

Average nickel manganese cobalt battery price per 20kWh in Bulgaria





Overview

The cost of an electric vehicle (EV) battery pack can vary depending on composition and chemistry. In this graphic, we use data from Benchmark Minerals Intelligence to showcase the different costs of battery cells on popular electric vehicles.

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Lithium nickel cobalt aluminum oxide (NCA) battery cells have an average price of \$120.3 per kilowatt-hour (kWh), while lithium nickel cobalt manganese oxide (NCM) has a slightly lower price point at \$112.7 per kWh. Both contain significant nickel proportions, increasing the battery's energy.

The price of LFP cells is over 20% lower than nickel cobalt manganese (NCM) cells. The average price of an LFP cell was just under \$60/kWh in 2024. Currently, Greater China has a near monopoly in LFP cell manufacturing, considering the negligible LFP production capacity in Europe and North America.

The latest data based on EV registrations in over 110 countries show the sales weighted average monthly dollar value of the lithium, nickel, cobalt, manganese and graphite contained in the batteries of the average EV based on global end-user registrations, battery capacity and chemistries. Put it.

For instance, the article highlights that lithium nickel cobalt aluminum oxide (NCA) batteries have an average price of \$120.3 per kilowatt-hour (kWh), while lithium nickel cobalt manganese oxide (NCM) comes in slightly cheaper at \$112.7 per kWh. These batteries, rich in nickel, offer impressive.

As natural and synthetic graphite, lithium carbonate and hydroxide, and nickel, cobalt and manganese sulphate prices decline further, the raw materials bill for the average EV is now down to \$510 compared to \$918 in October 2023 and a monthly peak of more than \$1,900 at the beginning of



last year.

From the raw materials to battery-grade commodities used in EV batteries and electronics, as well as black mass and rare earths, we price the critical materials that are helping to build a more sustainable future. This includes benchmark prices for lithium and cobalt, two battery materials that. How much does a lithium nickel cobalt battery cost?

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How much does cobalt cost in 2022?

For example, the price of cobalt has fallen from roughly \$70,000 per metric ton in 2022 to about \$30,000 in 2024. Similarly, the price for lithium carbonate has fallen from a high of approximately \$70,000 per metric ton to well below \$15,000 in 2024.

Are NCM batteries a good choice for EVs?

This cost advantage makes them a favorable choice for standard- or short-range EVs. In the rapidly evolving EV battery market, specific compositions have taken center stage. In 2021, NCM batteries commanded 58% of the market share, closely followed by LFP and NCA, each holding a 21% share.



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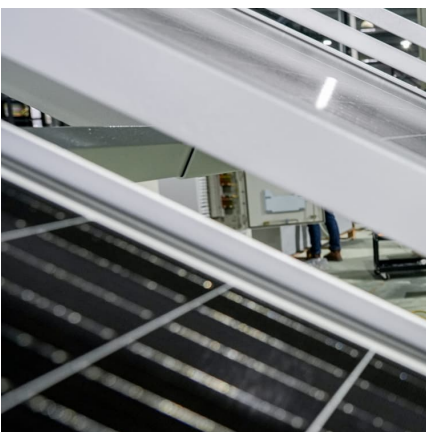


[Record-Low EV Battery Prices in 2023](#)

On average, LFP cells were 32% cheaper than lithium nickel manganese cobalt oxide (NMC) cells in 2023," BNEF writes. Forecast: Record Low Battery Prices Again In 2024, ...

[Lithium Battery Costs: Key Drivers Behind Pricing Trends](#)

Lithium battery costs impact many industries. This in-depth pricing analysis explores key factors, price trends, and the future outlook.



[Price of selected battery materials and lithium-ion ...](#)

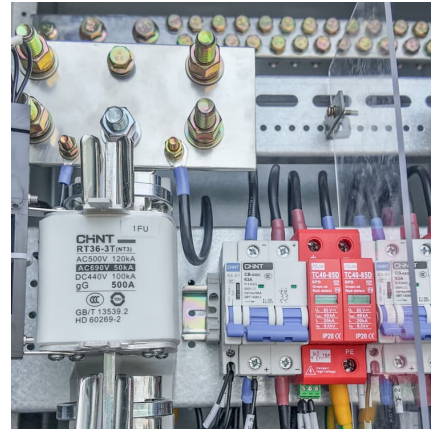
Notes Data until March 2023. Lithium-ion battery prices (including the pack and cell) represent the global volume-weighted average across all sectors. Nickel prices are based on the London Metal Exchange, used here as a proxy for ...

