SOLAR PRO. Global landscape of lithium batteries

What is the global lithium-ion battery market size?

The global lithium-ion battery market size was estimated at USD 54.4 billionin 2023 and is projected to register a compound annual growth rate (CAGR) of 20.3% from 2024 to 2030. Automotive sector is expected to witness significant growth owing to the low cost of lithium-ion batteries.

How will the lithium-ion battery industry grow in 2034?

As EV penetration increases globally, the lithium-ion battery industry is expected to grow, driven by innovation and the need for sustainable transportation solutions. The market is categorized by chemistries, including LFP, LCO, LTO, NMC, NCA, and LMO. The LFP segment is projected to surpass USD 87.9 billion by 2034.

What is driving the lithium-ion battery market growth in Asia Pacific?

Advancements in the technologies used in wearable devices and consumer electronicsin Asia Pacific are also fueling the Lithium-ion Battery Market Growth in the region. China accounted for the largest share of the lithium-ion battery market in Asia Pacific as it is one of the major lithium-ion battery producers in the region.

How big is the lithium-ion battery market in 2023?

The global lithium-ion battery market was valued at USD 64.84 billionin 2023 and is projected to grow from USD 79.44 billion in 2024 to USD 446.85 billion by 2032, exhibiting a CAGR of 23.33% during the forecast period. Asia-Pacific dominated the lithium-ion battery market with a market share of 48.45% in 2023.

What is the global demand for Li-ion batteries?

Global demand for Li-ion batteries is expected to soar over the next decade, with the number of GWh required increasing from about 700 GWh in 2022 to around 4.7 TWhby 2030 (Exhibit 1).

What will the global demand for battery materials be in 2040?

The global demand for raw materials for batteries such as nickel, graphite and lithium is projected to increase in 2040 by 20,19 and 14 times, respectively, compared to 2020. China will continue to be the major supplier of battery-grade raw materials over 2030, even though global supply of these materials will be increasingly diversified.

Utilities around the world have ramped up their storage capabilities using Li-ion supersized batteries, huge packs which can store anywhere between 100 to 800 megawatts (MW) of energy. In 2023, California-based Moss Landing's energy storage facility is reportedly the world's largest, with a total capacity of 750 MW/3000 MWh.

Results show that few countries have economically viable resources of the upstream raw materials that supply the lithium GVC. Most lithium-rich ores are exported from Australia to China for processing, while most

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lithium brine concentrates are exported from Chile to South Korea, Japan, and China for processing.

Reports Description. The Global Marine Lithium-ion Battery Market was estimated at USD 276 million in 2023 and is anticipated to reach around USD 821 million by 2032, growing at a CAGR of roughly 16% between 2022 and 2030.. CMI research report offers a 360-degree view of the Marine Lithium-ion Battery market's drivers and restraints, coupled with the impact they have ...

Lithium metal (Li°) - based rechargeable batteries (LMBs), such as Li° anode vs. intercalation and/or conversion type cathode batteries, lithium-sulphur (Li-S), and lithium-oxygen (O2)/air (Li ...

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) with a share of about 8%.

It is projected that between 2022 and 2030, the global demand for lithium-ion batteries will increase almost seven-fold, reaching 4.7 terawatt-hours in 2030. Much of this growth can be...

The evolution of battery chemistries and technology innovation will also have an impact on the recycling landscape of 2030. Of the two principal battery chemistries of today, nickel manganese cobalt oxide (NMC) and lithium iron phosphate (LFP), the former is particularly well suited for recycling because it contains greater quantities of ...

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