

METALS DAILY

REPRINT: Volume 8 / Issue 191 / September 27, 2019

BATTERY METALS

Seaborne lithium prices unchanged again as market lacks direction

Seaborne lithium prices remained flat for the fourth consecutive week, with the market lacking clear direction, although it was still seen as being fundamentally oversupplied.

S&P Global Platts assessed batterygrade 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.

One trader heard about negotiations at as low as \$8,000/mt for technical grade lithium carbonate but said "term contracts are currently even lower than this."

Other market participants previously pegged the differential between technical and battery grade lithium carbonate to be around \$2,000/mt.

During Platts' Battery Metals Conference in San Francisco earlier in the week, the general feeling among the attendees was that the bear run would persist for the short term.

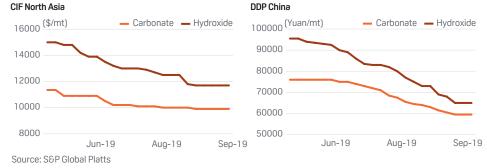
But 46% of them expected prices to be higher a year from now, according to an

(continued on page 2)

BATTERY METALS

		Change	Assessed
West D. P. Cons			
Weekly Prices			
Lithium Carbonate			
CIF North Asia (\$/mt)	9900	+0	27-Seρ-19
DDP China (Yuan/mt)	59500	+0	27-Sep-19
CIF North Asia Import Parity (Yuan/mt)	79127	+1	27-Sep-19
Lithium Hydroxide			
CIF North Asia (\$/mt)	11700	+0	27-Sep-19
DDP China (Yuan/mt)	65000	+0	27-Sep-19
CIF North Asia Import Parity (Yuan/mt)	93513	+1	27-Sep-19
Cobalt Sulfate			
CIF North Asia (\$/mt)	7850	+100	26-Sep-19
DDP China (Yuan/mt)	59000	+2500	26-Sep-19
Monthly Prices			
Lithium Spodumene			
FOB Australia (\$/mt)	550	-30	30-Aug-19

PLATTS LITHIUM CARBONATE AND LITHIUM HYDROXIDE



METALS DAILY

Volume 8 / Issue 191 / September 27, 2019

ISSN: 2325-0658

The names "S&P Global Platts" and "Platts" and the S&P Global Platts logo are trademarks of S&P Global Inc. Permission for any commercial use of the S&P Global Platts logo must be granted in writing by S&P Global Inc.

You may view or otherwise use the information, prices, indices, assessments and other related information, graphs, tables and images ("Data") in this publication only for your personal use or, if you or your company has a license for the Data from S&P Global Platts and you are an authorized user, for your company's internal business use only. You may not publish, reproduce, extract, distribute, retransmit, resell, create any derivative work from and/or otherwise provide access to the Data or any portion thereof to any person (either within or outside your company, including as part of or via any internal electronic system or intranet), firm or entity, including any subsidiary, parent,

or other entity that is affiliated with your company, without S&P Global Platts' prior written consent or as otherwise authorized under license from S&P Global Platts. Any use or distribution of the Data beyond the express uses authorized in this paragraph above is subject to the payment of additional fees to S&P Global Platts.

S&P Global Platts, its affiliates and all of their third-party licensors disclaim any and all warranties, express or implied, including, but not limited to, any warranties of merchantability or fitness for a particular purpose or use as to the Data, or the results obtained by its use or as to the performance thereof. Data in this publication includes independent and verifiable data collected from actual market participants. Any user of the Data should not rely on any information and/or assessment contained therein in making any investment, trading, risk management or other

decision. S&P Global Platts, its affiliates and their third-party licensors do not guarantee the adequacy, accuracy, timeliness and/or completeness of the Data or any component thereof or any communications (whether written, oral, electronic or in other format), and shall not be subject to any damages or liability, including but not limited to any indirect, special, incidental, punitive or consequential damages (including but not limited to, loss of profits, trading losses and loss of qoodwill).

ICE index data and NYMEX futures data used herein are provided under SEP Global Platts' commercial licensing agreements with ICE and with NYMEX. You acknowledge that the ICE index data and NYMEX futures data herein are confidential and are proprietary trade secrets and data of ICE and NYMEX or its licensors/suppliers, and you shall use best efforts to prevent theunauthorized oublication, disclosure or cooving

of the ICE index data and/or NYMEX futures data.

