

METALS DAILY

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BATTERY METALS

Chinese cobalt sulfate prices dive 12.5% on week on bleak fundamentals

Broadly bearish sentiment and weak demand weighed on cobalt sulfate prices, forcing producers to slash offers to turn inventories to cash, sources said this week at an industry conference in Hubei, China.

S&P Global Platts assessed cobalt sulfate with 20.5% cobalt content at Yuan 49,000/mt (\$6,999/mt) delivered, duty-paid China Thursday, down from Yuan 56,000/mt the week before. The Platts seaborne 20.5% Co cobalt sulfate price assessment was also down nominally at \$8,150/mt CIF North Asia from \$8,500/mt last Thursday.

On Tuesday, a producer source indicated offers at Yuan 50,000/mt, giving 30 days credit and was willing to sell at Yuan 49,500/mt for cash or against document net two to three days.

Most tradable levels were reported at Yuan 48,000-50,000/mt from several producers on Thursday. One Jiangxi-based producer made sales at Yuan 47,000-48,000/mt on cash or T/T payment. He said offers were Yuan 48,000/mt and Yuan 49,000/mt depending on payment terms.

A second Jiangxi trader and producer

[\(continued on page 2\)](#)

BATTERY METALS

Weekly Prices

Lithium Carbonate

		Change	Date Assessed
CIF North Asia (\$/mt)	9500	+0	08-Nov-19
DDP China (Yuan/mt)	57000	-500	08-Nov-19
CIF North Asia Import Parity (Yuan/mt)	75086	-528	08-Nov-19

Lithium Hydroxide

		Change	Date Assessed
CIF North Asia (\$/mt)	11500	+0	08-Nov-19
DDP China (Yuan/mt)	62000	-2000	08-Nov-19
CIF North Asia Import Parity (Yuan/mt)	90894	-639	08-Nov-19

Cobalt Sulfate

		Change	Date Assessed
CIF North Asia (\$/mt)	8150	-350	07-Nov-19
DDP China (Yuan/mt)	49000	-7000	07-Nov-19

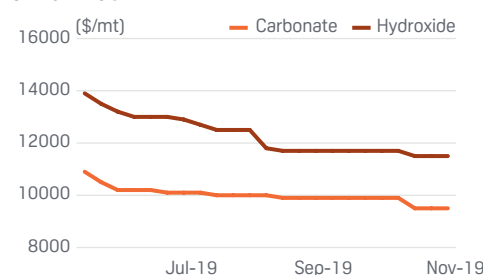
Monthly Prices

Lithium Spodumene

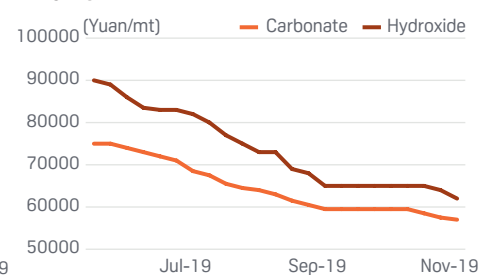
		Change	Date Assessed
FOB Australia (\$/mt)	520	-25	31-Oct-19

PLATTS LITHIUM CARBONATE AND LITHIUM HYDROXIDE

CIF North Asia



DDP China



Source: S&P Global Platts

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source did not offer anything this week. Its factory would lose money at Yuan 50,000/mt, the source said.

A Guangdong-based producer also held back from offering on lack of stocks, as current cobalt sulfate output is nearly fully fed to its own precursor production.

On the buy side, an East China consumer said Yuan 48,000-50,000/mt was reflective of the market. The imbalance between supply and demand continued to tilt toward excess supply, with no clear signs of a near-term pick-up demand.

Outside of China, a European producer

lowered his export offer to Japan and South Korea to \$9,150/mt, CIF, from \$9,500/mt two weeks ago. Another Chinese producer had no export business in a weak market and was expecting prices to fall further soon.

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Seaborne lithium remains stable, downward pressure to persist

Seaborne lithium prices remained static for the second consecutive week, although several market participants believe the downward pressure seen throughout the year will persist in the coming months.

S&P Global Platts assessed lithium carbonate flat at \$9,500/mt, while lithium hydroxide also held at \$11,500/mt. Both assessments are for battery-grade material on a CIF North Asia basis, based on deliveries to the main ports of China, Japan and South Korea.

Oversupply and slower than expected demand, particularly in China, had been the main drivers pressuring prices and were expected to continue to do so, sources said.

A consumer source outside of Asia received offers for 2020 annual contracts at \$9,000-\$10,000/mt for battery-grade lithium carbonate and “slightly below \$11,000/mt” for lithium hydroxide, both for deliveries out of Asia.

Historically, deliveries in Europe or North America trade at premiums to North Asian prices. However, “there’s definitely still a lot of pressure on prices,” the source said, adding that he expected to get more offers by late November or early December.

On the other hand, an Asian consumer source believed that “lithium prices will be stable over a long time in the spot market,

carbonate and hydroxide prices are both bottoming out”. He added that the “current capacity of major and junior suppliers are being delayed”.

He exemplified his point by mentioning Albemarle’s recent announcement of idling the Wodgina spodumene mine in Australia.

“It’s their justification that lithium prices are falling,” he said, pegging spot tradable values at \$9,500/mt for lithium carbonate and \$11,500/mt for lithium hydroxide, both on a CIF North Asia basis.

During Albemarle’s earnings call on Thursday, the company’s CEO Luke Kissam said that “current marketing conditions are challenging”.

Although he pointed out that the company’s third quarter lithium pricing was up by 1% year on year, despite a significant year-over-year decline in market conditions.

Kissam added that “reported China carbonate prices appear to have stabilized in the range of \$7/kg,” which should be “at or near the marginal cost of production”.

Although Albemarle does not expect Chinese carbonate prices to drop further, the current reported prices put pressure on pricing across the global lithium portfolio.

