

# Battery Raw Materials Market Tracker

9 OCTOBER 2025

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	<sup>3</sup> Li Lithium 6.9400	<sup>3</sup> Li Lithium 6.9400	<sup>3</sup> Li Lithium 6.9400	<sup>3</sup> Li Lithium 6.9400	<sup>3</sup> Li Lithium 6.9400	<sup>6</sup> C Carbon 12.0110	<sup>6</sup> C Carbon 12.0110	<sup>6</sup> C Carbon 12.0110	<sup>27</sup> Co Cobalt 58.9332	<sup>27</sup> Co Cobalt 58.9332	<sup>25</sup> Mn Manganese 54.9380	<sup>28</sup> Ni Nickel 58.6934
Material	Lithium Carbonate exw China	Lithium Hydroxide exw China	Lithium Carbonate cif CJK	Lithium Hydroxide cif CJK	Spodumene	Graphite Flake fob China	Graphite Flake cif Europe	uSPG	Cobalt	Cobalt	Manganese	Nickel
Price symbols	MB-LI-0036	MB-LI-0040	MB-LI-0029	MB-LI-0033	MB-LI-0012	MB-GRA-0042	MB-GRA-0039	MB-GRA-0036	MB-CO-0005	MB-CO-0017	MB-MN-0008	MB-Ni-0244
Highlights	Lithium carbonate 99.5% Li2CO3 min, battery grade, spot price range exw domestic China, yuan/tonne	Lithium hydroxide monohydrate LiOH.H2O 56.5% LiOH min, battery grade, spot price range exw domestic China, yuan/tonne	Lithium carbonate 99.5% Li2CO3 min, battery grade, spot prices cif China, Japan & Korea, \$/kg	Lithium hydroxide monohydrate LiOH.H2O 56.5% LiOH min, battery grade, spot price cif China, Japan & Korea, \$/kg	Spodumene min 6% Li2O, spot price, cif China, \$/tonne	Graphite flake 94% C, -100 mesh, fob China, \$/tonne	Graphite flake 94% C, -100 mesh, cif Europe, \$/tonne	Graphite spherical 99.95% 15-17 microns, fob China, \$/tonne	Cobalt standard grade, in-whs Rotterdam, \$/lb	Cobalt sulfate 20.5% Co basis, exw China, yuan/tonne	Manganese sulfate 32% Mn min, battery grade, exw mainland China, yuan/tonne	Nickel sulfate min 21%, max 22.5%; cobalt 10ppm max, exw China, yuan/tonne
24-month price trend	[Redacted]											
<b>Price trends</b>												
Month-on-Month (%)	▼ 5.2%	▼ 4.5%	▼ 1.3%	▲ 2.3%	▼ 8.3%	▲ 0.0%	▲ 0.0%	▲ 2.7%	▲ 18.9%	▲ 26.2%	▲ 0.9%	▲ 2.4%
Year-on-Year (%)	[Redacted]											
YTD (%)	▼ 1.9%	▲ 6.4%	▼ 9.8%	▲ 1.1%	▼ 4.1%	▼ 9.6%	▼ 2.4%	▲ 2.7%	▲ 71.1%	▲ 152.3%	▼ 1.7%	▲ 8.8%
<b>Market trends</b>												
Consumption	-	-	-	-	-	▲	▲	▲	-	-	▲	▲
Production	-	-	-	-	-	▲	▲	▲	▼	▼	▲	▼
Inventory	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	-	▲

## Summary

The US policy landscape remains volatile, with government shutdowns, subsidy cancellations, and ongoing tariff uncertainty shaping the battery raw materials sector. Despite these challenges, the US is advancing traceability standards for critical minerals, aligning with EU and international frameworks. EV demand in the US surged temporarily due to expiring tax credits but is expected to weaken as subsidies end, while Europe and China continue to see robust growth.

**Lithium:** Government support is critical for onshoring supply chains, and the US government has taken a stake in the Thacker Pass project, which is poised to become a major domestic producer. Prices are stable but sensitive to Chinese policy and seasonal demand.

**Cobalt:** The Democratic Republic of Congo's new export quota system is tightening global supply, driving prices higher. Battery manufacturers may increasingly explore chemistries that use less or no cobalt, which could dampen long-term demand. Near-term prices are forecast to remain elevated due to supply constraints.

**Nickel:** Nickel sulfate prices are rising on tight supply and strong nickel cobalt manganese (NCM) precursor demand.

Indonesian supply constraints and limited alternatives are supporting higher prices, with forecasts indicating continued strength into 2026.

**Manganese:** Production and spot prices are picking up, driven by NCM battery demand. New cathode developments and project expansions are underway, with prices expected to remain stable to slightly higher in the coming quarters.

**Iron phosphate:** Prices are stable amid abundant supply, but demand is set to grow with LFP's dominance in ESS and EVs. Potential future bottlenecks may arise from precursor materials.

**Graphite:** US-China trade tensions are shifting demand toward synthetic graphite and ex-China supply chains. Policy changes and tariffs are influencing trade flows, but overall demand is challenged by slower EV and renewable growth.

**Recycling:** China's regulatory changes have allowed limited black mass imports, but most recyclers face losses due to low metal prices and tight feedstock. Higher cobalt prices may improve margins, but consolidation is expected among recyclers.

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# Market update



			Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025	MoM	YTD	YoY
<b>Lithium carbonate min 99% Li2CO3 technical and industrial grades</b>											
ddp Europe	USD/kg	MB-LI-0019	10.2	9.6	9.2	9.0	9.4	9.8	▲ 4.2%	▼ 11.3%	
cif China	USD/kg	MB-LI-0028	8.8	8.1	7.9	7.9	9.1	9.0	▼ 0.9%	▼ 8.8%	
ddp US and Canada	USD/kg	MB-LI-0046	11.8	11.7	11.8	11.9	11.9	12.1	▲ 2.0%	▼ 1.3%	
ex works China	CNY/tonne	MB-LI-0034	69,313	61,655	59,113	66,070	77,100	70,918	▼ 8.0%	▼ 2.4%	
<b>Lithium carbonate min 99.5% Li2CO3 battery grade</b>											
ddp US and Canada	USD/kg	MB-LI-0044	12.5	12.3	12.3	12.3	12.3	12.3	▲ 0.0%	▼ 0.8%	
cif China	USD/kg	MB-LI-0029	9.1	8.5	8.1	8.5	9.3	9.4	▲ 0.4%	▼ 10.9%	
ex works China	CNY/tonne	MB-LI-0036	69,930	62,642	60,633	67,321	78,468	73,185	▼ 6.7%	▼ 2.2%	
<b>Lithium hydroxide monohydrate min 56.5% LiOH.H2O technical and industrial grades</b>											
ddp Europe	USD/kg	MB-LI-0021	9.4	9.5	9.5	8.8	9.0	9.5	▲ 5.6%	▼ 5.0%	
cif China	USD/kg	MB-LI-0032	8.5	8.1	8.0	7.8	8.8	8.5	▼ 2.9%	▼ 4.3%	
ddp US and Canada	USD/kg	MB-LI-0047	13.7	13.7	11.9	11.9	11.9	12.1	▲ 1.9%	▲ 11.3%	
<b>Lithium hydroxide monohydrate min 56.5% LiOH.H2O battery grade</b>											
ddp Europe	USD/kg	MB-LI-0025	9.8	9.6	9.6	8.8	9.1	9.5	▲ 4.4%	▼ 7.3%	
ddp US and Canada	USD/kg	MB-LI-0045	13.7	13.7	13.7	13.7	13.7	13.7	0.0%	▲ 23.0%	
ex works China	CNY/tonne	MB-LI-0040	67,000	62,000	59,500	63,500	78,500	75,000	▼ 4.5%	▲ 6.5%	
<b>Spodumene min 6% Li2O</b>											
cif Asia	USD/tonne	MB-LI-0012	758	618	630	730	900	825	▼ 8.3%	▼ 2.8%	
<b>Graphite spherical</b>											
fob China	USD/tonne	MB-GRA-0036	1,775	1,775	1,735	1,850	1,850	1,900	▲ 2.7%	▲ 2.7%	
<b>Graphite flake</b>											
fob China	USD/tonne	MB-GRA-0042	415	420	415	425	410	410	0.0%	▼ 10.1%	
cif Europe	USD/tonne	MB-GRA-0039	650	650	630	630	600	600	0.0%	▼ 2.4%	
<b>Petroleum needle coke 0.5% S</b>											
ex works China	CNY/tonne	MB-GRA-0046	5,600	5,850	5,700	5,700	5,800	5,800	0.0%	▲ 12.6%	
<b>Green petroleum coke 0.5% S</b>											
ex works China	CNY/tonne	MB-GRA-0047	4,150	3,600	3,575	3,715	3,850	3,800	▼ 1.3%	▲ 22.7%	
<b>Cobalt &gt;99.8%</b>											
in-whs Europe	USD/lb	MB-CO-0005	15.8	15.9	15.8	15.6	15.8	18.7	▲ 18.9%	▲ 70.3%	
ex works China	CNY/tonne	MB-CO-0001	247,500	237,000	253,500	268,500	269,000	320,500	▲ 19.1%	▲ 84.1%	
<b>Cobalt sulfate</b>											
ex works China	CNY/tonne	MB-CO-0017	51,000	49,500	50,500	52,000	53,500	67,500	▲ 26.2%	▲ 151.2%	
<b>Cobalt tetroxide min 72.6%</b>											
delivered China	CNY/tonne	MB-CO-0012	210,000	205,000	205,000	210,000	215,000	245,000	▲ 14.0%	▲ 116.6%	
<b>Cobalt hydroxide</b>											
cif China payable	% payable	MB-CO-0021	77	77	79	85	88	92	▲ 5.1%	▲ 52.3%	
<b>Manganese ore 37%</b>											
cif China	USD/dmtu	MB-MNO-0003	3.8	3.8	3.8	4.0	4.0	4.0	▲ 1.3%	▲ 3.1%	
fob Port Elizabeth	USD/dmtu	MB-MNO-0002	3.1	3.1	3.2	3.3	3.3	3.4	▲ 1.2%	▲ 3.1%	
<b>Manganese ore 44% Mn</b>											
cif China	USD/dmtu	MB-MNO-0001	4.5	4.3	4.2	4.2	4.2	4.3	▲ 1.9%	▲ 6.4%	
<b>Manganese min. 99.7% electrolytic manganese flake</b>											
fob China	USD/tonne	MB-MN-0007	1,895	1,915	1,915	1,935	1,935	1,985	▲ 2.6%	▲ 14.7%	
<b>Manganese sulfate</b>											
ex works China	CNY/tonne	MB-MN-0008	5,600	5,700	5,700	5,700	5,700	5,750	▲ 0.9%	▼ 1.7%	
<b>Nickel sulfate</b>											
ex works China	CNY/tonne	MB-NI-0244	27,150	27,250	25,900	26,000	27,250	27,900	▲ 2.4%	▲ 8.9%	
cif East Asia	USD/tonne	MB-NI-0246	3,795	3,709	3,429	3,516	3,492	3,573	▲ 2.3%	▼ 6.4%	
<b>Nickel sulfate premium</b>											
cif East Asia	USD/tonne	MB-NI-0247	1,500	1,500	600	550	750	900	▲ 20.0%	▼ 44.6%	
<b>Mixed hydroxide precipitate</b>											
cif East Asia payable	% payable	MB-NIO-0004	84	85	85	85	87	88	▲ 1.4%	▲ 9.0%	
<b>Iron phosphate</b>											
delivered China	CNY/tonne	MB-FEP-0001	10,900.0	10,500.0	10,500.0	10,200.0	10,150.0	10,150.0	0.0%	▼ 2.6%	
<b>Black mass</b>											
Nickel	cif South Korea	MB-BMS-0001	74.5	75.5	77.5	77.5	79.0	78.5	▼ 0.6%	▲ 12.1%	
Cobalt	cif South Korea	MB-BMS-0002	74.5	75.5	77.5	77.5	79.0	78.5	▼ 0.6%	▲ 12.1%	
Lithium	cif South Korea	MB-BMS-0003	1.0	1.0	1.0	1.0	1.0	0.0	▼ 100.0%	▼ 100.0%	

The US landscape is again marred by uncertainty, with the government shutting down on October 1 after Congress failed to pass a funding bill. While Republicans and Democrats attribute blame, the White House budget chief is seeking to expand government employee layoffs and spending cuts. Notably, despite the shutdown, tariffs will still be collected at US ports of entry, and the US Commerce Department will continue its Section 232 investigation into processed critical minerals.

Amid partisan animosity, the US Department of Energy (DOE) announced the termination of roughly \$7.56 billion in financial awards supporting 223 projects. Of the awards terminated, \$3.1 billion were for projects rushed through between election day and inauguration day in late 2024 and early 2025, concentrated in Democrat-leaning states. We did not note any critical mineral battery raw material projects, but the list includes awards to battery raw material-consuming companies such as Daimler Truck North America, Deere & Co, Caterpillar and numerous traditional and renewable energy companies.

US companies are increasingly recognizing the need for improved critical minerals traceability and are pressing for standardized formats and databases. The US has made recent progress in formalizing standards to help automakers and suppliers make informed sourcing, purchasing and manufacturing decisions. The Society of Automotive Engineers (SAE) published the new SAE J3327 standard in September, establishing a framework for tracking electric vehicle (EV) battery materials from extraction through end-of-life (EOL). The standard harmonizes with international frameworks such as International Organization for Standardization (ISO) and the EU Digital Product Passport, supporting compliance, reuse and recycling while reducing risks such as falsified origin claims. It will also help US companies comply with 45X Prohibited Foreign Entity (PFE), formerly FEOC, and tariff regulations.

Industry discussions suggest that, given the global nature of the battery raw materials supply chain, both the US and

China are aligning with European standards, with the EU battery passport leading the drive for traceability. One major global automaker described it as a “mad dash” to meet the February 18, 2027 deadline. Companies cite challenges in learning the requirements, collecting data and onboarding employees, as these tasks are added to already full workloads. Other challenges include educating internal teams and suppliers and ensuring data accuracy and auditability. Battery producers typically have full sourcing transparency, making communication vital to traceability efforts. Current shortfalls include the lack of a standardized format and an industry-wide database. We understand there have been moves in the EU to simplify battery passport requirements given the tight deadline and workload.

