from private mines at the facility and instead process these at one of its other four smelters.

The government ordered the Chamber of Deputies to give priority to the bill, meaning they must vote on it within 15 days after which it will advance to the Senate.

Codelco has been obliged to treat third party material since it acquired the Ventanas metallurgical complex in 2005 from state mining company ENAMI, which does processing for small and mediumsized mines.

The Codelco board voted June 17 to close the smelter amid growing pressure over environmental conditions in the heavily-industrialized Bay of Quintero.

The company invested more than \$150 million over 2010-17 to reduce the smelter's emissions, but the board said future investment would not guarantee the avoidance of further environmental incidents.

The smelter is estimated to emit 10,000 mt/year of sulfur dioxide, accounting for more than 60% of the area's emissions.

Codelco plans to continue operating the electrolytic refinery at the site.

— <u>Tom Azzopardi, support@platts.com</u>

Global copper mining to expand through 2026 after slow period: ICSG

World copper mining capacity is expected to grow by an average rate of 3.5% annually rom 2022 to 2026 after increasing by only about 1%/year since 2017, the International Copper Study Group said Aug. 10.

"The postponement of projects and expansions over the last few years due to unfavorable trends in capital expenditure and delays in project development, mainly as a result of the time required for project permitting, shifted new capacity forward," the ICSG said in a statement. "In part, this led to an agglomeration of major new projects and expansions starting in the period 2021-2023."

Copper concentrate production is projected to represent about 85% of the total growth in world mine capacity, the industry group said.

Along with a slowdown in capacity expansion, the ICSG said production from existing capacity has also been constrained since 2020 due to labor strikes, accidents, adverse weather and lockdowns related to the coronavirus pandemic. Global copper mine capacity utilization rates were estimated at about 81.5% in 2021, it added.

Global mine capacity was estimated at nearly 26 million mt in 2021, according to the ICSG.

Smelting and refining growth

The Lisbon-based group said global copper smelting and refining capacity is expected to rise at an average rate of about 0.5% per year and 2.5% per year, respectively, through 2026 as mining capacity increases.

In 2021, global refining capacity was estimated at nearly 31 million mt, according to the ICSG. The group does not provide data for smelting capacity.

China continues to lead the world in copper smelting capacity. The ICSG said the country's capacity is currently more than seven-times higher than its volume in 2000, and it is expected to increase by another 23% by 2026.

Additionally, new copper smelters, expansions or upgrades are planned through 2026 in the Democratic Republic of Congo, Indonesia, Iran, Russia, Serbia, South Africa, the US, Uzbekistan and Zambia, the ICSG added.

For global refining capacity, electrolytic and electrowinning operations are both expected to increase by an average rate of 2% per year over the next five years, ICSG said.

"China, in the form of electrolytic capacity, will be by far the biggest

contributor to world growth in refined capacity," ICSG said. "By the end of 2026, electrowinning capacity is expected to have declined by 15% in Chile but to have increased by 40% in the DR Congo."

Deficit looming

The expansion in global copper capacity comes amid supply concerns and soaring demand projections. The refined copper market could see a deficit of up to 9.9 million mt by 2035 depending on the rate of new capacity coming online, according to a report released by S&P Global in July.

Global refined copper demand could double from current levels to 50 million mt by 2035, according to the report.

The July copper market report was released by S&P Global Commodity Insights through a collaboration among its Commodity Insights, Market Intelligence and Mobility divisions.

— <u>Nick Lazzaro, nick.lazzaro@spglobal.com</u>

Chile's July copper exports slip amid production slump

Chilean copper exports fell in July as producers struggled with lower ore grades, water shortages, and other challenges, Aug. 8 customs data showed.

July copper concentrate exports totaled 895,782 mt, a 36.7% year-on-year drop and down 0.8% from June, bringing exports from January through July to 6.6 million mt, down 14.5% on the year.

Exports to main market China fell 10.2% on the year to 4.7 million mt.

Refined cathode exports dropped 11.9% to 174,378 mt, with exports to China little changed.

Cathode exports to the US fell 31.1% to 41,754 mt, while shipments to Brazil decreased 10.65% to 13,354 mt.

January-July copper metal exports remained stable year on year at 1.4 million mt.

