

Can the Democratic Republic of the Congo produce lithium-ion battery cathode precursor materials?

London and Kinshasa, November 24, 2021 - The Democratic Republic of the Congo (DRC) can leverage its abundant cobalt resources and hydroelectric power to become a low-cost and low-emissions producer of lithium-ion battery cathode precursor materials.

How much would a DRC plant cost?

This is three times cheaper than what a similar plant in the U.S. would cost. A similar plant in China and Poland would cost an estimated \$112 million and \$65 million, respectively. Precursor material produced at plants in the DRC could be cost competitive with material produced in China and Poland but with a lower environmental footprint.

Why is the DRC a cost competitive country?

"The DRC's cost competitiveness comes from its relatively cheap access to landand low engineering, procurement and construction, or EPC, cost compared to the U.S., Poland and China," said Kwasi Ampofo, lead author of the report and BNEF's head of metals and mining.

Why does the DRC rely on hydroelectric power plants?

This is due to the DRC's proximity to cathode raw materials and heavy reliance on hydroelectric power plants.

How much cobalt does the DRC produce?

"The DRC produces about 70 per centof global cobalt but captures just 3 percent of the battery and electric vehicle value chain.

How can Africa extend its access to the battery industry?

In so doing, the country and the rest of Africa can extend their access from the USD271 billion battery precursor segment to the more lucrative USD1.4 trillion combined battery cell production and cell assembly segments of the battery minerals global value chain.

The devastating price of Saudi World Cup 2034 for migrant workers ... The Democratic Republic of Congo is the world"s largest producer of cobalt, a mineral used to make lithium-ion batteries for electric vehicles, a key pillar of President Joe Biden"s climate plans.

The report served to demonstrate that the growing demand for so-called clean energy technologies has created a corresponding demand for certain metals, including copper, and cobalt, which are essential for making most lithium-ion batteries. These are used to power a wide range of devices including electric cars and mobile phones.



U.S. firm KoBold Metals, whose backers include billionaires Bill Gates and Jeff Bezos, is seeking to develop a huge hard rock lithium deposit in the Democratic Republic of Congo as the African ...

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The West's continued dependence on China in battery supply chains is caused at least as much by its dependence on Chinese cobalt and lithium refining capacity as on Chinese battery manufacturing. Despite efforts to reduce the use of cobalt in EV batteries, cobalt will remain the main limiting factor in meeting demand for lithium-ion batteries.

Depending on the electric load profile, battery technology, site configuration and other parameters, a fully installed and functional solar PV system of IZUBA will cost between 2250\$/kW anc 4250\$/kW (or 2.25\$/W to 4.25\$/W), in the Democratic Republic of Congo.

The Democratic Republic of the Congo (DRC) holds a remarkable 51% of the world"s cobalt reserves and possesses substantial hydroelectric power potential. This unique positioning places the country in an ideal position to emerge as a low-cost and low-emissions producer of lithium-ion battery precursor materials and cells, according to a report ...

Republic of the Congo . 4 · Republic of the Congo, country situated astride the Equator in west-central Africa. Officially known as the Republic of the Congo, the country is often called Congo (Brazzaville), with its capital added parenthetically, to distinguish it from neighbouring Democratic Republic of the Congo, which is

GVC; Cobalt in Lithium -ion Batteries for Electric Vehicles . Introduction . This article is one of a series of five working papers examining the global value chains (GVCs) for the key raw materials--cobalt, lithium, graphite, and nickel--that are critical to the composition of lithium-ion batteries (LIBs) that power electric vehicles (EVs). 1

3 Acronyms CO 2 Carbon dioxide DRC Democratic Republic of Congo EBA European Battery Alliance EC European Commission EESC European Economic and Social Committee EIB European Investment Bank EU European Union EV Electric vehicle FPIC Free, prior and informed consent GBA Global Battery Alliance GWh Gigawatt hours NGO Non ...

To avoid insufficient power supply, we designed a 150kWh lithium battery as a backup at night. Then the solar panels will increase because, in addition to the daytime power supply to the factory and plantation, it also needs to charge a ...

Democratic Republic of Congo repair lithium iron phosphate batteries. The objective of this study is to



determine the cost of producing lithium-ion battery precursors in the Democratic Republic ...

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The Democratic Republic of the Congo (DRC) can leverage its abundant cobalt resources and hydroelectric power to become a low-cost and low-emissions producer of lithium-ion battery cathode precursor materials. At the behest of UN Economic Commission for Africa (ECA), Afreximbank, the African Development Bank (AfDB), the Africa Finance Corporation ...

China's Zijin Mining Group to Launch Lithium Production in Congo. Zijin Mining Group Co. from China is planning to commence lithium production in the Democratic Republic of Congo at the start of next year, marking a significant development at one of the world's largest deposits of the battery metal.

The United States, Zambia, and the Democratic Republic of Congo (DRC) signed a memorandum of understanding (MOU) on the electric vehicle (EV) batteries industries in December 2022. This agreement, "Memorandum of Understanding among the United States of America, the Democratic Republic of the Congo, and the Republic of Zambia Concerning ...

DRC"s significant cobalt deposits and hydroelectric electricity can make it a low-cost and low-emissions manufacturer of cathode precursor materials for lithium-ion batteries. The country"s 10,000 metric tonne cathode ...

A new investigation into the DRC"s nascent but globally significant lithium sector sounds the alarm on a swathe of potential supply chain risks. Global Witness" report raises key questions around how future production and its environmental impacts will be managed and who stands to benefit if the DRC"s deposits of hard-rock lithium are exploited to meet the growing ...

The Democratic Republic of the Congo dominates the global production of cobalt (Bazilian 2018). According to the United States Geologic Survey (2019), in 2018 the DRC produced 90,000 tons of unrefined cobalt, or 64.3% of the world"s total, and it also had 49% of the world"s known cobalt reserves--more than the next top ten countries in the world, combined.



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