Despite these challenges, US companies increasingly acknowledge the long-term benefits of traceability. By gathering and tracking sourcing information for critical battery raw materials, companies will gain better visibility into carbon footprint data, enable easier recycling, improve risk management and enhance due diligence. A deeper analysis of the bill of materials with a traceability mindset is also helping with design and manufacturing, while providing greater insight into suppliers.

The US Supreme Court has fast-tracked a case challenging the use of the International Emergency Economic Powers Act (IEEPA) as the legal basis for tariffs imposed during the Trump administration, with oral arguments scheduled for November 2025. The outcome could have far-reaching implications for executive authority in trade policy, potentially shaping future tariff actions.

Uncertainty around tariff levels and affected products continues to complicate investment and business decisions for US automakers and suppliers. As the market transitions into a post-incentive environment in 2026, the true level of consumer demand for EVs will become clearer, and the policy environment will remain a critical factor shaping the industry's future.

# EV highlights and outlook



## US EV sales



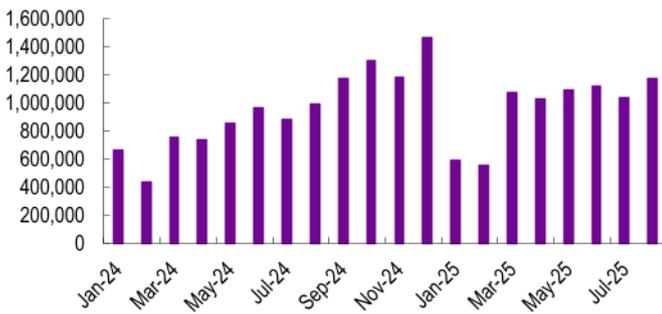
Source: Argonne National Laboratories

## China LDEV exports



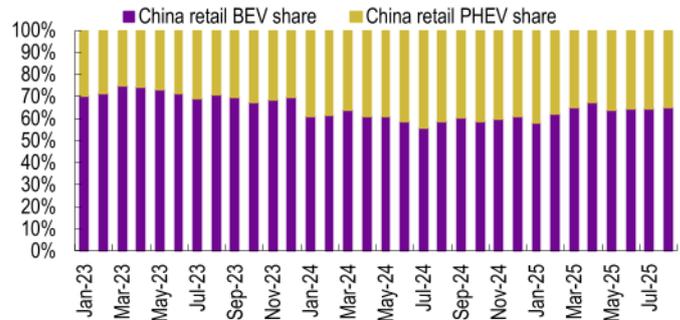
Source: CAAM

## China retail EV sales



Source: CAAM

## China retail BEV:PHEV ratio

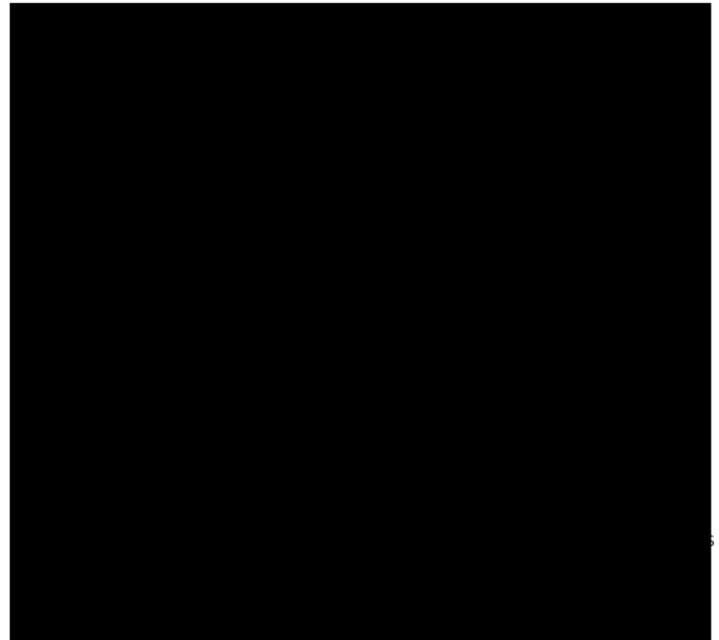


Source: CAAM

The early expiry of the US 30D consumer tax credit spurred EV sales in August, which grew nearly 15% from July to 167,000 light vehicles. September will likely be similar, as subsidies lasted until the end of the month. However, this demand has effectively been pulled forward from the October-December sales period and to a lesser degree from the new year.

We expect increasingly weak US EV sales in the fourth quarter, a time when sales typically receive a seasonal boost. December 2024 was the largest month ever for US EV sales at 191,000 vehicles, a figure unlikely to be matched this year due to the loss of subsidies and a challenging macroeconomic environment. Ford chief executive officer Jim Farley said he "wouldn't be surprised" to see EV penetration halve in the fourth quarter to around 5% due to the removal of subsidies.

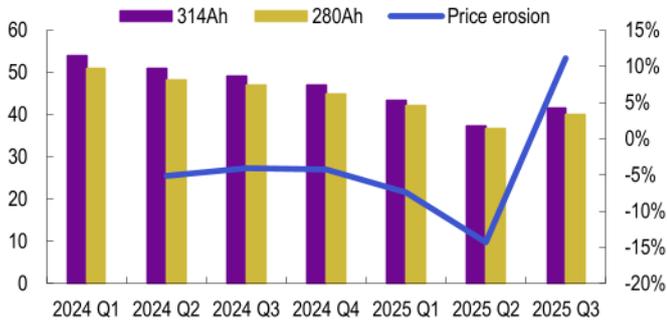
Europe continues to grow strongly. The UK's EV market grew 30% year on year in August, driven significantly by plug-in hybrid electric vehicle (PHEV) sales, which rose nearly 70% to almost 10,000 vehicles. This minimized potential gains in battery demand. Commercial EV sales doubled year on year from 1,000 to 2,000 vehicles, with over 80% being battery



# ESS highlights and outlook

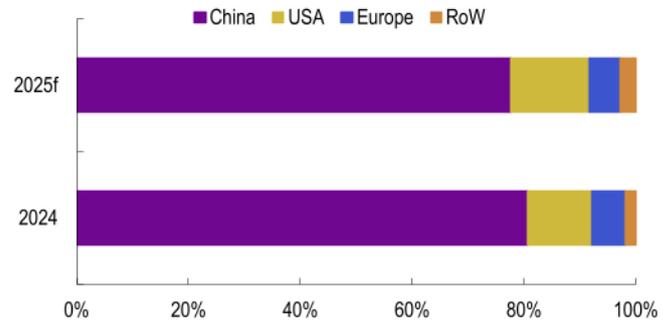


LFP 314Ah and LFP 280Ah cell price data, \$/kWh



Source: Fastmarkets

ESS cell production, market share % GWh



Source: Fastmarkets

This section is based on proprietary data and analysis from Fastmarkets' Energy Storage Systems (ESS) report, focused on market dynamics, raw material pricing and cell cost trajectories.

Recent industry events in the US and UK showcased a decisive shift toward larger, higher capacity ESS utilizing lithium iron phosphate (LFP) chemistries. At the RE+ 25 clean energy event in the US, manufacturers demonstrated aggressive moves into the artificial intelligence data center (AIDC) market along with diverse product design concepts shaped by regional needs. Canadian Solar and HyperStrong launched scalable, transport-friendly storage systems—1.6MWh units expandable to 8.36MWh and a compact 10-foot design, respectively. Several suppliers introduced 6MWh+ solutions using emerging LFP 587Ah and LFP 600Ah+ cells to cut costs and remain competitive.

some North American projects—industry leaders note that global ESS market growth remains strong. This momentum is supported by declining costs, ongoing technology improvements and sustained demand across key international markets.

According to China Energy Storage Alliance (CNESA) statistics, global energy-storage cell shipments reached 233.6GWh in the first half of 2025, with Chinese manufacturers remaining dominant in cell production. Demand remains exceptionally strong, with Tier-1 manufacturers' order books already scheduled through to the first quarter of 2026.

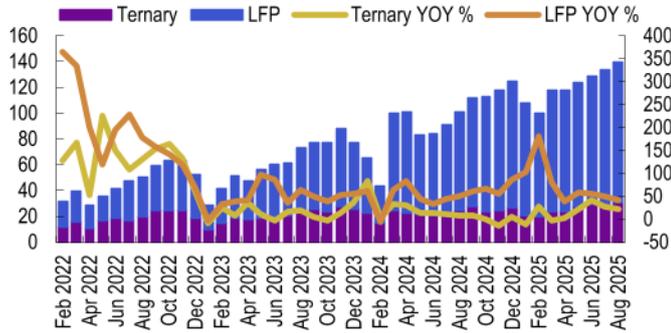
## ESS outlook

Despite policy uncertainty stemming from the DOE's plan to cancel \$13 billion in clean-energy subsidies—impacting

# Gigafactories & CAM highlights and outlook

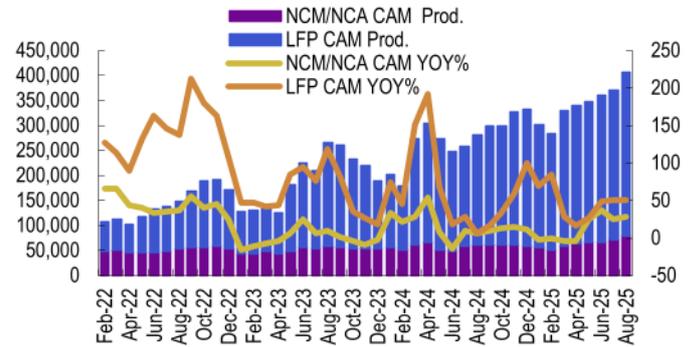


China NEV battery production, GWh



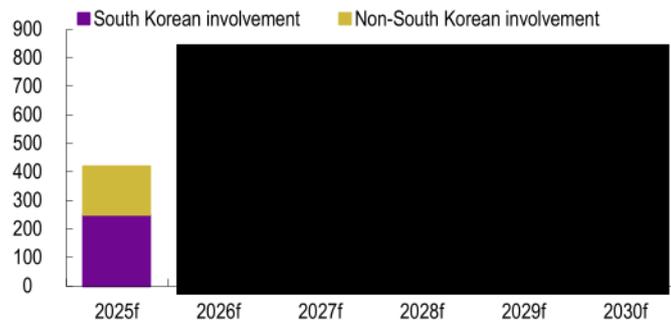
Source: CABIA

China CAM production, Tonnes



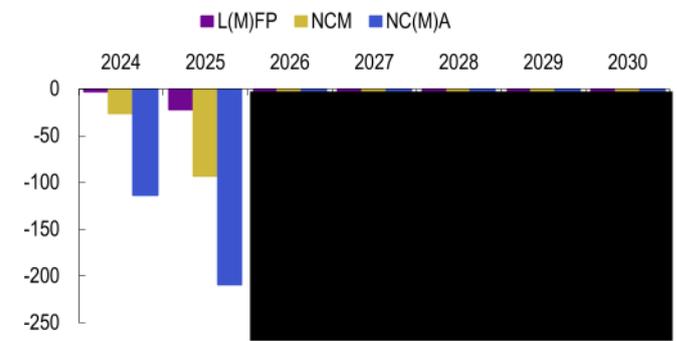
Source: BAIINFO

US gigafactory capacity forecast in GWh



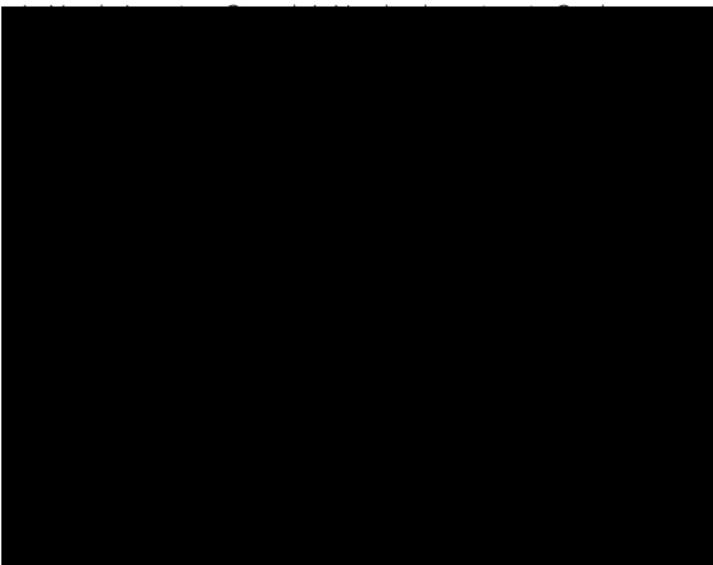
Source: Gigafactory and CAM capacity database

Domestic US CAM capacity imbalance by chemistry in GWh



Source: Gigafactory and CAM capacity database

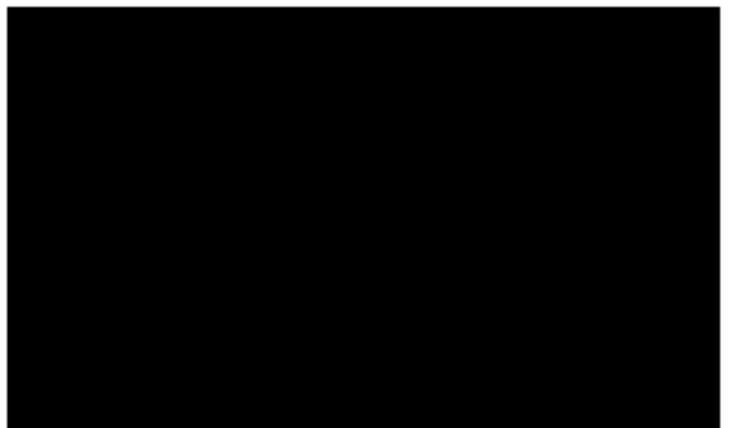
In China, battery production ramped up in August as the industry prepared for stronger demand and installations in the final months of the year. Total EV battery production rose to 140GWh in August, up 4.3% month on month and 38% year on year. Growth rates were similar for both ternary and LFP chemistries, with ternary increasing 4.7% month on month to 31GWh and LFP rising to 109GWh. We expect this growth to continue through the year end.



In Europe, Gotion High-Tech-backed InoBat secured €54 million in government funding for its Spanish gigafactory, expected to reach 32GWh capacity by 2027. Lyten's acquisition of Northvolt's European assets has been approved by Sweden's ISP, granting the US developer immediate production capacity and a strategic European foothold.

