S&P Global
Platts

METALS DAILY

REPRINT: Volume 8 / Issue 196 / October 4, 2019

BATTERY METALS

North Asian lithium prices as national holidays celebrated in China, North Korea

With South Korea celebrating National Foundation Day on Thursday and China holding week-long celebrations for its National Day, the North Asian lithium market prices moved sideways this week as spot market activity stalled.

S&P Global Platts assessed battery-grade lithium carbonate and lithium hydroxide unchanged at $9,900/mt and $11,700/mt, respectively. Both assessments are on a CIF North Asia basis, based on deliveries to the main ports of China, Japan and South Korea.

"Spot market is dead," a Japanese trader said. "So much stocks, inventory is high."

The trader added that carbonate delivered into Japan or Korea remained tradable above $10,000/mt, some way below present contract prices.

The trader added spot volumes were expected lower in 2020, with more ton being committed to term contracts. Cathode producers in Japan would be willing to pay more for long-term contracts, with priority being quality and stability of supply over pricing.

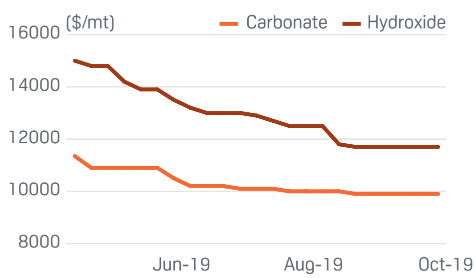
(continued on page 2)

BATTERY METALS

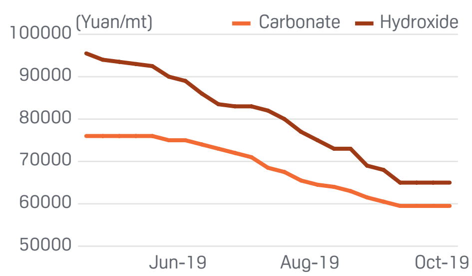
Weekly Prices		Change	Date Assessed
Lithium Carbonate			
CIF North Asia ($/mt)	9900	+0	04-Oct-19
DDP China (Yuan/mt)	59500	+0	04-Oct-19
CIF North Asia Import Parity (Yuan/mt)	79125	-2	04-Oct-19
Lithium Hydroxide			
CIF North Asia ($/mt)	11700	+0	04-Oct-19
DDP China (Yuan/mt)	65000	+0	04-Oct-19
CIF North Asia Import Parity (Yuan/mt)	93511	-2	04-Oct-19
Cobalt Sulfate			
CIF North Asia ($/mt)	7850	+0	03-Oct-19
DDP China (Yuan/mt)	59000	+0	03-Oct-19
Monthly Prices			
Lithium Spodumene			
FOB Australia ($/mt)	545	-5	30-Sep-19

PLATTS LITHIUM CARBONATE AND LITHIUM HYDROXIDE

CIF North Asia



DDP China



Source: S&P Global Platts

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Volume 8 / Issue 196 / October 4, 2019

ISSN: 2325-0658

"They love stability," the trader said.

A supplier source based in the Americas said, without elaborating, that prices assessed by Platts were tradable, while a consumer source who operates plants both in the West and East said he had heard lithium carbonate trading below $10,000/mt on a CIF basis.

However, he had not booked any spot business, as the company buys lithium only under term contracts.

For next year, "announcements such as that from Albemarle reducing capacity should make prices stabilize -- especially for carbonate, while [the deployment of] high nickel chemistries will probably boost the demand for hydroxide" and moving prices higher, he said.

Upstream of carbonate and hydroxide, the bear run on spodumene also softened. The Platts spodumene concentrate 6% monthly assessment dropped only $5/mt in the end of September to $545/mt FOB Australia from the previous month.

Especially in China, most of the lithium chemicals are converted from spodumene; an increasing portion of these products are exported to other countries in Asia. As such the slowdown in falling prices of spodumene should add support to lithium prices due to conversion costs.

Looking ahead, the Japanese trader said that carbonate prices are expected to recover in the second quarter of 2020 with improvements in demand, adding that Chinese prices are too low presently to see much recovery in Q1. The trader believed the current delivered price into China of around $7,000/mt CIF China was not sustainable for miners, that $11,000-$12,000/mt was healthier in the longer term," the trader said. "When price below this ($11,000-$12,000/mt) for too long, miners cant get enough finances, and that lead to decrease in supply and eventually, price will fluctuate again."

