

Asia Pacific Lithium-Ion Battery Recycling Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 - 2034

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Abstracts

Asia Pacific Lithium-Ion Battery Recycling Market was valued at USD 2.3 billion in 2024 and is estimated to grow at a CAGR of 20.7% to reach USD 14.8 billion by 2034, driven by the increasing scarcity of raw materials such as lithium, cobalt, and nickel, which are essential for battery production. As these materials become more limited, recycling offers a sustainable solution to secure the necessary resources for battery manufacturing.

Additionally, the rising demand for energy storage solutions from renewable energy sources like solar and wind is expected to generate a significant volume of used lithium-ion batteries, further boosting the need for efficient recycling processes. Governments across the region are implementing stricter environmental regulations and sustainability goals, which are encouraging industries to invest in advanced recycling technologies to minimize waste and reduce carbon emissions. Moreover, the shift toward a circular economy is placing lithium-ion battery recycling at the center of sustainability initiatives across the Asia Pacific region. As renewable energy adoption accelerates, the number of decommissioned batteries is growing rapidly, creating both an environmental challenge and a resource opportunity. Recovering critical materials like lithium, nickel, and cobalt through recycling not only reduces dependency on mining but also lowers the environmental impact of battery production.

The pyrometallurgical process segment is anticipated to reach USD 3.7 billion by 2034 due to its efficiency in recovering valuable metals such as cobalt, nickel, and copper from used batteries. This method is widely utilized because of its high capacity to process large volumes of battery waste. Technological advancements aimed at increasing energy efficiency and reducing emissions during the pyrometallurgical

process are expected to further fuel market growth. The pyrometallurgical recycling method remains a preferred choice for many recyclers due to its proven scalability and reliability in handling diverse battery chemistries.

The non-automotive segment is projected to grow at a CAGR of 20.8% between 2025 and 2034, driven by the increasing adoption of lithium-ion batteries in consumer electronics and energy storage systems. The growing demand for efficient recycling processes to handle battery waste from these applications is anticipated to propel market growth. Furthermore, the evolution of recycling technologies is enhancing the recovery rates of precious materials, thereby fueling the growth of this segment.

China Lithium-Ion Battery Recycling Market was valued at USD 1.2 billion in 2024, driven by escalating electric vehicle (EV) adoption, stringent environmental norms, and rising investments in recycling infrastructure. China's well-established recycling infrastructure and strict regulations on battery disposal have contributed to its leadership in lithium-ion battery recycling. The country has developed a comprehensive network of battery recycling facilities, equipped with advanced technologies for extracting valuable materials from used batteries. These facilities not only ensure the safe disposal of hazardous battery waste but also enable the recovery of valuable metals like lithium, cobalt, and nickel, which can be reused in the production of new batteries.

Key players operating in the Asia Pacific Lithium-Ion Battery Recycling Market include ACE Green Recycling, Attero Recycling, BatX Energies, Cirba Solution, Ganfeng Lithium, GEM, Glencore, Li-Cycle Holdings Corporation, Lohum Cleantech, Pure EV, SK TES, Swachcha Urja Nirman, Tata Chemicals, and Umicore. Companies in the Asia Pacific Lithium-Ion Battery Recycling Market are adopting various strategies to strengthen their market position. These strategies include expanding recycling capacities to meet growing demand, investing in advanced recycling technologies such as hydrometallurgical and pyrometallurgical processes, and forming partnerships and collaborations to enhance operational efficiency. Companies are investing in advanced recycling processes that are more efficient and environmentally friendly compared to traditional methods.

Companies Mentioned

ACE Green Recycling, Attero Recycling, BatX Energies, Cirbra Solution, Ganfeng Lithium, GEM, Glencore, Li-Cycle Holdings Corporation, Lohum Cleantech, Pure EV, SK TES, Swachcha Urja Nirman, Tata Chemicals, Umicore

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