Also this week, Livent’s CEO Paul Graves said that “as the China market price for carbonate has fallen, we’ve seen price pressure in other markets, too, notably in

Japan and Korea, as high-cost China producers seek to place their product in the rest of the world.”

Graves also stressed that “the current hydroxide pricing environment in China is simply not sustainable in the face of rapidly rising demand from high nickel battery applications. He saw hydroxide demand increasing “well north of 20% or even 30% per year,” while carbonate had been growing “at mid-teens annual rate.”

While seaborne prices were stable, pricing levels in the Chinese domestic market fell further this week.

Lithium carbonate dropped Yuan 500 week on week to be assessed at Yuan 57,000/mt DDP China and lithium hydroxide lost Yuan 2,000 to Yuan 62,000/mt DDP China respectively.

As a result, the Chinese domestic market continued to trade well below the seaborne on an import parity basis.

Platts’ \$9,500/mt CIF assessment for carbonate was equivalent to Yuan 75,086/mt, including 13% value-added tax, based on Platts’ import-parity formula, while hydroxide’s price of \$11,500/mt was equivalent to Yuan 90,894/mt on the same basis. The dollar was assessed at Yuan 6.9945 at 4:30 pm Singapore time Friday.

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Domestic Chinese lithium prices continue to drop amid weak demand

Chinese domestic lithium prices moved lower again this week as most of the market participants saw persistently weak market fundamentals.

S&P Global Platts assessed battery grade lithium carbonate at Yuan 57,000/mt Friday, down Yuan 500 week on week, while lithium hydroxide was down Yuan 2,000/mt

to Yuan 62,000/mt. Both assessments are on a delivered, duty paid China basis.

Some market participants expect the carbonate bearish run to persist in the short run, with some sources forecasting drops to as low as Yuan 55,000/mt.

Meanwhile, Albemarle’s CEO Luke Kissam said Thursday on the company’s earnings call

that Chinese domestic carbonate prices are trading at \$7,000/mt, which is equivalent to around Yuan 49,000/mt.

“The price decline was mainly caused by weak demand, I’m waiting for better fundamentals a year later,” said a Chinese supplier who was offering carbonate at Yuan 55,000/mt, cash or telegraphic transfer.

On the other hand, a second supplier agreed with the weak market fundamentals, but stressed he would neither lower his offers from the current Yuan 57,000/mt level nor cut production at the moment.

"Our customers recent feedbacks are Chinese domestic battery-grade lithium carbonate prices are too high," said a third seller source who pegged the tradable value at Yuan 56,000/mt, possibly falling another Yuan 1,000/mt soon. Although the company was operating regularly, the source had heard about other suppliers possibly trimming output and carrying out maintenance.

Amid weakened demand one lithium converter source said their company had

cut output.

"The market environment is bad. I also heard several producers are undergoing cuts. We have no other ways, only to suffer the stress," he said.

Looking into next year one producer predicted a continued struggle to secure sales, saying that "lithium converters will face more selling pressures with overseas producers like Livent, Albemarle and SQM ramping up sales in China."

Sources said lithium carbonate offers were around Yuan 58,000/mt, but bids were still lower at Yuan 56,000/mt.

In lithium hydroxide, fine powders were seen around Yuan 60,000-63,000/mt, although one converter said this was too low

for battery grade fine powder lithium hydroxide.

"I don't think producers can offer Yuan 60,000/mt for fine powders," he said, despite there being weak demand for lithium hydroxide.

For coarse sand, market participants put prices below Yuan 60,000/mt.

A cathode maker said lithium hydroxide prices were "very close" to carbonate prices, "but due to less demand, there are very limited deals even producers lowered prices. Spot deals have died down."

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Lithium producers paint gloomy picture for 2020

With the market turning increasingly bearish on the near-term outlook for the lithium price, major producers continued to back that sentiment with gloomy 2020 predictions, mainly for the carbonate market.

It's been a rough year for the lithium price, with a glut of supply being met with so-so demand. However, it's more a supply issue than demand, according to sources.

Seaborne lithium prices remained static for the second consecutive week, although several market participants believe the downward pressure seen throughout the year will persist in the coming months.

S&P Global Platts assessed lithium carbonate flat at \$9,500/mt, while lithium hydroxide also held at \$11,500/mt. Both assessments are for battery-grade material on a CIF North Asia basis, based on deliveries to the main ports of China, Japan and South Korea.

At a recent industry conference a panel of experts forecast the price for carbonate would fall to below \$7,000/mt by Q3 2020.

Although Albemarle, one the world's largest lithium producers, reported a 21.9% year on year increase in lithium sales in the third quarter, its CEO Luther Kissam said Thursday the company expects pricing pressure from China to challenge market conditions in 2020.

"We have initiated a structured program across the company to capture sustainable

cost savings and expect this program to deliver over \$100 million in sustainable cost savings over the next two years," Kissam said. "Taking all of this into account, our preliminary view is that our full year 2020 EBITDA performance could be lower than full year 2019 results by around 10%."

Albemarle's updated outlook for 2019 total sales decreased slightly compared with its original Q2 guidance, falling to \$3.6-\$3.7 billion from \$3.65-\$3.85 billion, according to the earnings statement.

China's top lithium processors Ganfeng Lithium and Tianqi Lithium recently reported sharp declines in their profits for the January-September period as a result of weaker lithium prices.

Ganfeng Lithium reported a net profit of Yuan 329.2 million (\$46.6 million) for the first three quarters of 2019, down 66.2% from the same period last year.

Tianqi Lithium -- China's largest lithium converter -- reported a net profit of Yuan 139.5 million over January-September, down 91.7% year on year. The company's revenues fell 20.2% year on year to Yuan 3.8 billion over the same period.

Market views are mixed on how oversupplied the industry is, with some believing the glut comes from lower-grade material rather than battery grade. Still, the reality is that conditions for all grades have been poor so far this year.