## Cathode active materials

China's LFP and ternary cathode active materials (CAM) production showed stronger growth in August, in line with battery production trends. LFP CAM output rose 10.0% month on month, while ternary CAM increased 9.5%. Utilization rates averaged 47.1% at ternary sites and 66.6% at LFP sites.



# Gigafactories



## EXPECTED NEXT IN LINE GIGAFACTORIES\*

Project	Company	Location	Type	Status	Start	Capacity, GWh
		United States	Gigafactory	Under Construction	2025	30
		China	Gigafactory	Under Construction	2025	30
		China	Gigafactory	Under Construction	2025	12
		United States	Gigafactory	Under Construction	2025	40
		Germany	Gigafactory	Under Construction	2025	20
		United Kingdom	Gigafactory	Under Construction	2025	15.8
		Canada	Gigafactory	Under Construction	2025	49.5
		China	Gigafactory	Under Construction	2025	20
		China	Gigafactory	Under Construction	2025	18
		China	Gigafactory	Under Construction	2025	30
		China	Gigafactory	Under Construction	2025	15
		China	Gigafactory	Under Construction	2025	1
		China	Gigafactory	Under Construction	2025	10
		Hungary	Gigafactory	Under Construction	2026	28
		Hungary	Gigafactory	Under Construction	2026	34
		France	Gigafactory	Under Construction	2026	16
		Indonesia	Gigafactory	Under Construction	2026	6.9
		China	Gigafactory	Under Construction	2026	12
		China	Gigafactory	Under Construction	2026	28
		India	Gigafactory	Under Construction	2026	40
		Russia	Gigafactory	Under Construction	2026	4
		United States	Gigafactory	Under Construction	2026	20
		Spain	Gigafactory	Under Construction	2026	30
		United States	Gigafactory	Under Construction	2026	36
		India	Gigafactory	Under Construction	2026	20
		United States	Gigafactory	Under Construction	2026	30
		United Kingdom	Gigafactory	Under Construction	2026	40
		Spain	Gigafactory	Under Construction	2026	40
		China	Gigafactory	Under Construction	2026	30
		Morocco	Gigafactory	Under Construction	2026	20
		United States	Gigafactory	Under Construction	2026	20
		China	Gigafactory	Under Construction	2026	30
		United States	Gigafactory	Under Construction	2026	40
		China	Gigafactory	Under Construction	2026	21
		China	Gigafactory	Under Construction	2026	10
		China	Gigafactory	Under Construction	2026	21.5
		Malaysia	Gigafactory	Under Construction	2026	15

Source: Fastmarkets gigafactory capacity database

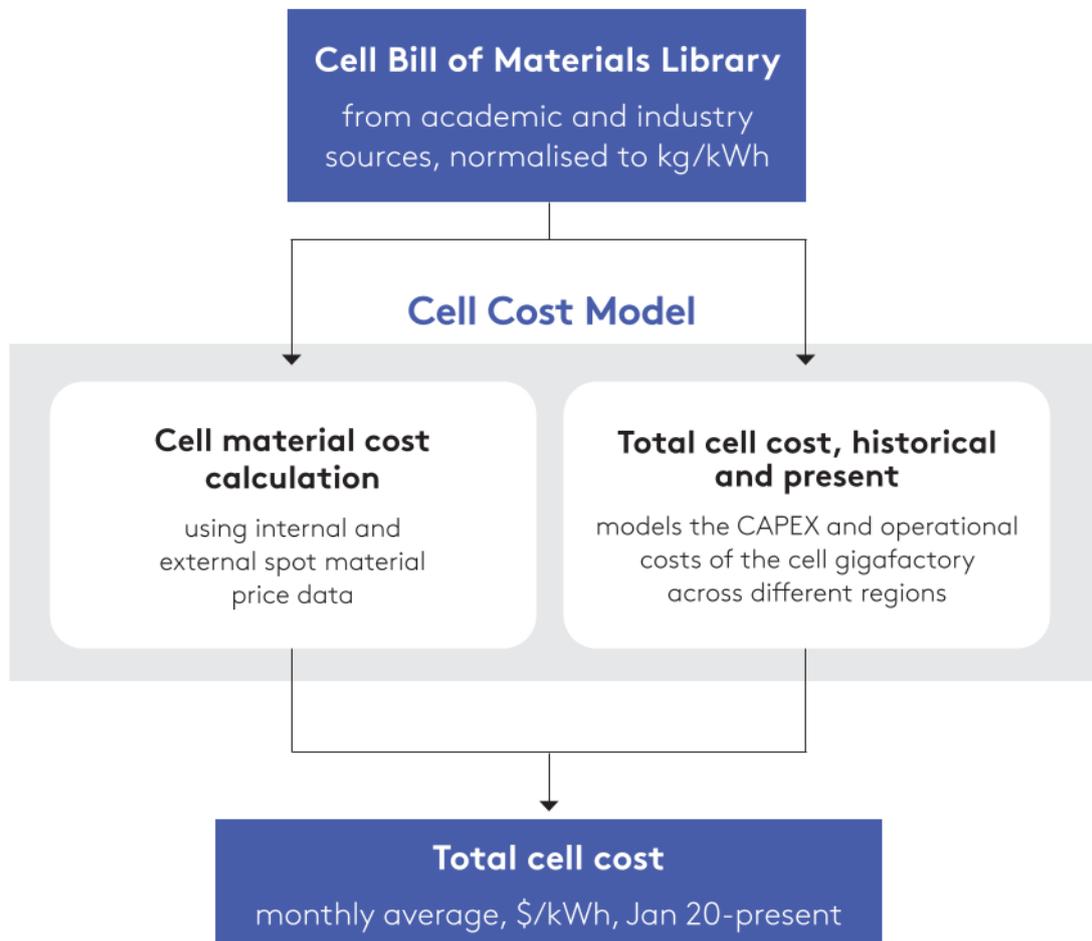
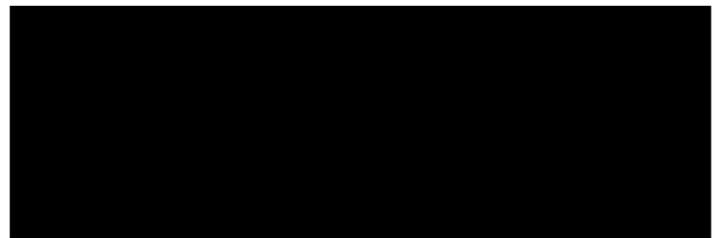
# Cell cost outlook



Cell cost trends					
NCM-622	NCM-712	NCM-811	NCA	LFP	LMFP
<b>% Change M-o-M</b>					
▼ 6.2%	▼ 6.7%	▼ 8.1%	▼ 9.3%	▼ 5.7%	▼ 6.9%
<b>% Change Y-o-Y</b>					
[Redacted]					

This data and analysis are based on Fastmarkets' Battery Cost Index (BCI), a tool which models cell costs using proprietary price indices for key battery raw material and manufacturing costs.

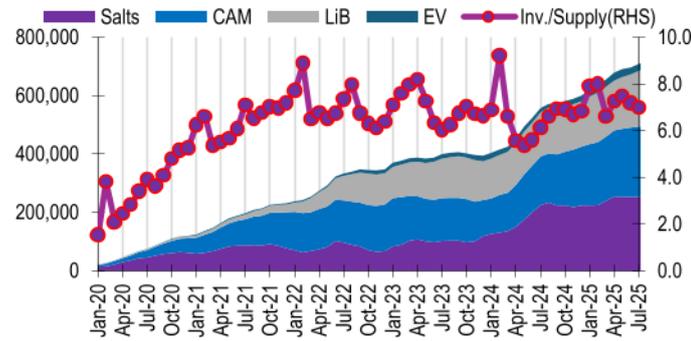
Methodology changes in how production scrap is valued in the BCI led to significant reductions in Chinese and South Korean cell prices.



# Lithium highlights

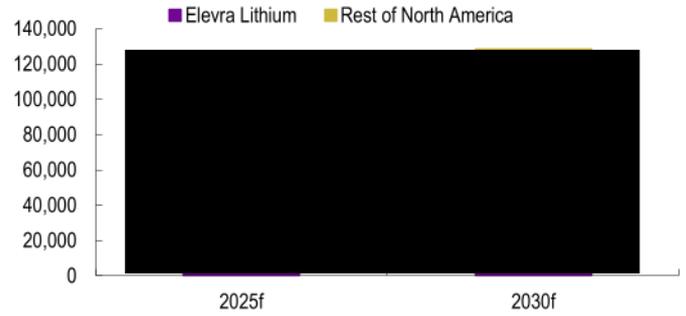


Implied Inventory level in China, Tonnes LCE



Source: Fastmarkets, CABIA, CPCA, CAAM, China Customs

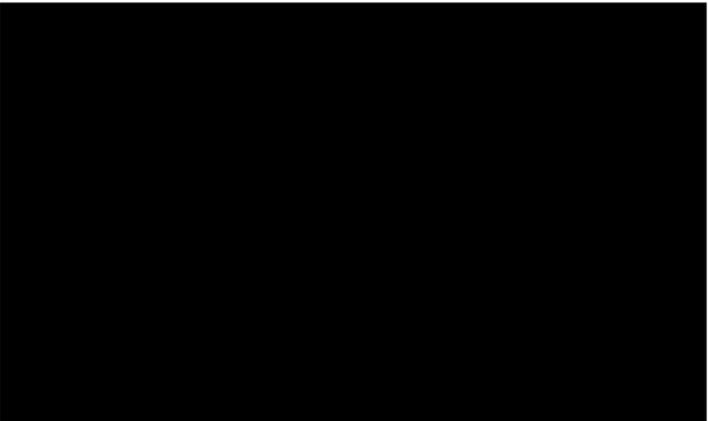
Forecast of Eleveland Lithium mined supply in North America, Tonnes LCE



Source: Fastmarkets long term forecast

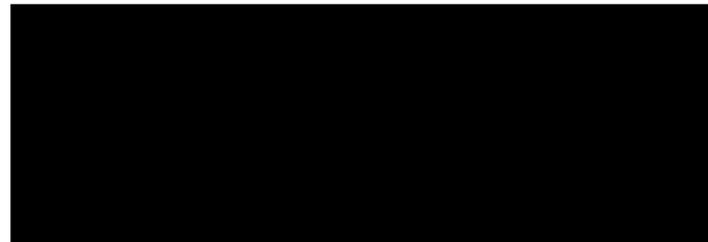
On October 1 the US DOE announced that it would take 5% equity through warrants at \$0.01 per share in Lithium Americas Corp (LAC) as well as an additional 5% equity in the form of similar warrants in the LAC/General Motors (GM) joint venture. As part of the revised non-binding agreement, the DOE has agreed to defer \$182 million of debt service over the first five years of the loan. LAC (62%), and GM (38%) jointly own the Thacker Pass sedimentary lithium project, in Nevada. In 2024, GM acquired its 38% interest in Thacker Pass for \$625 million.

These new terms restructure the original deal agreed in 2024, in which the DOE committed \$2.26 billion to fund construction of Phase 1 of Thacker Pass. The 40,000-tonne lithium carbonate equivalent (LCE) capacity project is slated for completion by late 2027.



## Inventory analysis

We have updated our top-down model tracking implied inventory in lithium carbonate equivalent (LCE) – spanning from salts production through to vehicle dealerships – to illustrate supply chain dynamics. The model uses a basic formula:  $Inventory = Production - Sales - Net Exports$  to estimate inventory volumes. Additionally, the inventory-to-supply ratio serves as an indicator of inventory levels, factoring in working capital from new market entrants and shifts in supply, offering a more nuanced view of market balance and material flow.

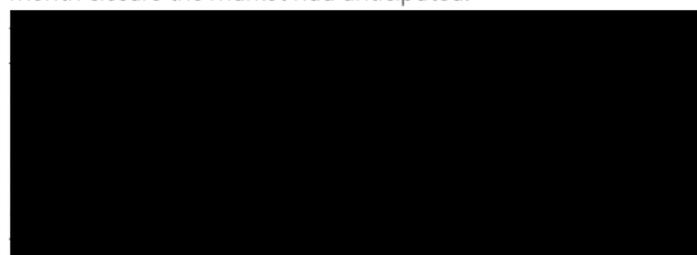


## LITHIUM PRICES & FORECAST

	2022	2023	2024	2025f	2026f	Q1 2025	Q2 2025	Q3 2025	Q4 2025f	Q1 2026f	Q2 2026f	Q3 2026f	Q4 2026f
Lithium carbonate BG China spot yuan/tonne	489,788	250,948	85,139	71,900	74,165	75,540	64,400	72,990	74,665				
Lithium hydroxide BG China spot yuan/tonne	476,351	265,102	78,972	70,125	74,165	70,545	64,700	69,420	75,835				
Lithium carbonate BG cif China, Japan & Korea spot \$/kg	71.24	39.79	12.51	9.25	10.00	9.80	8.55	9.05	9.45				
Lithium hydroxide BG cif China, Japan & Korea spot \$/kg	72.93	44.06	11.93	9.05	10.00	9.30	8.65	8.70	9.55				
Spodumene min 6% Li <sub>2</sub> O, spot price, cif China, \$/tonne	6,085	3,441	920	795	820	875	700	815	790				

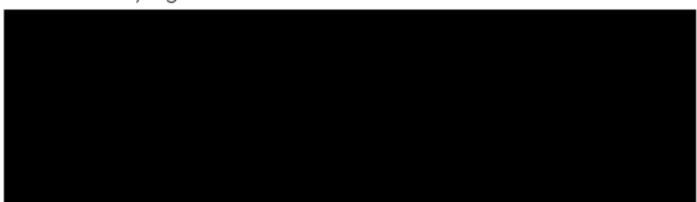
### Chinese battery-grade lithium carbonate

The average price in September declined by around 7% from August to 73,185 yuan per tonne. Rumors surrounding the outcome of the Yichuan investigations persisted throughout the month, although sentiment around price increases linked to further closures waned. While no official restart date has been announced for CATL's mine, a statement indicated operations would resume after 30 days, which is shorter than the three-month closure the market had anticipated.



### Chinese battery-grade lithium hydroxide

In September, the average hydroxide price regained a premium over carbonate. Tightness in the spot market emerged as producers switched hydroxide lines to carbonate amid summer premiums and steady demand. This led producers to hold firm on pricing for the few trades that occurred. Meanwhile, carbonate faced more downward pressure due to oversupply and cautious buying.