Meanwhile, Chile's first-half copper production reached 2.7 million mt, down 6.2% on the year, with major producers Codelco, Escondida, Collahuasi, and Antofagasta all producing less.

In June, production was halted at Antofagasta's Los Pelambres mine, although operations have since resumed.

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Australian copper miner OZ Minerals rejects BHP's \$6 bil takeover offer

Australia's OZ Minerals Ltd. has rejected a takeover offer from BHP as it "significantly undervalues OZ Minerals and, as such, is not in the best interests of shareholders," the copper miner said Aug. 8.

BHP had submitted a non-binding indicative proposal to OZ on Aug. 5 to buy 100% of OZ's issued share capital, which valued the offer at A\$8.4 billion (\$5.8 billion) based on an offer of A\$25/share and about 334.41 million issued shares as of February.

The rejection could hinder BHP's plans to supply nickel as it intends to raise spending on nickel exploration over the next two years to meet growing demand for electric vehicle batteries.

BHP has been securing nickel supply agreements with global automakers, most recently signing a memorandum of understanding for nickel supply with US-based Ford Motor Company on July 21.

On July 28 last year it signed a nickel supply deal with Tesla Inc. and an MOU with Prime Planet Energy & Solutions and Toyota Tsusho Corp. for a "green EV" system.

PPES is a Japanese lithium-ion battery producer and a joint venture between automaker Toyota Motor Corp. and battery maker Panasonic Corp.

In 2021, OZ produced 125,486 mt of copper, which it expects to rise to 149,000 mt in 2022. It is expected to make a final investment decision by the end of 2022 to develop the West Musgrave mine in Western Australia, which is expected to deliver 32,000 mt/year of copper and 26,000 mt/year of nickel in concentrates.

Platts assessed clean copper concentrate at \$1,854/mt CIF China Aug. 5, up \$33/mt from Aug. 4, S&P Global Commodity Insights data showed.

— <u>Clement Choo, clement.choo@spglobal.com</u>

Several early-stage Russian copper projects hang in balance as sanctions bite

The fate of several early-stage Russian copper mining projects is hanging in balance as sanctions on the country in the wake of Ukraine's invasion have dried up funding and

led to difficulties in their planned development.

Some projects have been put up for sale while others are being reconsidered as their owners assess ways to cut losses.

British exploration company Amur Minerals said earlier in August it would sell the Kun-Manie nickel-copper project because it was hard to raise \$1.1 billion for its construction due to sanctions on major Russian banks and international funding sources avoiding participation in Russian projects.

The Kun-Manie, now at the bankable feasibility stage, is expected to have a potential mine life of 25 years, producing 39,000 mt/year copper concentrate and 400,000-490,000 mt/year nickel concentrate once operational, S&P Global Commodity Insights reported earlier. Its resources are estimated at 174.3 million mt, containing 1.31 million mt nickel, averaging 0.75% nickel, and 372,000 mt copper, averaging 0.21% copper.

KAZ Minerals, another UK-registered company with copper and gold mining assets in Kazakhstan, Kyrgyzstan, and Russia, said at end of July it was assessing the future strategy for the Baimskaya copper project in Russia's Far East, because it was finding it challenging to obtain financing and equipment for the project's \$8.5 billion development.

KAZ Minerals may not be able to fulfil its financial obligations to the main lender -- Russian majority state-owned VTB Bank -- the company said referring to the repayment of \$1.8 billion worth VTB facilities drawn in second-half 2021.

The Peschanka deposit, within the Baimskaya license area, holds resources of 9.9 million mt copper at an average grade of 0.39% and 16.6 million oz gold at an average grade of 0.21 g/mt. KAZ Minerals had planned to establish production of 300,000 mt/year copper concentrate and 490,000 oz/year gold at Baimskaya during the first 10 years of its 20-year mine life.

Domestic consumption wanes

If the projects become mothballed for a while, this is likely to weigh on production volumes in the next decade.

Russia's refined copper output is estimated at 0.8 million-1.1 million mt/year

through 2030, largely comparable with annualized levels over the last couple of years.

Russia produced 920,000 mt of refined copper in 2021, S&P Global reported earlier. Half of this volumes was distributed outside the Eurasian Economic Union, with rolled copper exports totaling 212,000 mt.

Imports of refined copper, alloys, and rolled products into Russia were at 39,000-40,000 mt in 2021, with domestic demand for the metal totaling 285,000 mt, compared with 286,000 mt in 2020, when it was down 10% on the year.

