



TRU Primer

07 October 2025

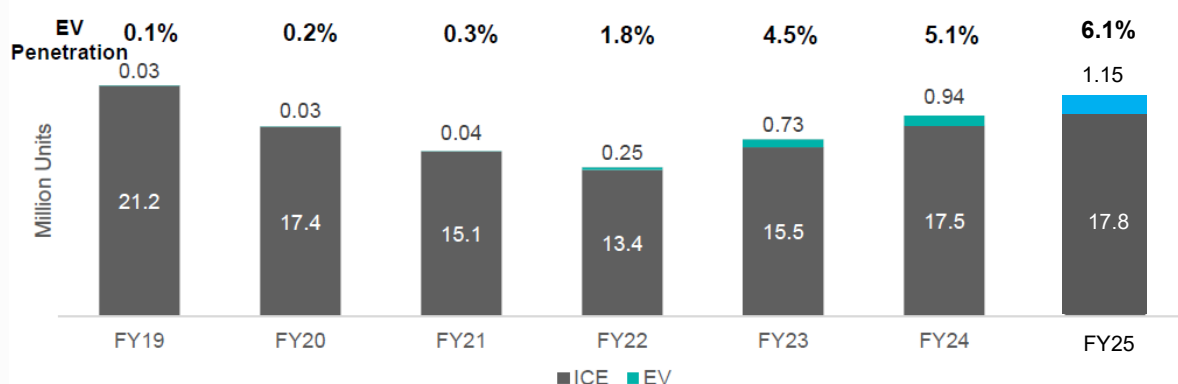
The Electric Two-Wheeler Boom in India

India is the world's largest two-wheeler market, is driving its own EV revolution based on domestic strength, a break from the foreign-reliant ICE sector. Indian OEMs are making heavy domestic R&D investments, resulting in Indian-manufactured electric scooters that offer performance and a superior feature set. The primary consumer appeal is the Total Cost of Ownership (TCO). While the initial price may be higher, running costs per kilometer are drastically lower, making E2Ws highly economical over the long term. The transition is actively fueled by the government through Central Subsidies (like FAME-II/PM E-DRIVE) that reduce the upfront cost. Infrastructure is evolving rapidly with Battery Swapping (BaaS) models to address range anxiety, especially for commercial fleet operators. This has created a dynamic, highly competitive market between startups and legacy automotive giants.

The Electric Surge: Riding the Wave of E-Two-Wheeler Growth in India

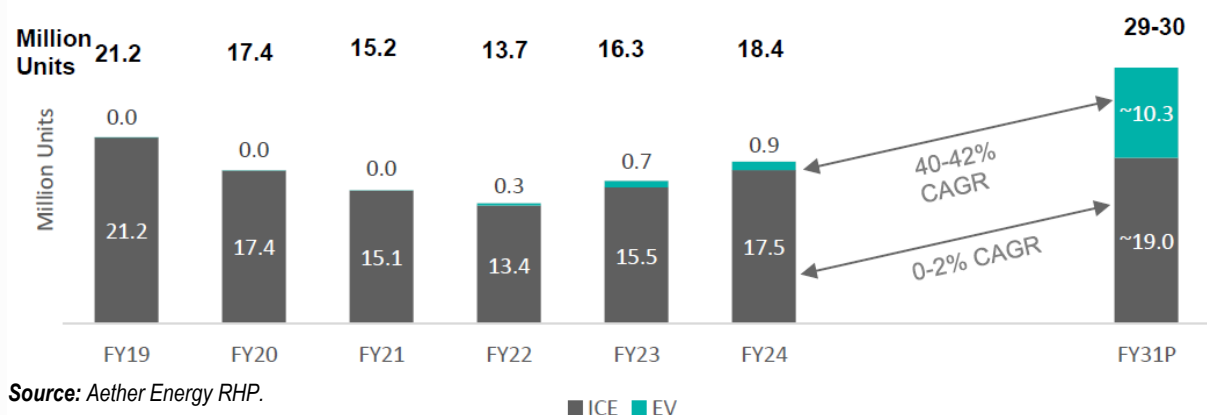
Two-wheelers represent an easily accessible and vital mode of personal transportation throughout both India's urban and rural landscapes. Although motorcycles maintain the highest popularity, the market is currently seeing a significant surge in the prevalence of scooters, while the share of mopeds is declining. The usage is functionally dominated by utility: the primary application is commuting to workplaces, followed closely by the second-largest segment, business-related activities, which includes extensive reliance on two-wheelers for last-mile delivery services (food, goods, mail, and courier). The industry's robust growth is structurally driven by macroeconomic factors such as rising per capita income, continuous improvements in infrastructure and urbanization, and ironically, the necessity of navigating worsening traffic congestion. These drivers have resulted in a steady increase in vehicle density, with two-wheeler penetration rising from approximately 106–108 per 1,000 people in FY19 to an estimated 116–118 in FY24.

