

India Advanced Battery Market - Strategic Insights and Forecasts (2026-2031)

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Abstracts

India's Advanced Battery Market is anticipated to climb from USD 4.1 billion in 2026 to USD 7.6 billion by 2031, registering 13.1% CAGR.

The India advanced battery market is in a pivotal transitional phase, driven by the national imperatives of energy security, transportation decarbonisation, and the localisation of a strategic industrial supply chain. The market, encompassing lithium-ion, lead-acid, and emerging chemistries, is shifting rapidly from traditional automotive and consumer electronics applications toward high-growth, high-capacity segments in electric vehicles and grid-scale energy storage. Government-led policy interventions are explicitly reshaping industrial strategy, with a focus on backward integration and indigenous cell manufacturing to reduce a significant and strategically exposed import dependency. The dual thrust of accelerating electric vehicle adoption and mandatory integration of energy storage with renewable energy projects establishes a concrete, quantifiable demand trajectory, compelling concurrent expansion of domestic manufacturing capacity and a concerted national effort to secure critical raw material supply.

Market Drivers

The Production Linked Incentive Scheme for Advanced Chemistry Cell Battery Storage is the most significant policy-driven growth catalyst, directly propelling large-scale investment in domestic battery cell manufacturing capacity. Targeting 50 GWh of installed domestic production, the scheme creates a localised supply mandate that structurally reshapes industrial investment and demand. The automotive electrification mandate, reinforced by strong consumer adoption led by domestic original equipment manufacturers, is the primary volume driver. Tata Motors commanded a 42 percent

share of all battery electric vehicle sales in the first quarter of 2025, converting market dominance directly into sustained, high-volume orders for advanced battery packs. Electric vehicles are projected to account for approximately 90 percent of total lithium-ion battery market expansion in India by 2030, rising from 2.3 GWh in financial year 2021 to 104 GWh. The Energy Storage Obligation mandated by the Ministry of Power, which requires specific percentages of renewable energy consumption to be paired with battery storage, creates a guaranteed structural demand floor for utility-scale battery solutions, translating into a requirement of approximately 327 GWh of storage capacity by 2030. The Battery Waste Management Rules of 2022 establish an Extended Producer Responsibility framework that is creating a new commercial demand stream for recycling infrastructure and second-life battery ecosystem services, extending value capture across the full battery lifecycle.

Market Restraints

Deep structural dependence on imports for critical raw materials including lithium, cobalt, and nickel is the primary constraint on the market's cost trajectory and supply security. India sources nearly all necessary battery minerals, with China and Hong Kong collectively supplying over 70 percent of its requirements. This concentration exposes the domestic market to geopolitical risk, commodity price volatility, and the risk of supply interruption that directly affects battery pack pricing and manufacturing continuity. The absence of domestic processing and refining capabilities means that localisation efforts face challenges beyond cell assembly, limiting the depth of value chain integration achievable under current industrial policy frameworks. Lead times and logistics costs associated with global sourcing of cathode and anode active materials, separators, and electrolytes inflate manufacturing costs for domestic cell assemblers and extend the gap between policy aspiration and on-ground production localisation.

Technology and Segment Insights

By technology, lithium-ion batteries dominate market volume and value, underpinned by their superior energy density, declining cost trajectory, and technological maturity for both high-growth application segments. In the automotive sector, high energy density directly addresses the non-negotiable consumer requirement for vehicle range and reduced weight, making lithium-ion the default chemistry for battery electric vehicles. In stationary energy storage, round-trip efficiency and scalability make lithium-ion the primary technology for utility-scale integration of intermittent renewable sources. Sodium-ion and solid-state batteries represent emerging technology segments receiving increasing commercial attention, with sodium-ion in particular offering the strategic

advantage of independence from lithium supply chains for stationary storage applications. By application, the electric vehicle segment is the single most aggressive demand engine, driven by the battery-electric vehicle centrality of India's EV market. Nearly all electric vehicle sales in India are battery-electric rather than plug-in hybrid, maximising per-unit battery content and aggregate demand. Energy storage systems, spanning utility-scale grid applications, commercial and industrial installations, and residential backup, represent the fastest-growing secondary segment, directly driven by the Energy Storage Obligation mandate. Consumer electronics, industrial motive power, and telecommunications infrastructure constitute stable supporting demand verticals.

Competitive and Strategic Outlook

The competitive landscape intersects traditional domestic lead-acid players undergoing strategic reorientation with major global lithium-ion manufacturers and a new cohort of PLI-incentivised domestic cell producers. Exide Industries Ltd., a dominant legacy player in lead-acid batteries, has secured PLI scheme incentives and is executing a strategic pivot toward Advanced Chemistry Cell manufacturing, signalling intent to transition from battery assembly to large-scale indigenous lithium-ion cell production. Amara Raja Batteries Ltd. is executing a parallel strategic reorientation, leveraging its established brand and distribution network while building new lithium-ion cell capabilities as a PLI-ACC scheme beneficiary and investing in battery recycling to capture end-of-life value. Contemporary Amperex Technology Co. Limited exerts significant competitive pressure through its technological leadership, unmatched economies of scale, and supply relationships with global and domestic automotive OEMs. Luminous Power Technologies, Okaya Power, and GS Yuasa Corporation complete the competitive landscape across storage, industrial, and specialised segments. Tamil Nadu Green Energy's October 2025 announcement of India's largest 2,500 MWh Battery Energy Storage System, and Ashok Leyland's September 2025 commitment of INR 5,000 crore to build a domestic advanced battery ecosystem through a technology transfer partnership with CALB Group, signal a rapid broadening of market participation and investment scale.

Key Takeaways

The India advanced battery market is entering a period of accelerating structural maturation, driven by the simultaneous pull of electric vehicle adoption, renewable energy storage mandates, and PLI-anchored domestic manufacturing investment. The market's growth trajectory through 2031 is underpinned by quantifiable policy-driven demand commitments that reduce uncertainty for industrial investors. Addressing the

critical raw material import dependency through mineral supply diversification, midstream processing investment, and second-life battery ecosystem development will determine the long-term cost competitiveness and resilience of India's advanced battery industry. Participants that can scale domestic cell production, secure reliable material supply chains, and align with the circular economy regulatory framework are best positioned to capture value across this high-growth, strategically significant market.

Key Benefits of this Report

Insightful Analysis: Gain detailed market insights across regions, customer segments, policies, socio-economic factors, consumer preferences, and industry verticals.

Competitive Landscape: Understand strategic moves by key players to identify optimal market entry approaches.

Market Drivers and Future Trends: Assess major growth forces and emerging developments shaping the market.

Actionable Recommendations: Support strategic decisions to unlock new revenue streams.

Caters to a Wide Audience: Suitable for startups, research institutions, consultants, SMEs, and large enterprises.

What Businesses Use Our Reports For

Industry and market insights, opportunity assessment, product demand forecasting, market entry strategy, geographical expansion, capital investment decisions, regulatory analysis, new product development, and competitive intelligence.

Report Coverage

Historical data from 2021 to 2024 and forecast data from 2026 to 2031

Growth opportunities, challenges, supply chain outlook, regulatory framework, and trend analysis

Competitive positioning, strategies, and market share evaluation

Revenue growth and forecast assessment across segments and regions

Company profiling including strategies, products, financials, and key developments

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