Permission is granted for those registered with the Copyright Clearance Center (CCC) to copy material herein for internal reference or personal use only, provided that appropriate payment is made to the CCC, 222 Rosewood Drive, Danvers, MA 01923, phone +1–978–750–8400. Reproduction in any other form, or for any other purpose, is forbidden without the express prior permission of S&P Global Inc. For article reprints contact: The YGS Group, phone +1–717–505–9701 x105 (800–501–957) from the U.S.1.

For all other queries or requests pursuant to this notice, please contact S&P Global Inc. via email at

support@platts.com. *Platts Metals Daily* is published daily by Platts, a division of S&P Global, registered office: Two Penn Plaza, 25th Floor, New York, N.Y. 10121-2298

To reach Platts: E-mail:support@platts.com; North America: Tel:800-PLATTS-8; Latin America: Tel:+54-11-4121-4810; Europe & Middle East: Tel:+44-20-7176-6111; Asia Pacific: Tel:+65-6530-6430





Date

anonymous poll taken during the event. Meanwhile, 25% of respondents expected prices to remain unchanged at \$9,900/mt, and 29% believed prices would be lower.

During one of the panel discussions, one of the main topics was when the market would shift from the current oversupply situation to an undersupply of lithium chemicals.

Although no definitive conclusion could be reached, the panelists agreed that prices

should rebound as demand would keep increasing faster than supply.

Prices were also stable again in the Chinese domestic market for both hydroxide and carbonate.

Lithium carbonate was assessed steady at Yuan 59,500/mt DDP China, and hydroxide remained at Yuan 65,000/mt DDP China.

With the overall move sideways, the Chinese domestic market continued to be below the seaborne market on an import parity basis.

The Platts \$9,900/mt CIF mark for carbonate was equivalent to Yuan 79,127/mt, including 13% VAT, based on Platts' import-parity formula, while hydroxide's price of \$11,700/mt was equivalent to Yuan 93,513/mt on the same basis. The yuan was assessed at 7.0731 to the dollar at 4:30 pm Singapore time Friday.

- <u>Henrique Ribeiro, henrique.ribeiro@spglobal.com</u>
- Jacqueline Holman, jacqueline.holman@spglobal.com

Chinese domestic lithium downtrend backs off for second week

Chinese domestic lithium carbonate and hydroxide prices moved sideways for the second straight week, as Chinese converters remained reluctant to further lower their offers because of production costs.

S&P Global Platts assessed batterygrade lithium carbonate at Yuan 59,500/mt Friday and lithium hydroxide at Yuan 65,000/ mt, both unchanged from last week. Both assessments are on a delivered, duty-paid China basis.

Some sources believed that the market had bottomed out due to production costs, adding that seasonally higher demand in the fourth quarter could help ease the pressure on prices.

"There might be limited room for a further decline as the current price level is already close to the production cost," said a consumer source who paid Yuan 60,000/mt for spodumene-converted lithium carbonate.

He had heard lithium carbonate was tradable at Yuan 58,000-59,000/mt, a level that producers seemed to agree with, with two traded at the Yuan 58,000/mt level and another at Yuan 58,500/mt, the latter concluded with long-term customers.

The consumer added that "demand is good now -- after all, it enters the peak season" for lithium cobalt oxide cathodes, although he didn't expect any relevant changes before the Chinese National Holiday

next week.

While demand from the LCO, lithium ferrophosphate and lithium manganese oxide battery industry remained relatively strong, sources said demand from ternary materials remained moderate and might not see any obvious improvements because of the rise in production costs caused by the hike in cobalt and nickel prices.

Platts assessed cobalt sulfate with 20.5% cobalt content Yuan 2,500/mt higher this week at Yuan 59,000/mt delivered, dutypaid China.

Market sources said there is limited room for a further drop as spodumene prices seemed to have stabilized.

Link to spodumene prices

A second consumer source conditioned a potential cease in lithium carbonate's bear run to spodumene prices going forward.

"If spodumene stabilizes, it will put a brake on lithium carbonate prices. Otherwise, they will continue to drop," he said, pegging the tradable value at Yuan 58,000/mt.

