

NEWS AND ANALYSIS

China to accelerate NEV adoption in rural areas

China is aiming to accelerate infrastructure construction for new energy vehicles (NEVs) and bolster the adoption of such vehicles in rural areas.

NEV refers to battery electric vehicles, plug-in hybrids, and fuel-battery vehicles in China. The government will build more public charging facilities in rural areas to ensure there are charging stations in every county and charging piles in every village. Local authorities will prioritise building public charging facilities in rural enterprises, public institutions, commercial buildings, transportation hubs and service areas along highways, by leveraging on local governments' specialised bond instruments.

"Although China has built 5.21mn charging points for NEVs so far, which is the largest charging infrastructure in the world, a lack of charging facilities remains a major bottleneck affecting the use of NEVs, especially in the rural areas," said Meng Wei, spokesperson of the country's top planning body the National Development and Reform Commission (NDRC).

Beijing will also provide more stimulus measures to boost the operation of charging networks in rural areas, including reducing electricity tariffs at centralised battery exchanges and charging facilities before 2030, and promoting new charging models such as providing a charging pile with each purchase of a new vehicle. The government will explore building integrated solar-powered charging stations that are equipped with power storage facilities in rural regions.

China will also encourage its vehicle manufacturers to develop more economical and practical models to increase the adoption of NEVs in rural areas. The models include mini cargo vans, mini trucks and light trucks. Vehicle deal-

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KEY PRICES

Battery metals and chemicals					
	Unit	Timing	Low	High	±
Cobalt min 99.8% alloy grade du Rotterdam	\$/lb	17 May	15.50	16.50	nc
Cobalt min 99.8% chemical grade du Rotterdam	\$/lb	17 May	14.30	15.20	nc
Cobalt sulphate min 20.5% ex-works China	Yn/t	17 May	35,000	36,500	nc
Cobalt hydroxide min 30% cif China	\$/lb	17 May	7.20	7.70	nc
Cobalt hydroxide payable indicator 30% min Co cif China	pct	17 May	49.50	52.50	nc
Lithium carbonate min 99.5% cif China	\$/kg	17 May	27.00	29.00	nc
Lithium hydroxide min 56.5% fob China	\$/kg	17 May	41.50	43.50	nc
Nickel sulphate min 22% cif China	\$/t	17 May	4,100	4,300	nc
Graphite Flake 94% carbon fob China	\$/t	16 May	720	750	nc
Manganese sulphate min 32% Mn battery grade ex works China	Yn/t	16 May	6,200	6,300	nc

Cathodes				
	Unit	Timing	Assessment	±
NCM 811	\$/kWh	16 May	56.95	+6.92
LFP	\$/kWh	16 May	31.62	+7.27
NCA	\$/kWh	16 May	56.68	+6.92

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NEWS AND ANALYSIS

ers are encouraged to sell "high quality" used NEVs to rural consumers, according to the NDRC. Other stimulus measures include rolling out NEVs in the communist party and government agencies, schools, hospitals, public sectors, as well as offering vouchers and credit aids to vehicle consumers in the countryside to boost NEV purchases.

China launched a "go to the countryside" campaign for NEVs in 2020. The country's decarbonisation targets for 2030 and 2060 have boosted its NEV sales significantly, with the country leading global growth in the past decade, but NEVs are mainly adopted in cities. NEVs accounted for 26pc of China's total new vehicle sales in 2022 and nearly 30pc in April. This means China has already achieved its 2025 target of NEVs ahead of time, which aimed for NEVs to make up around 25pc of total new car sales.

Argus forecasts global EV sales will reach around 37mn units by 2028, from 18mn in 2024, with Chinese sales growing at 25pc/yr during the same period. China had about 13.1mn NEVs on its roads as of the end of 2022, more than half of the global total, the NDRC said.



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NEWS HIGHLIGHTS: WEEKLY ROUND UP

China's Jiaxing to build Li-ion battery material hub

Jiaxing city in east China's Zhejiang province broke ground on 17 May for a new production complex called Tongxiang Shidai for lithium-ion battery feedstock and cathode active materials.

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China's XTC to build battery CAM plants in France

Chinese lithium-ion battery cathode active material (CAM) manufacturer XTC New Energy Materials has signed an agreement to build joint-venture production plants in France.

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Philippines' FNI exports 0.33mn wmt of nickel ore in 1Q

The Philippines' second-largest nickel ore producer Global Ferronickel's (FNI) Palawan mine has produced 0.33mn wet metric tonnes (wmt) of medium grade nickel ore in January-March, accounting for the company's total exports in the first quarter.

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Stellantis halts work on Ontario battery plant

Automaker Stellantis and South Korean battery maker LG Energy Solutions today announced a halt to construction work on their [lithium-ion battery module factory](https://metals.argusmedia.com/newsandanalysis/article/2314848) in Windsor, Ontario, citing an alleged failure of the government to deliver on promises.

