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BATTERY METALS

Seaborne lithium carbonate prices move sideways, oversupply continues

Seaborne lithium carbonate prices were flat this week with no significant changes in fundamentals, although sources said oversupply continued to weigh on the market, particularly for hydroxide.

S&P Global Platts assessed battery-grade lithium carbonate at $10,000/mt, while lithium hydroxide dropped $700 to $11,800/mt. Both assessments are on a CIF North Asia basis, based on deliveries to the main ports of China, Japan and South Korea.

Market participants said they expected prices would probably fall further in the short term due to the oversupply that has been weighing on the market since late last year.

On Thursday, SQM CEO Ricardo Ramos said during the second quarter earnings call that the company's prices should average $10,000/mt during the third quarter.

He didn't comment on prices that are being negotiated for Q4 shipments, but denied that SQM had sold into China at $6,000-7,000/mt, as data from the Chilean customs show.

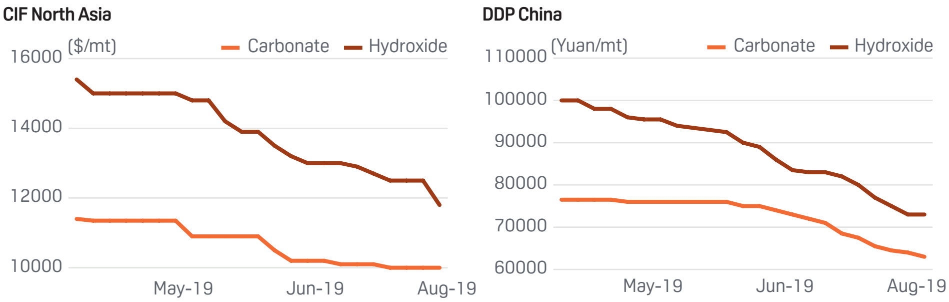
"We continue to believe that supply will

(continued on page 2)

BATTERY METALS

Weekly Prices		Change	Date Assessed
Lithium Carbonate			
CIF North Asia ($/mt)	10000	+0	23-Aug-19
DDP China (Yuan/mt)	63000	-1000	23-Aug-19
CIF North Asia Import Parity (Yuan/mt)	79746	+293	23-Aug-19
Lithium Hydroxide			
CIF North Asia ($/mt)	11800	-700	23-Aug-19
DDP China (Yuan/mt)	73000	+0	23-Aug-19
CIF North Asia Import Parity (Yuan/mt)	94101	-5215	23-Aug-19
Cobalt Sulfate			
CIF North Asia ($/mt)	6950	+0	22-Aug-19
DDP China (Yuan/mt)	48000	+2000	22-Aug-19
Monthly Prices			
Lithium Spodumene			
FOB Australia ($/mt)	580	-20	31-Jul-19

PLATTS LITHIUM CARBONATE AND LITHIUM HYDROXIDE



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outpace demand growth during 2019, given that part of the growth expected for the second half could be delayed," SQM stated in their earnings release.

"This new supply entering the market will continue to have an impact on prices."

Earlier this month, other major producers such as Livent and Albemarle also stated their bearish view on lithium pricing for the second half of the year, without elaborating on figures.

Platts' seaborne lithium carbonate and lithium hydroxide prices have dropped $200/mt and $1,200/mt, respectively, since the beginning of July.

A source from a producer based in the Americas considered Platts' previous assessment of $10,000/mt CIF North Asia for carbonate and $12,500/mt CIF North Asia for lithium hydroxide as reflective of the current market.

In Asia, a trader agreed that $10,000/mt CIF Japan was tradable for lithium carbonate, adding that he had heard that Orocobre's price was around $9,000/mt CIF China.

He said there has not been many changes in the seaborne market.

On lithium hydroxide, the trader said one Chinese producer's half-year term contract for the September 2019-March 2020 period at $13,600/mt CIF Japan reported last week was "too high".

"I don't think the Japanese can buy at such prices. I think $11,000-$12,000/mt is tradable for CIF Japan, but it also depends. Most Korean and Japanese buyers have secured lithium hydroxide supply by signing three- to five-year long-term contract, so they don't really care about spot prices," he said.

The trader said fundamentally, there was no shortage of raw materials and in his opinion, the oversupply could only be resolved in 2022 or 2023.

On the Chinese domestic market, lithium carbonate prices fell this week, while hydroxide remained steady.

Lithium carbonate fell Yuan 1,000 on week to be assessed at Yuan 63,000/mt DDP China, while hydroxide moved sideways to remain at Yuan 73,000/mt DDP China.

As such the Chinese domestic market remains well below the seaborne on an import parity basis.

The Platts $10,000/mt CIF marker for carbonate was equivalent to Yuan 79,746/mt, including 13% value-added tax, based on Platts' import-parity formula, while hydroxide's price of $11,800/mt was equivalent to Yuan 94,101/mt on the same basis. The dollar was assessed at Yuan 7.0572 to the dollar at 4:30 pm Singapore time Friday.

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Chinese domestic lithium carbonate for 10th week in a row

Chinese domestic lithium carbonate prices fell for the 10th straight week as some producers lowered their offers further to secure orders.