In the last 5 years, the electrification within the industry has helped grow the industry sales. During fiscal 2019 to fiscal 2024 period, ICE segment contracted at 3.7% CAGR while EV retails grew with a 101.7% CAGR, albeit from a lower base. In fiscal 2025, EV penetration reached around 6.1% and EV volumes reached 1.15 million units.



Source: Aether Energy RHP.

In India, the EV two-wheelers (E2W) are gaining popularity enabled by the government's support via Faster Adoption and Manufacturing of Hybrid and Electric vehicles (FAME II), EMPS subsidy and the latest PM E-drive subsidy, state subsidies and tax rate cuts coupled with growing awareness and concern for environmental issues. An expanding E2W portfolio of tech – enabled at lower acquisition costs has driven consumer interest in and accelerated the growth of E2Ws in India. Significant strides in product evolution are one of the primary reasons for the sharp growth witnessed in the E2W segment in India. Driven by economies of scale and declining lithium-ion cell prices, the initial purchase price gap is rapidly closing. This trend, combined with subsidies, is pushing the EV two-wheeler price closer to price parity with conventional ICE vehicles, making the lower TCO immediately appealing to mass-market consumers.



Source: Aether Energy RHP.

India is the largest 2W market in the world (by sales volume). Unlike ICE vehicles, wherein the technology was developed outside India and then brought to India through joint ventures, Indian OEM's have been investing heavily in R&D and developing the core technology for EV products.

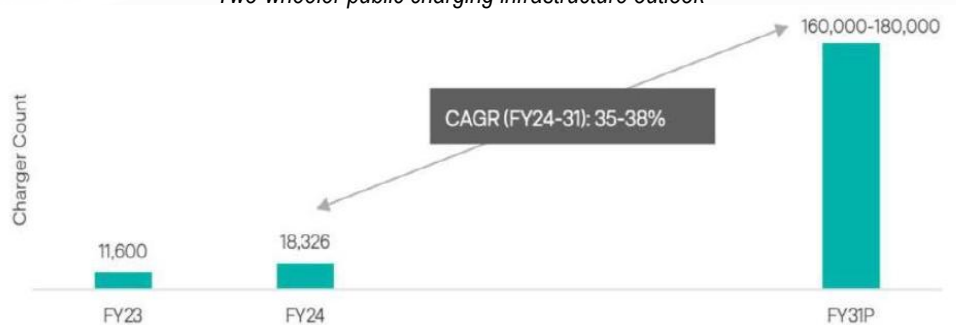
Electric scooters manufactured in India offer a higher number of features and similar performance, compared to majority of global peers. For example, Indian electric scooters offer features like on-board navigation, ride statistics, geo-fencing, and hill-hold technology.

The government is actively promoting charging infrastructure and battery swapping to support the EV ecosystem in India. The plan is to establish five lakh public charging stations (PCS) by 2025, by offering financial assistance to states and private companies. This initiative addresses the lack of charging infrastructure which is a key barrier to EV adoption.

Further through the revised guidelines and standards for charging infrastructure issued by Ministry of Power, the government aims to augment the station density/distance between two charging stations as below:

- At least one charging station to be made available in a grid of three-by-three km. Further one charging station to be set up at every 25 km on both side of highway/roads.
- For long range and heavy duty EVs, there should be one fast charging station at every 100 km, one on each side of the road/highway.

Two-wheeler public charging infrastructure outlook



Source: Aether Energy RHP.

