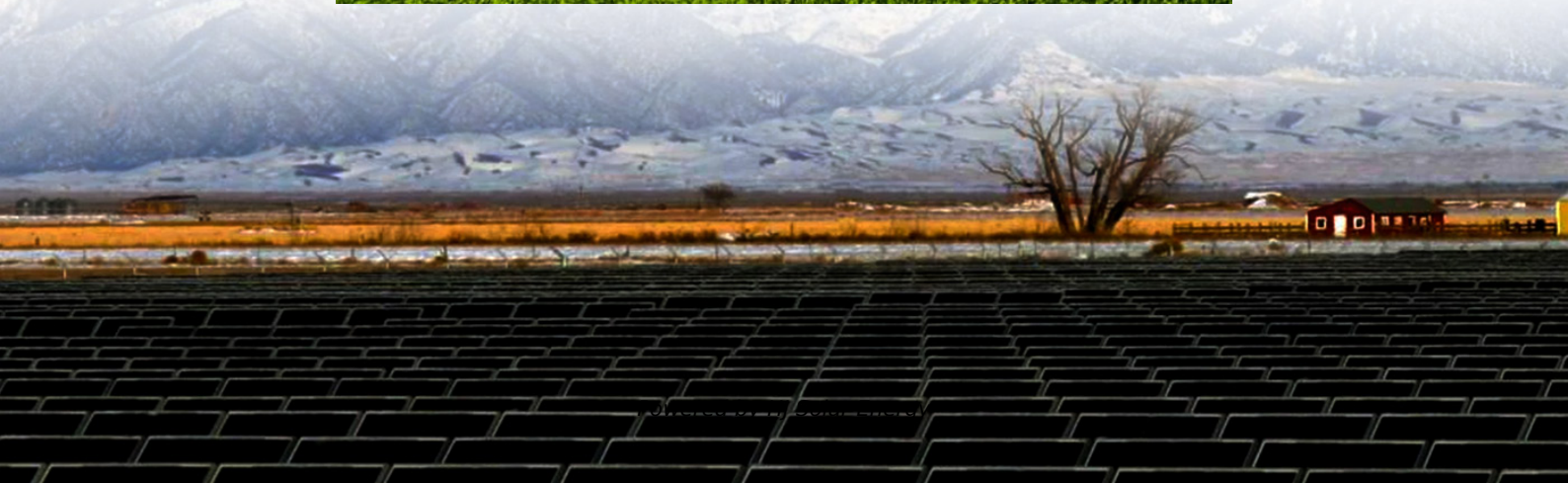


Expected ROI of nickel manganese cobalt battery project in Burundi 2030





Overview

What is McKinsey's 2030 battery raw materials supply outlook?

McKinsey's 2030 battery raw materials supply outlook (Source: McKinsey)
McKinsey's report pinpoints geographical concentrations of raw materials: Indonesia is a key player in nickel, the DRC in cobalt and Argentina, Bolivia and Chile in lithium.

Will lithium & cobalt produce more manganese in 2040?

The quantities of material demand for manganese used in LIBs are low in contrast to the high global production volume. However, the calculation for lithium and cobalt predicts a higher material demand in 2040 than the production volume of these battery metals in 2021. In the case of nickel, it depends on the technology and growth scenario.

What is the future demand for lithium & cobalt in EV Lib cathodes?

The results show that in 2040 the future material demand for lithium, cobalt, and nickel for use in EV LIB cathodes exceed today's production volume. Future demand for lithium and cobalt in SSP1 and SSP2 exceeds today's production by up to 8 times. Nickel exceeds today's production only in the critical material scenario in SSP1.

Will manganese demand outpace the demand for battery-grade materials?

Meanwhile, the supply of manganese is projected to grow moderately through 2030, but an increasing demand for battery-grade material is likely to outpace supply, requiring the development of new refineries.

Can battery manufacturers securing supply of essential battery raw materials by 2030?