S&P Global Platts assessed battery-grade lithium carbonate down Yuan 1,000/mt on Friday to Yuan 63,000/mt, and lithium hydroxide steady at Yuan 73,000/mt. Both assessments were on a delivered, duty-paid China basis.

Sources said market sentiment remained negative and they had no idea where the bottom could be.

Lithium carbonate prices have dropped Yuan 12,000/mt since mid-June, falling in tandem with reports of lower Australian spodumene prices.

However, a consumer source wondered if talk of potential disruption at a Chinese brine-based producer could be "a shot in the arm to the declining market."

He had heard battery-grade carbonate trading below Yuan 60,000/mt, "but spodumene converters held their prices at around Yuan 63,000/mt," he said.

A second consumer source, who didn't buy this week, also heard battery-grade carbonate at below Yuan 60,000/mt, but he believed it could be recycled material.

One Chinese producer source said battery grade lithium carbonate had traded at Yuan 63,000/mt, but was unlikely to reach Yuan 64,000-65,000/mt.

"Large producers are reluctant to lower their prices by a large margin since it is unprofitable.

Those who are selling at lower prices are not meant to, but they have to, as they lack confidence with no signs of recovery in demand," he said.

He added that some producers would rather sell now "to cash in and avoid more losses" in case prices continued to drop.

Another producer source said he didn't think brine producers would arbitrarily cut their prices, even though their production costs were lower than spodumene and lepidolite producers'.

A third Chinese producer source said he had heard two South American lithium carbonate producers offering at Yuan 60,000/mt and Yuan 61,000/mt, although said the tradeable level for large Chinese producers was around Yuan 63,000-65,000/mt, but could be Yuan 62,000/mt for a cash payment.

"I doubt that those who are selling below Yuan 60,000/mt will suffer losses. Some producers want to sell as much as possible even though they will suffer losses," he said.

"I also doubt whether the prices will rebound or not, as there are no factors supporting the rebound - no production cuts from producers and no signs of recovery in demand."

Questioned about a Yuan 62,000/mt level for carbonate, a producer source based in the Americas said that "these prices are being heard, but I don't know if there were important transactions at these levels." He added that "most of the volume should be trading at slightly higher prices."

A distributor said some producers were selling at Yuan 60,000/mt, including lepidolite, small spodumene producers and recyclers, with some wanting to seize a market share.

He was of the opinion that demand from end-users would slowly recover and the market was approaching the bottom.

"But some producers are scared by the declining prices and will give priority to delivery," he added.

Most Chinese producer sources saw industrial grade tradeable levels at Yuan 53,000-54,000/mt, but the third producer said he had heard of another producer selling it for as low as Yuan 51,000/mt, adding that some participants expected industrial grade lithium carbonate to drop to around Yuan 45,000/mt.

However, the first consumer source said technical grade was currently tradable at around Yuan 55,000-56,000/mt.

Lithium hydroxide moves sideways

The continuous five-week drop in the Chinese domestic lithium hydroxide price came to a halt this week, as most Chinese converters maintained their prices, despite demand remaining weak.

Despite their current stability, some market participants expected lithium carbonate prices to continue to drop, although they were counting on production costs to put a floor on how far.

One Chinese producer source said there were no offers as it was "meaningless" to make offer on no demand.

"I talked to some clients and gave indicative offers above Yuan 80,000/mt, but their indicative bids were below Yuan 78,000/mt. Tradeable value should be around Yuan 75,000-77,000/mt," he said.

Another Chinese producer source also lamented the lack of demand, saying he had heard the tradeable level for coarse sand at Yuan 70,000/mt and fine powder at Yuan 75,000/mt, adding that it was difficult to sell the latter at higher prices.

Two consumer sources put the tradeable levels for coarse sand and fine powder at Yuan 70,000/mt and Yuan 75,000-78,000/mt, respectively.

One added that the price gap between lithium carbonate and hydroxide was narrowing.

"I hope lithium chemicals prices are approaching the bottom, but have no idea where the bottom is," he said.

The distributor source said he used to sell lithium hydroxide to lubrication plants, as their requirements were not as strict as cathode material producers, but demand was slow now, so he wasn't selling at all.

"Fine powder can easily become damp and the guarantee period is only about one month, so fine powder users should be more inclined to buy on a requirement basis," he said.

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China cobalt sulfate prices mark fourth week of gains

Chinese domestic cobalt sulfate prices increased for the fourth consecutive week as Chinese producers raised their offers, albeit in sparse trading.

Meanwhile, seaborne prices were unchanged this week despite some exporters tentatively raising their offers as buyers still need time to accept the increase in Chinese offer prices.

S&P Global Platts assessed cobalt sulfate with 20.5% cobalt content at Yuan 48,000/mt delivered, duty-paid China Thursday, up Yuan 2,000 from August 15, while the seaborne market was assessed unchanged at $6,950/mt CIF North Asia.

Trades were concluded at around Yuan 48,000-49,000/mt this week, a Chinese producer said, who expected prices to move higher, driven by the rise in raw material prices, although demand from end users had not yet recovered.