Australia-listed lithium producer

Orocobre believes market conditions for the mineral, used primarily in batteries, could be on the verge of turning around after a rough phase so far in 2019.

"While weak market conditions have persisted longer than expected, a recovery is expected when the battery supply chain reaches more manageable inventory levels. A strong acceleration in market demand growth is expected in the medium to long term as electric-vehicle manufacturing profitability improves and total cost of EV ownership lowers," the company said.

However, "short-term demand remained subdued due to the same set of factors as the previous quarter including slower Chinese EV market growth, cathode/battery performance challenges [and the] US/China trade war."

Adding to the bearish tone, Morgan Stanley said in a research note this week: "For the first time, most of the industry players we interacted with expected lithium prices to fall further ([to around] \$7,000/mt) or to at least stay stable in the next 1-2 years."

The bank suggested that there could be around 150,000 mt of overhang in the market.

"EV sales are lagging expectations after the subsidy cuts in China and the impact of trade disputes ... we believe that part of the industry is underestimating the impact of a global deceleration on EV demand," it added.

According to S&P Global Platts Analytics monthly EV statistics, European EV sales in the first half of 2019 rose 40% year on year to 198,000 -- against an overall 2% decline for EU new car sales.

Lithium major Livent, meanwhile, is painting a more positive picture for battery-grade material.

"Our goal for 2020 is to increase lithium hydroxide volumes to meet our customer commitments, with existing customers

increasing their volumes and new customers looking for Livent to supply a significant portion of their 2020 needs," CEO Paul Graves said on a conference call with investors. "Even at peak production levels, we will fall short of our committed 2020 sales volumes for hydroxide if we do not start to build inventory in the fourth quarter of 2019."

However, it depends how you digest the fact that Livent is rolling over 4,000 mt of

hydroxide stock to 2020. It signals that the inventory wasn't sold in 2019.

"All of the lithium carbonate we will produce next year in Argentina will be converted to hydroxide, and even then, this won't be enough to meet our customer demand in 2020," Graves said. "As a result, we will continue buying third-party carbonate in 2020."

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Albemarle Q3 lithium sales up, but expects pricing pressure in 2020

Albemarle reported a 21.9% year on year increase in lithium sales in the third quarter but its CEO Luther Kissam said Thursday the company expects pricing pressure from China to challenge market conditions in 2020.

While Q3 performance was strong, pricing pressure may affect the company's full lithium portfolio moving forward, Kissam said during the company's Q3 earnings call. The pressure was largely attributed to pricing conditions for technical-grade lithium carbonate produced in China.

"Albemarle's third-quarter lithium pricing was up slightly year over year despite a significant year over year decline in market conditions," Kissam said. "However, China carbonate at seven dollars per kilo puts

pressure on pricing across the global lithium portfolio, including the fixed and variable pieces under our long-term agreements."

Despite the market conditions, Kissam said that Albemarle's "pricing strategy under our long-term battery-grade contracts have held."

Net sales in Albemarle's lithium segment totaled \$330.4 million in Q3, up from \$270.9 million in the year-ago period, according to its earnings statement released Wednesday.

In response to the pricing forecast, the Charlotte-based company has reduced its 2020 performance outlook.

"We have initiated a structured program across the company to capture sustainable cost savings and expect this program to

deliver over \$100 million in sustainable cost savings over the next two years," Kissam said. "Taking all of this into account, our preliminary view is that our full year 2020 EBITDA performance could be lower than full year 2019 results by around 10%."

Albemarle's updated outlook for 2019 total sales decreased slightly compared with its original Q2 guidance, falling to \$3.6-\$3.7 billion from \$3.65-\$3.85 billion, according to the earnings statement.

The specialty chemicals producer reported Q3 net income of \$155.1 million on total sales of \$879.7 million, up from net income of \$129.7 million on total sales of \$777.7 million in Q3 2018.

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Livent signs MOU on lithium hydroxide supply to LG

Livent would supply LG Chem with lithium hydroxide for electric vehicle batteries, starting in 2020, under a memorandum of understanding reached between the two companies, Livent CEO Paul Graves said Wednesday.

The multi-year deal is the most recent among Livent's partnerships with other customers, Graves said during the company's third-quarter earnings call with investors.

"We have a long history of being a leading provider of lithium hydroxide for demanding battery applications," Graves said. "Multi-year, multi-application partnerships are core to our strategy of remaining the lithium supply partner of choice in a rapidly growing and

evolving market."

Graves said that limited information on the deal could be disclosed due to the commercially sensitive nature of the agreement. However, he confirmed that the MOU was a multi-year agreement that involved multiple grades of lithium hydroxide material for energy storage applications.

The commitment with LG, as well as commitments with other customer deliveries, factored in the company's higher expectations for lithium hydroxide production in 2020 to a substantial degree.

"For the first time, starting in 2020, we expect a significant majority of Livent's lithium hydroxide will be supplied on the multi-year arrangements with either battery

producers, or auto OEMs," Graves said.

Livent projected that its production of lithium hydroxide in 2020 would increase to about 22,000 mt/y, compared with about 21,000 mt/y in 2019, according to numbers provided in the earnings call. Lithium hydroxide sales are expected to increase to between 25,000 mt/y and 26,000 mt/y in 2020, up from 17,000 mt/y in 2019. Livent did not provide quarterly numbers for production.

The Philadelphia-based company reported a Q3 net income of \$18 million on \$97.7 million in sales, down from net income of \$30 million on \$112 million in sales year on year.

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Livent boosting 2020 inventory on increasing lithium hydroxide demand: CEO

Livent's 4,000 mt of fourth-quarter lithium hydroxide inventory would be carried to 2020 to meet increasing customer commitments, CEO Paul Graves said Wednesday.

The decision was made to prevent Livent's lithium hydroxide stock from falling short next year, Graves added.