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China's Ganfeng to build lithium-ion battery plants

China's Jiangxi Ganfeng Lithium Battery Technology, a subsidiary of the country's major lithium salts producer Ganfeng Lithium, plans to build a lithium-ion battery production complex at Xiangyang in central China's Hubei province.

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China's Tianqi to build Li hydroxide plant in Jiangsu

Major Chinese lithium producer Tianqi Lithium is building a production facility for lithium hydroxide at Zhangjiagang in east China's Jiangsu province.

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NEWS HIGHLIGHTS: WEEKLY ROUND UP

Philippines' NAC Ni ore sales firm, offtake falls in 1Q

The Philippines' largest nickel ore producer Nickel Asia (NAC) posted stable sales during January-March, with higher domestic deliveries but lower offtake.

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Silicon anode material developers move to lift output

Producers of silicon anode battery materials are moving from pilot-scale operations to building out commercial-scale capacity, as the adoption of alternatives to lithium-ion batteries with graphite anodes advances.

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China's GEM to expand nickel output in Indonesia

Major Chinese cobalt refiner and lithium cathode precursor manufacturer Green Eco-Manufacture (GEM) is planning to build a production plant for nickel intermediate feedstock in Indonesia.

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China's April EV output, sales rise on year

China's new energy vehicle (NEV) production and sales rose in April from a year earlier, when the industry was disrupted by the Covid-19 restrictions.

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DRC calls for inclusion in critical minerals body

The government of the Democratic Republic of Congo (DRC) has called to be included in the Mineral Security Partnership (MSP), an 11-nation body focused on the supply of critical raw materials for the energy transition.

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Indonesia's Merdeka to acquire stake in Huaneng Metal

Indonesian nickel firm Merdeka Battery Materials (MBMA), a subsidiary of Indonesian mining conglomerate Merdeka Copper Gold (MDKA), is planning to acquire a 60pc stake in Chinese nickel firm Huaneng Metal Industry (HNMI) under a conditional agreement.

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LITHIUM

Weekly round-up: Prices rise on China demand

Lithium prices rose further over the past week because of increased Chinese demand, extending an upswing that began in late April.

Prices for 99.5pc grade lithium carbonate in China increased to 250,000-270,000 yuan/t (\$35,700-38,600/t) ex-works on 16 May, up from Yn235,000-255,000/t ex-works on 15 May and Yn210,000-230,000/t ex-works on 11 May. Consumers continued to restock in response to a recovery in demand further downstream. Some producers have raised their offers to Yn280,000/t or even higher for small volumes and are waiting for consumers to accept it. A few suppliers are reluctant to sell in large volumes.

Import prices for lithium carbonate extended gains to \$27-29/kg cif China on 16 May from \$24-26/kg cif China on 11 May, in response to a rise in buying interest from consumers. China imported 38,971t of lithium carbonate during January-March, up by 42pc from the same period last year, according to customs data, as overseas producers such as Albemarle, SQM and Livent in Chile and Argentina ramped up production.

Argus-assessed prices for 6pc grade lithium concentrate (spodumene) rose to \$3,750-3,900/t cif China on 16 May from the previous assessment of \$3,650-3,800/t cif China on 9 May, in response to a recent rebound in salt prices.

Prices for 60pc grade lithium cobalt oxide moved up to Yn250-265/kg ex-works on 16 May from Yn240-255/kg ex-works on 11 May, in response to a rise in lithium carbonate feedstock prices. Buying activity from the consumer electronics industry has picked up this month with many consumers making more purchases than they did in April.

Argus-assessed prices for 56.5pc grade hydroxide increased further to Yn240,000-265,000/t ex-works on 16 May from Yn225,000-250,000/t ex-works on 15 May and

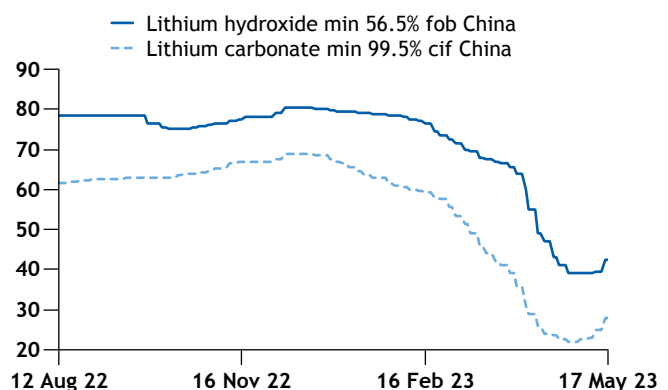
Yn200,000-225,000/t ex-works on 11 May, as consumers in the battery ternary cathode active materials segment increased their hydroxide purchases. Export prices gained to \$41.50-43.50/kg fob China on 16 May from \$38.50-40.50/kg fob China on 11 May.