A source at a Chinese producer said the market was stable because cathode makers had restocked for the holidays, but he did not expect a rebound in the fourth quarter.

"So far we haven't seen any feedback on rebound. EV battery demand has not recovered," he said. A second producer source said there was no profit margin at current price levels.

"It seems that battery makers and OEMs have a lot of new capacities. We didn't feel much increase in lithium carbonate buying even before the long holidays as there are so many lithium chemicals suppliers in the market," he said, adding that he expected demand to remain tepid and price to be flat.

Lithium hydroxide demand low

A third producer source said there was no demand for lithium hydroxide, with another adding that end-users had finished stocking up.

The second consumer said lithium hydroxide demand had been dented by subsidy cuts, although he said, "Lithium chemicals price used to rebound slightly at the end of September to November, so I would not rule out the possibility that we might see the same trend this year."

One producer said coarse sand was tradable at Yuan 57,000-59,000/mt, while fine powder could be traded at Yuan 66,000-67,000/mt.

Another producer saw fine powder tradable at a higher Yuan 71,000/mt.

- Jacqueline Holman, jacqueline.holman@spglobal.com
 - <u>Lucy Tang, lucy.tang@spglobal.com</u>
- <u>Henrique Ribeiro, henrique.ribeiro@spglobal.com</u>

China domestic and seaborne cobalt sulfate prices continue to rise

The uptrend in Chinese domestic cobalt sulfate prices continued for the ninth straight week, as domestic producers raised their offers again amid improved demand and rising

raw materials prices.

S&P Global Platts assessed cobalt sulfate with 20.5% cobalt content at Yuan 59,000/mt delivered, duty-paid China Thursday, up Yuan 2,500/mt from September 19.

Deals were concluded at Yuan 58,000/mt and Yuan 60,000/mt respectively earlier this

week, said a Chinese producer, who confirmed that the tradable values were indicated at the same level Thursday.

However, the sales volumes were not large, as demand has the final say, he added.

"We're not allowed to sell below Yuan 62,000/mt now and our offers are around Yuan 68,000/mt," said another major Chinese producer.

A third Chinese producer said that there were more shipments recently and he would definitely not sell below Yuan 58,000/mt.

"Demand seems better now as consumers need to stock up before the week-long national day holidays (October 1-7). The price might stabilize gradually," he said

A fourth Chinese producer, who also pegged tradable value at Yuan 58,000-60,000/mt, said he expected the price to stay firm in the coming month thanks to the improved demand. It would be good to see the price stabilizing around Yuan 60,000/mt, he added.

It lacked momentum for the price to go up significantly and might remain rangebound after the break, some market sources said.

Meanwhile, seaborne prices rose for the fifth straight week thanks to the continuous rise in cobalt metal prices. Some market participants expected the cobalt metal prices might not continue to spiral up.

The Platts seaborne 20.5% Co cobalt sulfate assessment was at \$7,850/mt CIF North Asia, up \$100/mt from a week earlier.

The second Chinese producer said that the increase in offers to South Korea and Japan lagged behind that in domestic prices. Another Chinese producer said that offers to South Korea and Japan might exceed \$8,500/mt converted on current domestic prices.

A Western producer, who maintained his offer at \$9,100/mt this week, said that inquiries increased recently and buyers in North Asia might be able to reach deals at \$7,750-\$8,000/mt for Chinese materials.

— <u>Lucy Tang lucy.tang@spglobal.com</u>

Lithium market to remain oversupplied in the short run: conference

The current lithium oversupply is likely to remain in the short run, although the market should shift to an undersupply situation at some point as demand is expected to increase faster than supply, according to panelists who spoke on Monday at Platts' Battery Metals Conference in San Francisco.

"It's a depressed lithium market, but in the future it will be interesting again," said Daniel Jimenez, consultant from iLi Markets. He said that at least 120,00 mt of production on a LCE (lithium carbonate equivalent) basis would need to be delayed in order to prevent an the oversupply to persist in the coming 12 months.

Considering that this is unlikely to happen, he believes lithium carbonate prices can keep falling to a floor level of as low as \$6,000-\$7,000/mt. Platts' current lithium carbonate CIF North Asia weekly assessment is at \$9,900/mt and has been freefalling since its launch in May 2018.

