

Global PV Energy Storage Information - Solar, Battery & Smart Grid Insights

Average nickel manganese cobalt battery price per 1GW in Indonesia





Overview

BloombergNEF estimates that total battery pack manufacturing costs in Indonesia can be 8% lower than in China. One downside to Indonesia's low electricity price is its grid carbon intensity, which is one of the highest in the region at 711 grams of CO2/kWh.

BloombergNEF estimates that total battery pack manufacturing costs in Indonesia can be 8% lower than in China. One downside to Indonesia's low electricity price is its grid carbon intensity, which is one of the highest in the region at 711 grams of CO2/kWh.

Labor and electricity account for around 6% of total battery pack costs. Indonesia is also endowed with reserves of nickel and cobalt, key battery raw materials which make up 22% of total battery pack costs. BloombergNEF estimates that total battery pack manufacturing costs in Indonesia can be 8%.

The London Metal Exchange (LME) reported the three-month nickel price at \$15,415 per metric ton on December 30. This marks a 7.2% year-over-year drop and a 28.7% decline from its peak of \$21,615 in May. Despite rising global demand, production surges from top producers. Indonesia and China will.

We're seeing the share of Indonesian production rise from about 40% to 60% of the total nickel market in 2030. The market is currently in surplus, and we're expecting it to remain that way at least for the next two or three years, and that will have a negative impact on prices. They're at a fairly.

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.

Depending on the exact type of battery, nickel makes up 50-80% of the minerals used in EV cathodes, which in turn account for about 30% of an EV battery's mass. Despite last year's production surge, prices remain relatively



high. Spot global prices this week fell to below \$20,000 per metric ton.

Battery has a significant contribution in EV cost (25% to 40%) and raw material contributes to around 60% of battery manufacturing cost. The battery materials include nickel, cobalt, aluminium, manganese and lithium. Nickel is predicted to have a significant portion as a battery component in the. How much cobalt is produced in Indonesia?

Most of the cobalt in Indonesia is the by product of nickel smelter, where in the Mixed Hydroxide precipitate (MHP) and Nickel Matte there is still cobalt content that can be leached and processed into cobalt sulphate. Indonesia can only produce 30,000 ton of cobalt in 2020 with 1,3 million ton resources.

Why is Indonesia important for nickel & cobalt?

Indonesia is an important part of the outlook for both nickel and cobalt at the moment. We're seeing the share of Indonesian production rise from about 40% to 60% of the total nickel market in 2030.

Is Indonesia supplying half of global nickel needs?

The Energy Shift Institute (Energy Shift) is of the view that Indonesia's share of global battery production capacity is far out of step with its dominance in supplying half of global nickel needs. This observation should not come as a surprise to industry insiders as nickel is only one among many determinants of battery and EV production.

Will Indonesian nickel prices go down?

They're at a fairly good level now, but they are expected to come down. And that Indonesian supply, particularly the High Pressure Acid Leach (HPAL) capacity, is expected to be relatively cost competitive, and is likely to pull down prices as well. All in all, the demand profile is very strong for nickel.

How big is Indonesia's nickel production?

In absolute terms, that capacity is just 10GWh out of the more than 2,800GWh the world has in total, not to mention the global figure is set to double by 2030. Indonesia is falling behind despite its nickel production rising more than eightfold since 2015.

Which is the second-largest nickel producer in Indonesia?



The second-largest nickel producer in Indonesia. INCO is the second-largest nickel producer in Indonesia with mines and integrated smelting and processing capability to produce matte with a high nickel content (78%). Its nickel matte output of 72k tons accounts for c.3% of global nickel supply.



Average nickel manganese cobalt battery price per 1GW in Indones



The Price of 50 kWh Lithium Ion Batteries: A Comprehensive ...

Market Conditions and Trends Affecting Price Raw Material Costs: The prices of raw materials used in lithium-ion batteries, such as lithium, cobalt, nickel, and manganese, can ...

The future of nickel in Indonesia: A 2024 forecast

The high nickel price, which has been high all this time, puts pressure on producers because production costs are high. Therefore, the decline in nickel prices is believed to provide incentives to increase interest, especially ...





GRAPH: Cobalt price plunge and the EV market

At the same time, per vehicle cobalt use in NCM (nickel-cobalt-manganese) and NCA (nickel-cobalt-aluminum) batteries is also drifting lower due to ongoing thrifting and a ...

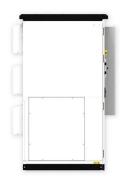
LG's \$1.7 Billion Battery Investment Expands in ...

FAQ: Understanding LG's Battery Investment in



Indonesia What types of battery cells will be produced at the facility? The HLI Green Power facility primarily manufactures nickel-manganese-cobalt (NMC) 811 prismatic cells, ...





Visualized: What is the cost of electric vehicle batteries?

At a lower cost are lithium iron phosphate (LFP) batteries, which are cheaper to make than cobalt and nickel-based variants. LFP battery cells have an average price of \$98.5 per kWh.