Lithium prices outside of China held firm as lower offer prices dried up and there were more enquiries from consumers looking to stock up ahead of any potential price run. In Europe, lithium carbonate prices remained at \$29,000-32,000/t while hydroxide prices stayed at \$47,000-50,000/t. In north Asia, carbonate prices were stable at \$28-29/kg, while lithium hydroxide was assessed unchanged at \$43-45/kg.

The past week has seen some key developments in the lithium industry, with the merger of Australian lithium producer Allkem and Livent to form the third-largest lithium producer in the world. Lithium Americas Corporation, which has projects in the US and Argentina, voted to separate into two companies in the US and Argentina.

Chinese lithium hydroxide vs carbonate

\$/kg



Lithium price assessments					
	Unit	Timing	Low	High	±
Carbonate min 99.5% ex-works China	Yn/t	17 May	270,000	290,000	+20,000
Carbonate min 99.5% ex-works China excl. VAT USD/kg	\$/kg	17 May	34.16	36.69	+2.395
Carbonate min 99.5% cif China	\$/kg	17 May	27.00	29.00	nc
Concentrate (spodumene) 6% Li2O cif Australia	\$/t	16 May	3,690.00	3,840.00	+100.000
Carbonate min 99.5% in-warehouse Rotterdam	\$/t	16 May	29,000	32,000	nc
Carbonate min 99.5% cif Japan/Korea	\$/kg	16 May	28	29	nc
Cobalt oxide min 60% Co ex-works China	Yn/kg	17 May	250.00	265.00	nc
Hydroxide min 56.5% ex-works China	Yn/t	17 May	260,000	285,000	+20,000
Hydroxide min 56.5% ex-works China excl. VAT USD/kg	\$/kg	17 May	32.90	36.06	+2.405
Hydroxide min 56.5% fob China	\$/kg	17 May	41.50	43.50	nc
Hydroxide min 56.5% in-warehouse Rotterdam	\$/t	16 May	47,000	50,000	nc
Carbonate min 99.5% cif Japan/Korea	\$/kg	16 May	28	29	nc
Concentrate (spodumene) 6% Li2O cif China	\$/t	16 May	3,750.00	3,900.00	+100.000

COBALT

Cobalt weekly round-up: Low demand persists

European prices remain under pressure from weak demand, especially for chemical grade metal, although Chinese cobalt salt prices have rebounded slightly amid some new enquiries from buyers.

Prices for cobalt metal in Europe were assessed down for alloy grade metal on 16 May to \$15.50-16.50/lb, as excess stocks from Chinese producers weighed on the market. Prices for chemical grade metal fell slightly to \$14.30-15.20/lb on lower-than-expected demand from the battery industry.

Most traders with stocks of briquettes were keen to sell material, although the opposite has been true of alloy grade cut cathode, with replacement costs too high for traders to offer on the spot market. Most traders said enquiries for alloy grade metal, specifically from US consumers, were strong.

"If you ask for 1t of Vale PC or Nikkelverk, I will offer \$16/lb or higher. It's too tight, we can't get replacement easily," one trader said.

One trader sold 2t of briquettes at \$14.70/lb, 2t at \$15.10/lb and another trader sold briquettes at \$14.75/lb and purchased material at \$14.50/lb. Some offers were noted below the assessment range, but usually for briquettes which not all market participants handle.

In the US, prices for 99.8pc grade cobalt fell to \$15.75-17.00/lb fob warehouse yesterday from \$16.00-17.50/lb fob a week earlier.

Slow spot trade weighed on the US market in the past

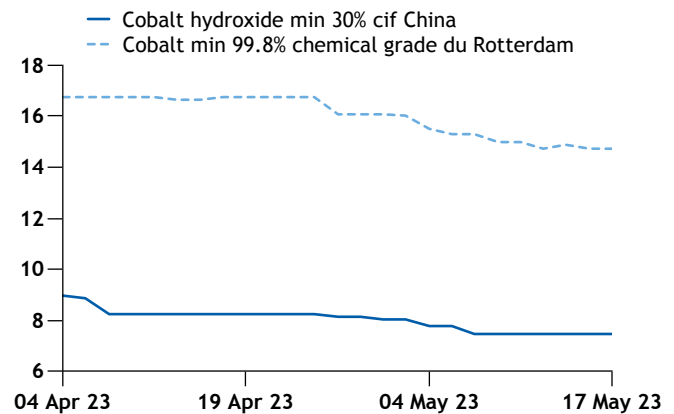
week, and consumers are yet to be enticed by the latest price cuts. Most sales in the last week were for off-spec or older Russian metal, which trades at a discount to the main-stream market.

Few suppliers were willing to guess when activity would return to the market more specifically but most planned for aerospace demand providing support later in the year.