S&P Global Market Intelligence's models support that there is room for further lithium price reductions, according to the head of mine economics Adam Webb, brine producers still have wide margins of \$5,213/mt of LCE. Hard rock producers' margins are half of it, he said--which indicates that their breakeven is at a similar level than what was forecasted by Jimenez.

However, from 2025 to 2030 the market "will need another 1 million mt of LCE supply," said Jimenez, which raises concerns about the availability of the required lithium on time.

"There are quite a lot of investments that need to happen to allow supply meeting the expected future demand," said David Deak, president of Marbex LLC. "It will be difficult for the industry to meet this demand without investments being done now," he said.

Although hard-rock operations are able to start producing relatively fast, brine projects take many years before being able to start commercial operations.

The current bearish pricing scenario has been preventing these investments to reaching the projects under development, said Webb. "In 2018, \$1.1 billion were raised by lithium companies, mostly in the first half, while in the first half of 2019 it was only \$38 million," he said.

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

Li-ion battery's prevailing technologies still uncertain: conference

Li-ion will remain as the predominant battery technology for electric vehicles (EVs), energy storage systems (ESS) and consumer electronics; however, it is still not clear what li-ion chemistry will be the standard going forward, according to several industry leaders who spoke on Monday at Platts' Battery Metals Conference in San Francisco.

The main disagreement is related to the future market share of LFP (lithium-iron phosphate) cathodes. Despite being the first predominant chemistry in EVs, LFP lost momentum in the recent years to nickel-rich

cathodes such as NCA (nickel-cobaltaluminum) and NCM (nickel-cobaltmanganese). These technologies provide higher energy density, which implicates in bigger driving ranges before recharging.

Major lithium producer Albemarle's CTO Glen Merfeld forecasted LFP use to reduce dramatically in the next years. "It's not totally going away, but overall it will decrease driven by the economies of scale provided by the increase in production of different kinds of NCM -- it's not only our perspective, but also what we are hearing from our

customers," he said.

On the other hand, Chinese precursor materials maker CNGR's business development manager, Haohan Wu saw that the LFP consumption rose sharply in China recently "due to the cost of raw materials [referring to nickel and cobalt], as well as the recent cut in the government subsidies for higher-range EVs."

The lithium and cobalt pricing surveys conducted weekly by S&P Global Platts have also been showing an increasing interest for LFP within the Chinese market, although

there is no clear trend towards this chemistry in other regions--which altogether still consume less volume than the Chinese domestic market.

"Every material has its own application; LFP has a long life cycle, lower cost and it's very safe, so it will depend on how the market reacts," he said, adding that if demand increases as expected, "there will still be a big room for LFP to grow." Curiously, CNGR doesn't produce LFP, being focused on NCM, NCA and LCO (lithiumcobalt oxide).

"The Chinese especially have been promoting LFP in ESS," said Fluence Energy's procurement director Mike Erb, who added that the dominant LFP and NCM chemistries are currently even in that industry.

"It's important for us to be agnostic and have the possibility of shift from one to another, depending on the market conditions," he added.

— Henrique Ribeiro, henrique ribeiro espalobal.com

Wesfarmers acquires 50% share in Mt Holland lithium project

Australia's Wesfarmers has completed its acquisition of lithium developer Kidman Resources, giving it access to the Mt Holland lithium project in Western Australia.

Wesfarmers has funded the acquisition through existing banking facilities, paying A\$1.90 (US\$1.29) per share in cash to Kidman shareholders.

It now owns half of the Mt Holland 50:50 joint venture company, Covalent Lithium, with large lithium producer Sociedad Quimica y Minera de Chile (SQM).

Mt Holland includes the Earl Grey project, which has a mineral resource estimate of 189 million mt at 1.5% Li2O, containing 6.49 million mt of lithium carbonate equivalent,

and an additional exploration target of 20-40 million mt at 1.4-1.6% Li20.

Wesfarmers previously said the acquisition would provide it with an opportunity to invest in and develop a large-scale, long-life and high-grade lithium hydroxide project, as well as create a partnership with SQM.

