India Lithium Ion Battery Market Size and Share Outlook - Forecast Trends and Growth Analysis Report (2025-2034)

Market Report | 2025-06-28 | 137 pages | EMR Inc.

AVAILABLE LICENSES:

- Single User License $3599.00
- Five User License $4249.00
- Corporate License $5099.00

Report description:

The India lithium ion battery market attained a value of USD 3.20 Billion in 2024 and is projected to expand at a CAGR of around 13.10% through 2034. The increasing need for electric mobility and renewable energy storage is driving B2B investments in lithium-ion battery manufacturing with the help of government subsidies and changing supply chain localization strategies. This in turn is greatly contributing to the India lithium ion battery market growth, thus propelling the market to attain USD 10.96 Billion by 2034.

India Lithium Ion Battery Market Overview

India's lithium-ion battery industry is going through a change, fueled by policy support, local cell production, and emerging battery chemistries. The Production Linked Incentive (PLI) program is driving B2B involvement in gigafactory construction. Industry leaders are embracing solid-state and LFP chemistries to cater to industrial customers in EV, telecom, and energy storage systems (ESS), thus boosting the growth of the India lithium ion battery market. AI-based battery management systems are also being implemented for improved performance and lifecycle monitoring. This transformation represents a turn away from dependency on imports toward a tech-infused domestic supply system.

India Lithium Ion Battery Market Report Summary

Description

Value

Base Year

USD Billion

2024

Historical Period

USD Billion

2018-2024

Forecast Period

USD Billion

2025-2034

Market Size 2024

USD Billion

3.20

Market Size 2034

USD Billion

10.96

CAGR 2018-2024

Percentage

XX%

CAGR 2025-2034

Percentage

13.10%

CAGR 2025-2034 - Market by Region

West India

15.0%

CAGR 2025-2034 - Market by Region

East India

14.0%

CAGR 2025-2034 - Market by Battery Type

Lithium Iron Phosphate

15.1%

CAGR 2025-2034 - Market by Application

Energy Storage

14.9%

2024 Market Share by Region

East India

21.5%

India Lithium Ion Battery Market Drivers

Battery Swapping Networks for Industrial Fleets Growing Rapidly

Battery swapping for e-fleets is also becoming a real solution for minimizing downtime and maximizing operational efficiency. Standardized swappable lithium-ion batteries are being used by B2B logistics and delivery service companies. Sun Mobility, in partnership with Ashok Leyland, has designed modular battery infrastructure that suits fleet operators with real-time diagnostics and low turnaround times, supporting scalable electrification in applications such as urban logistics and public transportation, thus promoting the India lithium ion battery market expansion.

Customized ESS Solutions for Renewable Integration

Industrial energy storage requirements are increasing as businesses shift towards cleaner grids. Tailored lithium-ion battery solutions for solar and wind integration are increasingly popular. Exicom Power Systems, for instance, provides high-density lithium-ion ESS units for commercial complexes, telecommunication towers, and factory units. Such systems are optimized to maximize power consumption, minimize diesel dependence, and enable round-the-clock operations in key B2B industries.

Trends in the India Lithium Ion Battery Market

LFP Chemistry Overtaking NMC in Commercial Segments

Lithium Iron Phosphate (LFP) battery packs are experiencing robust B2B uptake for their safety, extended cycle life, and lower cost. LFP-based cells currently dominate over 50% of industrial EV and telecom storage battery applications. Amara Raja Batteries has commenced LFP-centric production to address utility storage and commercial vehicle customers, moving away from costly

NMC chemistries prevalent in consumer EVs.

AI-Enabled Battery Management Gains Industry-Wide Traction

AI-based Battery Management Systems (BMS) are facilitating predictive maintenance, temperature monitoring, and performance optimization for B2B installations, thus shaping new trends in the India lithium ion battery market. Operational expenses are reduced, and the lifespan of the batteries is prolonged. iON Energy is launching AI BMS platforms for microgrid owners and fleet operators to provide real-time analytics for mass battery arrays. Sensor data aggregation ensures regulatory reporting and energy optimization for industrial users.