### Battery-grade lithium carbonate in China, Japan and Korea

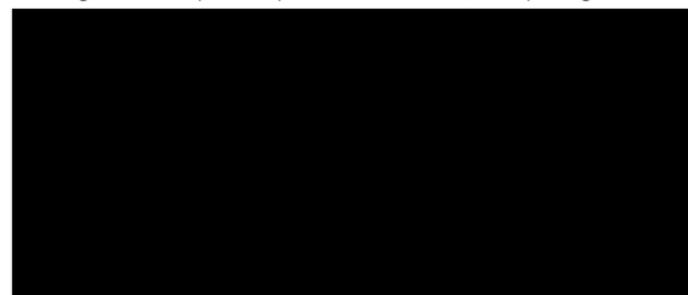
The average price in September increased by 0.4% compared

with August. Prices rose in line with movements in the Chinese domestic market, although prevailing market uncertainty and volatility discouraged significant trading activity.



### Battery-grade lithium hydroxide in China, Japan and Korea

Similar to the Chinese domestic market, lithium hydroxide regained a premium in September. We anticipate a small premium to persist through the remainder of the year, with the average fourth-quarter price forecast at \$9.55 per kg.



### Spodumene concentrate

Spodumene prices declined by roughly 8% from August to September. With processors holding sufficient short-term inventories and current prices remaining relatively elevated, many appear to be waiting for greater market certainty and stability before re-entering. However, if lithium salt prices begin to trend upward, this could prompt renewed buying activity.

## LITHIUM SUPPLY/DEMAND TABLE (tonnes LCE)

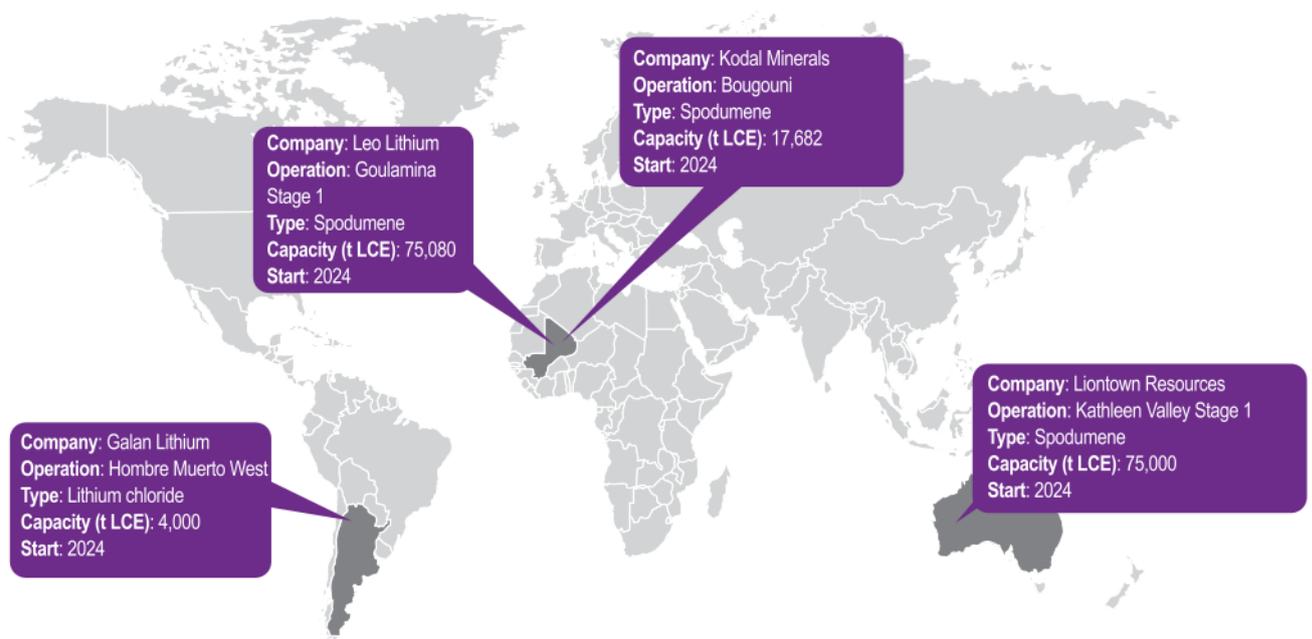
	2022	2023	2024	2025f	2026f
Available production	737,200	951,800	1,278,200	1,485,100	
Apparent demand*	759,350	785,021	1,110,682	1,438,644	
Balance	-22,150	166,779	167,518	46,456	

\* as downstream capacity expands it needs to build up working stock. Consumption + restocking + working stock build = Apparent demand

LITHIUM PROJECTS									
Projects	Company	Location	Type	Financed	Permits	PFS/DFS	Offtake	Start	Initial production LCE
		Argentina	Continental	√	√	√		Q4 2024	50,000
		Mali	Spodumene	√	√	√	√	Q4 2024	75,080
		Argentina	Continental	√	√	√		2025	15,000
		Brazil	Spodumene	√	√	√	√	2025	33,000
		Argentina	Continental	√	√	√	√	2025	5,400
		Mali	Spodumene	√	√	√	√	2025	17,682
		China	Lepidolite	√	√			2026	60,000
		China	Lepidolite	√		√	√	2025-2026	40,000
		Argentina	Continental	√	√	√		2024-2025	17,437
		Brazil	Spodumene	√	√	√		2025	18,000
		Argentina	Continental	√	√	√	Partly	2025	24,000
		China	Continental	√	√	√		2025	50,000
		Argentina	Continental	√	√	√		2025	60,000
		China	Spodumene	√	√	√	√	2025-2026	25,000
		China	Continental	√		√		2025-2026	50,000
		China	Spodumene	√	√	√	√	2026-2027	60,000
		Democratic Republic of the Congo	Spodumene	√				2027	85,000
		United States	Spodumene		√	√	√	2028	52,800
		Portugal	Spodumene	√		In DFS		2027	26,000
		Finland	Spodumene	√	√	√	√	2026	13,200
		Germany	Geothermal	√	√	√	√	2027	21,120
		United States	Oilfield			√	√	2026	5,400
		Chile	Continental		√	√	√	2027	20,000
		Austria	Spodumene	√	√	√	√	2027	8,914
		Argentina	Continental			PFS		2027	30,000
		Spain	Zinnwaldite	partly		PFS	√	2027	17,000
		Canada	Spodumene		√	√	√	2027	34,000
		Argentina	Continental	√	√	√		2028	20,000
		United States	Sedimentary	√	√	√	87%	2028	22,000
		Mali	Spodumene	√	√	√	√	2028	48,224
		Ghana	Spodumene		√	√	50% to Piedmont Lithium	2028	44,000
		Namibia	Lepidolite	√	√	DFS	√	2028	4,312
		United States	Clay	√	√	√	√	2028	40,000

Source: Company reports, Fastmarkets

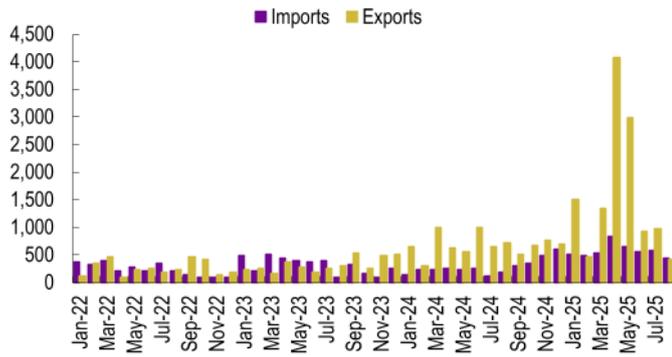
## Expected next-in-line projects



# Cobalt highlights

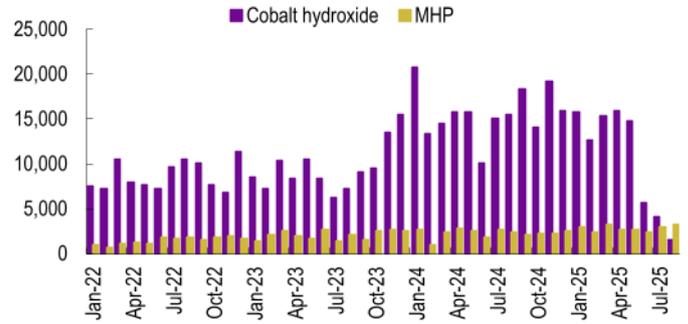


China cobalt metal trade, Tonnes Co



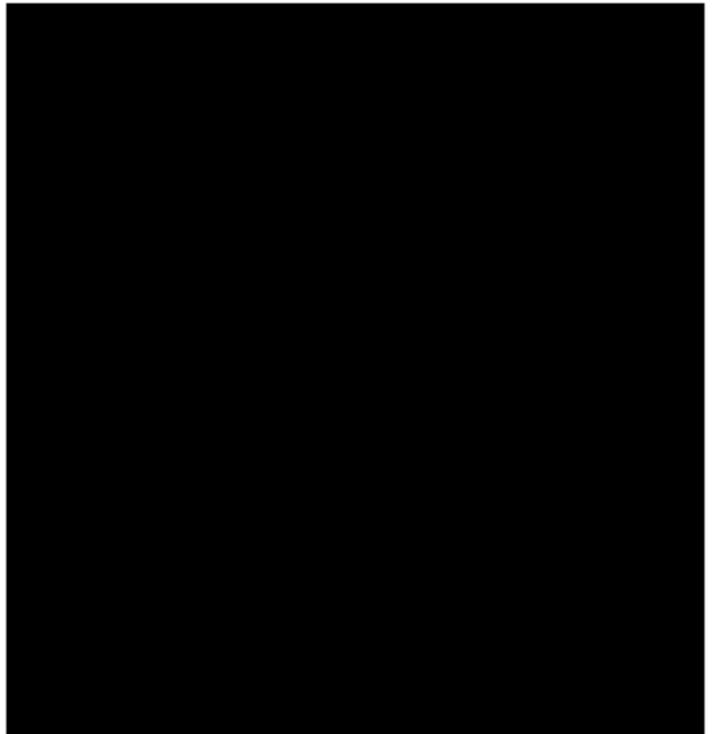
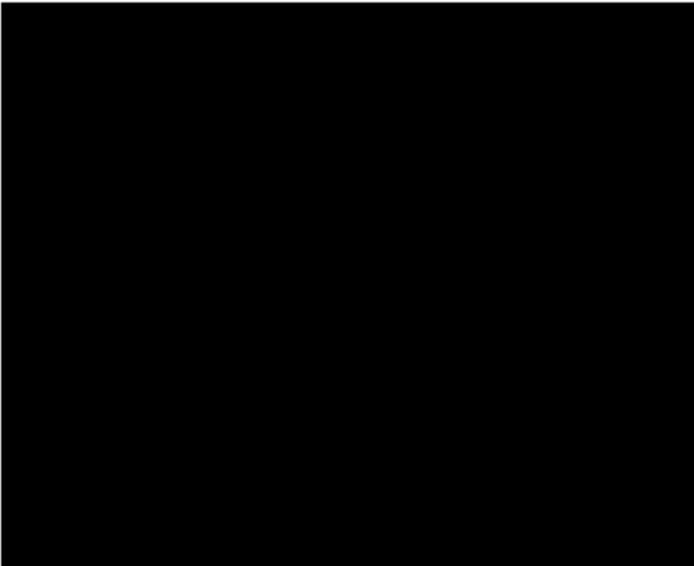
Source: Global Trade Tracker

China cobalt intermediate imports, Tonnes Co



Source: Global Trade Tracker

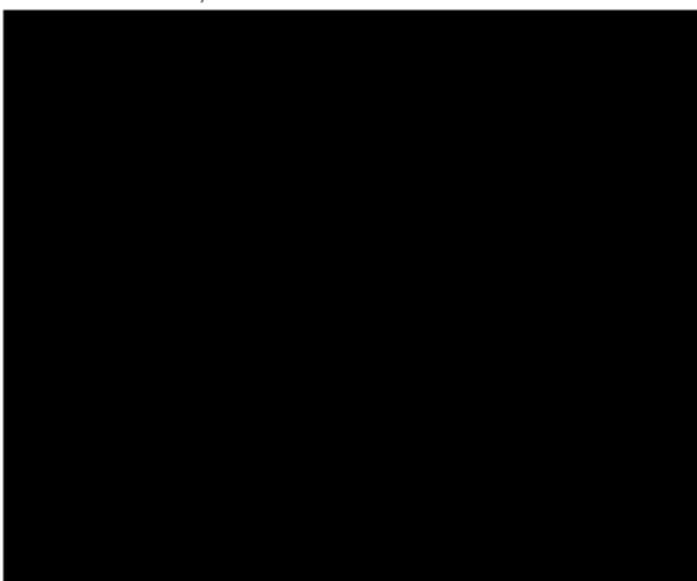
The Democratic Republic of Congo (DRC) has announced that its cobalt export ban will be lifted in mid-October and replaced by an export quota system. However, the tonnages allowed for export in 2026 and 2027 are likely to significantly tighten the market unless quotas are reviewed, which can occur quarterly.



## COBALT PRICES & FORECAST

	2022	2023	2024	2025f	2026f	Q1 2025	Q2 2025	Q3 2025	Q4 2025f	Q1 2026f	Q2 2026f	Q3 2026f	Q4 2026f
Cobalt standard grade MB low \$/lb	30.36	15.10	11.27	14.40	21.90	11.09	15.23	15.48	20.22				
Cobalt standard grade MB low \$/tonne	66,920	33,290	24,800	34,200	48,300	24,400	33,600	34,100	44,600				
Cobalt sulfate, exw China yuan/tonne	84,600	39,000	31,000	47,000	79,000	34,000	50,500	54,300	69,000				
Cobalt sulfate, exw China \$/tonne	11,844	5,467	7,300	7,300	11,100	4,800	7,100	7,600	9,700				

Cobalt prices jumped at the end of September after the DRC unveiled its quota system, which sets export volumes for 2026 and 2027 below historical Chinese import levels. Although exports will resume in mid-October at monthly volumes consistent with the new quotas, shipping times mean this material is unlikely to reach China before 2026.