Russia's copper consumption is expected to drop about 18% on an average to a 220,000-250,000 mt range in 2022, according to industry forecasts.

Domestic consumption of refined copper, alloys and rolled products is not enough to sustain Russia's copper output, making the future of the country's copper industry dependent on global demand and exports, sources said.

The London Metal Exchange threemonth copper price was at \$7,987/mt Aug. 8, down 18% since the start of 2022 and 25% from an intrayear high of \$10,674/mt March 4.

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Atalaya Mining H1 copper output in Spain down 12% on year

Atalaya Mining's first half 2022 copper production at its Riotinto plant in Spain decreased 12% year on year to 24,847 mt, as a result of lower grades and lower throughput due to plant stoppage in the first quarter, though partially offset by higher recoveries, the company said Aug. 10.

The London-listed company said second-quarter copper production dropped 6.7% year on year to 13,386 mt.

The company said copper grade in the second quarter was 0.39% against 0.42% the previous year, and 0.38% in the first half of 2022 against 0.42%.

Atalaya said lower grades so far in 2022 are the result of blending with lower grade stockpiles due to pit sequencing but are expected to improve in the second half of the year.

The company reiterated its 2022 copper

production guidance at 52,000-54,000 mt.

Atalaya said cash costs, the costs of production at site level, in the second quarter were \$3.12/lb payable copper against \$2.26/lb the previous year, and \$3.22/lb in H1 against \$2.15/lb the previous year, with the increase due to lower production volumes and higher costs associated with electricity and other supplies, partially offset by the weaker euro.

The company's all-in sustaining cost (AISC), that is cash costs, sustaining capital, exploration and general expenses, were at \$3.33/lb payable copper in the second quarter against \$2.52/lb the previous year and \$3.45/lb in H1 against \$2.49/lb in H1 2021, it said.

"AISC was slightly higher than our estimates at \$3.33/lb (CGe: \$3.20/lb), as sectoral cost inflation pushed costs higher, beyond the impact of high European power prices (which is already in our estimates)," Canaccord Genuity analyst Alexander Bedwany in a research note.

As a result of the elevated prices of electricity and other key consumables, Atalaya said it now expects 2022 cash costs to be \$2.95-3.25/lb copper payable and AISC to be \$3.25-3.45/lb copper payable.

"These new ranges are based on an assumed electricity market price range of Eur150-175/MWh for H2 2022. Should the electricity market price be lower than expected, cash costs and AISC may be lower than the revised guidance," the company said in a statement.

Solar plant

Atalaya said development continues at its 50 MW solar plant, with planned start-up of the plant continues to be in Q2 2023, while its E-LIX Phase I plant, which will produce high value copper and zinc metals from complex sulphide concentrates, will be commissioning by the end of 2022.

"High electricity costs continue to hurt Atalaya, averaging Eur180/MWh in Q2 versus Eur60/MWh in H1 2021. While the gas price cap imposed by Spain to help lower electricity prices has since reduced prices to around Eur145/MWh, they are still far above the norm, and the company's margins are likely to continue to suffer through H2 2023, however, provides a silver lining," Berenberg analysts said in a research note.

"The combination of the 50 MW solar plant, due for completion in Q2 2023, and the power purchase agreement commencing in January 2023, means that Atalaya will source around 55% of its electricity requirements at Eur30/MWh. If market prices remain at today's levels, this combination would yield around Eur20 million of annual cost savings,"

Atalaya said average realized copper price in the second quarter increased 1% year on year to \$4.32/lb from \$4.27/lb.

The London Metal Exchange threemonths copper price was trading at \$7,925/mt (\$3.59/lb) around 0730 GMT Aug. 10, against the closing price of \$7,983/mt on Aug. 9.

— <u>Filip Warwick, filip.warwick@spglobal.com</u>

Canada's Taseko Mines Q2 copper output down 6.1% on year

Canada-based Taseko Mines' secondquarter copper production from its Gibraltar mine in British Columbia decreased 6.1% year on year to 20.7 million lbs, the company said late Aug. 8.

The Toronto-listed company's head grades in the second quarter averaged 0.17%, which was lower than expected due to the complexity of the ore zones mined in the upper benches of the Gibraltar pit resulting in higher than normal mining dilution.