Chinese salt prices rebound

Prices in China for 24pc grade cobalt chloride and 20.5pc grade cobalt sulphate were assessed at Yn43,000-44,500/t ex-works and Yn35,000-36,500/t ex-works on 16 May, up by Yn500/t each from 11 May. Producers began to lift their offers owing to fresh buying enquiries, as several traders and

Co hydroxide cif China vs chem grade du Rotterdam \$/lb



Cobalt price assessments					
	Unit	Timing	Low	High	±
China					
(Electrolytic metal) min 99.8% ex-works China	Yn/kg	17 May	230	285	nc
Chloride min 24% ex-works China	Yn/t	17 May	43,000	44,500	nc
Powder min 99.8% ex-works China	Yn/kg	17 May	240	250	nc
Hydroxide min 30% cif China	\$/lb	17 May	7.20	7.70	nc
Hydroxide payable indicator 30% min Co cif China	pct	17 May	49.50	52.50	nc
Oxide 72% ex-works China	Yn/kg	17 May	145	150	nc
Sulphate min 20.5% ex-works China	Yn/t	17 May	35,000	36,500	nc
Sulphate min 20.5% ex-works China excl. VAT	\$/lb	17 May	2.01	2.09	-0.010
Tetroxide min 73% ex-works China	Yn/kg	17 May	146.00	151.00	nc
Europe					
Min 99.8% alloy grade du Rotterdam	\$/lb	17 May	15.50	16.50	nc
Min 99.8% chemical grade du Rotterdam	\$/lb	17 May	14.30	15.20	nc
US					
Min 99.8% fob US warehouse	\$/lb	16 May	15.75	17.00	-0.375

COBALT

consumers start building up inventories.

Argus assessed cobalt tetroxide prices stable at Yn146-151/kg ex-works on 16 May from 11 May. Tetroxide producers were poised to lift their offer prices in line with the rising salts prices.

Argus-assessed prices for 99.8pc grade metal in China held stable at Yn230-285/kg ex-works on 16 May from 11 May, following consecutive falls in the past few weeks. Consumers in the super alloy, catalyst and magnet industries continued to buy small volumes for immediate demand, while producers were reluctant to lower offer prices further as feedstock hydroxide prices have stabilised.

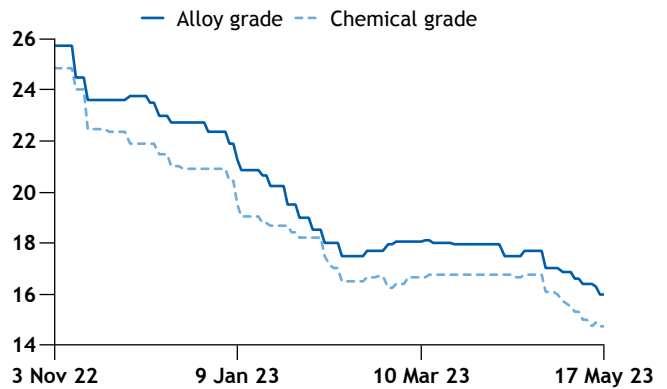
May contracts for cobalt metal on the Changzhou Zhonglianjin platform rose slightly to Yn232.5/kg on 16 May from Yn231/kg on 11 May and Yn230/kg on 9 May. A rise in salts prices shored up market sentiment.

The cif China assessment for 30pc grade cobalt hydroxide held stable at \$7.20-7.70/lb on 16 May from 11 May, as suppliers were inclined to maintain their offer prices in the near term given shrinking profit margins. The cobalt hydroxide (30pc minimum cobalt) payable indicator cif China was last assessed on 12 May at 49.5-52.5pc at the low end of the Argus European chemical-grade cobalt metal price, stable from 50-53pc on 10 May. Buying interest from cobalt refineries has picked up, and some feedstock suppliers are poised to raise their offer prices before feedstock supplies from CMOC's TFM mine flow into the Chinese market later this year.

The first batch of hydroxide supply from the TFM mine is likely to arrive in China in July or August, given slow logistics from the Democratic Republic of Congo (DRC) to Durban port in South Africa caused by tight transport capacity following mining expansions in the DRC. The TFM mine is allowed to export cobalt feedstock after CMOC and the DRC's state-owned mining firm Gecamines reached an agreement on TFM's royalties on 18 April.

Rotterdam cobalt prices

\$/lb



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NICKEL

Weekly round-up: Slow demand weighs on price

Slow demand for nickel, especially in China, weighed on nickel metal prices this week, while nickel sulphate prices remained stable in China on limited spot demand.