Based on current market observations, battery manufacturers can expect challenges securing supply of several essential battery raw materials by 2030, McKinsey's report finds. Battery makers use more than 80% of all lithium that



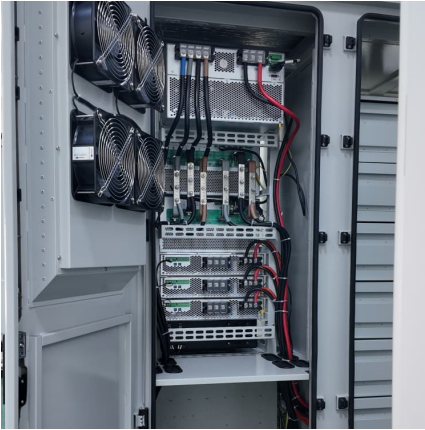
is mined today, and that share could grow to 95% by 2030.

Could a cobalt shortage be a problem in the DRC?

By 2030, the competition between the battery and steel sectors could lead to shortages. The Democratic Republic of Congo (DRC) accounts for 64% of the world's cobalt production, much of which is a by-product of copper and nickel mining.



Expected ROI of nickel manganese cobalt battery project in Burundi



Lithium Battery Capacity Expected to Grow Steadily 'til 2030

The first-mover advantage of LFP in China has created stickiness in the leading battery-choice, as iron and phosphate are considered widely available and more easily accessible compared to ...

Life Cycle Assessment(LCA) of Nickel, Manganese, Cobalt, ...

Abstract This study presents a detailed Life Cycle Assessment (LCA) of Nickel Manganese Cobalt (NMC) lithium-ion battery recycling via hydrometallurgical processing, emphasizing ...



[Nickel Frenzy: Demand Set to Triple by 2030 - Is the ...](#)

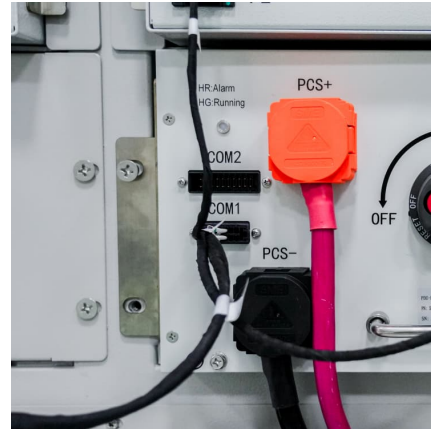
The company's economic assessment is expected to be completed by 2025, contributing to the development of local critical mineral sources. In conclusion, the global demand for battery-grade nickel is set to ...

Researchers make breakthrough discovery that could unlock ...

The combined Daegu Gyeongbuk Institute of Science and Technology and Gachon University team is studying nickel-cobalt-manganese



cathodes, potentially ushering in ...



[Burundi Lithium-ion Battery Recycling Market \(2024-2030\)](#)

Historical Data and Forecast of Burundi Lithium-ion Battery Recycling Market Revenues & Volume By Lithium-nickel Manganese Cobalt (Li-NMC) for the Period 2020-2030

Battery recycling report

The estimated recovery of 105 kt of lithium (LCE), nickel, cobalt and manganese from recycling in Europe by 2030 could enable the production of 1.3 to 2.4 million battery electric cars (or 14% to ...



[Battery Project Report IITM , PDF , Nickel , Cobalt](#)

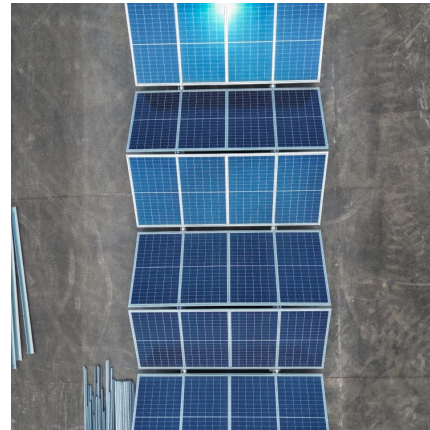
The cathode material Lithium Nickel Cobalt Manganese Oxide is abbreviated either as NCM or as NMC in literature. In this article, we follow the abbreviation as 'NMC'.





Burundi Lithium-ion Battery Binders Market (2024-2030) , Trends

Historical Data and Forecast of Burundi Lithium-ion Battery Binders Market Revenues & Volume By Lithium nickel manganese cobalt for the Period 2020-2030 Historical Data and Forecast of ...