"Our goal for 2020 is to increase lithium hydroxide volumes to meet our customer commitments, with existing customers increasing their volumes and new customers looking for Livent to supply a significant portion of their 2020 needs," Graves said during a conference call with investors. "Even at peak production levels, we will fall short of our committed 2020 sales volumes for hydroxide if we do not start to build inventory in the fourth quarter of 2019."

Graves said that lithium carbonate,

which is in lower demand, will also need to be converted into lithium hydroxide to meet demand. Though the company expects to produce about 18,500 mt of lithium carbonate in 2020, sales are projected to be less than 1,000 mt next year, according to numbers provided during the earnings call.

"All of the lithium carbonate we will produce next year in Argentina will be converted to hydroxide, and even then, this won't be enough to meet our customer demand in 2020," Graves said. "As a result, we will continue buying third-party carbonate in 2020."

Livent's annual lithium hydroxide sales are projected to increase to between 25,000 and 26,000 mt in 2020, up from 17,000 mt in 2019, according to numbers provided during the earnings call. This will outpace the company's annual projected 2020 lithium

hydroxide production of about 22,000 mt.

Livent's growing commitments with customers will support operation expansions and higher volume production in Argentina and the US, Graves said. These expansions include the additional lithium hydroxide production facilities that Livent is developing in Bessemer City, North Carolina.

"By the end of 2020, we expect to produce an additional 5,000 metric tons of lithium hydroxide per year after Bessemer City, bringing total capacity in the US to roughly 14,000 metric product tons of lithium hydroxide per year, about the same capacity as we currently have in China," Graves said. "In addition, we continue to add processing capabilities to our existing hydroxide lines, increasing our operational flexibility to better meet the demands of our customers."

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Bolivia cancels lithium joint venture with German firm

The Bolivian government has cancelled a joint venture with a German investor to produce lithium products from the giant Salar de Uyuni following weeks of protests against the deal, government sources have told S&P Global Platts.

Under the joint venture, announced late last year with Bolivia's state lithium company Yacimientos de Litio Bolivianos, Baden-Wurttemberg-based ACI Systems was to invest \$1.3 billion in a facility to produce 35,000-40,000 mt/year of lithium hydroxide and other plants.

But in the run-up to last month's presidential elections, local people and opposition politicians have organized huge protests against the 70-year deal, arguing it handed over Bolivia's natural resources to foreign capital.

Speaking to journalists over the weekend, Juan Carlos Ceja, governor of

Potosi Department, said that Bolivia's embattled President Evo Morales had signed a decree repealing the agreement in a bid to quell the unrest.

"Sadly we have arrived at this situation," the governor said, blaming outsiders for fomenting recent unrest.

"Time will tell who has really acted for the good of Potosi and those who have agitated to harm Potosi," Cejas noted.

YLB CEO Juan Carlos Montenegro confirmed the decision to S&P Global Platts Monday.

YLB has already begun construction of a plant to produce 15,000 mt/year of lithium carbonate from brines extracted from the Salar de Uyuni. ACI planned to use residual brines from that process to produce lithium hydroxide, most of which would be exported to Germany to produce lithium batteries.

ACI, in a statement Monday, said that the

news had taken it by surprise and that it has yet to receive official notification from La Paz.

"Until a few days ago, the project was running as planned," said CEO Wolfgang Schmutz, noting that the joint venture with YLB had only officially come into force October 28.

"We will therefore continue working on the project as planned," Schmutz added.

The cancellation will not only hit Bolivia's plans to produce chemicals at Uyuni, but also the government's wider push to develop downstream industries based on the mineral, from battery production to car-making.

The decision does not appear to affect YLB's planned \$2.3 billion joint venture with China's Xinjiang TBEA Group to produce 100,000 mt/year of lithium products and other chemicals from two smaller salares in western Bolivia and build a Bolivian-controlled battery factory in China.

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Argentina's Alberdi Energy options lithium brine project

Alberdi Group is looking to buy a new lithium project in northwestern Argentina, becoming the latest company to show interest in the

potential of South America's lithium triangle.

Subsidiary Alberdi Energy could pay \$18 million for the Hombre Muerto North lithium

project in Salta province under an option agreement signed with owner NRG Metals.

Toronto-listed NRG recently

completed a preliminary economic assessment on the project, which supported a \$93 million investment aimed at producing 5,000 mt/year of lithium carbonate over 30 years.

Alberdi Group is one of Argentina's oldest business groups, with interests

ranging from ceramics and property development to mining and renewable energy, including the construction of Latin America's largest solar park in the neighboring province of Jujuy.

The Hombre Muerto North project adjoins claims being developed by South

Korea's POSCO Corp. Last year the steel giant paid Galaxy Resources \$280 million for property on the Hombre Muerto salt flat.

The option expires January 15. If exercised, payments will be made in stages over the next two years, NRG said.

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Industry warns over nickel prices on plentiful physical supply

Prices for nickel, the standout metal of 2019, could fall further, industry sources said this week, with plenty of the metal available outside of exchanges.

Prices have come off from highs after Indonesia issued a ban on nickel ore exports earlier this year.

There has been some profit-taking since the London Metal Exchange price hit a year-to-date high of \$18,850/mt in September. Spot LME prices were bid around \$16,245/mt Thursday afternoon.

"The feedback from investor meetings [during LME week] indicated 70% of participants, basis weak physical fundamentals, see nickel trading below \$16,000/mt (including 30% seeing below \$14,000/mt) next year," Citi bank said in a research paper Thursday. "Citi's base case forecast is comparatively higher at a \$17,500/t average for 2020."

Indonesia's energy and mineral resources ministry said earlier this year that all nickel ore exports, including material over 1.7% nickel content, will be banned from January 1, 2020, two years earlier than originally expected, to increase revenue from domestic processing of the ore.

This was then bought forward into immediate effect last week. However, there

is some legal wrangling over the validity of the latest adjustment.