India Lithium Ion Battery Industry Segmentation

The EMR's report titled "India Lithium Ion Battery Market Report and Forecast 2025-2034" offers a detailed analysis of the market based on the following segments:

Market Breakup by Product Type

- Lithium Cobalt Oxide
- Lithium Iron Phosphate
- Lithium Nickel Manganese Cobalt
- Lithium Manganese Oxide

Market Breakup by Power Capacity

- 0 to 3000mAh
- 3000mAh to 10000mAh
- 10000mAh to 60000mAh
- More than 60000mAh

Market Breakup by Application

- Consumer Electronics
- Electric Vehicles
- Energy Storage
- Others

Market Breakup by Region

- North India
- South India
- East India
- West India

India Lithium Ion Battery Market Share

Lithium Iron Phosphate Batteries to Gain the Highest CAGR during the Forecast Period

Lithium cobalt oxide batteries find broad application in consumer electronics due to high energy density. Lithium iron phosphate batteries are thermally more stable and hence find usage in EVs and energy storage applications, thus garnering a 15.1% CAGR during the forecast period. Lithium nickel manganese cobalt is widely used for application in electric mobility due to even performance. As per lithium ion battery market analysis, lithium manganese oxide batteries with safety and temperature resistance characteristics are best suited for medical equipment and tools. Demand for both is increasing with India's expanding digital infrastructure, EV penetration, and renewable energy adoption.

Batteries having Different Power Capacities to be Widely Used for an Array of Devices

Batteries having a power capacity between 0 to 3000mAh are used for smartphones and wearables, which in turn is driven by growing device penetration. Batteries having a power capacity between 3000mAh and 10000mAh are used for tablets, cameras, and e-scooters. Batteries having a power capacity between 10000mAh and 60000mAh are applied to drones, industrial equipment, and mini-EVs. Batteries having a power capacity of more than 60000mAh are required in electric buses, grid storage, and commercial EVs. Growing demand for high-capacity, long-cycle batteries is driving market demand across markets, especially with the government's initiative towards electrification and clean power.

Lithium Ion Batteries are to be Highly Used for Energy Storage Applications

Consumer goods lead the way for lithium-ion battery uses in India, underpinned by proliferation of smartphones and laptops. According to lithium ion battery industry analysis, the EV sector is growing aggressively with the aid of government policies such as FAME II, propelling demand for batteries used in e-2Ws and e-4Ws. Energy storage is on the rise driven by more solar and wind installations, where assured storage needs are on the rise, thus garnering a 14.1% CAGR during the forecast period. Other areas are medical devices and industrial equipment. As costs fall and technology improves, lithium-ion batteries are diversifying to a number of high-growth applications in India.

India Lithium Ion Battery Market Regional Insights

CAGR 2025-2034 - Market by

Region

West India

15.0%

East India

14.0%

North India

XX%

South India

XX%

East India Emerging as Manufacturing and Logistics Hub

East India is emerging as a prominent location for lithium-ion battery production with the help of ports, government-industry supported industrial corridors, and access to raw materials. The region was estimated to garner a 21.5% market share in 2024. Odisha and West Bengal are experiencing the establishment of battery pack assembly facilities and recycling facilities serving EV and telecom companies. Kolkata-headquartered HBL Power Systems is expanding its B2B presence in this zone, targeting ESS and logistics fleet customers, thereby boosting the India lithium ion battery market revenues.

South India Enhances R&D and Cell Innovation Capabilities

Southern India, especially Tamil Nadu and Karnataka, is heavily investing in pilot-scale gigafactories and R&D centers. With a robust ecosystem of auto, electronics, and software industries, the region is driving innovation in battery chemistry, pack design, and intelligent charging solutions. OEMs and startups in Chennai and Bengaluru are collaborating to co-develop scalable, smart lithium-ion solutions that are customized for industrial applications.

Competitive Landscape

India Lithium Ion Battery market players are concentrating on developing localized cell production, establishing global partnerships, and signing long-term B2B agreements with OEMs and infrastructure developers. They want to provide bundled lithium-ion solutions with competitive prices, high energy efficiency, and lifecycle services in order to create long-term enterprise value and ecosystem reliability.

Toshiba Corporation

Toshiba Corporation, founded in 1875 and based in Tokyo, Japan, provides lithium-ion batteries for energy storage and electric vehicle uses. They specialize in high-performance batteries that are safe, have longer life cycles, and optimal energy solutions.