The Chinese domestic market also sat unchanged on the week, with participants absent due to national day celebrations this week. Lithium carbonate delivered duty paid in China was assessed at Yuan 59,500/mt, while lithium hydroxide was assessed at Yuan 65,000/mt on the same basis.

Platts' $9,900/mt CIF assessment for carbonate was equivalent to Yuan 79,125/mt, including 13% value-added tax, based on Platts' import-parity formula, while hydroxide's price of $11,700/mt was equivalent to Yuan 93,511/mt on the same basis.

The Yuan was assessed at 7.0729 to the dollar at 4:30 pm Singapore time Friday.

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Chinese domestic lithium steady on week amid National Day celebrations

Weeklong National Day celebrations left a dearth of spot activity in the Chinese domestic market, and lithium prices moved sideways week on week.

S&P Global Platts assessed Chinese domestic lithium carbonate flat at Yuan 59,500/mt (US$8,323) and lithium hydroxide at Yuan 65,000/mt. Both assessments are for battery-grade quality material on a delivered, duty-paid basis.

Tradable indications were heard from a Japanese trader at Yuan 59,000/mt for lithium carbonate and Yuan 65,000/mt for hydroxide, DDP China.

Supportive indications were also heard from a brine-based producer who said that Platts' assessments were tradable, while a consumer source who operates plants both in the West and East saw lithium carbonate hovering around Yuan 56,000-57,000/mt.

Upstream of carbonate and hydroxide, lithium spodumene concentrates have dropped marginally so far this month. Slack demand and plentiful supply weighed on prices. Australian miners were heard to be keen to move material, stepping up offtake cargoes to China to shift inventory amid talk of production shutdowns.

Although spodumene prices fell in September, the size of the drop relative to months prior suggests that prices might be finding support. Suggestion was heard, although not officially confirmed, that several miners have paused output because of sluggish spot demand on falling lithium chemicals prices, in an effort to support prices.

Looking ahead, a Japanese trader said the current low prices for carbonate in China would weigh on price recovery in the first quarter of 2020. She felt that the second quarter would see improvements in carbonate demand and that prices would rise.

The trader felt that the present delivered price into China of around $7,000/mt CIF China was not sustainable for miners, adding that $11,000-12,000/mt was healthier in the longer term.

She added, "When the price is below this [$11,000-12,000/mt] for too long, miners can't get enough finances, and that leads to a decrease in supply, and eventually prices will fluctuate again."

Prices on a CIF North Asia basis also sat unchanged this week, with Korean national holidays withdrawing participants from the market, as the Chinese domestic market continued to sit below the import market in North Asia this week.

Platts' $9,900/mt CIF North Asia assessment for carbonate was equivalent to Yuan 79,125/mt, including 13% value-added tax, based on Platts' import-parity formula, while hydroxide's price of $11,700/mt was equivalent to Yuan 93,511/mt on the same basis.

The yuan was assessed at 7.0729 to the dollar at 4:30 pm Singapore time Friday.

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Lithium spodumene concs dip in Sep to $545/mt FOB Australia

Lithium spodumene concentrate prices edged down in September on slack demand and plentiful supply, with Australian miners busy shipping offtake cargoes to China to shift inventory amid talk of production shutdowns.

S&P Global Platts assessed lithium spodumene concentrate with 6% lithium oxide content (SC6) at $545/mt FOB Australia in September, slightly down from $550/mt the month before, reflecting the spot price of a minimum volume of 1,000 mt cargoes exported from Western Australian ports.

Two shipments were heard loaded from Port Hedland heading to China this month by two miners to one major Chinese lithium converter under long-term contracts, according to sources. There were no further details on discharge ports and exact pricing.

There has been market talk, not officially confirmed, that several miners have paused output due to sluggish spot demand on falling lithium chemicals prices, in an effort to support prices.

A Perth-based miner said "production is partially down" on abundant stocks last Friday. "Spot market is dead. [We are] actively engaging with market but nothing is traded," he added.

"We still need to keep production but more focused on turning inventory quickly," he further added.

A consumer-trader source said the market is in stalemate as Chinese converters were targeting $530/mt FOB, possibly resulting in a net or negative margin for some miners, leaving tradable price stuck at around $545/mt.

A Shanghai-based trader also reported indicative bids at $530/mt and indicative offers at $550/mt, but said deals were not being struck.