Burundi Automotive Lithium-ion Battery Cell Market (2024-2030)

Historical Data and Forecast of Burundi Automotive Lithium-ion Battery Cell Market Revenues & Volume By Lithium Nickel Manganese Cobalt Oxide (NMC) for the Period 2020- 2030

Nickel Cobalt Manganese Market Report: Trends, Forecast and ...

The global nickel cobalt manganese market is expected to grow with a CAGR of 15.4% from 2024 to 2030. This report covers the market size, growth, share & trends.



[Comparing NMC and LFP Lithium-Ion Batteries for ...](#)

In a previous article, we discussed how a lithium-ion battery works and provided an introduction to NMC and LFP batteries. Let's dive into the details further. NMC Battery Composition NMC batteries are a type of lithium ...



Nickel Manganese Cobalt (NMC) Battery Market Forecasts to 2030 ...

Nickel Manganese Cobalt (NMC) Battery Market Forecasts to 2030 - Global Analysis By Type (NMC 622, NMC 532 and NMC 111), Application (Commercial, Consumer ...

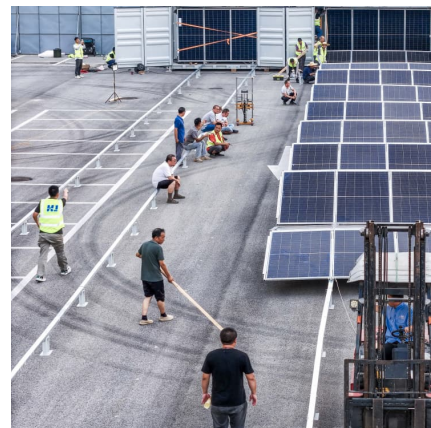


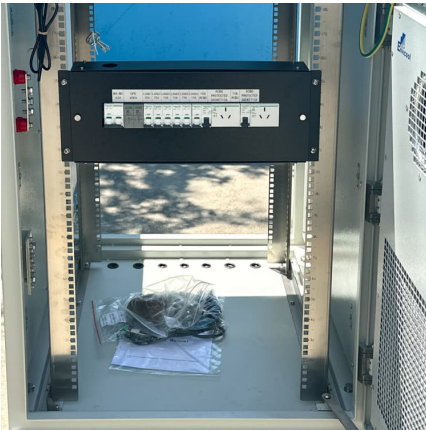
[Tanzania Emerges as a Global Leader in Critical ...](#)

Tanzania is emerging as a significant player in the global mining sector, particularly for critical minerals such as cobalt, nickel, copper, and manganese. The country is focusing on developing its mineral resources to ...

[Toward security in sustainable battery raw material...](#)

Within the battery market itself, the choice of battery chemistries determines demand for materials, driven by the need to balance battery performance and cost. There are currently two broad families of battery ...





From waste to value: Why battery recycling is Europe's chance for

End-of-Life batteries and scrap from battery gigafactories in Europe have potential to provide 14% of all lithium, 16% of nickel, 17% of manganese, and a quarter of ...

North America's Potential for an Environmentally Sustainable Nickel

The Detroit Big Three General Motors (GMs), Ford, and Stellantis predict that electric vehicle (EV) sales will comprise 40-50% of the annual vehicle sales by 2030. Among ...



From waste to value: the potential for battery recycling ...

End-of-Life batteries and scrap from battery gigafactories in Europe have potential to provide 14% of all lithium, 16% of nickel, 17% of manganese, and a quarter of cobalt demand by 2030 already. These materials ...



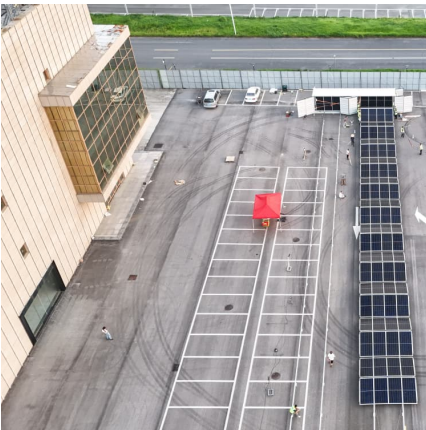
[Burundi Lithium-ion Battery Cathode Market \(2024-2030\)](#)

Historical Data and Forecast of Burundi Lithium-ion Battery Cathode Market Revenues & Volume By Nickel Cobalt Manganese for the Period 2020-2030 Historical Data and Forecast of ...