[NCM Battery VS LFP Battery? This is the most ...](#)

2. How to evaluate power battery performance?
It is well known that the lithium-ion battery consists of cathode material, anode material, diaphragm and electrolyte, of which the cathode



material costs up to 30%, and ...



Analyzing the global warming potential of the production and

The paper presents a cradle-to-gate (CTG) life cycle assessment (LCA) of nickel-manganese-cobalt (NMC) chemistries for battery electric vehicle (BEV) applications. We ...

[NMC Batteries: The High-Performance Solution for ...](#)

NMC (Nickel Cobalt Manganese) batteries are a type of lithium-ion battery that is becoming increasingly popular in electric vehicles (EVs) due to their high energy density, longer lifespan, and faster charging time compared ...



[EV Battery price breakdown: chemistry, capacity, and ...](#)

One of the key takeaways from the article is that the cost of an EV battery pack is not fixed but rather varies based on factors such as raw material expenses, production complexities, and supply chain stability.





[Visualized: What is the Cost of Electric Vehicle ...](#)

Lithium nickel cobalt aluminum oxide (NCA) battery cells have an average price of \$120.3 per kilowatt-hour (kWh), while lithium nickel cobalt manganese oxide (NCM) has a slightly lower price point at \$112.7 per kWh. ...



[Trends in batteries - Global EV Outlook 2023 - ...](#)

In 2022, lithium nickel manganese cobalt oxide (NMC) remained the dominant battery chemistry with a market share of 60%, followed by lithium iron phosphate (LFP) with a share of just under 30%, and nickel cobalt aluminium oxide (NCA) ...

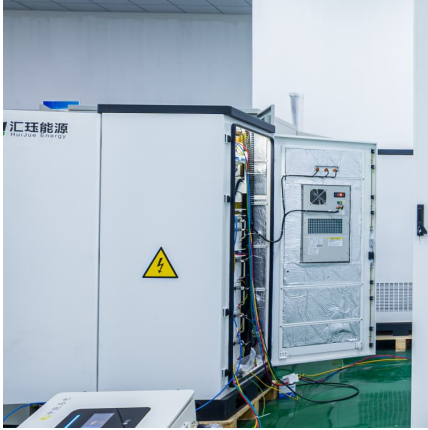
[Where are EV battery prices headed in 2025 and ...](#)

Lithium-ion (Li-ion) EV battery prices have decreased dramatically over the past few years, mainly due to the fall in prices of critical battery metals: Lithium, cobalt and nickel. For example, the price of cobalt has fallen from roughly \$70,000 ...



[Battery cathode material cost by type 2023. Statista](#)

Battery cathode material cost 2023, by component Global cobalt price forecast 2022-2024 Average prices for nickel worldwide from 1960 to 2026 Average prices for aluminum worldwide 2014-2026



[Top 10 EV manufacturers by NCM battery metals deployed](#)

During the first two months of 2025, passenger EVs including plug-in and conventional hybrids equipped with nickel-cobalt-manganese (NCM) battery packs were ...



Lithium-ion Battery Pack Prices Rise for First Time to an Average ...

While prices for key battery metals like lithium, nickel and cobalt have moderated slightly in recent months, BNEF expects average battery pack prices to remain ...



Electric vehicle battery prices are expected to fall ...

Technology advances that have allowed electric vehicle battery makers to increase energy density, combined with a drop in green metal prices, will push battery prices lower than previously expected, according to Goldman ...





Utility-Scale Battery Storage , Electricity , 2024 , ATB , NREL

The 2024 ATB represents cost and performance for battery storage with durations of 2, 4, 6, 8, and 10 hours. It represents lithium-ion batteries (LIBs)--primarily those with nickel manganese ...

Visualized: What is the cost of electric vehicle ...

The cost of an electric vehicle (EV) battery pack can vary depending on composition and chemistry. In this graphic, we use data from Benchmark Minerals Intelligence to showcase the different costs of battery ...