Managing director Rob Scott said the acquisition and the planned future investment was "an attractive opportunity to participate in the development of a large-scale, long-life and high-grade lithium hydroxide project in Western Australia in partnership with a global leader in the lithium industry."

He added that the move also supported the region's ambition to become a global hub for downstream lithium processing.

The project includes the construction of a mine and co-located concentrator at Mt Holland, and a lithium hydroxide refinery in Kwinana to produce around 45,000 mt/year of battery grade lithium hydroxide.

Lithium hydroxide prices have been on a downtrend throughout 2019, although have stabilized recently, with Platts' weekly battery grade lithium hydroxide assessment currently at \$11,700/mt CIF North Asia, the same level it has been for three weeks.

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

S Korea's LG Chem to buy 125,000 mt of nickel-manganese-cobalt from Umicore

South Korea's LG Chem has signed a deal with Belgium-based Umicore for the latter to supply 125,000 mt of nickel-manganese-cobalt from 2020, the South Korean electric vehicle battery maker said Tuesday.

"This supply agreement will support LG Chem in meeting the growing demand for rechargeable lithium-ion batteries as car manufacturers are expanding their offering of longer-range electric vehicle models in several regions," Umicore said.

Umicore said most of the volumes covered by the multi-year agreement will come from its greenfield facility in Poland, adding the company "is also assisting LG Chem in closing the loop by recycling its production residues and the companies are currently discussing the terms of a long-term cooperation in battery recycling."

Neither company disclosed the value of the agreement nor its duration, but 125,000 mt of material is enough to make about 1 million EV batteries.

LG Chem said from 2021, more than half of the volume will be covered by the Polish plant, but the initial volumes will be supplied by Umicore's plant facilities in South Korea and China in 2020.

LG Chem currently operates an EV battery plant in Poland, with an estimated production capacity of 100,000 units/year under LG Chem Wroclaw Energy, but plans to quadruple its output.

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

Energa to complete largest Polish battery storage project by end-2019

Polish state-controlled utility Energa said Friday it plans to complete the country's largest battery storage project, one of the biggest in the world, by the end of this year.

The Bystra storage project, which will house batteries in a 1,200 square meter

warehouse with a target capacity of 6 MW (27 MWh), is currently in its final stages and the investment will be launched by the end of this year, the company said in a presentation of its second-quarter results.

The investment is the first hybrid

battery storage project in Poland and it is being built in cooperation with Hitachi and the Polish transmission system operator, PSE, on a site close to Energa's 24-MW Bystra wind farm in Pruszcz Gdansk, Pomerania, northern Poland.

— <u>Adam Easton, newsdesk@spglobal.com</u>

UK opposition party plans boost to EVs

The UK's opposition Labour Party plans to deliver a sevenfold increase in offshore wind power by 2030, and further capital to boost the electric car revolution, shadow business and energy secretary Rebecca Long-Bailey said Tuesday.

The planned investments come as part of Labour's stated Green Industrial Revolution, which includes a People's Power Plan to increase public ownership of power sector assets.

"To start, we will deliver a sevenfold increase in offshore turbines in 12 years. But we cannot rely on the market to act fast enough," Long-Bailey said at the Labour Party's annual conference.

The country will take a majority stake in all new offshore wind farms and Labour's National Transformation Fund will allocate £6.2 billion (\$7.7 billion) to jumpstarting a homegrown renewable energy industry, Long-Bailey said, according to a transcript of the speech.

The People's Power Plan will deliver an £83 billion investment and strengthen the manufacturing sector by using public buying power to support local businesses, re-shoring thousands of jobs to UK coastal towns.

The UK has 9.4 GW of offshore wind. A sevenfold increase would take this to 65.8 GW. Assuming a load factor of 50% for offshore wind in future, the policy could deliver up to 288 TWh/yr.

Labour had previously indicated it would seek to triple solar capacity, taking the total to 39.9 GW. At an 11.3% load factor (2018), this would yield a further 39.5 TWh.

UK total electricity demand in 2018 was 285 TWh. Under National Grid's net-zero carbon emission scenarios, UK electricity demand almost doubles to 491 TWh by 2050.