The company said ore grades are expected to improve in the second half of the year as mining progresses deeper into the Gibraltar pit where ore zones are more consistent and less complex in nature.

Taseko said first-half copper output fell 7% year on year to 42 million lb.

Second-quarter molybdenum production dropped 50.5% year on year to 199,000 lbs, due to lower grades, it said.

The company said it will look to meet the original copper production guidance of 115 million lb (plus or minus 5%), though on the back of weaker first-half production now expects to be at the lower end of the quidance range.

"Production guidance for 2022 is maintained at 115 million bs +/- 5% (109-121 million lbs, vs Stifel estimate of 105 million lbs) with 9.5 million lbs of copper already been produced in the month of July, evidence of the transition to the higher grade stopes," Stifel Financial analysts said in a research note.

According to its website, Taseko operates the Gibraltar mine, the second-largest copper mine in Canada, with an average production of 130 million lb/year of copper and 2.5 million lb/year of molybdenum.

Costs

Looking at the total site costs, the company said that in the second quarter it continued to see the impact of higher fuel costs, with diesel prices rising 23% quarter on quarter, and nearly 70% year on year, however other than fuel, total site spending was generally in line with the prior quarter and year.

Total operating costs/lb in the second quarter increased 11% quarter on quarter to \$3.47/lb from \$3.13/lb, the company said.

"C1 Cash Costs of \$3.47/lb were 9% above our \$3.17/lb forecast due to lower molybdenum by-product credits, lower copper production, and higher stripping tons, with inflationary pressures (mainly diesel) already accounted for in our estimates and noticeable across the industry," Stifel Financial said.

Taseko CEO Stuart McDonald said in a statement that "although total operating costs (C1) per pound of copper has been driven higher by the lower production in the second quarter, these unit costs will drop significantly in the second half of 2022 as production increases."

"Diesel prices have recently fallen from their highs in the second quarter," said McDonald.

In terms of the Florence Copper In-Situ Copper Recovery Project, the company said it is still waiting for the US Environmental Protection Agency (EPA) to start the public consultation period as part of the permitting process. The public consultation period is expected to take 45 days.

"We remain conservative on the timeline for Florence, modeling initial production in Q4/25 as we expect further delays to the final approval of the project (a precedent in situ leach project in Arizona took around 12 months following issuance of the draft UIC before all appeals were settled and project development could begin)," NBC Financial Markets analysts said in a research note.

Taseko said it has copper price collar contracts that secure a minimum copper price of \$3.75/lb for a substantial portion of its attributable production until June 2023. Copper prices in the first half of 2022 averaged US\$4.43/lb and on Aug. 8 were around \$3.55/lb, it said.

The London Metal Exchange threemonths copper price was trading at \$7,956/ mt (\$3.60/lb) around 0730 GMT Aug. 9, against the closing price of \$7,987.50/mt on Aug. 8.

— <u>Filip Warwick, filip.warwick@spglobal.com</u>

Anglo Asian raises stake in exploration company Libero Copper

Anglo Asian Mining raised its stake in

Vancouver-headquartered Libero Copper & Gold by acquiring 2.9 million new shares for \$748,000, the gold, copper and silver producer based in Azerbaijan said Aug. 8.

Anglo Asian purchased an initial 19.8% stake in Libero in January 2022, making it its first investment outside Azerbaijan. The latest investment increases Anglo Asian's interest to 19.9% as it looks to boost exposure to copper in Azerbaijan and internationally and transition to a mid-tier production profile.

Libero, listed on Canada's TSX Venture Exchange, owns, or has the right to acquire several copper exploration properties in North and South America, including Mocoa in Colombia, one of the world's largest undeveloped coppermolybdenum resources.

The \$3.5 million gross proceeds Libero has raised from a private placement of total 13.7 million new shares will finance exploration work at the Big Red porphyry copper project in British Columbia, Canada.

"Libero holds an exciting range of copper assets throughout the Americas, providing us with significant exposure to future copper production," Anglo Asian CEO Reza Vaziri said.

Copper is most likely to benefit from a rise in electric vehicle charging points. The London Metal Exchange three-month copper price was at \$7,870/mt Aug. 5, down 20% since the start of 2022 and 25% from an intrayear high of \$10,674/mt March 4.

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