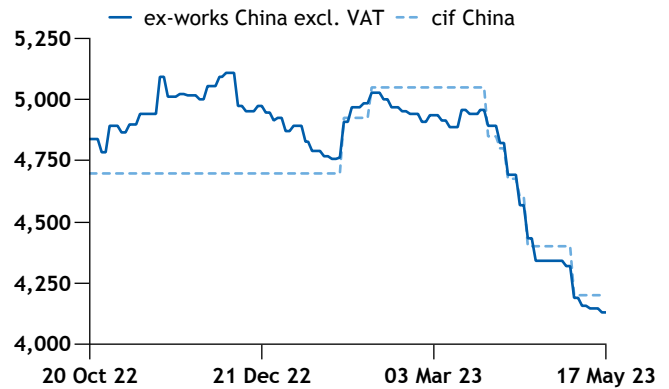
Prices for nickel on the London Metal Exchange (LME) fell by 3.61pc yesterday and an extra 0.3pc today to \$21,300-21,320/mt for the cash settled contract. One trader said prices will reach \$20,000/mt over the next week, with spot demand limited, especially in China. LME stocks remained relatively low, but some traders expect higher cathode volumes to enter the LME system in the coming weeks.

Chinese domestic nickel sulphate prices were assessed unchanged at 32,000-33,000t yuan/t on 11 May from 4 May in line with weak consumer buying, with import prices assessed flat at \$4,100-4,300/t cif China over the same period.

The nickel-cobalt-manganese (NCM) ternary battery market showed no signs of picking up in terms of output and prices, despite a recent rise in prices for lithium carbonate, which is mainly used in the production of lithium iron phosphate (LFP) batteries. Manufacturing costs for NCM batteries are less competitive than those for LFP batteries, with the share of NCM batteries expected to decline to 30pc in 2023 from 39pc a year earlier, market participants told *Argus*.

China nickel sulphate domestic vs import

\$/t



Nickel					
	Unit	Timing	Low	High	±
Europe					
Briquette min 99.8% in-warehouse Rotterdam	\$/t	11 May	350.00	400.00	nc
Briquette in-warehouse Rotterdam transaction	\$/t	17 May	21,650.00	21,720.00	-65.000
Cathode 4x4inch premium in-warehouse Rotterdam	\$/t	11 May	650.00	1,100.00	nc
Cathode 4x4 in-warehouse Rotterdam transaction	\$/t	17 May	21,950.00	22,420.00	-65.000
Cathode full plate premium in-warehouse Rotterdam	\$/t	11 May	250.00	300.00	nc
Cathode full plate in-warehouse Rotterdam transaction	\$/t	17 May	21,550.00	21,620.00	-65.000
US					
Briquette premium del US	\$/lb	11 May	0.65	0.70	-0.05
Cathode 4x4inch premium (small lots) del US	\$/lb	11 May	0.95	1.05	-0.05
Cathode 4x4inch premium (truckloads) del US	\$/lb	11 May	0.90	1.00	-0.05
Cathode 4x4inch (truckloads) del US transaction	\$/lb	16 May	10.6069	10.7069	-0.36290
Cathode 1x1inch premium (small lots) del US	\$/lb	28 Apr	1.50	1.60	nc
Cathode 1x1inch premium (truckloads) del US	\$/lb	28 Apr	1.40	1.50	nc
Nickel-Cobalt refinery scrap cobalt contained del US processor	\$/lb	28 Apr	3.7500	4.5000	-0.32500
Nickel-Cobalt refinery scrap nickel contained del US processor	\$/lb	28 Apr	4.50	5.00	+0.75
China					
Metal min 99.9% Ni ex-warehouse China	Yn/t	na	na	na	na
Sulphate min 22% ex-works China excl. VAT USD/t	\$/t	17 May	4,064.79	4,191.82	nc
Nickel Sulphate min 22% ex-works China	Yn/t	17 May	32,000	33,000	nc
Nickel sulphate min 22% cif China	\$/t	17 May	4,100	4,300	nc

ADDITIONAL BATTERY METALS

Graphite stable, silicon falls

Graphite prices held steady in the past week with spot trade thin but underlying demand fairly stable, but silicon prices fell as low buying interest pushed sellers to lower their offers.

Prices for 94pc grade graphite flake were assessed at Yn4,500-4,800/t ex-works China on 16 May, the same as on 9 May, as suppliers maintained their offers in line with stable buying interest. Demand from the downstream spherical graphite and steel industries has remained steady, with many flake suppliers committed to long-term contracts.

Export prices remained unchanged at \$720-750/t fob on 16 May from 9 May, as export firms held their prices in line with stable buying interest from seaborne buyers.

Silicon prices for 5-5-3 grade metal in China were assessed at Yn14,500-14,800/t delivered to ports on 16 May, down by Yn200/t from 11 May, as aluminium alloy, silicon powder producers and trading companies were in no rush to replenish stocks in anticipation of a further fall in metal prices given adequate hydropower supplies during the June-October monsoon season in south China. Metal producers

continued to lower offer prices to promote sales in the past two days. The range for 4-4-1 grade metal moved down to Yn15,500-15,800/t on 16 May from Yn15,700-16,000/t on 11 May.