Some deals were concluded as high as Yuan 50,000/mt, but the number was very small, market sources said.

Transaction prices should be around Yuan 47,000-48,000/mt, despite offers being high at Yuan 52,000-55,000/mt, a second Chinese producer said. He said that he chose not to sell this week and would rather wait on the sidelines. "We don't intend to maintain high sales prices, but we have to because raw materials' suppliers maintained their prices and showed no desire to sell because they expect a further increase," the second producer said.

A third producer, who earlier stopped production, said he would not resume production currently because the high raw materials prices made it unprofitable.

Few deals were made recently because of rising prices, a Chinese consumer said. End users were watching the market and still lacked confidence in the sustainability of the price rebound, he added.

There might be clearer direction by the end of this month, and market confidence would be restored when prices stabilized and demand showed signs of recovery, market sources said.

On the seaborne market, offers were heard above $8,000/mt CIF North Asia, a European exporter said. However, inquiries fell because of the recent price rise and it would take some time for overseas buyers to accept the increase in Chinese offers, a Chinese exporter said.

A fourth Chinese producer said that tradable values for cobalt sulfate could still be around $6,500-$6,600/mt CIF North Asia now.

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Tianqi Lithium Kwinana signs supply agreement with S Korea's LG Chem

Australia-based Tianqi Lithium Kwinana signed supply contracts with South Korean company, LG Chem, for the sale of lithium hydroxide products, the company said in a statement released Friday.

The company, a subsidiary of China's Tianqi Lithium Industry, said the supply agreement will account for no less than 15% of the production at TLK's 48,000 mt/year battery-grade lithium hydroxide plant, with buyer's option to request for additional quantities. The actual deal price will be determined by bilateral negotiations.

The contract will run from 2020 to 2022, and should both seller and buyer reach an agreement by September 30, 2022, the agreement can be extended from 2023 to 2025.

LG Chem, a subsidiary of LG Corporation, is the largest South Korean chemical company and one of the largest lithium-ion battery producers, with many battery plants and investments in South Korea, US, China and Poland.

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Jinchuan sees downward trend in cobalt price to end soon

Jinchuan Group International Resources is hopeful that a year-long downward trend in global cobalt prices would come to an end soon as manufacturers and traders draw down their stock, while miners shift their focus to produce copper instead of cobalt and demand for rechargeable battery metal remains strong in the rapidly growing electric vehicle industry.

In its 2019 interim results statement released Thursday, the Africa-focused copper and cobalt miner said that cobalt prices had rebounded to $15.70/lb this week from a 17-month low of $12.20/lb in early August following news of major suppliers limiting cobalt production in the near future.

One reason for the fall in cobalt prices from a 10-year peak of more than $40/lb end-March 2018 was the surge in cobalt supplies from artisanal miners in the Democratic Republic of the Congo taking advantage of the feverishly high prices.

Listed on the Stock Exchange of Hong Kong, Jinchuan's operations in DRC and Zambia produced 36,897 mt of copper and 2,611 mt of cobalt in the first half of 2019, rising 20.9% and 1.2%, respectively, on the year.

H1 copper sales rose 15.2% year on year to 38,091 mt, but average price realized fell 11.6% year on year to $5,339/mt. H1 cobalt sales slid 67.1% year on year to 844 mt, while average realized price plunged 86.1% to $10,324/mt.

Since H2 2018, the miner has been cutting cobalt sales and building inventories as it plans to sell its stock quickly when prices rebound.

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New supply to hurt lithium prices this year: SQM

A wave of new lithium projects ramping up production will continue to depress prices, SQM, one of the world's biggest producers of the mineral said late Wednesday.

Producers, particularly in Australia, have increased lithium production rapidly over the last two years to meet booming demand from the electric-vehicles industry, but this has sent prices plummeting from highs seen last year.

"This new supply entering the market will continue to have an impact on prices, and we believe our realized average prices could reach approximately $10,000/mt during the third quarter of this year," SQM said in its latest financial results.

The Chilean company posted a 39% drop in profit to $151 million for the first half of the year as revenue was hit by lower lithium prices, and reduced potash production was offset by increased lithium volumes. Revenue from lithium products fell by 16% to $294 million as a result of the fall in prices.

To compensate for lower prices and meet rising demand, the company is increasing production from its operations in the Salar de Atacama in northern Chile.

SQM sold 22,800 mt of lithium products during the first half of the year, up 8% from the same period of 2018, as it ramps up an expansion in lithium carbonate capacity to 70,000 mt/year.

"We ... expect to sell higher volumes in the second half of the year as we prepare for a 30% to 40% increase in sales volumes next year, which will help us to recover some of the market share lost in previous years," said CEO Ricardo Ramos in a statement.

Work is already underway on a $280 million expansion to lift lithium carbonate capacity to 120,000 mt/year by the second half of 2021. A $100 million project to expand the company's capacity to produce lithium hydroxide to 29,500 mt/year should be ready the same year.

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SQM committed to low-cost lithium expansion ramp-up: CEO

Chile's SQM is racing to expand lithium production despite a sharp drop in prices, CEO Ricardo Ramos said Thursday.