## COBALT SUPPLY/DEMAND TABLE (tonnes)

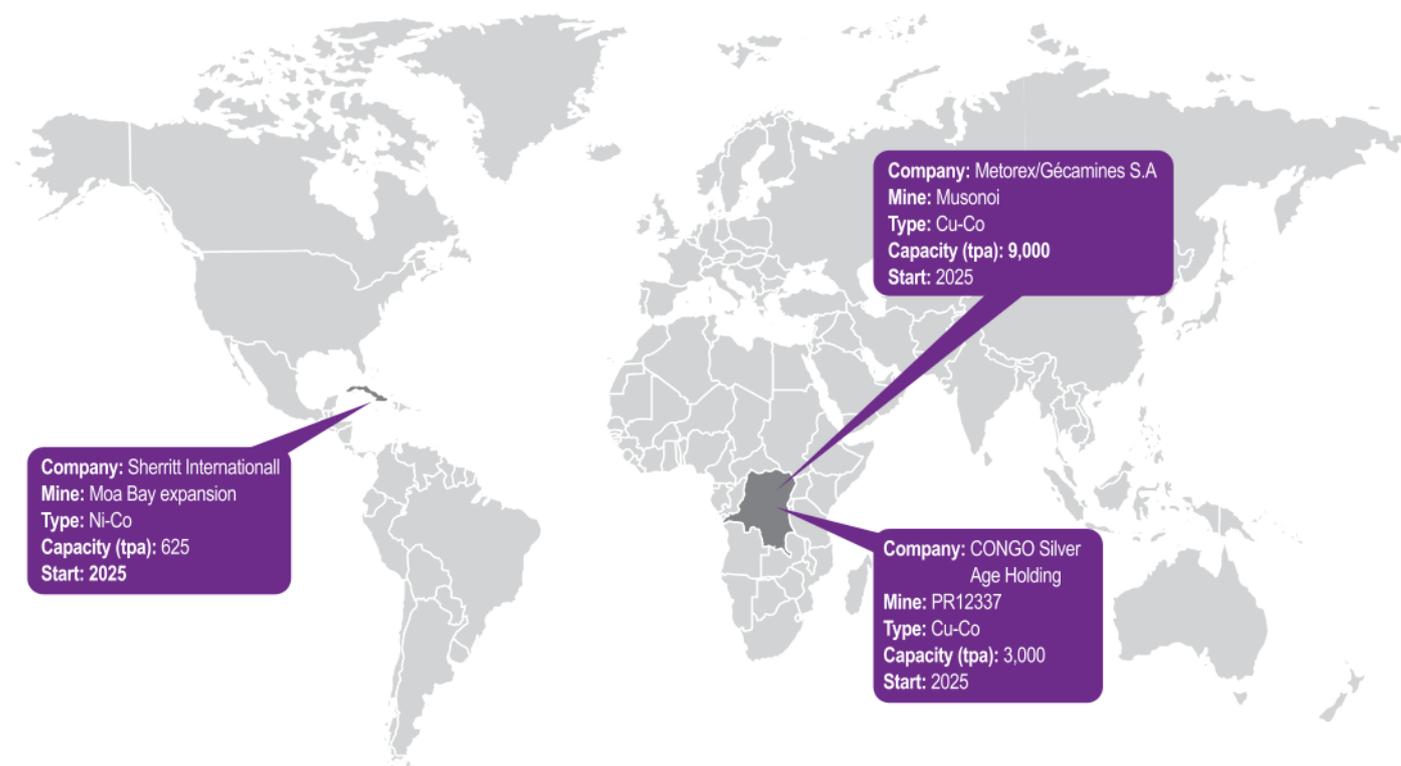
	2022	2023	2024	2025f	2026f
Mine supply	187,000	222,000	275,000	278,000	
Processed supply	200,000	222,000	272,000	266,000	
Demand	196,000	200,000	239,000	263,000	
Balance	4,000	22,000	33,000	3,000	

## COBALT PROJECTS

Projects	Company	Location	Type	Financed	Permits	PFS/DFS	Offtake	Start	Initial production
		Cuba	Nickel by-product	-	-	-	-	2025	625
		DRC	Copper by-product	-	-	DFS	-	2025	9,000
		DRC	Copper by-product	-	-	-	-	2025	3,000
		US	Nickel by-product	-	-	-	Glencore	2026	2,300
		Indonesia	Nickel by-product	-	-	-	-	2026	4,100
		Indonesia	Nickel by-product	-	-	-	-	2026	7,000
		Indonesia	Nickel by-product	-	-	-	-	2026	1,100
		Indonesia	Nickel by-product	√	√	-	-	2027	15,000
		Indonesia	Nickel by-product	-	-	-	-	2027	7,000
		Canada	Primary	√	-	DFS	-	2028	1,800
		Vietnam	Nickel by-product	√	-	PFS	-	2028	580
		Australia	Primary	-	-	PFS	-	2028	3,500
		Tanzania	Nickel by-product	√	√	DFS	-	2028	6,000
		Canada	Nickel by-product	√	-	PEA	-	2028	800
		Chile	Copper by-product	√	√	PFS	-	2028	6,000
		Australia	Nickel by-product	-	-	PFS	Stellantis	2028	1,400
		Australia	Nickel by-product	√	√	DFS	Beijing Easpring	2029	4,400
		Australia	Nickel by-product	-	-	PFS	LG Energy Solution	2029	2,000
		US	Primary	√	-	DFS	-	2030	1,915
		Australia	MHP/PCAM	-	-	PFS	-	2030	3,200

Source: Company reports, Fastmarkets

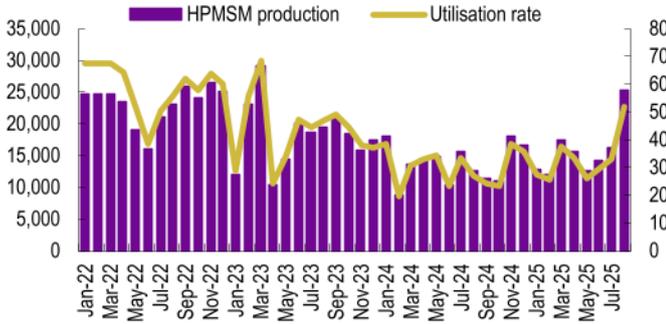
## Expected next-in-line projects



# Manganese highlights

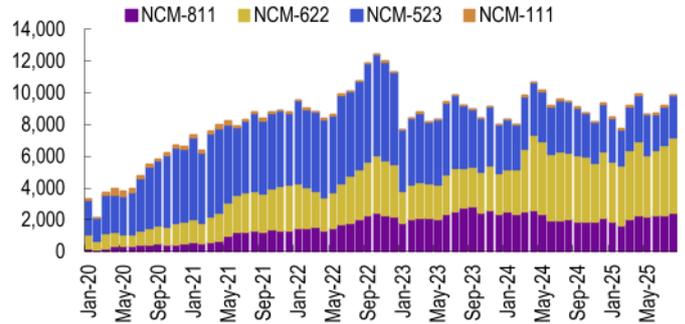


China high-purity manganese sulfate production, Tonnes HPMSM



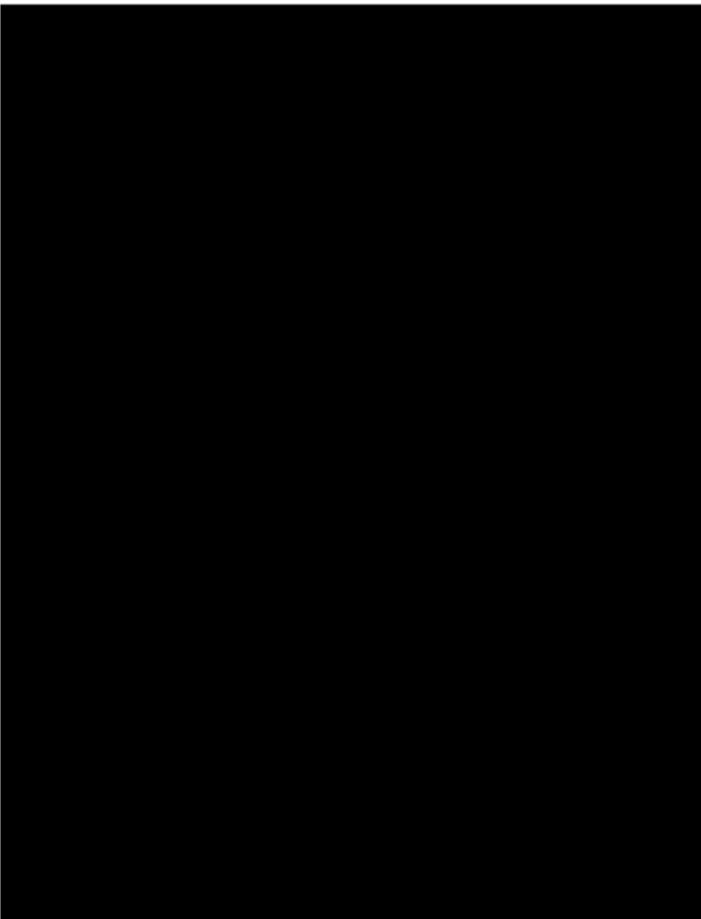
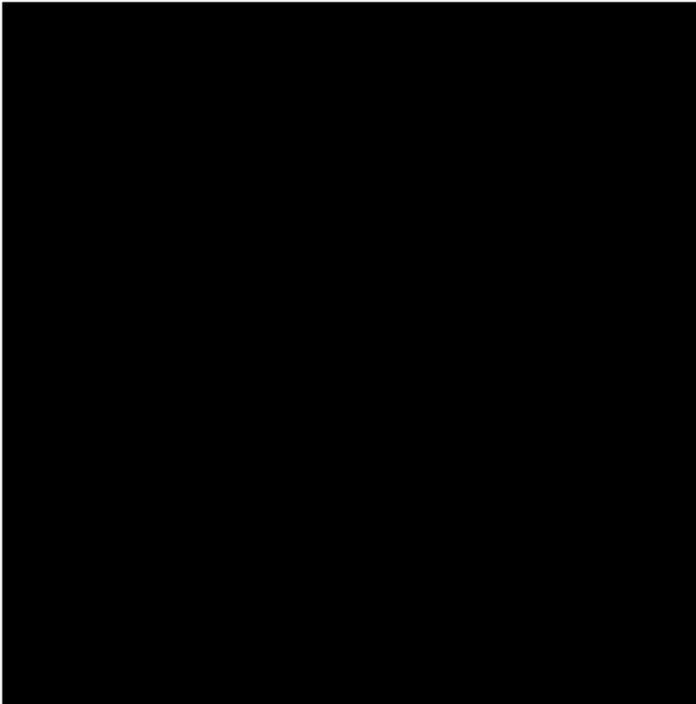
Source: BAIINFO

China pCAM production by chemistry, Tonnes Mn



Source: Xinzedata

The battery-grade manganese market saw a modest pickup in spot market activity in the final week of September. Liquidity improved slightly, with the high end of the price range rising on September 26. At month end, the manganese sulfate ex-works mainland China assessment stood at 5,500–6,000 yuan per tonne. Stronger demand in the fourth quarter is expected to support further spot market activity.



MANGANESE PROJECTS							
Owner	Location	Country	Route	Product	Stage	Start Year	Capacity (tonnes Mn)
[REDACTED]		China	Direct ore	HPMSM	Under construction	2025	6,400
		Mexico	Direct ore	HPMSM/ HP Mn3O4/ HP MnCO4	Feasibility	2026	4,800
		South Korea	Direct ore	HPMSM	Feasibility	2026	3,600
		China	Direct ore	HPMSM/ HP Mn3O4	Feasibility	2026	23,000
		US	Direct ore	HPMSM	Feasibility	2027	21,000
		South Africa	EMM	HPMSM	Feasibility	2027	1,900
		Canada	EMM	HPMSM	Scoping	2028	15,500
		US	Direct ore	HPMSM	Scoping	2028	16,000
		Czech Republic	EMM	HPMSM/ HPEMM	Feasibility	2029	33,000
		South Africa	Direct ore	HPMSM	Pre-feasibility	2029	9,600
		Canada	Direct ore	HPMSM	PEA	2030	22,000
		Botswana	Direct ore	HPMSM	PEA	2030	23,400

Source: Company reports, Fastmarkets

# Manganese outlook

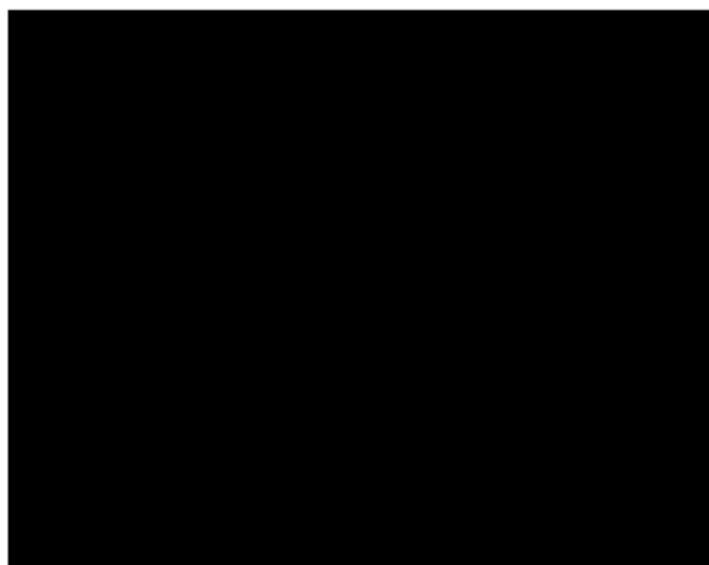
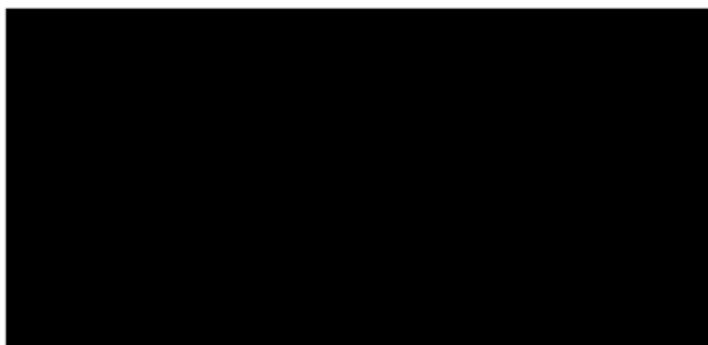


## MANGANESE SULFATE PRICES & FORECAST

	2022	2023	2024	2025f	2026f	Q1 2025	Q2 2025	Q3 2025	Q4 2025f	Q1 2026f	Q2 2026f	Q3 2026f	Q4 2026f
Manganese sulfate 32% Mn min, battery grade, exw mainland China, yuan/ tonne	7,055	5,542	5,600	5,800	5,900	5,800	5,700	5,700	5,800				
Manganese sulfate 32% Mn min, battery grade, exw mainland China, \$/ tonne	1,040	785	780	800	830	800	790	800	820				

Source: Fastmarkets

Chinese manganese sulfate 32% Mn min, battery grade, ex-works mainland China prices averaged 5,713 yuan per tonne in September 2025, up 0.2% month on month. In the last week of September, we saw the first upward movement in this price assessment since May. Prices across the third quarter of 2025 averaged 5,700 yuan per tonne, flat quarter on quarter but down 6.9% year on year.