The discussions leading up to the ban pushed prices higher, although some participants have become increasingly dubious that the spike will last.

"There's so much nickel [ex-exchange] ... I wish there was demand; [warehouse] stocks are not being drained by real demand," a physical trader said.

Stocks shifted

LME-registered nickel stocks stood at 66,474 mt Thursday, having started 2019 at 206,400 mt. Most believe the metal has just shifted off exchange, rather than being consumed.

A second trader said there was no nickel shortage and, if anything, Chinese demand is falling in the key stainless steel manufacturing market.

Stainless steel is the number one industry for nickel demand.

"To the bears' point, the physical spot nickel market is genuinely very weak," Citi analyst Max Layton said. "We heard from market participants that refined nickel cathode sales into stainless mills were halting and collapsing physical premiums were truly reflective of the spot conditions."

The LME said last week it is working on reforms aimed at shining a light on off-warrant stocks.

"The LME will work with the market to incentivize the voluntary reporting of off-warrant stocks," CEO Matt Chamberlain said. "Initial engagement will focus on the benefits to the industry of voluntary reporting; however, the LME will also consider future measures as appropriate, which may include placing a greater warranting fee on metal not voluntarily reported at the earliest opportunity."

ANZ research noted the nickel market is "remarkably resilient. High inventories and alternative sources should see this supply-squeeze subside, limiting the upside in prices from here."

The first trader said all producers are well stocked.

"It is five to six times more expensive [to house nickel] in a LME-registered warehouse than a normal warehouse," he said. "You pay \$3.50/mt per day. It's just too high. Then you are competing with others who don't store in LME warehouse -- which is cheaper -- so you'd be a fool to keep your stuff in an LME shed."

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Ukraine nickel imports fall 14.2% over January-October

Ukraine's imports of nickel ore and concentrate fell by 14.2% year on year to 1.09 million mt during January-October, from 1.27 million mt imported a year earlier, the state customs service said Friday.

In the first 10 months of this year, Ukraine received 57.2% of its total imports of nickel ore from Guatemala and 42.8% from Indonesia. A year earlier Guatemala supplied 68.6% and

Indonesia 31.4%, the customs service said.

In October Ukraine imported 116,940 mt, down from 143,000 mt in October 2018, but up from 111,640 mt in September.

Ukraine's only producer of ferronickel, Pobuzhskiy Ferronickel Plant (PFP), processed 573,750 mt of nickel ore in January-June, down 15.5% on the year. The company produced 32,280 mt of ferronickel

in January-June, down 8.5% year on year.

PFP is capable of processing about 1.6 million mt of wet ore to produce about 100,000 mt/year of ferronickel. The company exports most of the output.

In 2018, Ukraine's imports of nickel ore and concentrate increased 10% to 1.445 million mt from 1.314 million mt in 2017.

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Germany to kick-start EV roll-out with cash boost, 50,000 chargers by 2022

Germany plans to boost subsidized cash incentives for electric vehicles to up to Eur6,000 (\$6,700) as it targets 1 million EVs and 50,000 chargers by 2022, the government said late Monday.

Chancellor Angela Merkel and key ministers met Monday evening with auto industry executives and unions to develop a “masterplan electro-mobility” to kick-start the roll-out of EV now entering a “decisive phase.”

The so-called EV bonus is set to rise from November by up to 50% for EVs with a list price of up to Eur40,000 and by up to 25% for EVs costing up to Eur65,000 up to a maximum of Eur6,000 per vehicle, government spokesman Steffen Seibert said in a statement.

This would support up to 700,000 new EVs, with cabinet also planning to extend the bonus for the private purchase of a used EV from a company car fleet.

The government also plans 50,000 new public EV charging points over the next two years, with the auto industry committing itself to 15,000 new EV chargers, it said.

Berlin plans to invest some Eur3.5 billion together with the industry into the EV charging infrastructure and plans to set up a national body to coordinate the location of charging points, it added.

Merkel on Sunday said 1 million EV chargers were required by 2030, prompting a warning from utility lobby groups BDEW and VKU that such targets needed to align

with demand.

The number of EV charging points has risen by 50% over the past year to 20,650, but with many underused due to the sluggish EV rollout. Utilities currently operate three out of four public charging points.

Monday's auto summit follows last month's 2030 climate action law extending CO2 pricing to the transport sector and applying annual carbon emissions targets to help achieve an overall 55% cut in carbon emissions from 1990 levels by 2030.

Some 10 million EVs are needed on Germany's roads to achieve this.

The government's target of 1 million EVs by 2020 has been moved back to 2022.

Just over 100,000 EVs are currently registered in Germany, but monthly sales trends show 50% year-on-year gains as Europe's biggest auto market catches up with early adopter Norway.

According to S&P Global Platts Analytics monthly EV statistics, European EV sales in the first half of 2019 rose 40% year on year to 198,000 and compared with an overall 2% decline for EU new car sales.

However, only 0.3% of Germany's 47 million registered vehicles are currently pure EVs.

VW starts ID.3 mass production

German car manufacturers plan to triple their electric models to 100 over the next years which will be key for public acceptance of EVs amid tighter emission controls

including some inner-city driving bans for diesel vehicles.

VW's plans are most advanced, with Merkel on Monday opening VW's first pure EV factory at Zwickau starting the mass production of its first electric-only ID.3 model.

The Eur1.2 billion plant in Eastern Germany is scheduled to produce 100,000 ID.3s next year and up to 330,000 EV models each year from 2022, VW said.

Prices for the ID.3 with a range of up to 550 km start under Eur30,000, according to VW.

“The Volkswagen Group plans to sell some 22 million EVs worldwide by 2028, thus helping EVs make the breakthrough,” it said in a statement.

Germany's power grid is prepared for up to 13 million EVs or some 30% of the German car fleet, the BDEW said previously estimating an increase in power consumption of up to 5%.