Another trader agreed, adding that he rejected client inquiries at $540/mt CIF, equivalent to $510-$520/mt FOB. He indicated quotes for 10,000 mt October shipment at $570/mt CIF, payment with credit terms, or $560/mt CIF, T/T or L/C at sight.

Platts surveyed market participants earlier on freight rates from Western Australia to major Chinese ports and how they convert CIF China values to FOB Australia throughout September.

The above mentioned miner indicated CIF values would typically be at around "low $20s/mt" above FOB. Others cited price differentials around $30/mt, depending on load and discharge ports, vessel sizes and whether the cargoes were co-load or a full-ship loads.

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Asian cobalt sulfate markets slumber amid holiday lull

Chinese domestic battery-grade cobalt sulfate prices took a breather from the continuous recovery in place since August 1, as China was officially closed until Monday for national holidays.

South Korea's markets were also closed Thursday for a bank holiday. The Platts minimum 20.5% Co cobalt sulfate price assessments were unchanged at Yuan 59,000 ($8,253)/mt delivered, duty-paid China and $7,850/mt CIF North Asia, including major ports in China, South Korea and Japan.

China is the largest country in terms of producing and consuming cobalt sulfate.

Market participants previously said cobalt sulfate prices had bottomed out, but they wondered how much further prices could climb in the fourth quarter.

"Indeed, cobalt prices have rebounded to a large extent. However, demand remains the major curbing factor as both automotive and consumer electronics batteries seem lackluster this year," a Singapore-based investment analyst said, adding that he reckoned there was further room to inch up above market's expectations.

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Cornish Lithium looks to supply UK battery market

Developer Cornish Lithium has completed a £1.4 million ($1.7 million) fund raising via Crowdcube, in an attempt to make a sustainable lithium supply chain in the UK, the company said Wednesday.

Skirting traditional avenues for raising investment cash, Cornish Lithium has enlisted 1,200 new stakeholders via the crowdfunding platform. Many of them are based in Cornwall in the southwest of England.

The move is believed to be the first successful crowdfunding campaign by a British mineral exploration company, offering a role in securing strategic UK mineral supplies.

"We continue to believe that Cornwall holds significant potential to supply UK industry with the lithium needed to build electric cars and power storage batteries," CEO Jeremy Wrathall said. "This will enable the carbon footprint of batteries assembled in the UK to be minimised given that the necessary raw materials will not have to be imported from thousands of miles away.

"Domestic production of lithium and other battery metals would also reduce the dependency of the UK economy on imports and has the potential to create significant employment in Cornwall."

The money will fund the company's first exploration drill holes targeting lithium in geothermal waters deep beneath the surface in Cornwall. It plans to investigate the possibility of combining geothermal energy and lithium extraction.

Cornwall Lithium is a member of the Li4UK consortium, funded by Innovate UK through the Faraday Battery Challenge, which aims to evaluate the possibility of establishing a domestic supply of lithium for UK industry.

"The project shows Government recognition of the need to develop a secure, domestic supply of the raw materials for the battery industry, to help fuel the electric car revolution and decarbonise the economy," Cornish Lithium's statement said.

Last week the UK's opposition Labour Party pledged to invest £1.8 billion in collaboration with private investors, to build three factories to produce electric batteries, in Stoke, Swindon and South Wales, and would invest £500 million in four reprocessing plants to reprocess cobalt and other minerals used in battery production.

"This will tackle the detrimental

environmental and human rights impacts associated with battery production, reduce imports of raw materials and create new UK supply chains," a statement said.

Its goal is to use government intervention to rapidly decarbonize the UK economy, and develop an industrial strategy that includes public ownership of water and energy, to make sure the technologies of the future are manufactured and assembled in the UK.

— Ben Kilbey, ben.kilbey@spglobal.com

Dominion to spend $594 million through 2021 to improve Virginia's power grid

Dominion Energy is proposing to spend $594 million through 2021 to help its home state of Virginia "fully decarbonize by 2050," without raising rates as it provides electricity customers with more access to "clean energy" and creates an "information platform" by installing smart meters through 2021.

Dominion filed its grid transformation plan with the Commonwealth of Virginia's State Corporation Commission on Monday, and a spokesman for the Richmond, Virginia-based utility holding company said the hope is for an approval of the plan perhaps by the end of March.

The plan submitted to the SCC calls for approximately $594 million to be spent through 2021 on constructing a customer information platform which will allow customers to digitally manage their energy usage. A key part of the three-year plan is the installation of roughly a million smart meters, "which would more than triple the number currently deployed," the company said.