## MANGANESE SUPPLY/DEMAND TABLE ('000 tonnes)

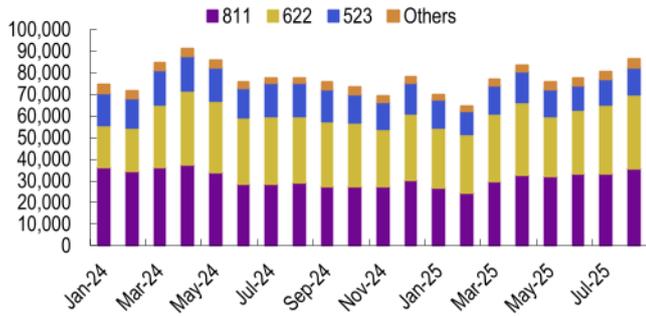
	2022	2023	2024	2025f	2026f
Supply*	111,560	109,000	103,000	176,000	
Demand**	96,453	98,000	101,000	168,000	
Balance	15,000	11,000	2,000	8,000	

\* Combined supply of natural and synthetic graphite for the EV battery industry \*\* Demand from the EV battery sector

# Nickel highlights

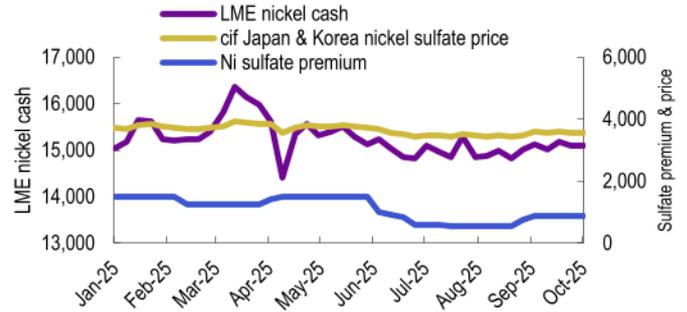


Chinese pCAM production, Tonnes pCAM



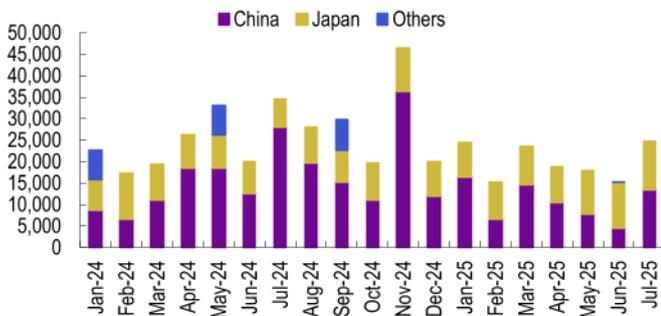
Source: Xinzedata

LME nickel cash and Nickel sulfate prices, US\$ per tonne



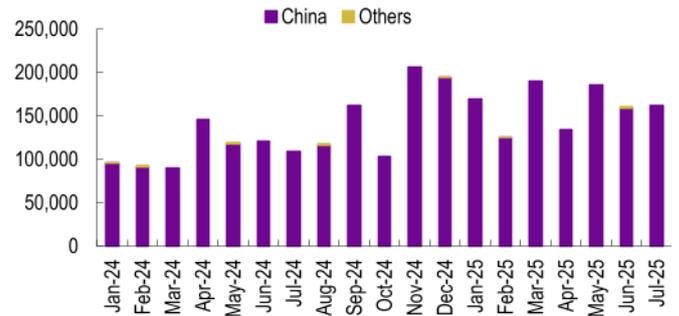
Source: Fastmarkets, LME

Indonesian nickel matte exports, Tonnes gross weight



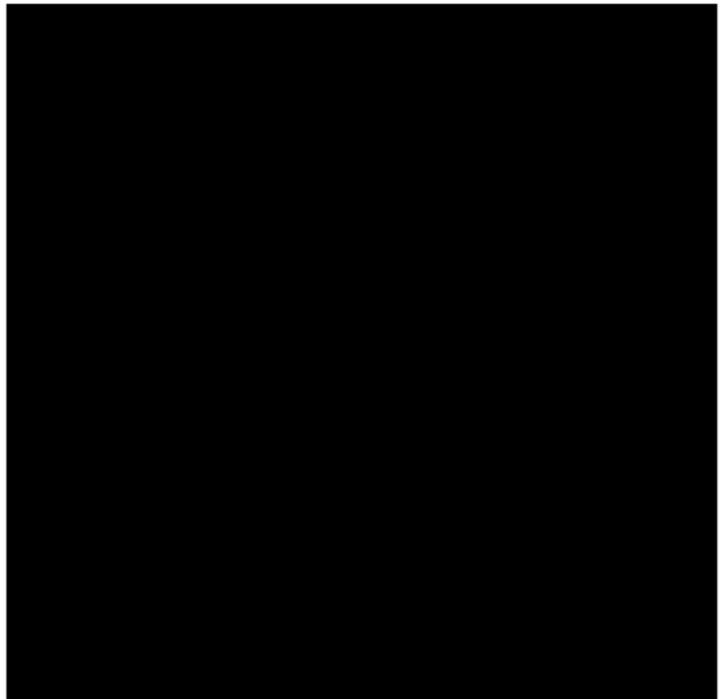
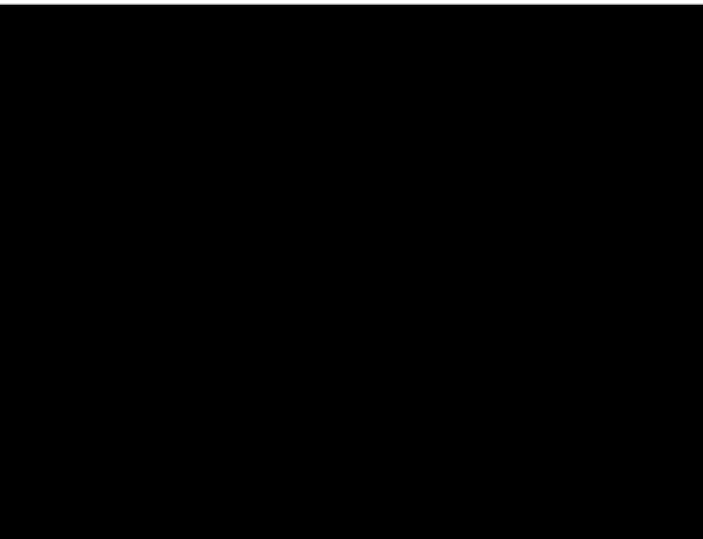
Source: Global Trade Tracker

Indonesian MHP exports, Tonnes gross weight



Source: Global Trade Tracker

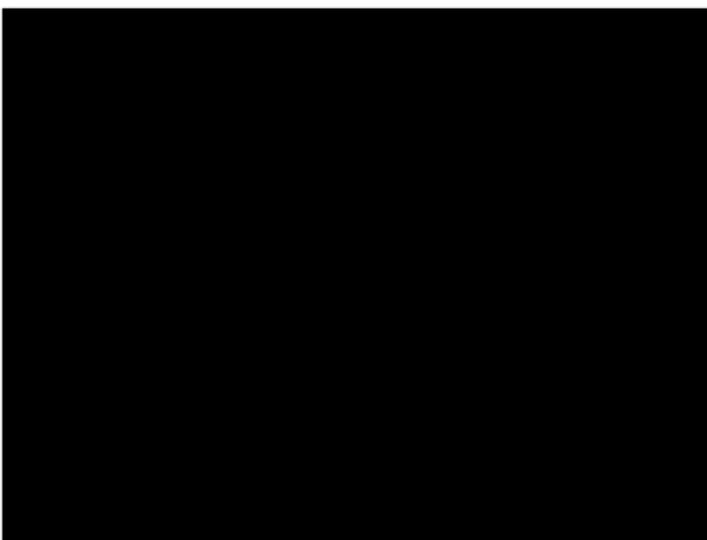
Nickel sulfate prices continued to find support in September, extending the trend that began in August. The China nickel sulfate price rose in most weeks of the month, while the CIF Japan and Korea price edged higher, supported by a rise in the lower end of the premium range early in the month. In both cases, prices were supported by tight MHP supply, resulting in rising payables, and improving demand from the NCM precursor market.



NICKEL PRICE FORECASTS													
	2022	2023	2024	2025f	2026f	Q1 2025	Q2 2025	Q3 2025	Q4 2025f	Q1 2026f	Q2 2026f	Q3 2026f	Q4 2026f
<b>Nickel sulfate</b>													
Japan, South Korea cif	6,043	5,112	4,016	3,636	3,880	3,768	3,671	3,502	3,603				
Premium cif Japan, Korea	1,749	1,279	1,208	1,066	1,194	1,354	1,271	688	950				
China exw (yuan/t)	40,608	32,655	27,656	27,069	30,233	26,368	26,993	26,842	28,075				
<b>MHP</b>													
Payable (% of LME)	76.7	72.7	78.9	84.5	83.4	80.5	83.8	85.5	88.1				

Prices for battery-grade nickel types changed little from last month, mainly due to minor adjustments in LME nickel price forecasts.

The nickel sulfate premium, CIF Japan and Korea, was stable at \$300–1,500 per tonne during September. Rising MHP payables and improving NCM demand lifted premiums from an August average of \$590 per tonne to \$900 per tonne in September. With NCM precursor demand expected to peak in October, we expect the premium to edge higher before stabilizing for the rest of the year, resulting in a fourth-quarter average of \$950 per tonne.



NICKEL SUPPLY AND DEMAND TABLE, '000 TONNES					
	2022	2023	2024	2025f	2026f
Production	3,059	3,378	3,543	3,776	
Consumption	2,963	3,194	3,347	3,539	
Balance	97	185	196	237	

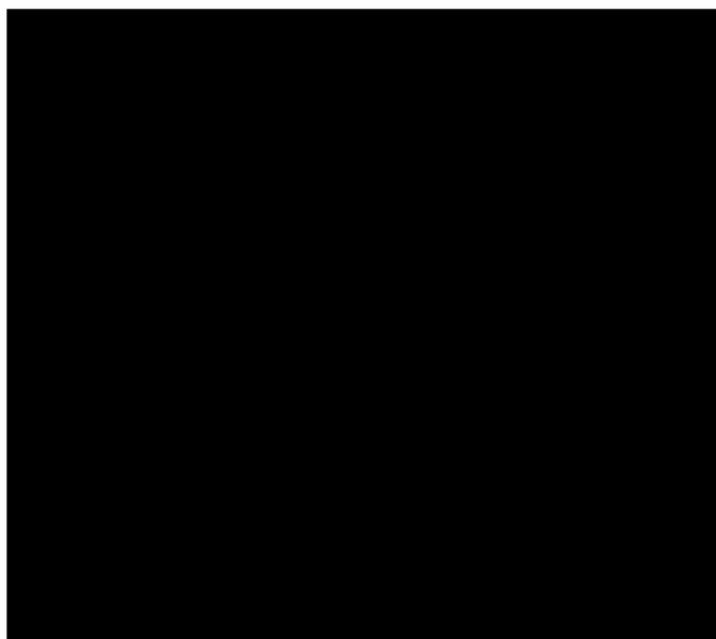
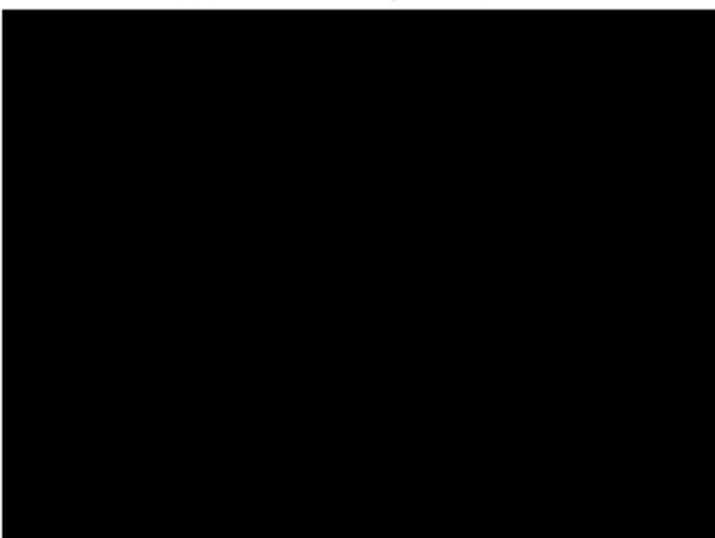
# Iron phosphate highlights and outlook



## IRON PHOSPHATE PRICES & FORECAST

	2023	2024	2025f	2026f	Q1 2025	Q2 2025	Q3 2025	Q4 2025f	Q1 2026f	Q2 2026f	Q3 2026f	Q4 2026f
Iron phosphate anhydrous 0.96-0.98 Fe/P, battery grade, delivered China, yuan/tonne	10,640	10,167	10,435	10,312	10,750	10,659	10,180	10,150				

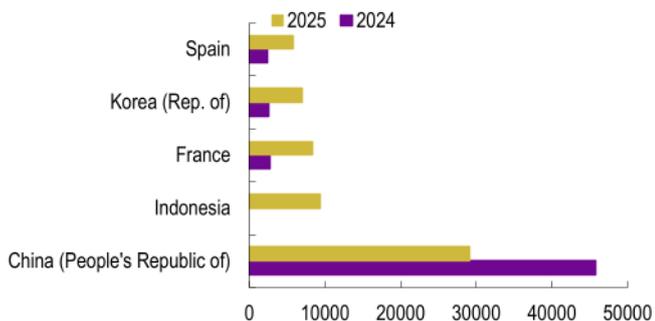
Iron phosphate prices were stable across much of September, with minimal movement in Chinese battery-grade pricing due to abundant supply and low trading activity.