"I want to be clear we are the lowest cost producer and will expand and will continue moving as fast as we can," the executive told analysts on a conference call.

The company is currently ramping up production from a recent capacity expansion to 70,000 mt/year of lithium carbonate and aims to complete a second expansion to 120,000 mt/year in late 2021.

Meanwhile, it has begun an engineering work on a third expansion to 160,000 mt/year, scheduled to come online by the end of 2023.

Ramos said that the expanded lithium carbonate capacity is now running at close to full capacity and is expected to produce more than 70,000 mt next year when the company plans to sell 65,000 mt.

"We want to continue to expand capacity every two years by around 40,000 mt/year," Ramos said.

Despite booming demand for lithium from the growing electric vehicles industry, prices have fallen sharply since last year as new mines, mostly in Australia, come into production.

SQM's profits fell 39% to $151 million in the first six months of the year largely on lower lithium prices.

Ramos said that SQM sold lithium products at a lower average price in the second quarter of the year and prices are expected to average around $10,000/mt during the third quarter.

Change to Chinese government subsidies for electric vehicles is likely to reduce lithium demand there by around 3,000-4,000 mt this year, he said.

But he dismissed claims that the lithium carbonate prices had fallen to as low as $6,000/mt.

"We are not selling at $6,000/mt in China today," Ramos said.

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China EV subsidy cuts could boost charging infrastructure: BHP

China's shift away from electric vehicle subsidies, often cited for the main factor of a slowdown in sales, might not be as bad as feared, with investment money instead flowing into charging infrastructure, believes global diversified miner BHP .

Since the inception of subsidies in 2010, China has been gradually tweaking and tapering, with a view to phasing out subsidies completely in 2020. To qualify for any tax-break these days a vehicle most be able to travel at least 250 km on one charge.

In 2010, it was a different story completely, when a lump-sum subsidy of Yuan 50,000 ($7,100) per vehicle for a plug-in hybrid electric vehicle (PHEV) and Yuan 60,000 per vehicle for pure-electric vehicle (PEV) was possible. The huge amount of money spent in the sector led to stricter government rules.

In 2013, the ministries released a notice signalling gradual reductions and classified subsidies based on driving range. Claimable amounts were adjusted to Yuan 35,000 per PHEV and Yuan 35,000-60,000 per PEV. Allowances were down 5% in 2014 and 10% in 2015 based on 2013 standards. The government further cut Yuan 5,000 per vehicle starting from 2016, with the aim of zero subsidies for 2020.

"The new regulatory environment in China , whereby fiscal resources previously deployed on subsidies will instead be directly applied towards eco–system bottlenecks, most importantly charging infrastructure, is a positive signpost for EV take–up," BHP argued in an outlook piece attached to its financial year 2018-19 (July-June) results released on Tuesday.

Charging infrastructure has long been a major concern for the adoption of EVs, however, over the course of 2019 there have been a flurry of major announcements regarding increased investment and growth in the number of charging points.

According to BHP 's analysis, sales of light duty electric vehicles (EVs = the sum of battery powered [BEVs] and plug–in hybrids [PHEVs]) expanded by 67% year-on-year in calendar year 2018, with two million unit sales achieved for the first time.

The EV share of global total vehicle sales increased to 2.3% in 2018, up from 1.4% in 2017.

"Slightly more than half of all EV sales were in China, where consumers rushed to beat the reduction in subsidies. The EV fleet in China surpassed 2 million in calendar year 2018, with sales growth of 85% year on year. Over the year, China's share of global EV sales increased by 5% to 53%. The growth in sales has slowed considerably in the calendar 2019 to date, reflecting the altered subsidy environment and the insipid background for new car purchases as a whole," argued the miner.

BHP raised its forecast for EVs on the road by 2035 by 40 million units to 275 million vehicles; this was largely down to a better adoption by fleet/businesses.

"The first 100 million EVs on the road are expected to displace around 1.3 million b/d of oil demand circa 2030, equivalent to around 1.25% of annual demand today. Constructing those same vehicles will take around 600,000 mt of copper annually, equivalent to approximately 2.5% of annual demand. Looking somewhat further ahead, in our central case, EVs are expected to consume almost 7% of the world's electricity in 2050, by which time they will constitute around half the fleet and comprise around three–quarters of annual sales," BHP added.

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Questions remain on when EV demand will affect copper

Industry opinion remains divided over when electric-vehicle demand will have an impact on copper consumption, with signals pointing to long-term rather than near-term gains, according to market sources.

Copper prices have been pressured recently, largely because of the continued trade war between the US and China, but copper will benefit from the global shift towards decarbonization at some point, sources said. It is just a question of when.

London Metal Exchange three-months copper closed at $5,730/mt in the kerb, down from a year-to-date high of $6,608.50/mt in April. The contract started 2019 at $5,970/mt, hitting an intraday year-to-date low of $5,640/mt on August 5. If there is no near-term resolution in the China-US dispute, the copper price "could easily trade down to $5,500/mt or potentially lower," Citibank analyst Max Layton said.