Boost for electric cars

Labour would also introduce a vehicle scrappage scheme to take 400,000 of the most polluting cars off the UK's roads and

provide 2.5 million interest-free loans for the purchase of EVs, Long-Bailey said.

In addition, all of the government's car fleet would be electric by 2025, amounting to 70,000 new EVs alone.

Labour would also introduce a waiver on the excise duty surcharge on private car fleets and will install charging stations in workplaces and depots for companies that transition their entire fleet to EVs by 2025.

Some £3 billion of equity finance would be made available to automakers to invest in electrification of their plants, and exempt new investment in plant and machinery from business rates, Long-Bailey said.

Labour also 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 into 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.

Market reaction mixed

Reaction from some parts of the market was that the move was behind the times, with the UK playing catch up, not only with China -- the world's largest producer and consumer of EVs — but also Europe, which has been accelerating its road map to electrification.

"The UK seems to be three steps behind China and two steps behind Europe. The EU realized a few years ago that supporting the development of EVs and lithium-ion battery manufacturing was vital for the survival of the automotive industry and time was at the essence as China was already leading the way and supporting every single step of its supply chain domestically," Vincent Ledoux Pedailles, an executive director at developer Infinity Lithium, said in an interview.

He said the EU also realized there was one significant gap in the story, the sourcing of raw materials for batteries, such a lithium.

"Both the EU and the EC are now ready to support the development of selected lithium projects in Europe [such as Infinity] to de-risk automakers' supply chain [relying heavily on China and South America] but also to cut down CO2 emissions linked to extensive transport across the multiple steps of a global supply chain...The UK seems to be focusing now on what Europe was focusing on 3 years ago and China 5 years ago, only EVs and batteries," Pedailles said.

Reaction from the Confederation of British Industry was mixed. It noted that the policy sounded promising on paper, but also aired caution regarding talk that some divisions of Labour would like to nationalize parts of the country's big business, such as utilities.

Josh Hardie, deputy director-general of the CBI said: "Business is completely behind the transition to a net-zero economy by 2050. ...To meet this target we must have ambitious policy. Investing in our EV industry and new charging infrastructure, while supporting people and businesses with the move to low-emission vehicles, is exactly what we need.

"However, in the push to reach net-zero as fast and as cost-effectively as possible, renationalisation will hugely disrupt the investment needed in the energy sector to decarbonize. The Labour Party needs to work with business to make the transition a success."

<u>Frank Watson, frank.watson@spglobal.com</u>
<u>Ben Kilbey, ben.kilbey@spglobal.com</u>

EBA launches new platform to boost Europe's battery value chain

The European Battery Alliance is aiming to boost investment in the nascent European

battery sector, creating a new platform that allows industry participants to connect

more easily

The BIP platform will connect companies

and facilitate potential deals with private and public financing, the EBA said at a meeting in Brussels this week.

"Batteries are at the heart of the industrial revolution and I am convinced that Europe has what it takes to become the world's leader in innovation, decarbonization and digitization," EBA VP Maros Sefcovic said.

The EBA said the lithium-ion battery market will represent Euro250 billion (\$274 billion) by 2025. The immediate objective is to create a competitive manufacturing value chain in Europe with sustainable battery cells at its core, it said.

Some 25 "gigafactories" could be operational across Europe by 2025, the

EBA said.

China has so far dominated the EV battery scene, investing large sums into the sector. Europe is trying to fight back, as the world's second largest consumer of EVs and related batteries.

EBA forecasts around \$20 billion of deals could go through the platform between 2019 and 2023, from mining to recycling.

Sefcovic said Infinity Lithium was a potential lithium producer that automakers should "keep an eye on."

Infinity is developing a mine and processing plant in San Jose, Spain, that will help feed European automakers' lithium requirements.

"The EBA is considering the industry as

a value chain, with a full integration from mining all the way to EVs," Vincent Ledoux Pedailles, an executive director at Infinity Lithium, said.

The UK's opposition Labour Party earlier this week pledged to invest GBP1.8 billion (\$2.2 billion) in collaboration with private investors to build electric battery factories in Stoke, Swindon and South Wales. It would also invest GBP500 million into four reprocessing plants for cobalt and other minerals used in battery production.

EBA was launched in 2017 and aims to create a battery business capable of supplying the growing electric vehicle market.

