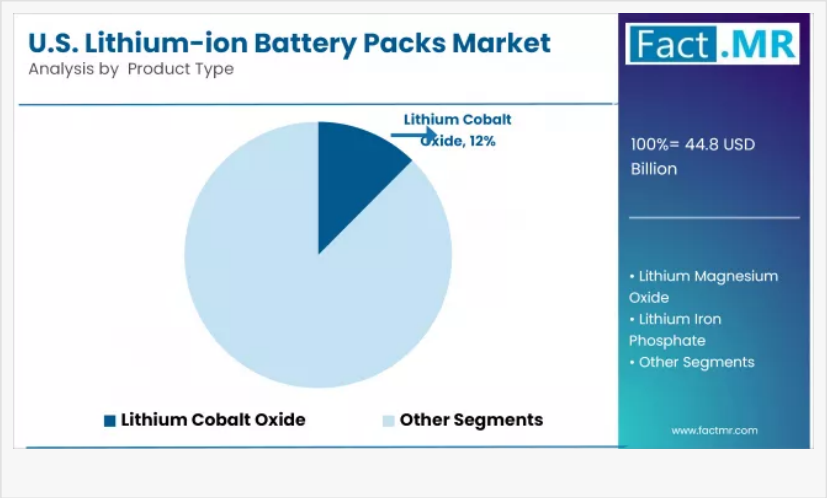
U.S. Lithium-ion Battery Market Accelerates Toward $144.2 Billion Valuation by 2035 | Fact.MR

The Lithium Magnesium Oxide segment is projected to grow at a CAGR of 12.7%, whereas another segment Lithium Iron Phosphate is likely to grow at 13%.



ROCKVILLE, MD, UNITED STATES, July 18, 2025 /EINPresswire.com/ -- The U.S. Lithium-ion Battery Packs Market, valued at US$ 40.7 billion in 2024, is projected to reach US$ 144.2 billion by 2035, driven by a robust CAGR of 12.4%. Fueled by surging electric vehicle (EV) demand, clean energy adoption, technological innovations, and supportive policies, this market is pivotal for advancing sustainable energy solutions. This press release explores the key drivers, projections, and opportunities shaping this dynamic industry.

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Why Is the Market Growing?

The rapid rise in EV sales, with 1.2 million units sold in the U.S. in 2024 (a 40% increase from 2023), drives demand for lithium-ion battery packs, which power 95% of EVs. The push for clean energy, supported by the Inflation Reduction Act's US$ 7,500 EV tax credits, accelerates adoption in automotive and energy storage applications.

Innovations like Tesla's 2024 4680 battery cells improve energy density by 20%, while solid-state battery advancements reduce costs by 15%. Government policies, including US$ 7 billion in Bipartisan Infrastructure Law funding for battery production, bolster growth. Challenges like raw material shortages, with lithium prices up 10% in 2024, are mitigated by recycling initiatives and domestic supply chains.

What Are the Key Market Projections?

The market is set to create a US$ 103.5 billion opportunity by 2035, growing from US$ 40.7 billion in 2024 to US$ 144.2 billion at a 12.4% CAGR. The EV battery segment, holding a 65% share in 2024, is projected to grow at a 13.0% CAGR, creating a US$ 67 billion opportunity.

California, with a 25% share in 2024, leads due to high EV adoption, while Texas and Michigan follow with growing manufacturing hubs. Historical growth from 2019 to 2023 was at a 10.8% CAGR, reflecting an accelerating trend. Short-term growth (2025–2028) focuses on EV applications, while long-term trends (2030–2035) emphasize energy storage and solid-state batteries.

How Can Stakeholders Leverage Opportunities?

Stakeholders in automotive, energy, and technology sectors can capitalize by investing in high-density and solid-state batteries, like QuantumScape's 2024 solid-state prototypes with 30% longer range. Partnerships, such as LG Energy Solution's 2024 joint venture with General Motors, enhance production capacity.

Targeting California, with a projected US$ 35 billion market by 2030, and emerging hubs like Texas offers significant potential. Direct sales and B2B contracts, accounting for 40% of sales in 2024, ensure scalability. Compliance with EPA and DOE standards boosts market trust and competitiveness.

What Does the Report Cover?

Fact.MR's report combines primary research with experts across the U.S. and secondary analysis, covering segments by battery type (lithium nickel manganese cobalt, lithium iron phosphate, others), application (electric vehicles, consumer electronics, energy storage, others), capacity (0–3,000 mAh, 3,000–10,000 mAh, above 10,000 mAh), and end user (automotive, industrial, consumer electronics). It highlights trends like solid-state batteries, recycling initiatives, and smart grid integration, providing actionable insights for stakeholders.

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Who Are the Market Leaders?

Key players include Tesla, Inc., LG Energy Solution, Panasonic Corporation, and QuantumScape. Tesla's 2024 4680 cell production scaled up EV battery output, while LG Energy Solution's 2024 Michigan plant expansion added 20 GWh capacity. These companies, holding over 50% of the market, drive innovation through R&D and partnerships with automakers and energy firms.

What Are the Latest Market Developments?

In 2024, U.S. EV sales grew by 40%, boosting lithium-ion battery demand. Recycling initiatives, like Redwood Materials' 2024 program recovering 95% of battery materials, addressed raw material shortages. California's 25% market share reflects its Zero Emission Vehicle mandate, while Texas's battery manufacturing grew by 15%. Policy advancements, like the DOE's US$ 3 billion battery grants in 2024, increased domestic production by 10%. Developments such as Panasonic's 2024 high-density cells enhanced EV range, supporting market expansion.

What Challenges and Solutions Exist?

Raw material shortages, with lithium prices up 10% in 2024, and supply chain disruptions, affecting 15% of production, pose challenges. High production costs, averaging US$ 120 per kWh, limit affordability. Solutions include recycling programs, reducing costs by 20%, and domestic sourcing, like Albemarle's 2024 U.S. lithium mine expansion. Localized production in Michigan and Texas, adopted by 25% of manufacturers, mitigates supply chain risks. Compliance with EPA and NHTSA standards ensures market resilience and consumer confidence.

Conclusion:

The U.S. Lithium-ion Battery Packs Market is set to reach US$ 144.2 billion by 2035, driven by a 12.4% CAGR. With applications in electric vehicles, energy storage, and consumer electronics, and supported by solid-state innovations and clean energy policies, the market offers transformative opportunities. Stakeholders can leverage Fact.MR's insights to target high-growth regions like California, invest in sustainable and high-performance solutions, and address cost and supply chain challenges to thrive in this vital industry.

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S. N. Jha
Fact.MR
+1 628-251-1583
email us here

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