Research into power demand of electric cars varies, but some experts estimate around 2.5 TWh/year additional demand from 1 million EVs.

French TSO RTE, meanwhile, projects 48 TWh or 10% of additional power demand from an estimated 15.6 million EVs by 2035.

On average, oil demand could be reduced by 120,000 b/d for every 10 million EVs on the road, research by ExxonMobil shows.

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Volvo partners with EV battery cell makers to enhance traceability

Volvo Cars said Wednesday it has partnered with two battery cell makers -- China's CATL and South Korea's LG Chem -- to develop blockchain technology to bring transparency to the electric vehicle battery supply chain.

Volvo said it will be the first automaker to use blockchain to track raw material flows.

Traceability of chemicals and metals used in the production of lithium ion batteries, such as cobalt, is one of the main sustainability challenges faced by automakers.

Blockchain technology, which establishes a transparent and reliable shared data network, significantly boosts

transparency of the raw material supply chain as the information about the material's origin cannot be altered without alerting those concerned.

“We have always been committed to an ethical supply chain for our raw materials,” said Martina Buchhauser, head of procurement at Volvo Cars.

“With blockchain technology we can take the next step towards ensuring full traceability of our supply chain and minimizing any related risks, in close collaboration with our suppliers.”

The agreements between Volvo Cars,

CATL and LG Chem cover the supply of batteries over the next decade.

Technology firms Circulor and Oracle operate the blockchain technology across CATL's supply chain following a successful pilot earlier this summer, while the Responsible Sourcing Blockchain Network (RSBN), together with responsible sourcing specialists RCS Global and IBM, is rolling out the technology in LG Chem's supply chain, the report read.

Data in the blockchain include the cobalt's origin, attributes such as weight and size, the chain of custody and information establishing that participants' behavior is

consistent with OECD supply chain guidelines.

Volvo last month launched the XC40

Recharge, the first of an upcoming family of fully electric cars under the Recharge banner. By 2025, it expects half its sales

globally to consist of fully electric cars, with the rest hybrids.

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Renault looks to reuse spent EV batteries in electric boats

Automaker Renault is eyeing ways in which used electric vehicle batteries can be put to good use, refurbishing them to power passenger boats, the company said Wednesday.

Renault has worked in partnership with French specialist maritime company Seine Alliance and electric propulsion experts Green-Vision to develop the first all-electric passenger boat powered by “second life” batteries. The new craft, named Black Swan, represents the first step toward Seine Alliance’s commitment to an all-electric river cruise fleet by 2024.

Due to go into service in 2020, Black Swan can carry up to eight passengers and pioneers the use of lithium-ion batteries that have already had their “first car life” in Renault Z.E. vehicles. After being reconditioned, these cells are used to power a pair of 20 kW electric motors that allow

two hours cruising on the River Seine in Paris, while full charge will take just two to three hours.

What can be done with used batteries was a hot-topic at a recent industry meeting. There was a lot of talk on the sidelines of LME Week about recycling EV batteries being potentially more polluting than mining raw materials from scratch.

“If it is not managed properly, it could be a real environmental mess,” one source said.

Another said the difficulty in taking spent EV batteries and trying to “re-life” them is that it can be incredibly costly to check each individual cell to ensure that the battery is safe to reuse.

“Batteries get used to a charging cycle, they get charged, expel energy and then get recharged,” a consultant said. “Trying to rehouse them in another situ could cause an adverse reaction, and make the

battery unstable.”

Electric boats could be a good home for recycled batteries, as they will run on a similar cycle.

“[This] continues Renault’s commitment to sustainability and the circular economy, which aims to reduce energy use and the extraction of raw materials by the re-use and refreshing of existing resources,” a company statement read.

“Examples include Renault’s involvement in Smart Fossil Free Island on Porto Santo, Portugal, where resident volunteers drive Renault Z.E. vehicles that can feed energy back into the island’s electricity grid when not being used,” the statement said. “Renault ‘second-life’ batteries are also used to store excess energy produced by the island’s solar and wind farms.”

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UK new car registrations fall again in October

The UK’s new car market fell 6.7% year on year in October to 143,251 units, as weak consumer confidence continued, according to the latest figures released Tuesday by the Society of Motor Manufacturers and Traders.

The SMMT attributed the fall to “a tough environment for businesses and consumers as economic and political uncertainty continued to impact confidence.”

Demand from private (60,083 units) and business (3,256 units) consumers both fell on the year by 13% and 30%, respectively. Fleet registrations were broadly stable at 79,912.

Year-to-date new car demand was down 2.9% on the year, reflecting “continued uncertainty over diesel and clean air zones, stunted economic growth and uncertainty over Brexit,” the SMMT said.

Despite the overall fall, demand for electric vehicles continued to climb, with registrations of new battery EVs more than doubling on the year to 3,162 units. New hybrid EV vehicle registrations rose 29% on the year.

Registrations of new mild HEV diesel cars totaled 3,251, up from only 680 in October 2018, while MHEV petrol car registrations rose 8.7% to 1,732 vehicles.

On the flip side, the volume of new registrations for diesel cars fell the most by 28.3% on the year to 34,666 units, with petrol car registrations also slipping 3.2% to 89,371 and plug-in HEV registrations 1.7% lower at 3,119.

SMMT chief executive Mike Hawes said the growth in alternatively-fueled cars was “very welcome, showing increasing buyer appetite for these new technologies.”

“The overall market remains tough, however, with October now the year’s eighth month of decline and in need of an injection of confidence,” he said.

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Lithium Australia subsidiary signs recycled li-ion battery material offtake

Lithium Australia’s 24%-owned subsidiary Envirostream Australia has signed an offtake deal with South Korea SungEel HiTech for the sale of recycled lithium-ion

battery material.