# Graphite highlights

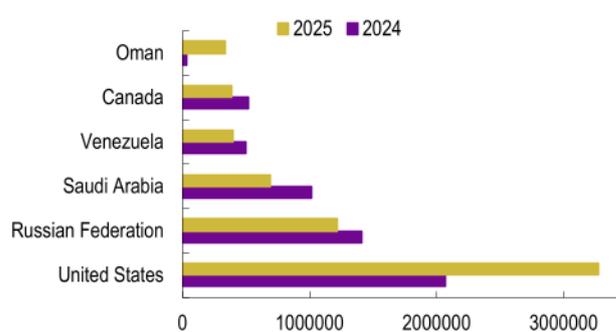


US imports of synthetic graphite in H1 2025, Tonnes



Source: US Commerce Department

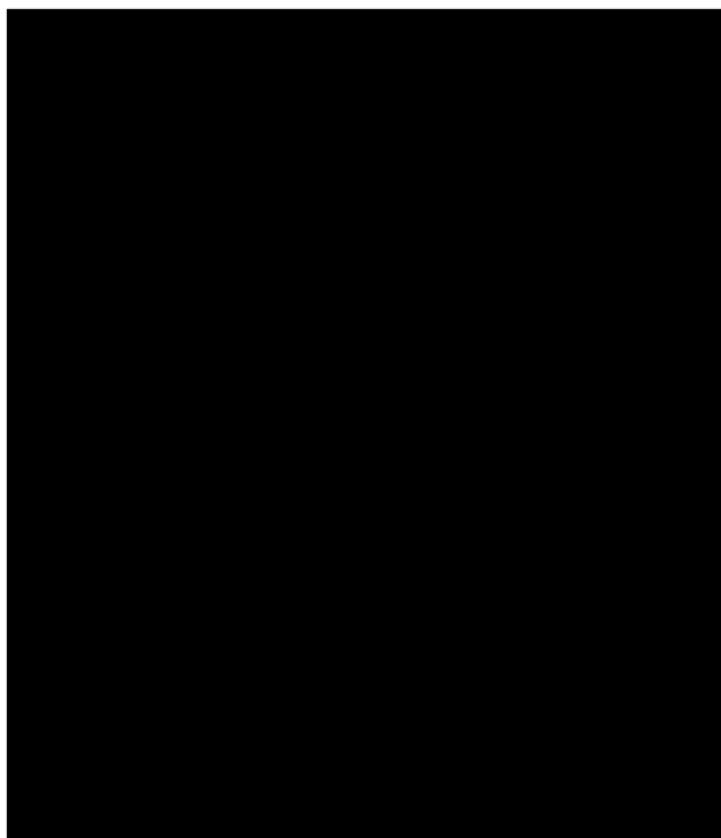
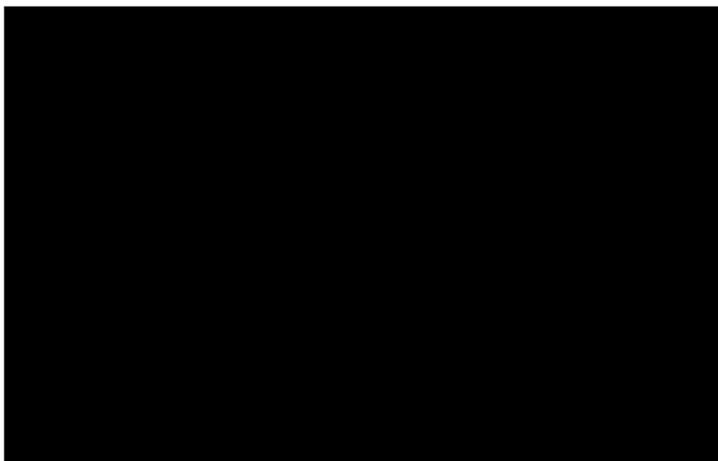
Chinese imports of green petroluem coke in H1 2025, Tonnes



Source: General Administration of Customs

While the current abundance of graphite and low prices are weighing on the investment prospects of natural graphite projects, trade tensions between the US and China are creating opportunities for synthetic graphite in the growing ex-China supply chain.

Graphite active anode materials of all kinds are facing 93.5% anti-dumping duties from the US Commerce Department following complaints from the nascent graphite anode producers in the US. The potential premium market that could be created in the US through these tariffs could provide an incentive to spur growth in the ex-China supply chain. Unlike natural graphite, synthetic graphite is not exempt from reciprocal tariffs imposed by the Trump administration, as it is not listed as a critical mineral. This could create an additional premium and incentive for the US synthetic market.



# Graphite outlook



GRAPHITE PRICES & FORECAST													
	2022	2023	2024	2025f	2026f	Q1 2025	Q2 2025	Q3 2025	Q4 2025f	Q1 2026f	Q2 2026f	Q3 2026f	Q4 2026f
Graphite flake 94% C, -100 mesh, fob China, \$/tonne	809	659	479	429	540	436	418	413	425				
Graphite flake 94% C, -100 mesh, cif Europe, \$/tonne	845	670	657	626	721	601	651	613	602				
Graphite spherical 99.95% C, 15 microns, fob China, \$/tonne	3,295	2,273	1,951	1,856	2,134	1,863	1,768	1,843	1,960				

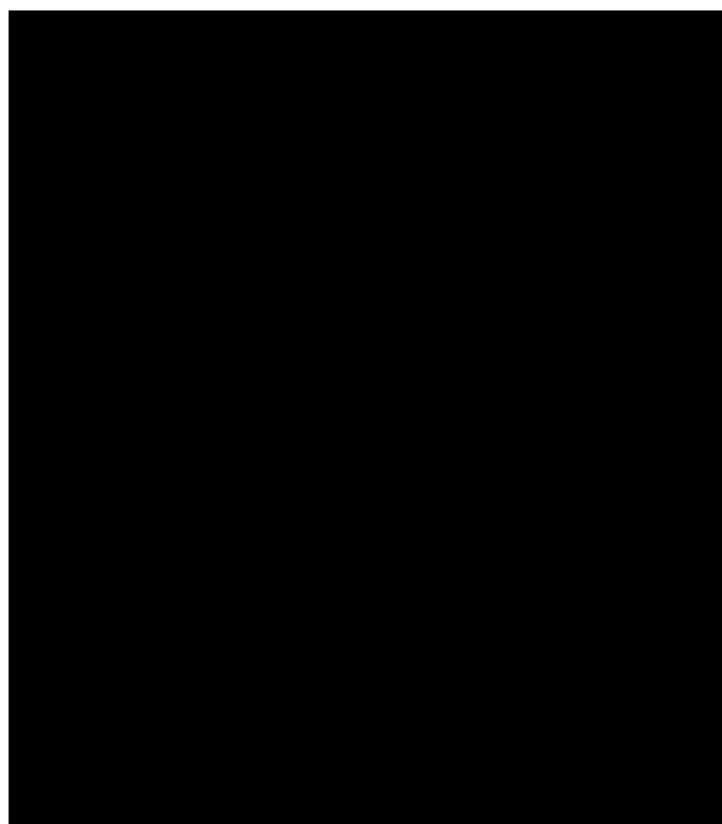
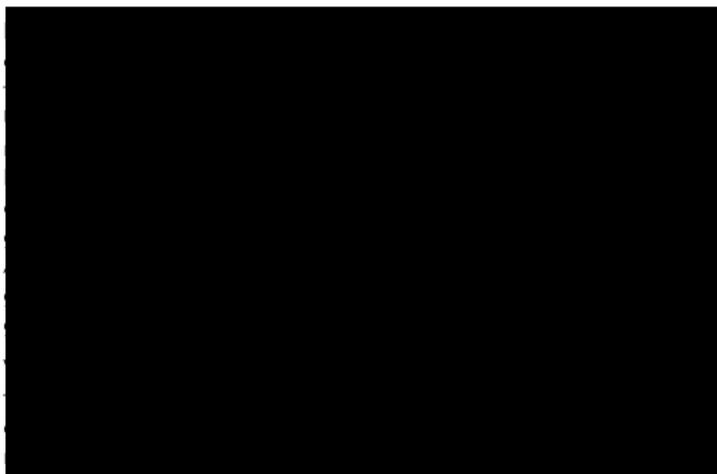
Source: Fastmarkets

GRAPHITE ANODE INDICATORS & FORECAST													
	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025	Q2 2025	Q3 2025	Q4 2025f	Q1 2026f	Q2 2026f	Q3 2026f	Q4 2026f
Natural graphite battery grade anode material indicator, China \$/tonne	4,094	4,075	4,035	4,104	4,150	4,175	4,068	4,143	4,260				
Synthetic graphite battery grade anode material indicator, China, \$/tonne	4,657	4,643	4,651	4,633	4,637	4,662	4,650	4,644	4,747				

Source: Fastmarkets

Trade tensions between the US and China, along with concerns surrounding EV and renewable energy adoption, are driving the graphite market at a time when stagnant supply and demand fundamentals show few signs of change.

Our demand expectations are down across the battery raw material markets, including graphite, primarily due to slower EV sales in the US. The shift in US policy under the Trump administration away from direct support for EV and ESS adoption – as provided under the Biden administration – is expected to slow EV uptake following a brief boost leading up to the end of the tax credit.



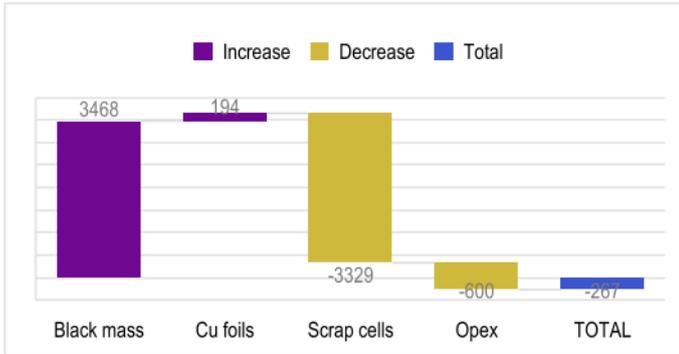
GRAPHITE SUPPLY/DEMAND TABLE ('000 tonnes)					
	2022	2023	2024	2025 f	2026 f
Supply*	1,018	1,567	1,964	2,383	
Demand**	1,222	1,518	1,986	2,392	
Balance	-204	49	-22	27	

\* Combined supply of natural and synthetic graphite for the EV battery industry \*\* Demand from the EV battery sector

# Recycling highlights

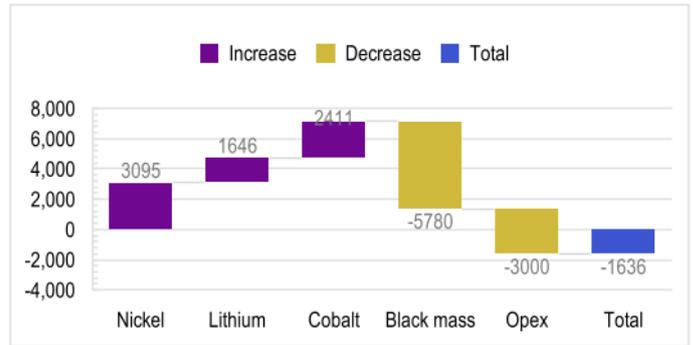


China NCM shredding revenue vs costs, \$/t batteries



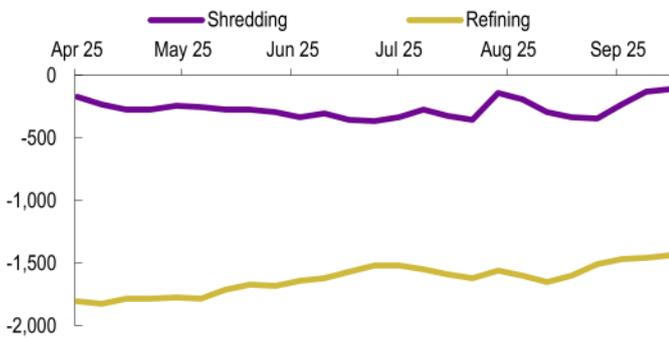
Source: Fastmarkets

China NCM refining revenue vs costs, \$/t black mass



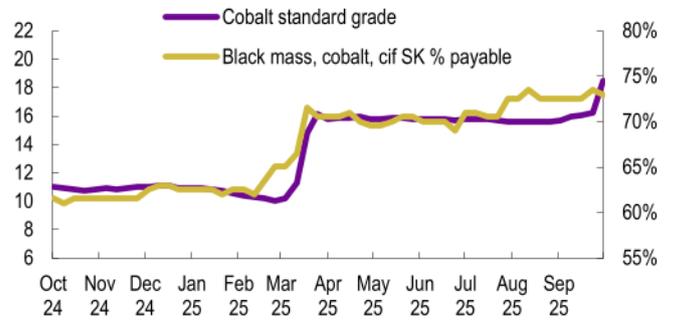
Source: General Administration of Customs

China NCM revenue minus costs for shredding vs refining, \$/t



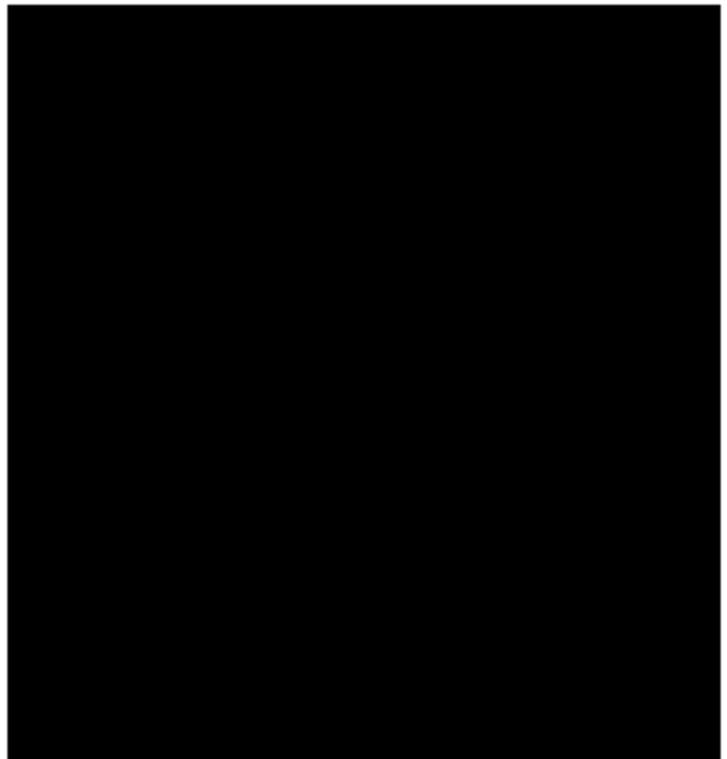
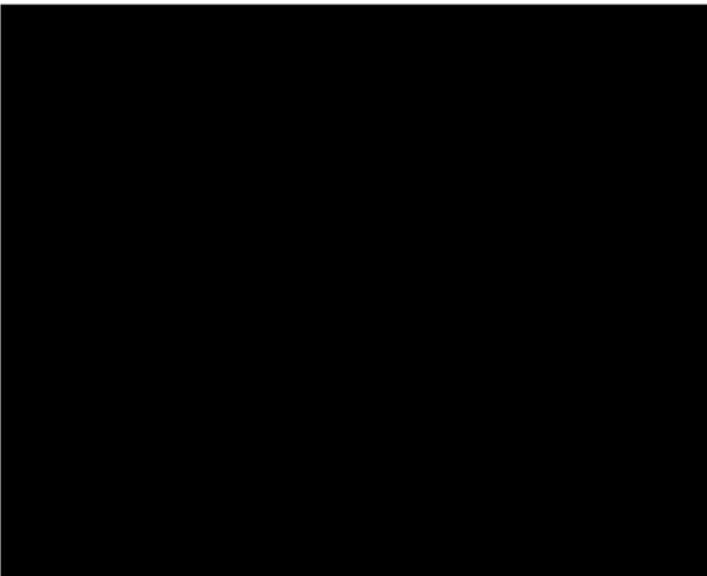
Source: Fastmarkets, LME