In the long term, support for copper will likely come from the EV movement. "The copper intensity of an average passenger EV is around three times higher than that of an equivalent ICE vehicle, so as EV penetration increases in the longer term, the copper intensity of the automotive sector will also grow," Keval Dhokia, copper analyst with Market Intelligence, part of the S&P Global family of businesses, said.

Sales of light-duty electric vehicles expanded by 67% year-on-year in calendar year 2018, with two million unit sales achieved for the first time, mining company BHP said in an analysis Tuesday.

The EV share of global total vehicle sales increased to 2.3% in 2018, up from 1.4% in 2017.

BHP raised its forecast for EVs on the road by 2035 by 40 million units to 275 million vehicles this week. This was largely attributed to a better adoption by fleets and businesses.

The miner said that construction of the first 100 million vehicles will use around 600,000 mt of copper annually, equivalent to approximately 2.5% of annual demand.

"Other longer-term demand drivers include the copper required for EV charging infrastructure, which will accompany the rise in EV sales, as well as the shift towards copper-intensive renewables in the global power generation mix," Dhokia said.

This was in line with BHP's conclusions. The company forecast a large spend and copper uptake in charging infrastructure, especially in China, the world's number one market for electric vehicles.

"The new regulatory environment in

China, in which fiscal resources previously deployed on subsidies will instead be directly applied towards ecosystem bottlenecks, most importantly charging infrastructure, is a positive signpost for EV take-up," BHP said.

In separate research, consultancy group Wood Mackenzie also expected EV to have bullish effects on copper.

Over 20 million EV charging points are expected to be deployed globally by 2030, consuming over 250% more copper than in 2019, according to WoodMac.

"Copper is a cornerstone of the EV revolution," WoodMac research analyst Henry Salisbury said. "At the heart of the electric vehicle, it is used throughout because of its high electrical conductivity, durability and malleability. The need for copper is even more significant when it comes to charging stations and supporting electrical grid infrastructure."

WoodMac predicted that passenger EVs will consume more than 3.7 million mt of copper every year by 2040. In comparison, passenger internal combustion engine vehicles will need just over one million mt.

Consultancy group Roskill also painted an upbeat picture for long-term copper demand.

"EVs and associated network infrastructure may contribute between 3.1 million-4 million mt of net growth by 2035," Roskill said.

Still, all of these numbers are a long way out, and headwinds are more likely to batter copper near-term.

"In the short run, copper demand is still sensitive to the slowdown in global economic growth, so these trends towards decarbonization are likely to support demand only in the long term," said Dhokia.

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Infinity Lithium on course for low-cost hydroxide output

As the race to secure Europe's battery supply chain continues, Infinity Lithium said Thursday it had completed a bullish assay on its proposed San Jose mine in Spain, indicating the possibility of producing 15,000 mt/year of lithium hydroxide at a cost of less than $5,500/mt.

Such a cash cost would put the developer at the bottom end of the cash curve, it said. Lithium is a key ingredient in electric-vehicle battery packs.

Vincent Ledoux Pedailles, an executive director at Infinity Lithium, recently told S&P Global Platts that, as Europe continued to position itself in the global EV market, it needed to become more independent and develop a fully integrated domestic supply chain.

The EU is keen to develop a domestic manufacturing base for lithium-ion and other batteries, as its battery market could be worth up to €250 billion ($280 billion) by 2025.

Infinity Lithium is an Australian-listed minerals company seeking to develop the San Jose lithium project in the western region of Extremadura.

Still, Pedailles was slightly bearish on the outlook for the global lithium business over the coming year, a view which is widely echoed across the market.

Platts assessed battery-grade lithium carbonate down Yuan 500/mt on August 16 at Yuan 64,000/mt and lithium hydroxide Yuan 2,000/mt lower at Yuan 73,000/mt. Both assessments were on a delivered, duty-paid China basis.

Market participants were mainly downbeat, with some expecting lithium carbonate prices to continue falling as there were no obvious signs of demand growing fast enough to keep up with burgeoning new supply.

A wave of new lithium projects ramping up production will continue to depress prices, SQM, one of the world's biggest producers of the mineral said late Wednesday.

Producers, particularly in Australia, have increased lithium production rapidly over the last two years to meet booming demand from the electric-vehicles industry, but this has sent prices plummeting from highs seen last year.

Regarding Infinity's assay, Ryan Parkin, managing director, said that the San Jose project is "a long life, low-cost project that is essential to meet the European Commission's goal to secure critical lithium chemicals that are imperative for the economic survival of their auto industry."

On the subject of autos, Infinity's Pedailles said the company is in talks with four organisations for potential offtake of production.

Pedailles told Platts Thursday: "We are already on the radar of several OEMs in Europe and advancing negotiations with a number of them. At the moment our four most advance negotiations are with two automakers, one battery maker and one cathode manufacturer. Usually OEMs are asking for 100% offtake volume but in some instances we could have two 'offtakers' taking a 50/50 deal."

During Wednesday trade another lithium developer, IronRidge, focused on African production, said it had hosted "well-received" talks with one of the world's largest carmakers, Volkswagen.

