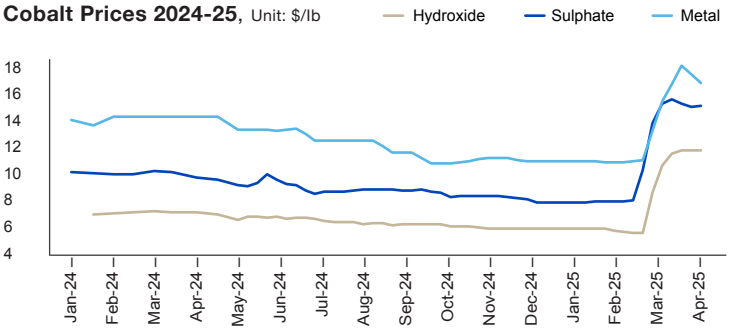
QUARTERLY COBALT MARKET UPDATE OVERVIEW 2025 Q1

COBALT INSTITUTE
enabling technology, advancing society

DRC BANS COBALT EXPORTS, WITH PRICES REBOUNDING QUICKLY

Cobalt Prices 2024-25, Unit: $/lb



In late February, the DRC government announced a ban on all cobalt exports for at least four months. The ban will be reviewed after three months (in late May).

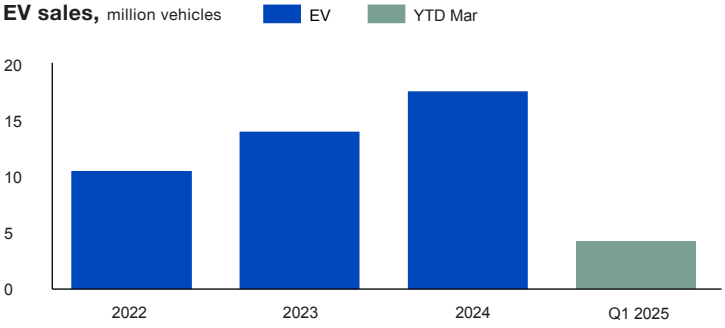
The initial impact of the announcement led to a rapid increase in prices in Q1 2025 but have since moderated as the market awaits further announcements.

The DRC government has indicated that further measures, for example production quotas, will follow, but has not specified what these could entail, or over what timeframe.

Benchmark estimates global stock levels at the end of 2024 were enough to meet demand for the four-month period, but not enough for a significantly longer ban.

COBALT DEMAND TO RISE +11% Y-O-Y IN 2025

EV sales, million vehicles



Our latest forecasts expect cobalt demand to reach 227kt in 2025, up 11% y-o-y from 205kt in 2024 (compared to +4% y-o-y from 2023-24).

Europe saw growth of +22% y-o-y in Q1 2025, with the UK setting a monthly record of over 100,000 units of EV sales. The US also saw solid growth of +16% y-o-y despite market headwinds. And China, the biggest market, had growth of +36%, with EV sales outpacing sales last year.

Overall, Benchmark expects buoyant EV demand growth for cobalt, with the segment adding +16kt (unadjusted) in 2025, with comparatively smaller volumes added from other battery sectors.

Superalloys growth is expected to remain robust in 2025, having risen by +5% y-o-y in 2024.

COBALT-CONTAINING CHEMISTRIES DOMINATE THE EV MARKET IN NORTH AMERICA

Western markets still overwhelmingly favour NCM in EVs due to higher energy density, recyclability, technology maturity and advances in cost competitiveness. EVs using NCM also have roughly 25% larger pack sizes, boosting battery demand.

2024 EV Cell Chemistry Demand for Top 5 OEMs in North America,

Unit: GWh

Rank	Model	Chemistry
1	Tesla Model Y	**High-nickel & LFP**
2	Tesla Model 3	**High-nickel & LFP**
3	Ford Mustang Mach-E	**High-nickel & LFP**
4	Hyundai Ioniq 5	**High-nickel**
5	Ford F-150	**High-nickel**
6	Chevrolet Equinox	**High-nickel**
7	Tesla Cybertruck	**High-nickel**
8	Honda Prologue	**High-nickel**
9	Rivian R1S	**High-nickel & LFP**
10	Cadillac Lyriq	**High-nickel**

HIGH VOLTAGE MID-NICKEL DEVELOPING QUICKLY AND GAINING GROUND WITHIN NCM, SUPPORTING COBALT DEMAND

Higher energy density:
HV boosts the energy density of NCM613/622 materials to competitive levels with NCM811.

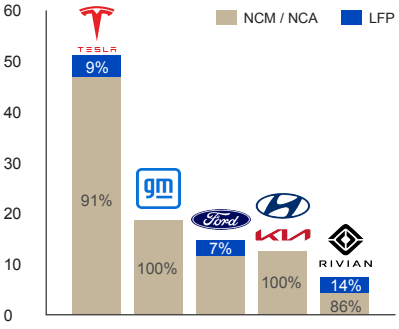
Better thermal stability:
Higher Ni content and voltage reduce NCM thermal stability, whereas HV mid-nickel NCM offers better stability and safety than NCM811.

Lower cost:
Lower nickel content in HV mid-nickel CAM reduces costs by 10-15%, based on recent prices. High-nickel CAM requires more stringent production processes, extra washing, drying, and pure oxygen during calcination – all increasing costs.

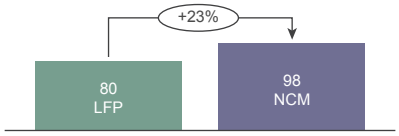
Longer cycle life:
Higher nickel content increases the risk of microcracks, compromising performance. In contrast, lower Ni content in HV materials and single-crystal cathodes reduce cracking, enhancing safety and cycle life, extending it by 20-30% over polycrystalline mid-nickel NCM.

2024 EV Cell Chemistry Demand for Top 5 OEMs in North America,

Unit: GWh



Average Pack Size of BEV Models on Sale, Unit: kWh



Please do not hesitate to get in touch if you have any questions:

Marina Demidova | Head of Communications
mdemidovaEXT@cobaltinstitute.org

Market analysis prepared by Benchmark Mineral Intelligence

BENCHMARK