The SCC previously approved investments for improvements in cyber and physical security, and telecommunications.

The three-year plan is part of an overall 10-year, $3.2 billion plan which Dominion has said is designed to make the state's grid more adaptable to clean energy, "whether the energy is produced by offshore wind or from solar panels at customer homes."

The plan also calls for the "accelerated development of more environment-friendly transportation," specifically electric vehicles, and new pilot programs that support fast charging locations.

'Overearnings'

In July 2018, the Virginia General Assembly passed, and the Governor Ralph Northam, Democrat, signed into law Senate Bill 966, otherwise known as the Grid Transformation and Security Act of 2018.

Under this law, both Dominion Energy and American Electric Power's utility subsidiary Appalachian Power have submitted grid plans.

Also in GTSA, the mechanism by which the grid transformation plans could be financed was provided. The legislature had included a measure that allowed both Dominion and Appalachian Power to keep any excess on their return on equity to invest in their grid plan.

In an August 29 report, the SCC approved Dominion's claimed excess profits of $277.3 million in 2018, a return of 13.47%, which exceeded its approved 9.2% ROE.

Dominion's combined "overearnings" in 2017 and 2018 totals $380 million.

The company said in a statement about its SCC grid plan filing that customers will see no rate increase for costs associated with deployment of the new information platform and smart meters installed through 2021, "because the company plans to reinvest funds under the provisions of the Grid Transformation and Security Act of 2018."

A Dominion spokesman, Rayhan Daudani, said Tuesday, "We have to use these funds for investment. And we have to improve our electricity grid. We will use money earmarked already."

— Jeffrey Ryser, Jeffrey.ryser@spglobal.com

Battery Metals weekly wrap

What a week for the battery supply chain: crowdfunding in Cornwall, batteries being given a "second-life" and Bentley going carbon neutral at its site in Crewe. Things are happening.

Casual conversation is starting to make me feel the electric mobility revolution is coming. More and more I am talking to people who are becoming increasingly interested in electric vehicles. One colleague on the power and gas team said they test drove a Tesla this week, out of sheer curiosity. Curiosity is growing, as is people's desire to save the planet, and it is starting to make the whole thing seem pretty real.

Clotted cream -- now that's what I dream of when I think of Cornwall, in the southwest of England. But forget that, and think crowdfunding.

Developer Cornish Lithium completed a GBP1.4 million ($1.7 million) fund raise via Crowdcube, in an attempt to make a sustainable lithium supply chain in the UK. Skirting traditional avenues for raising investment cash, Cornish Lithium has enlisted 1,200 new stakeholders via the crowdfunding platform. Many of them are based in Cornwall.

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"Domestic production of lithium and other battery metals would also reduce the dependency of the UK economy on imports and has the potential to create significant employment in Cornwall," he added.

Now, this whole EV story is pretty useless without a near carbon-neutral supply chain. There's no point driving clean if the earth has been ransacked in the process leading up to that silent commute.

Bentley Motors this week achieved carbon neutral certification for its factory headquarters in Crewe, England, taking another important step on its journey to become the world's most sustainable luxury automotive manufacturer.

100% of Bentley's electricity is generated by either on-site solar panels or purchased as certified green electricity.

Bentley is now accelerating its push toward electrification with the introduction of the first fully electric Bentley slated for 2025. The luxury British marque has also just brought to market the first luxury plug-in hybrid, the Bentayga Hybrid, and aims to have hybrid variants of all models by 2023 and a BEV by 2025.

With more and more autos listing new EVs, there's a lot of talk about what can be done with batteries after they have given their all for mobility.

Electric adventure vehicle maker Rivian has designed its battery pack system to "seamlessly transition from vehicle energy storage to stationary energy storage at the end of their vehicle life."

The battery module's thin design enables second-life applications that are space-efficient and customizable, important for environments with existing infrastructure.

There has been lots of talk throughout the year on how EVs could be the solution to temper spikes in power grids from the influx of increased renewable energy.

"Second-life batteries are a big enabler to accelerating widespread adoption of renewable energy," said Rivian CEO Robert Scaringe.

This could be just what the UK is looking for.

Low summer demand and high wind power generation combined in August to drive UK electricity system balancing costs 42% higher year on year to GBP107 million ($131 million), National Grid data showed earlier this week.

"We keep adding capacity, with a couple of new Scottish wind farms coming on," one analyst said. "We still need to be do more grid reinforcement."

Bring on the batteries. Until next week, stay charged.

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