"Volkswagen has signed a Memorandum of Understanding (MoU) with the government of the Republic of Ghana for the manufacture and assembly of vehicles. It is on this basis and Volkswagen's broader electric vehicle and battery manufacturing aspirations, that IronRidge sees synergies between the two companies," it said.

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Orocobre sees lithium production growth in 2019-20; secures expansion funds

Australia-listed Orocobre is expecting at least a 5% production growth at its Argentina-based Olaroz lithium project in fiscal 2019-2020 (July-June), and hafinalized a debt facility for its stage 2 expansion of the operation, it said Friday.

The facility produced 12,605 mt of lithium carbonate in 2018-2019, which was a marginal increase from 12,470 mt the year prior, it said.

"Throughout FY19 we witnessed a softening of the lithium market and significant declines in the average price received for lithium chemicals," Orocobre's chief executive officer, Martin Perez de Solay said.

"Several factors have driven prices down including instability within the Chinese economy, the ongoing China-US trade dispute, changes to China's New Electric Vehicles Policy and steady growth of Chinese lithium exports which has led to increased competition in the seaborne market," he said.

The stage 2 expansion is for 25,000 mt/year, which will take total capacity to 42,500 mt/year. The remaining capital that is required will be provided through shareholder loans. The timeline for the project is being continuously reviewed as it advances, the company said.

"Comprehensive project finance documentation between Orocobre, Toyota Tsusho Corporation, Sales de Jujuy S.A., Jujuy Energia y Minera Sociedad del Estado, Mizuho Bank Ltd and Japan Oil, Gas and Metals National Corporation has now been executed for a $180 million debt facility that will be used for the Stage 2 Expansion of the Olaroz operations," the company announced.

The company expects continuing volatility as economies manage the transition from hydrocarbon-fueled transport.

Orocobre saw an average price of $10,322/mt FOB in 2018-2019, with sales of 12,080 mt. July-September pricing is expected to be $7,250/mt FOB, it said.

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Nornickel expects 2019 global nickel deficit of 60,000 mt

The deficit in the global nickel market will be 60,000 mt in 2019, Nornickel said when announcing its first half of 2019 results.

In its full-year 2018 results statement in February, Nornickel said it expected a 50,000 mt deficit, compared with a 130,000 mt deficit in 2018.

Nornickel said it expected the deficit to narrow year on year on increased nickel pig iron production in China and Indonesia.

Growth in nickel demand from the battery sector is expected to slow in the second half of 2019 as subsidy cuts in China are felt, the company said, although consumption will still increase 25% year on year in 2019.

Nornickel said the industry shift towards higher nickel batteries, especially NCM 811 cells, had slowed due to a drop in cobalt prices.

The highly anticipated NCM 811 cells use nearly three times as much nickel as the currently prevalent NCM 111 option, while lowering cobalt content by a similar amount.

Despite weaker prices reducing the incentive to cut cobalt content, the range advantages of higher content nickel batteries and Chinese subsidies favoring larger ranges continue to provide some impetus.

Nornickel said "we expect that the 8:1:1 chemistry will gradually increase its market share and become the mainstream technology by 2025."

Nornickel also said that in the longer term the Indonesian government's potential reinstatement of its ore export ban was the largest potential disruption to the nickel market. This disruption has already been felt in the market, with prices rocketing since July on expectations that Indonesia could bring forward the ban from its expected start date of 2022.

The London Metal Exchange three-month nickel price has climbed to highs not seen since 2014. The LME three-month price closed at $15,735/mt Wednesday.

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MMG's H1 copper output falls 6% on Las Bambas, DRC disruptions

MMG produced 215,527 mt of copper in concentrate and cathode in the first six months of 2019, down 5.5% year on year, amid logistics disruptions at its Peruvian mining joint venture Las Bambas and operational challenges at the Kinsevere mine in the Democratic Republic of the Congo.

A community blockade near Las Bambas from February to mid-April trimmed the mine's first half 2019 output to 185,825 mt of copper in concentrates, compared with 186,637 mt in the same 2018 period, MMG said Wednesday in its 2019 interim report.

MMG only managed to produce 84,373 mt in the second quarter, 15% less than the first quarter and 17% lower than a year ago.

Las Bambas' H1 copper sales volume slid 25.5% on the year to 140,264 mt as a result. MMG's overall H1 copper sales were dragged 26.1% lower to 169,744 mt.

Since logistics resumed in mid-April, stockpiles of copper in concentrate at Las Bambas had reduced from a peak of around 59,000 mt to 33,000 mt by the end of June. The remainder of these stockpiles is expected to be drawn down progressively and shipped in the second half of 2019.

MMG expects 2019 copper production of Las Bambas to be at the lower end of the 385,000-405,000 mt guidance range.

At Kinsevere, challenging mining conditions in the Mashi pit, declining ore feed grade and plant stability issues during H1 pared copper cathode production by 28.5% to 29,002 mt.

— Winnie Lee, newsdesk@spglobal.com

South32 sees growth in non-ferrous, manganese output in 2019-2020

Australia 's South32 is expecting its production of non-ferrous and manganese ore in the current 2019-2020 (July-June) fiscal year to grow, while results in the next fiscal will likely be mixed, the company said in its earnings statement on Thursday.