<u>Fastmarkets Monthly BRM Update</u> 2025

The speculative bubble burst, revealing a market still grappling with oversupply and weak downstream demand, particularly in the nickel-cobalt-manganese battery sector. Market shifts persist amid lithium price volatility and regulatory ...





What Are NMC Batteries and Why Are They Dominating Energy ...

What Are Lithium Nickel Manganese Cobalt Oxide (NMC) Batteries? NMC batteries are a type of lithium-ion battery using a cathode composed of nickel, manganese, and ...



EV Battery price breakdown: chemistry, capacity, and ...

For instance, the article highlights that lithium nickel cobalt aluminum oxide (NCA) batteries have an average price of \$120.3 per kilowatthour (kWh), while lithium nickel cobalt manganese oxide (NCM) comes in ...





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.

CHARTS: EV battery metals bill ticks up as cobalt, ...

The latest data tracking sales, battery capacity and chemistry in over 120 countries paired with monthly prices show the weighted average monthly dollar value of the lithium, nickel, cobalt



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





After Becoming the World's Second Largest Cobalt Producer, Indonesia ...

Indonesia was originally the world's largest nickel producer, and as it also occupied a larger share of cobalt supply last year, it undoubtedly has more say in the field of ...





The Emerging Electric Vehicle and Battery Industry in ...

The Li-ion battery is currently the most common battery used in EVs due to its high energy density, durability, safety, and cost competitiveness. Nickel is predicted to be an essential component for the lithium nickel cobalt

Asian NCM cell prices fall to lowest levels in over three years

Asian nickel cobalt manganese (NCM) battery cell prices fell to their lowest level for the first time in over three years in May, retreating significantly from the peak seen in 2022.







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

Nickel Prices Soften Amid Indonesia Supply Boost

Nickel prices, that hit a 15-year high when Russia invaded Ukraine, have slipped as Indonesian production surged, but the remain elevated as the key component of EV batteries remains in





Cobalt's Supply Risks and Demand Drivers

Cobalt prices have risen by over 50% since the end of February following the Democratic Republic of the Congo's (DRC's) decision to suspend exports for four months in the face of global oversupply. Despite the recent rally, cobalt prices ...

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. ...







Improving process granularity of life cycle inventories for battery

For instance, a recent parametric LCA study found that climate change impacts of raw materials for a nickel-manganese-cobalt (NMC-811) battery cell may quintuple from 23 to

At \$139/kWh, Lithium-Ion Battery Pack Prices Hit All ...

BNEF surveyed miners and metal traders who expect the prices for key battery metals like lithium, nickel, and cobalt to ease further next year. As per the analysis, BNEF expects average battery pack prices to drop again next ...



Nickel

Nickel prices are forecast to average US\$16,800/ton (+21.8% y-o-y) in 2021, given the strong price rally in 1Q21, and to fall 3% y-o-y to US\$16,300/ton in 2022 and then rally to ...





Indonesia emerges as a cobalt powerhouse amid surge in demand

The average 2022 price for cobalt in Europe was \$31 per lb., peaking at \$40 per lb. As of late March, cobalt was trading at about \$18 per lb., which price level should persist ...





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 ...

Indonesia's Small Islands Pay the Price for Nickel Mining

The push for electric vehicles (EVs) promises a cleaner future, but the production of their batteries comes at a steep cost to Indonesia's small islands. Nickel, a critical component in many EV batteries, has spurred mining ...







The Emerging Electric Vehicle and Battery Industry in Indonesia

The Li-ion battery is currently the most common battery used in EVs due to its high energy density, durability, safety, and cost competitiveness. Nickel is predicted to be an essential ...

What are LFP, NMC, NCA Batteries in Electric Cars?

Uses environmentally unsustainable raw materials Nickel-manganese-cobalt (NMC) batteries are the most common form found in EVs today, ranging from the Nissan Leaf to Mercedes-Benz EQS. As the name ...





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) ...

Cobalt prices lean into their 'blue period'

Car manufacturers are starting to switch from nickel manganese cobalt batteries to cobalt-free lithium-iron-phosphate (LFP) batteries, which have longer life cycles and fewer ...







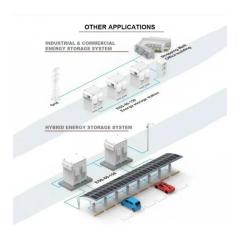
Lithium Nickel Manganese Cobalt Oxides

Lithium Nickel Manganese Cobalt Oxides are a family of mixed metal oxides of lithium, nickel, manganese and cobalt. Nickel is known for its high specific energy, but poor stability. Manganese has low specific energy but ...

Indonesia Lithium-ion Battery Market 2033

The Indonesia lithium-ion battery market size reached USD 697.07 Million in 2024. Looking forward, IMARC Group expects the market to reach USD 1,802.02 Million by 2033, exhibiting a





CHARTS: Battery metals slump slashes average EV materials bill

The graphs from Toronto-based EV supply chain research firm Adamas Intelligence show the sales weighted average monthly dollar value of the lithium, nickel, cobalt, ...



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