Navigating Battery Choices: A Comparative Study of Lithium Iron

PDF , On Oct 1, 2024, Solomon Evro and others published Navigating Battery Choices: A Comparative Study of Lithium Iron Phosphate and Nickel Manganese Cobalt Battery ...



Commission selects 47 strategic projects to secure access to raw

Notably, multiple initiatives focus on lithium (22), nickel (12), cobalt (10), manganese (7), and graphite (11), strengthening the EU battery value chain. With these efforts, ...



Energy Storage Drives Global Demand for Critical Minerals

While minerals like lithium, graphite, and manganese stand to gain from the growth of energy storage, cobalt and nickel seem left behind. This trend is attributed to ...





[Burundi Minerals For Lithium Batteries Market \(2024-2030\)](#)

Historical Data and Forecast of Burundi Minerals For Lithium Batteries Market Revenues & Volume By Lithium Nickel Manganese Cobalt Oxide Battery for the Period 2020- 2030



[McKinsey: Is the 2030 Battery Supply Sustainable?](#)

By 2030, this figure is projected to increase to 95%. Innovations such as direct lithium extraction are progressing, yet demand continues to outpace supply, underscoring the ...

[LFP vs. NMC Batteries: Market Growth and Performance ...](#)

The battle between LFP (Lithium Iron Phosphate) and NMC (Nickel Manganese Cobalt) batteries is shaping the future of electric vehicles and energy storage. While NMC has long been the ...



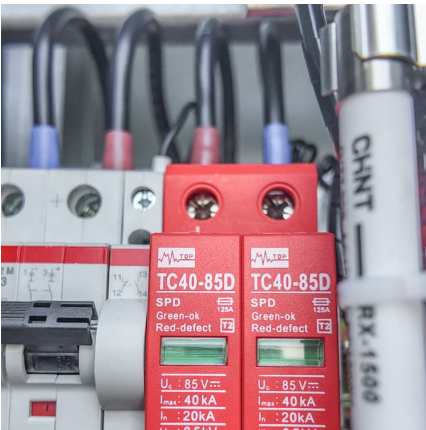
[Researchers make breakthrough discovery that could ...](#)

The combined Daegu Gyeongbuk Institute of Science and Technology and Gachon University team is studying nickel-cobalt-manganese cathodes, potentially ushering in a "new chapter in the development of high ...



Supply-demand imbalance looms for critical battery raw materials ...

While the share of cobalt in battery chemistry mix is expected to decrease, the absolute demand for cobalt for all applications could rise by 7.5% a year from 2023 and 2030, ...



[Nickel Manganese Cobalt Battery Market Size, ...](#)

The nickel manganese cobalt battery market size exceeded USD 30.5 billion in 2024 and is estimated to exhibit 14.8% CAGR between 2025 and 2034 driven by growth in renewable energy sector.

A forecast on future raw material demand and recycling potential ...

This study focuses on the future demand for electric vehicle battery cathode raw materials lithium, cobalt, nickel, and manganese by considering different technology and ...

Nickel Manganese Cobalt (NMC) Battery



Market Forecasts to ...

According to Statistics MRC, the Global Nickel Manganese Cobalt (NMC) Battery Market is accounted for \$25.8 billion in 2023 and is expected to reach \$81.7 billion by 2030 ...

[McKinsey: Is the 2030 Battery Supply Sustainable?](#)

McKinsey reveals 2030 battery raw material outlook on lithium, nickel and cobalt as demand for these materials may soon outstrip base-case supply The electrification of ...



[North America's Potential for an Environmentally ...](#)

The Detroit Big Three General Motors (GMs), Ford, and Stellantis predict that electric vehicle (EV) sales will comprise 40-50% of the annual vehicle sales by 2030. Among the key components of LIBs, the ...

Navigating battery choices: A comparative study of lithium ...

This research offers a comparative study on Lithium Iron Phosphate (LFP) and Nickel Manganese Cobalt (NMC) battery technologies through an extensive methodological approach that focuses ...





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