— Ben Kilbey, ben.kilbey@spglobal.com

European battery value chain needed to protect industry: EBA program director

The European Battery Alliance has called for investment in the nascent European battery value chain -- from extraction of raw materials all the way through to recycling at the other end of the value chain -- in order to build the industry of the future and create job security.

"We are trying to get the show on the road in Europe, by working across the European battery value chain," EBA's program director for industry, Thore Sekkenes, told S&P Global Platts Friday.

Part of the plan was announced earlier this week, with the creation of a new business investment platform that allows industry participants to connect more easily.

The Business Investment platform, or BIP, will connect companies and facilitate potential deals with private and public financing "by active coaching and assistance of the industrial initiatives to make them robust investment opportunities

for investors."

Sekkenes is part of the EBA250 initiative, whose mission is to actively promote the European lithium-ion battery value chain Industry, which it believes could represent Eur250 billion (\$274 billion) by 2025.

Some 25 battery "gigafactories" could be operational across Europe by 2025. These factories will require lithium and other battery raw materials in order to create batteries for all kinds of end-products.

China has so far dominated the EV battery scene, investing large sums into the sector. Europe is trying to fight back, as the world's second-largest consumer of EVs and related batteries.

"It is a fundamental strategic importance to have a battery value chain in Europe," he said.

He cautioned that China is currently leading the way, and said it wasn't unforeseeable that China-made EVs could potentially start being sold into Europe.

Sekkenes was quick to point out that, although EVs are getting most of the airtime, cars are not the only form or transport that will be powered by the new "green revolution."

He noted that boats and airplanes powered by electricity are on the horizon.

EBA was launched in 2017 and aims to create a battery business capable of supplying the growing European battery market.

The UK's opposition Labour Party earlier this week pledged to invest GBP1.8 billion (\$2.2 billion) in collaboration with private investors to build electric battery factories in Stoke, Swindon and South Wales.

It said it would also invest GBP500 million into four reprocessing plants for cobalt and other minerals used in battery production.

— Ben Kilbey, ben.kilbey@spglobal.com

H1 copper supply deficit hits 220,000 mt: ICSG

The global refined copper market ended the first half of 2019 with a supply deficit of about 220,000 mt, according to preliminary data the International Copper Study Group released Monday.

Factoring in changes to unreported, bonded stocks in China, the deficit likely totaled 190,000 mt, the Lisbon-based research group said.

World mine production declined about 1.4% in H1 to nearly 9.92 million mt, with concentrate production declining 1% and solvent extraction-electrowinning by 3.5%.

Reduced output in two major producing countries, Chile and Indonesia, more than offset growth in other countries, ICSG

analysts said.

Production in Chile, the world's largest copper producer, declined 2.5% mainly because of lower copper head grades, while concentrate production in Indonesia dropped 55% as a result of the transition of two major mines to different ore zones.

After aggregated growth of 13% in 2018,

output in the Democratic Republic of Congo and Zambia remained essentially unchanged in the first half as temporary reduced production at some mines offset ramp-up output at other operations.

Production in Peru, Australia, China, and Mongolia increased because of improved grades and recovery from constrained output in 2018, the ICSG said.

On a regional basis, mine production is estimated to have increased around 2% in North America and 7% in Oceania, but declined 6% in Asia, 1% in Latin America and 3% in Europe and remained essentially flat in Africa, according to ICSG data.

Refined output dips 1% in H1

World refined production declined about 1% in H1 to 11.74 million mt, with primary production (electrolytic and electrowinning) down 1.5% and secondary production (from scrap) increasing 1%, ICSG analysts said.

"The fall in world refined production was mainly due to a 38% decrease in Chilean

electrolytic refined output due to temporary smelter shutdowns whilst undergoing upgrades to comply with new environmental regulations," the ICSG said.

Total Chilean refined production (including SX-EW) dropped 15%.

The global decline was also because of a 33% falloff in Indian production, which was negatively affected by the shutdown of Vedanta's Tuticorin smelter in April 2018.

Zambian refined output fell 28% in H1 because of power supply interruptions, smelter outages and the January 1 introduction of a 5% custom duty on copper concentrate imports constraining smelter feed.

