

Zinc Battery Market by Battery Type (Zinc-air, Nickel-zinc, Zinc-ion, Zinc-bromine), Rechargeability (Primary & Secondary), Application (Medical, Utilities, Automotive & Transportation, Industrial, Consumer Devices) and Region - Global Forecast to 2029

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Abstracts

The global zinc battery market is estimated to grow from USD 1.0 billion in 2024 to USD 2.0 billion in 2029; it is expected to grow at a CAGR of 13.6% during the forecast period. The market has a promising growth potential due to benefits of the zinc batteries over other battery chemistries, abundance of the zinc metal, and increasing investments globally in grid infrastructure. It presents opportunities through increasing reliance on data centers, and development of rechargeable zinc air batteries.

“Zinc-bromine battery is expected to witness highest CAGR during the forecast period.”

High demand in grid-scale energy storage solutions to boost zinc-bromine battery growth. Zinc-bromine battery is a type of rechargeable battery that uses zinc and bromine ions in its electrochemical reactions to store and release energy. In this battery, zinc is typically used as the anode and bromine as the cathode. It has an aqueous solution of zinc bromide ($ZnBr_2$) that circulates between the anode and cathode compartments. It has a microporous membrane separates the two electrolyte compartments, allowing zinc ions to flow between them while preventing the bromine and zinc metal from mixing directly.

“Secondary battery segment likely to witness higher CAGR between 2024 and 2029.”

Zinc-ion battery, zinc-bromine battery, and nickel zinc battery are basically secondary batteries. A secondary battery is a type of electrochemical battery that can be

discharged and recharged multiple times by reversing the chemical reactions that occur during discharge. It is also called a rechargeable battery. Unlike primary batteries, which are designed for one-time use and cannot be recharged, secondary batteries are capable of being reused, making them a more sustainable and cost-effective option in the long term. Companies such as Enerpoly AB (Sweden), Salient Energy (Canada), Redflow Limited (Australia), Zn2H2 Inc. (US), ?sir Technologies, Inc. (US), ZincFive (US) offer these secondary batteries.

“Utilities to hold second largest market share for the application segment during the forecast period.”

The utility sector plays a crucial role in delivering reliable and sustainable energy. As renewable energy sources like solar and wind gain prominence, efficient energy storage solutions become essential. Zinc battery technologies are emerging as promising candidates to support a more resilient and sustainable grid.

“North America is likely to hold the second largest market share by 2029.”

The North American region is home to most key market players; moreover, various research institutes are also engaged in developing zinc batteries. The companies headquartered in the region are involved in developing zinc battery technology for various applications, including medical, automotive & transportation, consumer devices, and utilities. Further, governmental support for battery companies will accelerate the growth of the zinc battery market in the region. The zinc battery market is estimated to hold around 31.7% of the total zinc battery market share in 2024.

Breakdown of primaries

A variety of executives from key organizations operating in the zinc battery market were interviewed in-depth, including CEOs, marketing directors, and innovation and technology directors.

By Company Type: Tier 1 = 30%, Tier 2 = 45%, and Tier 3 = 20%

By Designation: C-level Executives = 40%, Directors = 45%, and Others (sales, marketing, and product managers, as well as members of various organizations) = 15%

By Region: North America = 40%, Europe = 24%, Asia Pacific = 28%, and RoW

= 8%

Key players profiled in this report

Eastman Kodak Company (US), Panasonic Energy Co., Ltd. (Japan), Duracell Inc. (US), and Energizer Holdings, Inc. (US) are the key players in the zinc battery market. These leading companies possess a robust portfolio of products, establishing a strong presence in established and emerging markets. The study provides a comprehensive competitive analysis of these key players in the zinc battery market, presenting their company profiles, recent developments, and key market strategies.

Research Coverage

This report offers detailed insights into the zinc battery market based on battery type (Zinc-air, Nickel-zinc, Zinc-bromine, and Zinc-ion), Rechargeability (Primary, Secondary), Application (Medical, Utilities, Consumer Devices, Industrial, Automotive & Transportation, and others), and region (North America, Europe, Asia Pacific, and RoW which includes the Middle East, Africa and South America.)

The report also comprehensively reviews the zinc battery market drivers, restraints, opportunities, and challenges. The report also covers qualitative aspects in addition to the quantitative aspects of these markets.

Reasons to buy the report:

The report will help the leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall market and the sub-segments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. The report also helps stakeholders understand the zinc battery market's pulse and provides information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

Analysis of key drivers (Benefits over other battery chemistries, abundance of zinc metal, and increasing investment globally in grid infrastructure), restraints (Technical drawbacks of zinc battery), opportunities (increasing realinec on data

centres, development of rechargeable zinc air batteries) and challenges (Presence of alternative battery technologies).

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product launches in the zinc battery market

Market Development: Comprehensive information about lucrative markets – the report analyses the zinc battery market across varied regions

Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the zinc battery market

Competitive Assessment: In-depth assessment of market shares, growth strategies, and product offerings of leading players like Eastman Kodak Company (US), Panasonic Energy Co., Ltd. (Japan), Duracell Inc. (US), and Energizer Holdings, Inc. (US) among others.

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Details on Business Overview, Products/Solutions/Services Offered, Recent Developments, MnM view (Key strengths/Right to win, Strategic choices made, Weakness/competitive threats) might not be captured in case of unlisted companies.

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