Its manganese ore production is expected to rise to 6.55 million wet mt in 2019-20, up from 5.54 million wmt in 2018-

19, the company said. However, it did not provide guidance for 2020-21, saying that this will depend on market demand.

Its Australian manganese operation's production is expected to rise to 3.56 million wmt, up from 3.35 million wmt, while its South African production will likely slip to 2.1 million wmt from 2.19 million wmt, it said.

The company's alumina production guidance for the current and next fiscal year stands at 5.3 million mt and 5.34 million mt, up from 5.05 million mt in 2018-2019.

Alumina output is expected to be driven by its Australian Worsley alumina operations, lifting production from 3.8 million mt in the last fiscal year to 3.97 million mt/year in the current fiscal year, improvements in calciner availability and a drawdown of excess hydrate, it said. The production levels are roughly at South32's nameplate capacity of 4 million mt/year via its 86% share in the operation. It is a 4.6 million mt/year nameplate on 100% terms.

Its Brazilian alumina operations is expected to strengthen from 1.26 million mt in 2018-2019 to 1.33 million mt, and then to 1.37 million mt, as it benefits from a package of boilers installed during the April-June quarter.

Production of aluminium at South African Hillside is tipped at 720,000 mt/year in the current and next fiscal year, after reaching 715,000 mt last year. Mozal is expected to produce 273,000 mt/year for the two years, up from 267,000 mt, it said.

The company's production guidance for zinc , lead and silver at its Cannington mine is expected to be 221,000 mt zinc equivalent in the current fiscal year, which is up from 218,000 mt in the last, but expected to fall to 214,000 mt in 2020-2021, it said.

Its nickel production at the Colombian Cerro Matoso operation is to be impacted by a planned furnace outage during the April-June 2020 quarter, which is expected to drag the volume to 35,600 mt in the current fiscal, down from 41,100 mt a year ago. It is then expected to bounce back to 37,400 mt next year, the company said.

— Nathan Richardson, newsdesk@spglobal.com

Zambia's Chambishi invests $330 million in DRC copper project

Zambian Chambishi Copper Smelter, or CCS, has invested $330 million in developing the Lualaba Copper Smelter, or LCS, in the Democratic Republic of Congo, according to a local media report.

CCS is operating the project on a trial-run until the end of this month, with the smelter due to be commissioned in September and expected to have an annual processing capacity of around 400,000 mt of copper concentrate, CCS assistant CEO and LCS director, Zhang Xingwang, told local media.

"With the annual processing capacity of 400,000 tons of copper concentrates, the LCS smelting project, which started in March last year, is still under construction," Xingwang said.

The project — DRC's first large scale smelter — is expected to boost the business of CCS, he said.

Apart from providing technical services, CCS will send 30 local technicians periodically to the DRC investment for smelting management, professional training and other works to speed up the project, Xingwang added.

Chambishi Copper Smelter is 85% owned by China Nonferrous Mining Corp., or CNMC, and 15% by ZCCM IH. The latter is 87.6% owned by the Zambian Government and 12.4% owned by public shareholders.

CNMC has been exploiting mineral resources in Zambia since 1998, making it one of the key copper industry enterprises in the country, a Harvard Business School report said.

The company has mining projects in Zambia, DRC, Mongolia, Myanmar, Tajikistan, Kyrgyzstan, and Thailand, with a focus on copper, lead, zinc, nickel, tantalum, niobium, beryllium, gold, silver and rare earth minerals, according to its website.

CNMC is managed by the Chinese state-owned Assets Supervision and Administration Commission of the State Council.

Lualaba Copper Smelter is 100% owned by CNMC.

— Jeff Kapembwa, newsdesk@spglobal.com

Minnesota Supreme Court denies challenge to PolyMet's EIS

The Minnesota State Supreme Court has declined to hear a petition for an environmental review of PolyMet Mining's NorthMet copper -nickel -cobalt –precious metals project, the company said late Tuesday.

Two environmental groups had petitioned the court for review of a unanimous May 28 appeals court decision that upheld the scope of the environmental review prepared for the NorthMet project by the Minnesota Department of Natural Resources and rejected the groups' request for a supplemental Environmental Impact Statement.

"This action effectively closes out any remaining challenges to the state related to the environmental review and allows us to sharpen our focus on financing, building and operating Minnesota 's first copper -nickel -precious metals mine," Jon Cherry, PolyMet president and CEO, said in the company's statement.

The appeals court ruling covered three consolidated appeals filed in 2018. The final Environmental Impact Statement for NorthMet was published in November 2015 by the state DNR, the US Forest Service and the US Army Corps of Engineers, PolyMet said

.— Anthony Poole, Anthony.poole@spglobal.com

Mineral Resources expects dip in lithium concentrate

Australian miner Mineral Resources expects to see a slight dip in lithium concentrate in the current 2019-2020 (July-June) fiscal, the company said Thursday while releasing its full-year results.

