

India Battery Recycling Market Forecast 2026-2034

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Report description:**KEY FINDINGS**

The India battery recycling market size is set to be valued at \$531.84 million as of 2026 and is expected to reach \$1,996.03 million by 2034, progressing with a CAGR of 17.98% during the forecast years, 2026-2034.

MARKET INSIGHTS

The India battery recycling market demonstrates explosive growth driven by unprecedented electric vehicle adoption and stringent regulatory frameworks mandating extended producer responsibility. In May 2025, the Battery Waste Management Rules were fully enforced, introducing Extended Producer Responsibility for electric vehicle OEMs and battery manufacturers with phase-wise recovery targets increasing from 70% in FY 2025 to 90% by FY 2027 for lithium-ion batteries in EVs. These regulations transform market dynamics by creating legal obligations for systematic battery collection and processing nationwide.

Moreover, the policy covers all entities throughout battery lifecycles, requiring recyclers to register with state pollution control boards, ensuring comprehensive oversight. Electric two-wheelers lead adoption, capturing around 60% of EV sales in 2024 with approximately 1.2 million units sold. Leading manufacturers, including Ola Electric, TVS Motor Company, and Ather Energy, control over the majority of this segment, generating significant battery replacement demand cycles. Furthermore, electric three-wheelers (E3Ws) account for approximately 57% of total three-wheeler sales in India as of FY2025, a rapid transition from internal combustion engines (ICE). Consequently, diverse battery chemistries and form factors enter recycling streams, requiring flexible processing capabilities.

The Indian government recognizes the importance of sustainable EV battery management, taking significant regulatory and financial steps to establish well-structured recycling ecosystems. These mandates create guaranteed demand for recycled materials, driving recycler investments in high-purity recovery technologies. Additionally, environmental compensation mechanisms impose financial penalties on non-compliant entities based on polluter-pays principles. The Central Pollution Control Board issued guidelines in September 2024 calculating compensation covering handling, collection, transportation, and processing costs.

Moreover, government incentives for Advanced Chemistry Cell manufacturing under Production-Linked Incentive schemes create downstream demand for recycled battery materials. Consequently, recyclers align capacity expansions with domestic cell manufacturing growth, supporting circular supply chains. State governments roll out dedicated EV and material recovery parks, attracting recycling investments through infrastructure support and streamlined approvals. These industrial zones cluster battery dismantling, chemical processing, and material refining operations, optimizing logistics and knowledge sharing.

Strong activity from startups and established conglomerates drives rapid lithium-ion battery recycling capacity expansion across multiple regions. Companies such as Attero Recycling, Lohum, and Ecolife have significantly expanded recycling activities, with Attero planning to recycle 15,000 tons of lithium-ion batteries in FY 2024-25, aiming to reach 50,000 tons annually by 2027, with recovery rates exceeding 95% for critical metals including lithium, cobalt, and nickel. These aggressive expansion plans demonstrate market confidence and technology maturation.

Lohum, with a large processing capacity of approximately 10,000 TPA, plans to expand significantly by 2025, with additional expansion plans outside India in the UAE for a 3,000 TPA plant. Furthermore, traditional e-waste recyclers expand horizontally into battery recycling, leveraging existing collection networks and hazardous material handling expertise. Companies adopt hydrometallurgical processing predominantly over pyrometallurgical methods, considering capital efficiency and material recovery advantages.

Automakers and battery OEMs form long-term agreements with recyclers, establishing closed-loop supply chains. These partnerships guarantee feedstock availability for recyclers while securing compliant material sources for manufacturers. AI-enabled sorting and automation solutions deploy to improve operational efficiency and worker safety simultaneously. Digital tracking systems enhance traceability from collection through final material recovery, supporting regulatory compliance and quality assurance.

SEGMENTATION ANALYSIS

The India battery recycling market is segmented into chemistry, application, recycling process, and source. The application segment is further categorized into transportation, consumer electronics, industrial, and other applications.

The consumer electronics application segment maintains a substantial market presence driven by India's massive smartphone, laptop, and portable device markets, creating consistent battery replacement cycles. India ranks as one of the world's largest smartphone markets, with approximately 120 million 5G smartphones shipped in 2024. These devices utilize lithium-ion batteries requiring replacement after 2-3 years of intensive usage. Moreover, laptop computers, tablets, power banks, and wireless accessories contribute additional battery volumes. Urban consumers upgrade devices frequently, creating steady e-waste streams entering recycling channels.

However, informal recycling sectors dominate consumer electronics battery recovery currently. Unorganized collectors aggregate spent devices from households and commercial establishments. Subsequently, informal processors extract valuable metals through crude methods lacking environmental controls. Nevertheless, formal recyclers expand consumer electronics programs, competing with informal sectors through convenient collection services. Companies establish drop-off points at retail stores, service centers, and residential complexes, improving accessibility.

Additionally, awareness campaigns educate consumers about proper disposal practices and the environmental impacts of informal recycling. Digital platforms enable doorstep collection services where consumers schedule pickups through mobile applications. These convenience-focused approaches attract environmentally conscious consumers willing to participate in formal recycling programs. Furthermore, mandatory extended producer responsibility regulations push electronics manufacturers toward authorized recycler partnerships.

Compliance requirements create structured collection systems channeling batteries away from informal processors. The segment faces logistical challenges aggregating small-format batteries scattered across vast geographic areas. Transportation costs escalate when collecting low-value batteries from distributed sources, requiring economies of scale optimization.

COMPETITIVE INSIGHTS

Some of the top players operating in the India battery recycling market include Attero Recycling, Lohum Cleantech Private Limited, Gravita India Limited, Exigo Recycling, etc.

Attero Recycling operates as India's leading end-to-end electronic waste and lithium-ion battery recycling company, headquartered in Uttarakhand with comprehensive processing capabilities. The company specializes in recovering critical materials from end-of-life batteries, consumer electronics, and industrial waste streams using advanced hydrometallurgical technologies.

Attero maintains strategic partnerships with major automotive manufacturers, including MG Motors, Tata Motors, and Hyundai, securing long-term battery supply agreements. These collaborations provide predictable feedstock volumes enabling capacity planning and technology investments. The company achieves industry-leading recovery rates exceeding 95% for lithium, cobalt,

nickel, and other valuable metals. Their proprietary processes produce battery-grade materials meeting stringent quality specifications for cathode manufacturing.

Attero emphasizes environmental sustainability through zero-discharge operations and renewable energy utilization. The company's integrated approach encompasses collection logistics, safe transportation, automated dismantling, chemical extraction, and material purification, creating complete circular value chains supporting India's battery manufacturing ambitions.

COMPANY PROFILES

1. EXIDE TECHNOLOGIES
2. UMICORE SA
3. GS YUASA CORPORATION
4. GRAVITA INDIA LIMITED
5. ATTERO RECYCLING
6. LOHUM CLEANTECH PRIVATE LIMITED
7. NILE LIMITED
8. TATA CHEMICALS LIMITED
9. AMARA RAJA ENERGY & MOBILITY LIMITED

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