Cobalt price movement vs LCO cobalt payable movement



Source: Fastmarkets

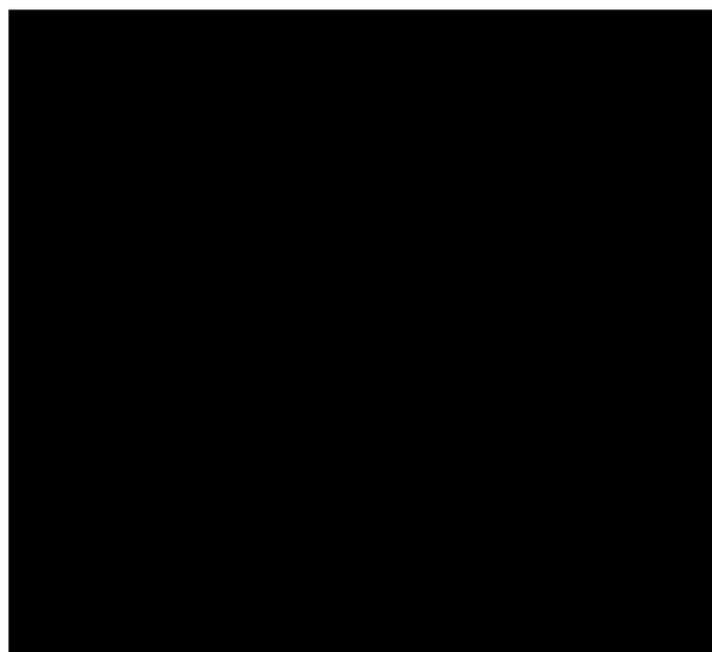
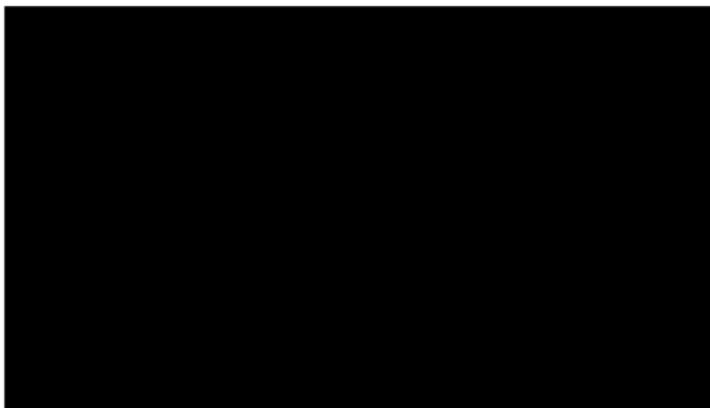
On June 10, 2025, the Chinese government announced changes to black mass import regulations, allowing some imports from August 1. The high National Standard specification permits primarily "black powder" from gigafactory cathode recycling, meaning most black mass remains ineligible for import.



# Recycling outlook



The impact of China's black mass import ban has been muted for several reasons. The stringent National Standard prevents most black mass from qualifying, and there is a shortage of high-grade black powder from gigafactory cathode scrap. Fewer than 60 tonnes of black powder have publicly cleared customs. Unless China relaxes the standard, import volumes will remain constrained. Additional trade flow data under the relevant HS code has not yet been released.



**NCM, NCA CIF SOUTH KOREA BLACK MASS SHORT-TERM FORECAST (SEPTEMBER 2025)**

	2024	2025f	2026f	Q1 2025	Q2 2025	Q3 2025f	Q4 2025f	Q1 2026f	Q2 2026f	Q3 2026f	Q4 2026f	Q1 2027f	Q2 2027f	Q3 2027f
Ni&Co payable forecast %	69.5%	79.9%	79.0%	71.8%	76.1%	78.5%	79.9%							
Li payable forecast %	4%	0%	0%	3%	1%	1%	0%							
Inferred price forecast \$/t	4,172	5,214	5,090	4,064	4,882	5,027	5,214							

**NCM, NCA EXW EUROPE BLACK MASS SHORT-TERM FORECAST (SEPTEMBER 2025)**

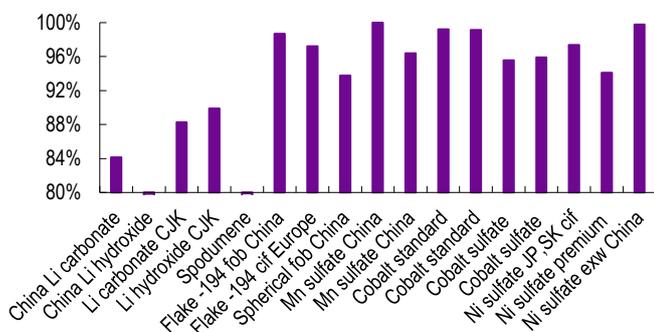
	2024	2025f	2026f	Q1 2025	Q2 2025	Q3 2025	Q4 2025f	Q1 2026f	Q2 2026f	Q3 2026f	Q4 2026f	Q1 2027f	Q2 2027f	Q3 2027f
Ni&Co payable forecast %	55.2%	71.3%	71.1%	64.0%	67.9%	70.1%	71.3%							
Inferred price forecast \$/t	3,228	4,651	4,579	3,567	4,342	4,482	4,651							

# Price forecast accuracy analysis



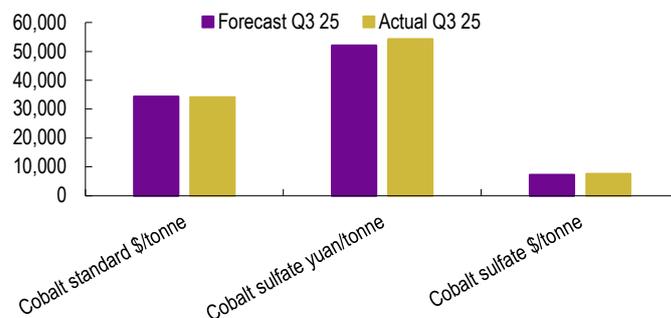
Each quarter we examine our previous forecasts to see how accurate we have been and to ensure best forecasting practices and results. We compare the forecast prices from the previous quarter to the actual average prices from the quarter. The results are presented in the charts to the right. For further information on our forecast accuracy, please contact the editor (see back page for contact details).

## Q2 25 forecast price accuracy



Source: Fastmarkets

## Lithium: forecast Q2 25 prices vs actual Q2 25 prices, Yuan/tonne



Source: Fastmarkets

FASTMARKETS LITHIUM SHORT-TERM TRACKER FORECAST ACCURACY					
Price		Q3 24	Q4 24	Q1 25	Q2 25
Lithium carbonate BG China spot	yuan/tonne	94%	96%	96%	84%
Lithium hydroxide BG China spot	yuan/tonne	93%	98%	98%	80%
Lithium carbonate BG cif CJK spot	\$/kg	90%	88%	88%	88%
Lithium hydroxide BG cif CJK spot	\$/kg	83%	91%	91%	90%
Spodumene min 6% Li2O, spot cif China	\$/tonne	94%	99%	99%	71%
<b>Lithium Short-Term Tracker overall accuracy rating:</b>		<b>91%</b>	<b>94%</b>	<b>94%</b>	<b>83%</b>
FASTMARKETS COBALT SHORT-TERM TRACKER FORECAST ACCURACY					
Price		Q3 24	Q4 24	Q1 25	Q2 25
Cobalt standard grade MB low	\$/lb	95%	86%	93%	99%
Cobalt standard grade MB low	\$/tonne	95%	95%	93%	99%
Cobalt sulfate exw China	yuan/tonne	90%	95%	97%	96%
Cobalt sulfate exw China	\$/tonne	90%	91%	97%	96%
<b>Cobalt Short-Term Tracker overall accuracy rating:</b>		<b>92%</b>	<b>92%</b>	<b>95%</b>	<b>97%</b>
FASTMARKETS NICKEL SHORT-TERM TRACKER FORECAST ACCURACY					
Price		Q3 24	Q4 24	Q1 25	Q2 25
Nickel sulfate Japan, S Korea cif	\$/tonne	91%	92%	94%	97%
Nickel sulfate premium cif JP,SK	\$/tonne	99%	87%	91%	94%
Nickel sulfate exw China	yuan/tonne	88%	96%	96%	100%
<b>Nickel Short-Term Tracker overall accuracy rating:</b>		<b>93%</b>	<b>92%</b>	<b>94%</b>	<b>97%</b>
FASTMARKETS MANGANESE SHORT-TERM TRACKER FORECAST ACCURACY					
Price		Q3 24	Q4 24	Q1 25	Q2 25
Manganese sulfate exw China	yuan/tonne	97%	97%	93%	100%
Manganese sulfate exw China	\$/tonne	95%	93%	93%	96%
<b>Manganese Short-Term Tracker overall accuracy rating:</b>		<b>96%</b>	<b>95%</b>	<b>93%</b>	<b>98%</b>
FASTMARKETS GRAPHITE SHORT-TERM TRACKER FORECAST ACCURACY					
Price		Q3 24	Q4 24	Q1 25	Q2 25
Graphite flake 94% C, -100 mesh fob China	\$/tonne	98%	94%	89%	99%
Graphite flake 94% C, -100 mesh cif Europe	\$/tonne	99%	96%	95%	97%
Spherical 99.95% C, fob China	\$/tonne	98%	100%	91%	94%
<b>Graphite Short-Term Tracker overall accuracy rating:</b>		<b>98%</b>	<b>97%</b>	<b>92%</b>	<b>97%</b>

# Glossary of terms



<b>Term</b>	<b>Full Form</b>	<b>Term</b>	<b>Full Form</b>
AIDC	Artificial Intelligence Data Center	LAC	Lithium Americas Corporation
BCI	Battery Cost Index (tool for modeling cell costs)	LCE	Lithium Carbonate Equivalent
BEV	Battery Electric Vehicles	LCO	Lithium Cobalt Oxide
C&I	Commercial and Industrial	LDEV	Likely "Light Duty Electric Vehicle" (context: China LDEV exports)
CAAM	China Association of Automobile Manufacturers	LFP	Lithium Iron Phosphate
CABIA	China Automotive Battery Industry Alliance	LGPF	Lithium Green Precursor Formation (context: LG Chem process)
CAM	Cathode Active Material	LHS	Left-Hand Side (of a chart or graph)
CAPEX	Capital Expenditure	LiB	Lithium-ion Battery
CIF	Cost, Insurance, and Freight	LiOH	Lithium Hydroxide
CJK	China, Japan, Korea (regional grouping)	LME	London Metal Exchange
CNESA	China Energy Storage Alliance	LMFP	Lithium Manganese Iron Phosphate
CNI	PT CNI (often refers to PT Ceria Nugraha Indotama, Indonesian nickel producer)	LMR	Lithium Manganese Rich
CPCA	China Passenger Car Association	MB	Fastmarkets MB (Metal Bulletin, price reporting agency)
CRRG	China Resources Recycling Group	MHP	Mixed Hydroxide Precipitate
DDP	Delivered Duty Paid	MnM	Manganese Metal
DFS	Definitive Feasibility Study	MoM	Month-on-Month (change or comparison)
DLE	Direct Lithium Extraction	NC	Nickel Cobalt (sometimes used for Nickel Cobalt chemistry, but context-dependent)
DOE	Department of Energy	NCA	Nickel Cobalt Aluminum (battery chemistry)
DRC	Democratic Republic of Congo	NCM	Nickel Cobalt Manganese
EoL	End Of Life	NEV	New Energy Vehicle (includes BEV, PHEV, FCEV)
ESG	Environmental, Social, and Governance	NPI	Nickel Pig Iron
ESS	Energy Storage System	OEM	Original Equipment Manufacturers
EV	Electric Vehicle	OEM	Original Equipment Manufacturer
eVTOL	Electric Vertical Takeoff and Landing	pCAM	Precursor Cathode Active Material
FEOC	Foreign Entity of Concern	PEA	Preliminary Economic Assessment
FP	Fe/P (Iron/Phosphorus ratio, or sometimes "Final Product" depending on context)	PFE	Prohibited Foreign Entity
GM	General Motors	PFS	Pre-Feasibility Study
GWh	Gigawatt-hour (unit of energy)	PHEV	Plug-in Hybrid Electric Vehicle
HPEMM	High-Purity Electrolytic Manganese Metal	RHS	Right-Hand Side (of a chart or graph)
HPMSM	High-Purity Manganese Sulfate Monohydrate	RoW	Rest of World
HS	Harmonized System (customs code)	SAE	Society of Automotive Engineers
IEEPA	International Emergency Economic Powers Act	SK	South Korea
ISO	International Organization for Standardization	YoY	Year-on-Year (change or comparison)
ISP	Inspectorate of Strategic Products (Swedish regulatory body)	YTD	Year-to-Date
JV	Joint Venture		

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Published monthly by Fastmarkets  
ISSN 2045-2780

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