EV industry in 2024: Companies want better fast-charging infrastructure, cheaper battery tech to make EVs more affordable

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SUMMARY

- On the back of heightened consumer awareness, government incentives, and technological advancements, in 2023 the EV market saw remarkable growth, signalling a major shift towards sustainable transportation
- The battery market, too, is expected see signs of growth
- Industry projections indicate that the EV industry is set to generate approximately 50 million direct and indirect employment opportunities within the next seven years

On the back of heightened consumer awareness, government incentives, and technological advancements, in 2023 the EV market saw remarkable growth, signalling a major shift towards sustainable transportation. The battery market, too, is expected see signs of growth. According to a recent GameChanger Law Advisors and Speciale Invest Report, the Indian EV battery market is likely to grow from $16.77 billion in 2023 to $27.70 billion by 2028, with a compound annual growth rate (CAGR) of 10.56 per cent during the period spanning 2023 to 2028.

Going in 2024, companies expect this growth momentum to sustain. "The year witnessed a substantial increase in EV models from various manufacturers, alongside advancements in battery technology, resulting in improved range and performance. Looking to 2024, we anticipate a continued surge in diverse EV offerings, an expansion of fast-charging infrastructure, and increased investments in research and development for more efficient and cost-effective batteries," Tushar Choudhary, Founder & CEO, Motovolt Mobility said. He added that global initiatives emphasizing environmental sustainability will further accelerate the evolution of the EV landscape, cementing its pivotal role in the future of transportation.

According to Neuron Energy, projections indicate that the EV industry is set to generate approximately 50 million direct and indirect employment opportunities within the next seven years. "The Indian government has implemented a number of noteworthy measures, such as providing incentives for the growth of domestic industry.By establishing policies like FAME I and II, PLI, and budgetary allotment for the development of EV infrastructure, the Government of India has established a phased approach to the development of EV infrastructure. Installing ultra-fast charging stations in Tier-1, Tier-2, and Tier 3 cities is part of the policy," Pratik Kamdar, CEO, Neuron Energy, said.

Kamdar said that range anxiety will be lessened and charging times will be drastically shortened with the creation of ultra-fast charging networks that can charge at rates more than 350 kW. "The introduction of state-level laws by some Indian governments would incentivize local players by fostering an atmosphere that is conducive to the purchase of electric vehicles and local manufacture. We anticipate the arrival of battery-swapping technology around 2024, which will revolutionise long-range mobility—one of the main obstacles facing EV consumers," he added.

Reusing EV batteries, according to him, is essential for cutting waste and lessening the impact of EVs on the environment. "The requirement for resource-intensive, pollutant, and carbon-intensive mining activities is significantly reduced when precious elements like nickel, lithium, and cobalt are recovered from spent batteries. The need of the hour is for intelligent charging systems that maximise charge intervals, make use of renewable energy sources, control grid congestion, and support effective and sustainable charging infrastructure,' he said.

Varun Goenka, Co-founder & CEO at Chargeup agrees. He added that 2023 stood out as a year of innovation and introduction of diverse options in the market. "A lot of emphasis is being given to battery technologies, and improving range as well as charging speed. The year also saw a reduction in cell prices, resulting in reduced cost of batteries. Another important development that we witnessed in 2023, and one that is likely to continue strongly in 2024 is the adoption of a collaborative ecosystem approach," he said.

He expects EVs to be increasingly affordable in 2024 and beyond with an estimated CAGR of up to 40 per cent to 50 per cent for electric 2-wheelers and cars. "In fact, with improved affordability, we will see passenger cars witness a surge in demand in 2024 and in the next few years, there might be a parity between the number of electric 2-wheeler and 4-wheeler units sold in India," he said. BT