Amperex Technology Limited

Amperex Technology Limited, established in 1990 and based in Hong Kong, focuses on lithium-ion battery cell, module, and pack solutions for electric vehicles, energy storage, and consumer electronics. The products are recognized for reliability, high energy density, and superior safety characteristics.

Bharat Electronics Limited (BEL)

Bharat Electronics Limited (BEL), set up in 1954 in Bangalore, India, supplies lithium-ion batteries for defense, aerospace, and power industries. It supplies mission-critical energy storage solutions with robustness and high efficiency.

Exicom Tele-Systems Limited

Exicom Tele-Systems Limited, set up in 1994 in Gurgaon, India, produces lithium-ion battery technology for electric cars, telecom network infrastructure, and renewable energy applications. Its product line emphasizes security, cost effectiveness, and overall performance over extended periods.

Other key players in the report include Inverted Energy Private Limited, iPower Batteries Pvt. Ltd., Nexcharge, Okaya Power Group, TDS Lithium-Ion Battery Gujarat Private Limited (TDSG), and Telemax India Industries Pvt. Ltd., among others.

Recent Developments

January 2025

Neuron Energy launched a INR 25 crore, 5-acre lithium-ion battery plant in Chakan, Pune, at the Bharat Mobility Global Expo 2025. With a yearly capacity of 1.5 GWh, it aids India's clean energy aspirations by catering to EVs, drones, and telecom segments. The campus features R&D and experience centers, in sync with the Make in India policy.

January 2025

BatX Energies commissioned its HUB-1 lithium-ion battery recycling plant in Uttar Pradesh for the recovery of key minerals such as lithium, cobalt, nickel, and manganese. The hydrometallurgical facility uses a proprietary zero-waste, zero-emission method to recycle every form of lithium-ion battery waste, including rejects during manufacturing.

January 2025

IBC is scheduled to produce lithium-ion batteries in nine months, with 20% of its production capacity exported. The project will help promote India's EV industry and lessen dependence on imports. The firm is setting up advanced manufacturing equipment to take care of both domestic and foreign demand.

August 2024

Godrej & Boyce has introduced India's first lithium-ion driven forklift truck, equipped with an indigenously designed Battery Management System. This technology provides up to 15% increased runtime, 30% reduced energy consumption, and 5,000 charge cycles, as against conventional lead-acid batteries.

Market Outlook: 2025-2034

The market for lithium ion battery in India is expected to attain USD 10.96 Billion by 2034. The market is experiencing tremendous B2B growth driven by electrification ambitions, industry sustainability objectives, and localisation of high-technology storage solutions. In the presence of robust government support and private investment, the market is likely to see fast-tracked expansion in capacity as well as innovation in the coming five years.

Why This Report?

The India Lithium-Ion Battery Market Report and Forecast 2025-2034 provides a comprehensive analysis, delivering critical insights into:

- Market size, share, and growth projections, with detailed segmentation by product type, application, power capacity, region, and enterprise scale, highlighting key adoption regions, shifting demand drivers, and technological advancements in battery efficiency and sustainability.
- SWOT and Porter's Five Forces analyses evaluate market competitiveness, supply chain dynamics, regulatory challenges, and the potential for innovation-led partnerships within India's growing lithium-ion battery ecosystem.
- In-depth analysis of consumer and industrial behavior, emphasizing the increasing demand for EVs, renewable energy storage, and energy-efficient solutions. The influence of government policies, such as FAME II and incentives for domestic manufacturing, is also considered.
- Actionable recommendations for stakeholders, offering strategies to leverage technological advancements, enhance

manufacturing capabilities, strengthen supply chains, and align product offerings with industry demand for electric vehicles and renewable energy applications.

This report equips policymakers, battery manufacturers, automotive companies, and investors with insights to navigate the evolving market, capitalize on emerging opportunities, and promote sustainable growth in the lithium-ion battery sector in India.

Table of Contents:

India Lithium Ion Battery Market Size and Share Outlook - Forecast Trends and Growth Analysis Report (2025-2034)

Market Report | 2025-06-28 | 137 pages | EMR Inc.

To place an Order with Scotts International:

- - Print this form
- - Complete the relevant blank fields and sign
- - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	$3599.00
	Five User License	$4249.00
	Corporate License	$5099.00
	VAT	
	Total	

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2026-02-19
		Signature