Under the memorandum of understanding signed by the two parties Wednesday, mixed metals dust (MMD)

containing cobalt, nickel and lithium recovered at Envirostream’s battery recycling plant in Melbourne will be exclusively supplied to SungEel.

Shipments will start in November, with SungEel, South Korea's largest battery recycler, due to refine the MMD into cobalt, nickel and lithium chemicals for use in new lithium-ion batteries.

Envirostream is currently the only company in Australia recycling all the energy metals from used lithium-ion batteries and Lithium Australia managing director Adrian Griffin said

the deal would allow the MMD to be immediately refined, providing a solution to Australia's lithium-ion battery disposal crisis.

"Closing the loop on the production of battery materials reduces the environmental footprint of the mining and processing aspects inherent in lithium-ion battery production, improves sustainability and prevents the components of spent lithium-

ion batteries from leaking into groundwater and oceans as a consequence of their relegation to landfill or transport to other jurisdictions," he said.

Lithium Australia increased its holding in Envirostream to 24% from 19% for \$100,000 in mid-October, with the funds used to expand the company's battery recycling facilities.

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Katanga Mining Q3 copper cathode sales up 39% on year to 60,530 mt

Copper and cobalt mining company Katanga Mining -- 86% owned by global diversified natural resources company Glencore -- said third-quarter sales of copper cathode increased 38.8% year on year to 60,530 mt.

Copper and cobalt mining company Katanga Mining -- 86% owned by global diversified natural resources company Glencore -- said third-quarter sales of copper cathode increased 39% year on year to 60,530 mt.

Copper cathode sold for the nine months that ended September 30 jumped 76% year on year to 170,631 mt, the company said late Thursday.

The Toronto-listed company said third-quarter sales of cobalt contained in hydroxide dropped 45.9% year on year to 2,020 mt.

Cobalt contained in hydroxide sold for the nine months that ended September 30 fell 45% year on year to 3,265 mt, due to the effect of the temporary suspension of export and sale of cobalt from November 6, 2018 to April 15, 2019 as well as sales deferrals due to the mechanical breakdown of the dryers noted earlier, the company said.

In Q4 2018, Katanga had to temporarily suspend the export and sale of cobalt out of its Democratic Republic of Congo operations because of the presence of uranium in a cobalt hydroxide sample.

The company said full-year 2019

production guidance for copper and cobalt has been moderately revised, compared to the August 2019 release with copper at 233,000 mt and cobalt at 16,000 mt.

FY 2020 production guidance for copper is set at 270,000 mt and cobalt at 29,000 mt, while FY 2021 production guidance for copper is set at 295,000 mt and cobalt at 32,000 mt, Katanga said.

Annual copper production guidance was subject to 15,000 mt variation higher or lower, while annual cobalt production guidance was subject to 2,000 mt variation, the company said.

Business review

In April, Katanga said it had started a business review aimed at mining efficiencies, processing improvements, enhancements to product quality realizations and overhead cost reductions.

"Initial indications suggest there may be scope for margin improvements in the order of \$200-250 million per annum," the company said. "Further work, seeking to develop detailed implementation plans to deliver these improvements, is being undertaken, which if successful, are expected to be realizable by 2022."

"These improvements are expected to materially increase the cash flow generation of KCC [Katanga's 75%-owned subsidiary Kamoto Copper Company] from 2022, when

it is projected to achieve targeted life of mine average production of approximately 300,000 mt of copper and 30,000 mt of cobalt, resulting in a steady state copper unit cash cost of \$1.65/lb, before cobalt by-product credits, and \$0.75/lb after cobalt by-products revenue, net of allocable cobalt direct production and realization/selling costs of approximately \$0.60/lb." Katanga said.

Plans \$5.8 billion rights issue

Katanga also said late Thursday it planned to raise an estimated C\$7.6 billion (\$5.8 billion) in a rights issue in order to repay its debt to Glencore.

"Glencore has agreed to accept the Rights Offering proceeds of approximately C\$7.6 billion or the equivalent in Common Shares issued from treasury under the Rights Offering to repay \$5.8 billion of debt to Glencore," the company said.

"The company will use the entirety of the proceeds of the offering to repay \$5.8 billion of debt owed to an affiliate of Glencore under the Glencore Loan Facilities, with approximately US\$1.5 billion of debt owed to Glencore being retained by the Company," it said.

The \$1.5 billion residual debt to Glencore will remain outstanding until 2023, Katanga said.

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Move to decarbonization will require more metals, ESG standards in focus:BofA

Demand for metals is likely to accelerate to keep up with mounting environmental, social and governance compliance and assist in the move to decarbonization, according to

Bank of America/Merrill Lynch Global Research in a report Monday.

As investors become more in tune with ESG requirements, miners are reacting to

ensure they stay up to date and avoid any backlash. ESG refers to the three central factors in measuring the sustainability and ethical impact of an investment in a

company or business.

Looking back at last week's industry gathering, LME Week 2019, the bank said: "Interestingly, ESG has been a key topic, similar to client visits in Paris and Zurich the week prior. We agree that decarbonisation can only happen through an increase of metals usage."

The bank's research showed that around 80-90% of greenhouse gases are classified as Scope 3 emissions, and this is where the metals industry can make a meaningful contribution towards cleaning up the environment.

"Particularly companies in the transportation and packaging space are looking to increase the usage of carbon-free metals, including aluminium, in applications that are less polluting...Staying on the sidelines is not considered an option, partially over concerns that either governments or activists could ultimately force a change," the report said.

A group of analysts at the bank said those that comply are already being rewarded for their actions, pointing out that Norge, Norway's sovereign wealth fund, recently increased its stake in Rio Tinto to 1.4%, as the miner moved towards being the first global major not involved in the production of fossil fuels.

Rio Tinto said it continues to take steps toward decarbonizing its business by 2050, and is "not complacent" in its approach, according to the company's CEO at its London investor day during LME Week.