A metal producer concluded deals at Yn14,200/t ex-works for 5-5-3 grade metal in the past couple of days, with freight from the plant to port around Yn300/t.

The most-traded August contract for 5-5-3 grade metal on the Guangzhou Futures Exchange (GFEX) closed at Yn14,050/t on 16 May, down from Yn14,085/t on 15 May and from Yn14,400/t on 11 May.

Prices for 99.85c grade antimony metal in China were assessed stable from 11 May at 82,500-83,500 yuan/t (\$11,845-11,988/t) on 16 May, with the range for 99.8pc grade antimony trioxide remaining at Yn72,500-73,500/t ex-works on 16 May. There remains a lack of market activity in the physical market as trading firms and consumers are mostly cautious about purchases, buting only in small volumes for immediate demand or adopting a wait-and-see approach to cope with uncertainty caused by the global economic slow-down, according to market participants.

Price assessments					
	Unit	Date	Low	High	±
Antimony					
Trioxide min 99.5% ex-works China	Yn/t	17 May	71,500	72,500	nc
Trioxide min 99.5% fob China	\$/t	17 May	10,450	10,550	nc
Trioxide min 99.8% fob China	\$/t	17 May	10,550	10,750	nc
Regulus Trioxide grade min 99.65% Sb du Rotterdam	\$/t	17 May	12,000	12,450	nc
Graphite					
Flake 94% min carbon ex-works China	Yn/t	16 May	4,500	4,800	nc
Flake 94% min carbon fob China	\$/t	16 May	720	750	nc
Flake 94% min carbon ex-works China excl. VAT	\$/t	16 May	571.61	609.72	-3.830
Manganese					
Briquette min 97% Mn ex-works China	Yn/t	17 May	15,900	16,000	nc
Briquette 97% Mn fob China	\$/t	17 May	2,250	2,300	nc
Manganese sulphate min 32% Mn battery grade ex works China	Yn/t	16 May	6,200	6,300	nc
Dioxide min 91% carbon battery grade ex works China	Yn/t	16 May	16,000	16,500	nc
Dioxide min 91% alkaline battery grade ex works China	Yn/t	16 May	17,000	17,500	nc
Silicon					
2-2-0-2 min 99.5% Si fca Europe works	€/t	17 May	3,300	3,600	nc
Silicon 3-3-0-3 min 99% Si dat Chinese ports	Yn/t	17 May	16,100	16,400	nc
Silicon 3-3-0-3 min 99% Si fca Europe works	€/t	17 May	2,900	3,200	nc
Silicon 3-3-0-3 min 99% Si fob China	\$/t	17 May	2,350	2,400	nc
Vanadium Pentoxide					
Fused flake min 98% du Rotterdam (per lb V2O5)	\$/lb V2O5	16 May	8	8	nc
98% V2O5 ex-works China	Yn/t	17 May	104,000	105,000	+250.0
98% V2O5 fob China	\$/lb	17 May	7	8	nc

CATHODE ACTIVE MATERIALS

Costs rebound on lithium price increase

Implied metal costs for cathode active materials (CAMs) rose sharply over the past week, reversing a downtrend that has persisted for most of the year.

Costs for lithium-iron-phosphate (LFP) cathode active materials jumped by 29.86pc week on week to \$31.62/kwh, underpinned by a steep rebound in Chinese lithium carbonate prices, which have risen by 36pc to 270-290 yuan/kg (\$39-41/kg) ex-works from Yn195-215/kg on 10 May.

Costs for ternary cathodes also increased because of rising lithium hydroxide prices in China. The cost of an NMC811 cathode increased by 13.81pc to \$56.95/kwh, while the cost of an NCM11 cathode increased by 15.97pc to \$52/kwh.

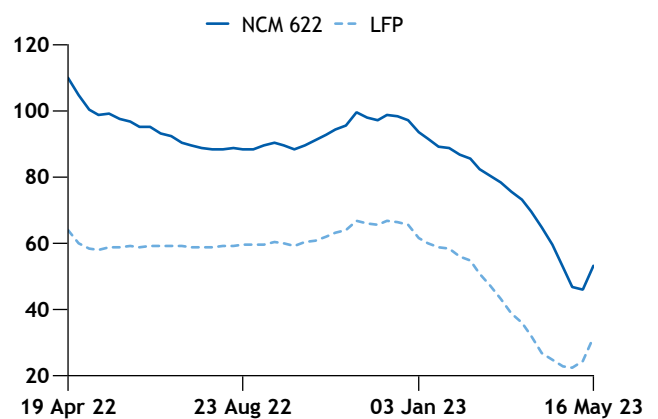
The difference between the two cathode active material costs will give food for thought to CAM producers looking to reduce cobalt in their batteries, because higher-cobalt material is now cheaper than low-cobalt product, as a result of historically low cobalt prices.