Spodumene concentrate exports from its 50%-owned Mt Marion mine are forecast at 340,000 wmt-360,000 wmt, after seeing 378,000 wmt in the past fiscal. The 2018-2019 exports were comprised 272,000 wmt of 6% spodumene concentrate and 106,000 wmt of 4%, it said.

— *Nathan Richardson, newsdesk@spglobal.com*

Battery Metals weekly wrap

Electric-vehicle chatter this week focused around the ever evolving charging infrastructure landscape, and also on the lithium price, and why it is so low. Some mused on whether the whole EV story has been slightly over-egged.

There is no doubt that the EV revolution is coming, with automakers and policy makers plowing piles of money and time into the movement, but there is concern it's perhaps not happening at light speed.

Vincent Ledoux Pedailles, an executive director at developer Infinity Lithium, told S&P Global Platts this week that the outlook for the global lithium business over the coming year is turning increasingly bearish, a view which is widely echoed across the market.

A wave of new lithium projects ramping up production will continue to depress prices, SQM, one of the world's biggest producers of the mineral said late Wednesday.

Producers, particularly in Australia, have increased lithium production rapidly over the last two years to meet booming demand from the EV industry, but this has sent prices plummeting from highs seen last year.

Some sources argued this week that real demand for EVs has never really been that strong, it's all just a story further out on the horizon. The reality could be that demand doesn't need to just pick-up, it needs to get going at a faster pace in the face of a glut of battery raw material.

Still, at these attractive/subdued price levels it is widely-believed that large automakers could be starting to rub their hands together and mull hustling for some of the action.

On the subject of autos, Infinity's Pedailles said the company is in talks with four organizations for potential offtake of production.

Pedailles told Platts: "We are already on the radar of several OEMs in Europe and advancing negotiations with a number of them. At the moment our four most advanced negotiations are with two automakers, one battery maker and one cathode manufacturer. Usually OEMs are asking for 100% offtake volume but in some instances we could have two 'offtakers' taking a 50:50 deal."

It's always been argued that OEMs need to step up and get more involved in Europe's mine to mouth, or motor, vision. And, to be fair, they are certainly starting to buck their ideas up, led mainly by the mighty Volkswagen and its deep pockets.

According to the lobby group VDA, German car manufacturers plan to triple their electric models to 100 over the next three years, which will be key for public acceptance of EVs because of tighter emission controls already leading to falling diesel car sales.

Only 100,000 EVs are currently registered in Germany, but monthly sales trends show 50% year-on-year growth as Europe's largest auto market is catching up with early adopter Norway.

On Wednesday another lithium developer, IronRidge, focused on African production, said it had hosted "well-received" talks with one of the world's largest carmakers, Volkswagen.

"Volkswagen has signed a memorandum of understanding with the government of the Republic of Ghana for the manufacture and assembly of vehicles. It is on this basis and Volkswagen's broader electric vehicle and battery manufacturing aspirations, that IronRidge sees synergies between the two companies," it said.

Switching metals focus, industry opinion remains divided over when EV demand will have an impact on copper consumption, with signals pointing to long-term rather than near-term gains, according to market sources this week.

In the long term, support for copper will likely come from the EV movement. "The copper intensity of an average passenger EV is around three times higher than that of an equivalent ICE vehicle, so as EV penetration increases in the longer term, the copper intensity of the automotive sector will also grow," Keval Dhokia, copper analyst with Market Intelligence, part of the S&P Global family of businesses, said.

"Other longer-term demand drivers include the copper required for EV charging infrastructure, which will accompany the rise in EV sales, as well as the shift towards copper-intensive renewables in the global power generation mix," Dhokia added.

This is in line with mining heavyweight BHP's conclusions. The company forecast a large spend and copper uptake in charging infrastructure, especially in China, the world's number one market for electric vehicles.

"The new regulatory environment in China, in which fiscal resources previously deployed on subsidies will instead be directly applied towards ecosystem bottlenecks, most importantly charging infrastructure, is a positive signpost for EV take-up," BHP said.

The number of charging points for electric vehicles in Germany has risen by more than 50% over the past year to 20,650 but with many underutilized due to the still sluggish EV rollout, German utility lobby group BDEW said recently. Utilities operate three out of four public charging points, of which some 12% or around 2,500 are so-called fast-charging points, according to the half-yearly survey. According to the utility lobby, Germany's power grid is already prepared for up to 13 million EVs or some 30% of the car fleet.

And guess what, it's not just automakers that are starting to get knees-deep into the whole electrification of the universe business. Oh no. Those canny utilities, the ones that will sell that very drug of choice for a low carbon-world, are getting more and more heavily invested.

Germany's EnBW may order up to 14,000 electric vehicles for its employees from 2020 as the regional utility in the home state of Daimler and Porsche plans to boost electric mobility. The utility has issued an EU-wide tender and plans to expand its electric vehicle offering to all eligible employees after a successful trial, a spokesman for EnBW told S&P Global Platts Wednesday.

EVs are coming, that's for sure, and like any other position/bet, is all about timing. Perhaps lithium is starting to look like good value?

Until next week, readers, stay charged.

— *Ben Kilbey, ben.kilbey@spglobal.com*