Asia Pacific Nickel Metal Hydride Battery For Electric Vehicle Application - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-04-28 | 110 pages | Mordor Intelligence

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Report description:

The Asia Pacific Nickel Metal Hydride Battery Market For Electric Vehicle Application Industry is expected to grow from USD 2.87 billion in 2025 to USD 5.35 billion by 2030, at a CAGR of 13.31% during the forecast period (2025-2030).

Key Highlights
- Over the medium term, the rising adoption of hybrid electric vehicles (HEV) and policies promoting EV adoption, such as subsidies and tax incentives in countries like China, India, and Japan, are expected to drive the demand for nickel metal hydride battery market for electric vehicle application during the forecast period.
- On the other hand, rapid advancement and cost reduction in lithium-ion technology are expected to hinder market growth in the upcoming years.
- Nevertheless, governments in APAC are investing in battery recycling infrastructure, and NiMH batteries, with their easier recycling process, are expected to create significant opportunities for the nickel metal hydride battery market for electric vehicle applications in the near future.
- India is expected to be the fastest-growing region in Asia Pacific's nickel metal hydride battery market for electric vehicle applications due to rising government subsidies for hybrid vehicles during the forecast period.

Asia Pacific Nickel Metal Hydride Battery Market Trends

Rapid Advancement and Cost Reduction in Lithium-ion Technology are Restrain the Market

- The advancements in lithium-ion (Li-ion) technology and a steady decline in production costs have reshaped the nickel-metal hydride (NiMH) battery market for electric vehicles (EVs) in the Asia-Pacific (APAC) region. With the EV market pivoting towards battery electric vehicles (BEVs), lithium-ion batteries are preferred due to their superior energy density, efficiency, and falling prices.
- Moreover, in the Asia-Pacific (APAC) region, fully electric vehicles (EVs) powered by lithium-ion batteries are popular owing to their extended ranges, superior energy efficiency, and decreasing costs. Bloomberg NEF reported that 2023 battery prices took a significant plunge, landing at USD 139/kWh and marking a drop of over 13%. Given the continuous technological advancements and enhancements in manufacturing processes, forecasts indicate a further dip, aiming for USD 113/kWh by 2025 and an ambitious target of USD 80/kWh by 2030.
- In addition, countries such as China, Japan, and South Korea have consistently invested in lithium-ion technology, driving innovation and rendering lithium-ion batteries more cost-effective and adaptable than NiMH batteries.
- For instance, in May 2024, China is set to invest approximately 6 billion yuan (USD 845 million) into advancing next-generation battery technology for electric vehicles (EVs). ASSBs, a cutting-edge technology, enhance traditional lithium-ion batteries (LIBs) by utilizing a solid electrolyte. Such investments are anticipated to bolster the growth of lithium-ion batteries across the Asia-Pacific region, while potentially curbing the expansion of nickel-metal hydride (NiMH) batteries during the forecast period.
- Further, due to their superior energy density, quicker charging capabilities, and adaptability, automakers are progressively integrating lithium-ion batteries into their latest hybrid and fully electric models, often sidelining NiMH batteries in the region.
- However, NiMH batteries boast easier recyclability than their lithium-ion counterparts, resonating with the increasing emphasis on sustainability across the APAC region. With advancements in recycling technologies and infrastructure, the NiMH market could find longevity in select applications during the forecast period.
- Hence, the rapid advancements and cost reductions in lithium-ion technology have fundamentally reshaped the landscape of the Asia-Pacific battery market for EV applications during the forecast period.

India to Witness Significant Growth

- India's market for nickel-metal hydride (NiMH) batteries in electric vehicle (EV) applications remains niche when juxtaposed with the dominance of lithium-ion batteries. These NiMH batteries are primarily applied in hybrid electric vehicles (HEVs) and other EVs owing to their strong safety profile, extended lifecycle, and efficient performance across a broad temperature spectrum.
- NiMH batteries are favored in India's challenging climatic conditions for their superior thermal stability and resilience to high temperatures, outpacing lithium-ion batteries. Demand for NiMH battery-powered EVs has surged significantly in recent years. According to the Society of Manufacturers of Electric Vehicles (SMEV), by October 2024, EV sales nationwide reached 49,306 units. Sales have skyrocketed 37 times from FY20 to FY24, with further growth anticipated in the coming years, bolstered by government policies and initiatives.
- Furthermore, policies such as the Faster Adoption and Manufacturing of Electric Vehicles (FAME) scheme and a reduced GST on hybrid vehicles indirectly bolstered the adoption of NiMH battery technology in hybrids. The various state governments announced several schemes to promote hybrid and battery electric vehicles across the country.
- For instance, in July 2024, the Uttar Pradesh government of India announced a waiver of road tax on hybrid cars. This policy aims to encourage the adoption of clean vehicles and reduce the environmental impact of traditional gasoline and diesel-powered cars. Such initiatives are likely to promote hybrid passenger cars across the region and raise the demand for NiMH batteries in the coming years.
- In India, hybrid vehicles are increasingly seen as a bridge between internal combustion engine (ICE) and fully electric vehicles. Major automotive players, including Toyota and Maruti Suzuki, are rolling out hybrid models, boosting the demand for NiMH batteries.
- As a case in point, in October 2024, Hyundai Motor India Limited (HMIL) unveiled its strategy to launch hybrid vehicles in India over the next few years. The company's expansion plan unfolds in two phases: an initial boost of 170,000 units by 2025 and

another 80,000 units by 2028. These initiatives are poised to elevate the hybrid EV sector, presenting a significant opportunity for NiMH batteries during the forecast period.
- Hence, these initiatives and plans are likely to enhance EV sales across the region and raise the demand for NiMH batteries during the forecast period.

Asia Pacific Nickel Metal Hydride Battery Industry Overview

Asia Pacific's nickel metal hydride battery market for electric vehicle applications is semi-fragmented. Some key players (not in particular order) are Panasonic Corporation, Toyota Industries Corporation, BYD Company Limited, GS Yuasa Corporation, and EnerSys, among others.

Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

Table of Contents:

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