Wave of Decline Sweeps Lithium-Ion Battery Pack Pricing, in ...

Lithium-ion battery pack prices dropped 20% in 2024, reaching \$115/kWh. EV battery prices dip below \$100/kWh--explore the trends behind this decline.



Visualized: How Much Do EV Batteries Cost?

Lithium nickel cobalt aluminum oxide (NCA) battery cells have an average price of \$120.3 per kilowatt-hour (kWh), while lithium nickel cobalt manganese oxide (NCM) has a slightly lower price point at \$112.7 per kWh. ...



[CHARTS: Nickel, cobalt, lithium price slump cuts](#)

...

For miners supplying the EV battery industry, the news remain negative: when pairing metals demand with prices in the supply chain, declines this year are brutal.



Raw material cost , Storage Lab

Figure 3 - Impact of relative raw material cost change on lithium-ion battery pack price for a) LFP cathode and graphite anode and b) NMC cathode and graphite anode. NMC111 with equal shares of nickel, manganese and cobalt assumed ...



The relationship between Lithium Nickel Manganese Cobalt ...

Lithium Nickel Manganese Cobalt Oxide, commonly abbreviated as NMC, is a key cathode material extensively employed in lithium-ion batteries.





[EV battery cost soared in 2022, hampering EV ...](#)

Average prices could have been even higher in 2022 if not for increased adoption of the lower-cost lithium iron phosphate (LFP) chemistry as an alternative to the nickel manganese cobalt (NMC



NMC Batteries: The High-Performance Solution for Electric Vehicles

NMC (Nickel Cobalt Manganese) batteries are a type of lithium-ion battery that is becoming increasingly popular in electric vehicles (EVs) due to their high energy density, ...

Lithium-ion Battery Pack Prices Rise for First Time to ...

While prices for key battery metals like lithium, nickel and cobalt have moderated slightly in recent months, BNEF expects average battery pack prices to remain elevated in 2023 at \$152/kWh (in real 2022 dollars).



[CHARTS: Nickel, cobalt, lithium price slump cuts ...](#)

The latest data based on EV registrations in over 110 countries show the sales weighted average monthly dollar value of the lithium, nickel, cobalt, manganese and graphite contained in the



LFP Batteries: Why Top EV Makers Choose Cheaper ...

6 ???· Unlike traditional nickel-cobalt-manganese (NCM) batteries, LFP batteries remove the need for costly and rare materials like cobalt and nickel, making them a more sustainable and budget-friendly choice. This rise in ...



Right-sizing EV battery packs to reduce cost and BRM

Figure 1 presents the estimated cost for nickel manganese cobalt (NCM) 811 cells for a 10 gigawatt-hour per year production rate across four different countries.



CHARTS: Nickel, cobalt, lithium price slump cuts average EV battery

The latest data based on EV registrations in over 110 countries show the sales weighted average monthly dollar value of the lithium, nickel, cobalt, manganese and graphite ...





[CHART: Price spike doubles value of cobalt EV ...](#)

In contrast, global nickel deployment into EV batteries increased 11% to 322.7 kt while that of manganese rose 10% to 73.6 kt and cobalt 7% to 59.6 kt as the industry continues to thrift the metal

Battery costs in 2025

Battery pack prices are expected to drop an average of 11% each year from 2023 to 2030. By 2025, the EV market could achieve cost parity with internal combustion engine (ICE) vehicles, ...



CHARTS: EV battery metals bill sets new low as lithium, nickel, cobalt

As natural and synthetic graphite, lithium carbonate and hydroxide, and nickel, cobalt and manganese sulphate prices decline further, the raw materials bill for the average EV ...

Nickel: The Metal Driving the Electric Vehicle Revolution

Aluminum: 80 kg, \$204 Cobalt: 5 kg, \$121
Manganese: 5.3 kg, \$57 Among these critical metals, nickel plays a crucial role in battery energy density and performance. Compared ...



[Nickel-Manganese-Cobalt \(NMC\) Lithium-ion Batteries](#)

PDF , MANGANESE AS A BATTERY RAW MATERIALS. High-purity Manganese Sulphate Monohydrate (HPMSM) vs HPEMM vs High-Purity Electrolytic Manganese Metal , Find, read and cite all the research you

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