Cobalt sulphate prices reached their lowest level since May 2016 on 10 May at Yn34,000-35,500/t ex-works China, before rebounding slightly to Yn35,000-36,500/t ex-works on 16 May.

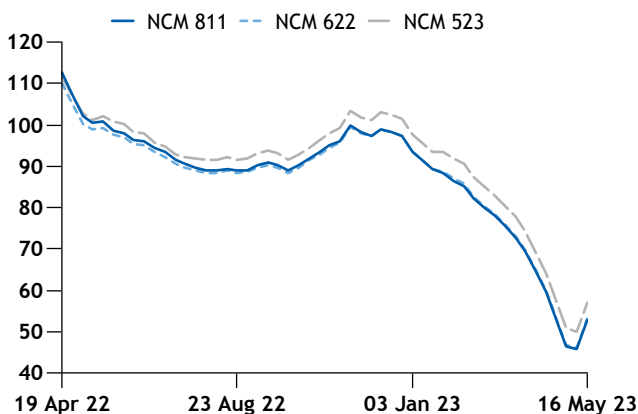
Falling lithium hydroxide prices also weighed on ternary cathode prices. Argus-assessed prices for 56.5pc grade hydroxide in China rose to Yn240,000-265,000/t ex-works on 16 May, up from Yn225,000-250,000/t ex-works on 15 May and Yn200,000-225,000/t ex-works on 11 May.

Battery cathode active materials				
	Unit	Timing	Mid	±
NCM111	\$/kWh	16 May	52.00	+7.16
NCM523	\$/kWh	16 May	52.92	+7.06
NCM622	\$/kWh	16 May	53.13	+7.01
NCM811	\$/kWh	16 May	56.95	+6.92
NCA	\$/kWh	16 May	56.68	+6.92
LFP	\$/kWh	16 May	31.62	+7.27

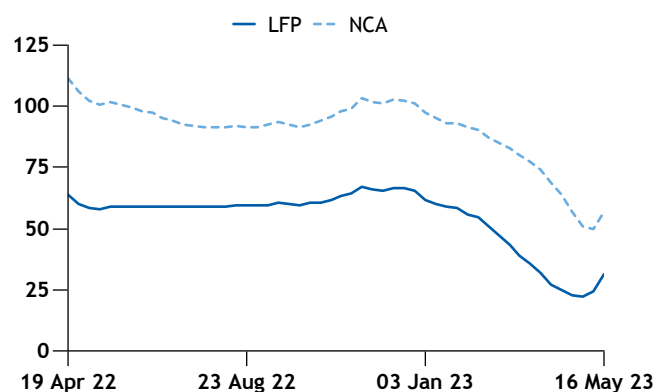
Cathode chemistries LFP vs NCM 622 \$/kwh



Cathode chemistries NCM 811 vs 622 vs 523 \$/kwh



Cathode chemistries LFP vs NCA \$/kwh



IN FOCUS: NEW LITHIUM SUPPLIERS

LAC prepares first Li shipment from Argentina

Canada-based Lithium Americas (LAC) is preparing to make its first shipment of lithium from Argentina in June, and will split its business into two separate entities to focus on different regions.

The company today confirmed that mechanical construction is on track for first lithium production in June at the Cauchari-Olaroz project in Argentina. LAC aims to reach production of 40,000 t/yr of battery-grade lithium carbonate at the project by the first quarter of 2024. The firm is planning a second phase of development at the mine, targeting a further 20,000 t/yr of production, although no timeframe has been decided yet.

LAC has made progress at other projects in Argentina, targeting a final construction decision in the fourth quarter for its 24,000 t/yr Pastos Grandes basin project. The firm also completed its acquisition of Toronto-based Arena Minerals in April, which owns a 65pc share of the Sal de la Puna project in Salta, Argentina.

In the US, LAC progressed its Thacker Pass lithium project, the largest measured lithium resource in the country. Preliminary construction at the mine began in March, with major construction beginning in the second half of this year. Phase one of the mine is expected to begin production in 2026, targeting 40,000 t/yr of lithium carbonate.

Split for regional focus

The LAC board has voted in favour of splitting the business into Lithium Argentina and Lithium Americas, to give each section a “sharper business and strategic focus”.

Lithium Argentina will own 44.8pc of Cauchari-Olaroz, 100pc of Pastos Grandes and 65pc of the Sal de la Puna project in the country. Lithium Americas will own the Thacker Pass lithium project and manage investments in Australian firm Green Technology Metals, which is focused on North America, and US battery materials manufacturer Ascend Elements.

LAC said each side of the business will have independent financing, which could be tailored to its specific needs.

By Thomas Kavanagh

Australia's Core loads first Li concentrate

Australia's Core Lithium is loading the first spodumene concentrate shipment produced from its Grants open pit in Australia's Northern Territory (NT), with it to be delivered to

Chinese lithium firm Sichuan Yahua.