The overall declined was helped by reduced output in Japan, Peru, the US and a few European countries because of smelter maintenance shutdowns.

"However, these reductions were largely offset by growth in Chinese output and by increases in countries recovering from

production constraints in 2018 such as Australia, Brazil, Iran, and Poland," ICSG analysts said.

On a regional basis, refined output is estimated to have increased in Asia (2%) and in Oceania (15%) but declined in Africa (-9%), the Americas (-10%) and in Europe (-1%).

H1 refined usage slides 1%

Preliminary data indicates that world apparent refined usage declined about 1% in H1 to 11.96 million mt, the ICSG said.

"Although Chinese net refined copper imports declined by 16%, Chinese apparent usage grew by around 3% as a consequence of higher Chinese refinery output," according to ICSG analysts.

Among other major copper users, demand increased in India and Taiwan (China), but declined in the EU and Japan. World ex-China usage declined around 3% in H1.

— <u>Nick Jonson, nick.jonson@spglobal.com</u>

Battery Metals weekly wrap

It was a busy week in the European battery space, with industry coming together to crystalize its message and make sure the electric vehicle revolution continues in force.

"We're doing our part to save the world," said one market source. As long as the electric revolution is powered by renewable energy then that statement isn't all that far from the truth.

The European Battery Alliance, a group of 300 industry members across the value chain, met in Brussels this week to push forward ideas and ensure that the European industry is protected. The outcome was that a mine-to-mouth solution is essential to shield jobs and power the "green revolution," it said.

There's certainly a buzz in the air, driven by increasingly visible effects of climate change and government regulation to lower CO2 emissions.

Eco-conscious Brits are now "keeping up with the greens," trying to outdo friends and neighbors in the environmental stakes, according to research this week. The survey, carried out by auto firm Hyundai, said 70% of UK adults view man-made climate change and ocean pollution as the biggest threat

to humanity.

"When it comes to car buying, the vehicle's green credentials are four times as important as its acceleration and top speed," the survey found. "Nearly 60% would consider owning an electric or hybrid vehicle instead of a petrol or diesel to cut down on their carbon emissions."

Speaking to an economist contact this week, we both said we'd love to own an electric vehicle, but for now they remain too costly or don't match the size requirements for our families.

Regarding expense, Stuart Wilson, vehicle valuation manager at mycarcheck. com, pointed out: "You might pay more upfront, but low running costs lead to substantial savings over time. Our journey to a greener future continues."

And they should know -- with information from the police, DVLA, insurers and finance houses, My Car Check holds comprehensive data on every vehicle on UK roads.

Earlier this week auto giant Volkswagen opened up a pilot plant for developing battery cells in Salzgitter, Germany. The company is investing big in the EV transition.

A battery recycling pilot line is also under construction in Salzgitter, slated to begin operations in 2020.

VW's Frank Blome, head of the center of excellence in Salzgitter, said: "[The] commissioning of the pilot line is an important step on the road to building a gigafactory at the Salzgitter site. We will further deepen our knowledge of production processes within a short space of time. That is important in order to shape future developments and thus secure performance and costs as well as quality. The experience gained will also contribute to mastering the entire value chain for lithium-ion batteries --from raw materials through production to recycling."

EBA program director - industry, Thore Sekkenes, speaking to S&P Global Platts Friday said although EVs are currently getting the bulk of airtime, it's not all about cars.

Boats and airplanes powered by electricity are on the horizon, he noted. "We are trying to get the show on the road in Europe, by working across the European battery value chain," he said.

Still, if you've got cash to splash and fancy

being an environmental "baller" then car maker Bentley might have just what you're looking for. Bentley has introduced the Bentayga Hybrid -- the luxury SUV sector's first true plug-in hybrid. Handcrafted in Crewe, England, the latest version of Bentley's "exquisitely appointed SUV" will be the company's most efficient model ever, it said.

"Before taxes, the new model is priced at GBP133,100 in the UK, Euro141,100 across Europe, and \$160,000 in the United States," a statement read. "Customer deliveries in the UK and Europe are set to begin in the final quarter of 2019, with deliveries in the United States following soon after, in the first quarter of 2020."

Until next week. Stay charged.

— <u>Ben Kilbey, ben.kilbey@spglobal.com</u>