Disclaimer

This communication is being sent by the Investment Advisory Group of HSL IA., registered under SEBI (Investment Advisors) Regulations, 2013 under the Registration number INA000011538.

This note has been prepared exclusively for the benefit and internal use of the recipient and does not carry any right of reproduction or disclosure. Neither this note nor any of its contents may be used for any other purpose without the prior written consent of HSL IA, Investment Advisory Group (HSL IA). In preparing this note, we have relied upon and assumed, without any independent verification, accuracy and completeness of all information available in public domain or from sources considered reliable. This note contains certain assumptions and views, which HSL IA considers reasonable at this point in time, and which are subject to change. Computations adopted in this note are indicative and are based on current market prices and general market sentiment. No representation or warranty is given by HSL IA as to the achievement or reasonableness or completeness of any idea and/or assumptions. This note does not purport to contain all the information that the recipient may require. Recipients should not construe any of the contents herein as advice relating to business, financial, legal, taxation, or other matters and they are advised to consult their own business, financial, legal, taxation and other experts / advisors concerning the company regarding the appropriateness of investing in any securities or investment strategies discussed or recommended in this note and should understand that statements regarding future prospects may not be realized. It may be noted that investments in equity and equity-related securities involve a degree of risk and investors should not invest any funds unless they can afford to take the risk of losing their investment. Investors are advised to undertake necessary due diligence before making an investment decision. For making an investment decision, investors must rely on their own examination of the Company including the risks involved. Investors should note that income from investment in such securities, if any, may fluctuate and that each security's price or value may rise or fall. Accordingly, investors may receive back less than originally invested. Neither HSL IA nor any of its employees shall be liable for any direct, indirect, special, incidental, consequential, punitive or exemplary damages, including lost profits arising in any way from the information contained in this material. This note does not constitute an offer for sale, or an invitation to subscribe for, or purchase equity shares or other assets or securities of the company and the information contained herein shall not form the basis of any contract. It is also not meant to be or to constitute any offer for any transaction. HSL IA and its affiliates, officers, directors, key managerial persons and employees, including persons involved in the preparation or issuance of this material may from time to time, have long or short positions in, and buy or sell the securities thereof, of company (ies) mentioned herein. HSL IA may at any time solicit or provide commercial banking, credit, advisory or other services to the issuer of any security referred to herein. Accordingly, information may be available to HSL IA, which is not reflected in this material, and HSL IA may have acted upon or used the information prior to, or immediately following its publication.

HSL IA neither guarantees nor makes any representations or warranties, express or implied, with respect to the fairness, correctness, accuracy, adequacy, reasonableness, viability for any particular purpose or completeness of the information and opinions. Further, HSL IA disclaims all liability in relation to use of data or information used in this report which is sourced from third parties.

Please note that HDFC Securities has a proprietary trading desk. This desk maintains an arm's length distance with the HSL IA team and all its activities are segregated from HSL IA activities. The proprietary desk operates independently, potentially leading to investment decisions that may deviate from research views.

HDFC securities Limited, I Think Techno Campus, Building - B, "Alpha", Office Floor 8, Near Kanjurmarg Station, Opp. Crompton Greaves, Kanjurmarg (East), Mumbai 400 042 Phone: (022) 3075 3400 Fax: (022) 2496 5066

Compliance Officer: Murli V Karkera Email: complianceofficer@hdfcsec.com Phone: (022) 3045 3600

For grievance redressal contact Customer Care Team Email: customercare@hdfcsec.com Phone: (022) 3901 9400

HDFC Securities Limited, SEBI Reg. No.: NSE, BSE, MSEI, MCX: INZ000186937; AMFI Reg. No. ARN: 13549; PFRDA Reg. No. POP: 11092018; IRDA Corporate Agent License No.: CA0062; SEBI Research Analyst Reg. No.: INH000002475; SEBI Investment Adviser Reg. No.: INA000011538; CIN - U67120MH2000PLC152193

Investment in securities market are subject to market risks. Read all the related documents carefully before investing. Mutual Funds Investments are subject to market risk. Please read the offer and scheme related documents carefully before investing.

Registration granted by SEBI, membership of BASL (in case of IAs) and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors. This information is for educational/information purposes only.