The shipment consists of 5,500t of 5.6pc lithium concentrate (spodumene) and is being loaded on the *St Andrew* at Darwin. The sales stem from a previous additional sales agreement signed in March for 18,500t of spodumene concentrate, Core said on 11 May. It has an existing binding agreement with Sichuan Yahua, signed in 2019, to provide the Chinese firm with 300,000t of spodumene concentrate over four years. A second shipment is expected to be delivered in July.

“Our focus now is to safely complete commissioning of the Dense Media Separation (DMS) plant at Finniss and ramp up our integrated operation”, said Core's chief executive Gareth Manderson.

Core in February produced its first volumes of high-quality spodumene concentrate from the Finniss DMS plant near Darwin. It aims to produce 170,000 t/yr of concentrate after a full ramp-up. The firm plans to develop a battery lithium hydroxide processing plant from 2024.

The NT government on 11 May also approved the mine management plan for the firm's BP33 project, which is a second mine at the Finniss site, for which Core will be making a final investment decision.

“Lithium is in high demand right [now] across the world and the Northern Territory has the resources needed for a renewable future”, said NT deputy chief minister Nicole Manison.

Argus-assessed prices for 6pc grade lithium concentrate (spodumene) rose to \$3,650-3,800/t cif China on 9 May from the previous assessment of \$3,600-3,750/t cif China on 25 April, in response to a rebound in salts prices.

By Joseph Ho

Allkem, Livent merge into major Li producer

Perth-based Allkem and US-based Livent plan to merge into a major lithium chemical producer, forecast to be the third-largest in the world by 2027.

The all-stock merger combines both companies' assets across the lithium supply chain, from extraction to processing. The transaction is expected to close by the end of 2023, with Allkem shareholders owning around 56pc of the new company, and Livent the other 44pc.

Allkem and Livent expect to produce 248,000 t/yr of lithium carbonate equivalent (LCE) by 2027, which would

IN FOCUS: NEW LITHIUM SUPPLIERS

position the joint-company as third-largest in the world after US-based Albermale and Chile’s SQM, according to the two companies. Current estimates put their joint capacity at 90,000 t/yr LCE.

The companies’ product portfolio as a percentage of 2022 revenues will consist of spodumene and lithium carbonate at 31pc each, lithium hydroxide at 22pc and lithium specialties at 17pc.

On the extraction side, the merger combines Allkem’s lithium carbonate production site at Olaroz in Argentina and hard rock Mount Cattlin site in Western Australia, with Livent’s direct lithium extraction (DLE) brine sites in Argentina, as well as several extraction and processing sites in Canada. The companies’ processing footprint for hydroxide and specialties covers China, Japan, the UK and the US.

Australia has been host to an **increasing number of mergers and acquisitions** in the nickel, copper, zinc, lithium and gold sectors as cash-rich domestic and foreign firms seek to bolster their production and ore reserve pipelines.

Earlier this year, **Albemarle made a \$5.5bn (\$3.7bn) takeover bid** for Australia-based lithium mine developer Liontown, but was rejected on the basis that it does not properly reflect the value of Liontown’s lithium resources, downstream output potential and offtake agreements with chemical converters and auto manufacturers.

By Samuel Wood



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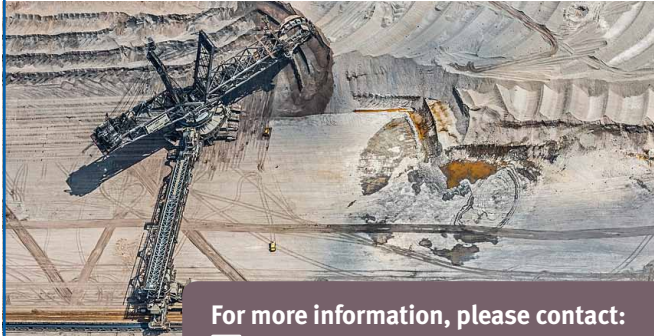
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Additional battery feedstocks					
	Unit	Date	Low	High	±
Phosphoric acid					
Cfr India quarter	\$/t	11 May		970	-80.0
Sulphuric acid					
Cfr China contract	\$/t	11 May	13.25	23.58	nc
Fob China spot	\$/t	11 May	0.00	8.00	-1.50
Caustic soda					
50pc China domestic week 1	Yn/dmt	12 May	2560	2610	-135.0
Anode grade petroleum coke					
China fob anode grade green 2.0% sulphur month	\$/t	10 May	270.00	305.00	-30.000
China fob anode grade green 3.0% sulphur month	\$/t	10 May	220.00	290.00	-15.000
China fob anode grade calcined 3.0% sulphur month	\$/t	10 May	350.00	520.00	-85.000

Argus expands coverage of iron ore market

The two new weekly prices, for Australian and Ukrainian origin concentrate, will be published as differentials to the Argus 65pc Fe fines index.



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