"Rio Tinto has reduced its emissions-intensity footprint by almost 30% since 2008 and today, over 70% of electricity comes from renewable sources," CEO Jean-Sebastien Jacques told the audience.

"Current emissions targets, which have already been achieved, expire at the end of 2019 and new targets will be disclosed in early 2020," he added. "The new targets will move Rio Tinto closer to its long-term commitment of substantially decarbonizing its business by 2050."

Recently global diversified mining major Anglo American said one of its platinum mines in Zimbabwe will receive the first third-party audit for responsible mining across the sector.

There is mounting hunger for the industry to put its money where its mouth is and prove it means what it says.

The Unki platinum mine will be independently audited against the Initiative for Responsible Mining Assurance's Standard for Responsible Mining. The standard was 10 years in the making, according to the report, and drew on the expertise of more than 100 individuals and organizations in the sector.

Aimee Boulanger, IRMA's executive director, said: "While IRMA is a voluntary certification system meant to complement strong laws and government oversight, it is also the world's first and only global definition of what constitutes leading practices in social and environmental responsibility for large-scale mining operations developed through consultation

with a range of stakeholders...We hope that this paves the way for others across the industry to make a similar commitment."

During LME Week a lot of discussion focused on what metals will benefit from the new industrial, or "green", revolution. The main picks by market sources were nickel, copper, lithium, cobalt and aluminium. A lot of the traction will be seen in the electric-vehicle space.

"Will EVs really be as clean as we are being led to believe? I mean, you still need to dig up the earth and process the ore to get the commodities/chemicals required to build the vehicles and power them. This is highly energy intensive. To be truly green we need more renewables tied into the sector and a better circular economy. At the moment some recycling processes of EV batteries is dirtier than mining the stuff from scratch," a banking source told S&P Global Platts.

S&P Global Ratings said recently that environmental and social risks are becoming increasingly important for mining companies' credit quality. The failure of Vale's Brumadinho dam in Brazil in January this year highlighted the severity of these risks in the mining sector.

In addition to a low-probability, high-severity event like dam failure, the mining sector is exposed to longer-term environmental and social risks, such as the pressure to limit greenhouse gas (GHG) emissions, injuries to employees, and the impact on communities local to the mining sites.

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Battery Metals weekly wrap

It was another exciting week in the European battery sector, with tractability, new models, weak raw material prices and free electricity all on the menu.

VW up the ante, opening its first pure EV factory at Zwickau, Germany, starting the mass production of its first electric-only ID.3 model.

The Eur1.2 billion plant in Eastern Germany is scheduled to produce 100,000 ID.3s next year and up to 330,000 EV models each year from 2022, VW said.

Prices for the ID.3 with a range of up to 550 km start below Eur30,000, according to VW. The company plans to sell some 22

million EVs worldwide by 2028. No mean feat.

European EV sales in the first half of 2019 rose 40% year on year to 198,000, according to S&P Global Platts Analytics monthly EV statistics, and compared with an overall 2% decline for EU new car sales.

Demand for metals such as lithium, nickel, cobalt and copper is likely to accelerate to keep up with mounting environmental, social and governance compliance and assist in the move to decarbonization, Bank of America/Merrill Lynch Global Research said in a report Monday.

However, for now the outlook for the lithium price, the key ingredient in EV batteries, is decidedly bearish. Producers keep reporting weak 2020 outlooks, as banks forecast depressed prices from a supply surplus.

"For the first time, most of the industry players we interacted with expected lithium prices to fall further ([around] \$7,000/mt) or to at least stay stable in the next 1-2 years," Morgan Stanley said in a research note this week. The bank suggested that there could be around 150,000 mt of overhang in the market.

"EV sales are lagging expectations after

the subsidy cuts in China and the impact of trade disputes ... we believe that part of the industry is underestimating the impact of a global deceleration on EV demand," it added.

This hasn't deterred automakers from launching fresh models. The vision appears to be to get as many EVs on the road, as quickly as possible.

Ford said it will be debuting its new Mustang-inspired sports utility vehicle in Los Angeles later this month. The vehicle has a targeted driving range of up to 600 km, which is pretty hefty and should go a long way to putting range anxiety to bed.

SEAT strengthened its commitment to urban mobility, breaking into the motorcycle market, with the eScooter concept. "The constant growth of large cities makes achieving efficient mobility one of the main challenges to overcome," President Luca de Meo said.

Peugeot said it is increasingly committed to electrifying its models, aiming to get its light commercial vehicle segment 100%

electrified by 2021.

And congrats to Kia -- its e-Niro won "Best Electric Car" at the Business Car Awards 2019.

Volvo was in the headlights this week. Not only is it offering a free year of electricity to power its EVs, but it also stepped up and announced a tech system to trace battery raw materials.

The automaker is offering British car buyers one year's free electricity to charge their new plug-in hybrid car, with the launch of its Take Charge campaign. The offer is available across Volvo's range of plug-in hybrid models.

Kristian Elfors, Volvo Car UK MD, said: "At Volvo, in keeping with our Swedish roots, we've always taken a keen interest in looking after the environment. Our recently stated ambition to become a carbon-neutral company by 2040 shows we are serious about addressing climate change."

Volvo said Wednesday it has partnered

with two battery cell makers -- China's CATL and South Korea's LG Chem -- to develop blockchain technology to bring transparency to the electric vehicle battery supply chain.

Traceability of chemicals and metals used in the production of lithium-ion batteries, such as cobalt, is one of the main sustainability challenges faced by automakers.

Finally, Renault is studying ways in which used electric-vehicle batteries can be refurbished to power passenger boats. Renault has worked in partnership with French specialist maritime company Seine Alliance and electric propulsion experts Green-Vision to develop the first all-electric passenger boat powered by "second life" batteries. The new craft, named Black Swan, represents the first step toward Seine Alliance's commitment to an all-electric river cruise fleet by 2024.

Until next week, stay charged.

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