UNDERSTANDING THE EV MARKET POTENTIAL IN INDIA

Market Potential, Segments, Policies, Players and Charging Infrastructure

Source: Pulse Energy Blog | Published July 25, 2024

Market Overview

Urbanization and technological development are identified by the source as important forces shaping India's electric vehicle market. The article estimates the market at USD 34.8 billion in 2024 and projects it to exceed USD 120 billion by 2030, reflecting annual growth of approximately 22.92%. It links this potential to sustainable development, environmental priorities and demand for cost-efficient transportation.

Item	Details
Market Value, 2024	USD 34.8 billion
Projected Market Value, 2030	More than USD 120 billion
Projected Annual Growth	22.92%
Primary Themes	Sustainable mobility, cost-efficient transport, policy support, technology and charging infrastructure

Current State of the EV Market

The source describes India's EV market as a fast-growing ecosystem supported by government programmes, technology development and rising environmental awareness. It highlights policy support through FAME II, the National Electric Mobility Mission Plan and the Electric Mobility Promotion Scheme 2024.

FAME II

- Launched in 2019 to provide purchase incentives and support EV infrastructure.
- The source states a budget allocation of Rs. 10,000 crore.
- It reports a revised subsidy of Rs. 15,000 per kWh for electric bikes and scooters.
- It states that Rs. 1,000 crore was allocated for charging infrastructure for e-buses.
- The source also cites incentives covering 5 lakh three-wheelers, 7,000 electric buses and 35,000 four-wheelers.

National Electric Mobility Mission Plan and EMPS 2024

The National Electric Mobility Mission Plan (NEMMP), launched in 2013, was designed to improve energy security, reduce environmental impacts from road transport and strengthen domestic EV manufacturing. The article presents the Electric Mobility Promotion Scheme (EMPS) 2024 as a shorter-term initiative building on this direction.

EMPS 2024 Category	Subsidy Stated in Source
Electric Two-Wheelers	Up to Rs. 10,000 per vehicle
Electric Three-Wheelers: E-Rickshaws & E-Carts	Up to Rs. 25,000 per vehicle
Large Electric Three-Wheelers: L5 Category	Up to Rs. 50,000 per vehicle

The article states that EMPS 2024 does not provide subsidies for electric cars and instead focuses on two-wheelers and three-wheelers.

EV Market Segments

Vehicle Type Segments

Vehicle Segment	Source Description
Passenger Vehicles	Battery Electric Vehicles (BEVs) and Plug-in Hybrid Electric Vehicles (PHEVs). The source describes BEVs as the dominant passenger-vehicle format and PHEVs as a transitional option.
Commercial Vehicles	Electric buses, trucks and vans, with logistics and delivery applications highlighted.
Two-Wheelers	Electric scooters and motorcycles, identified as an important segment for affordable urban mobility.
Three-Wheelers	Electric rickshaws used for passenger and goods mobility in urban and rural areas.

Passenger Vehicles

- BEVs are described as benefiting from incentives, rising fuel prices and environmental awareness. Examples include Tata Nexon EV and MG Comet.
- PHEVs combine an electric motor with a gasoline engine. The source notes that they are less common in India and are concentrated in higher-priced vehicles.

Commercial, Two-Wheeler and Three-Wheeler Segments

- Electric buses are gaining traction as cities seek to reduce transport-related pollution.
- Electric trucks and vans are increasingly used by logistics and delivery operators to reduce operating costs and emissions.
- Electric scooters and motorcycles are significant because of demand for affordable and efficient urban transport.
- Electric rickshaws are increasingly common in both urban and rural mobility.

Price Category Segments

- Luxury EVs: high-end vehicles emphasizing technology, features and performance.
- Mid-priced EVs: described by the source as the fastest-growing price segment, balancing price, range and features.
- Affordable EVs: smaller and generally shorter-range vehicles intended to lower the entry cost of electric mobility.

EV Model	Approximate Price Range in Source
Ather 450 scooter	Rs. 1.39-1.52 lakh
Ola Electric scooter	Rs. 1.00-1.10 lakh
Bajaj Chetak scooter	Rs. 1.49-1.74 lakh
Revolt RV400 bike	Rs. 1.10-1.30 lakh
E-rickshaw	Rs. 0.40-1.00 lakh
Tata Tiago EV	Rs. 7.99-11.89 lakh
Mahindra eVerito	Rs. 8.45-9.95 lakh
MG Comet EV	Rs. 6.99-9.53 lakh
Tata Nexon EV	Rs. 14.49-19.49 lakh
MG ZS EV	Rs. 18.98-25.44 lakh
Mercedes-Benz EQS	Rs. 190.00-220.00 lakh
Audi e-tron GT	Rs. 130.00-150.00 lakh

The source notes that prices can vary by state because of taxes and incentives.

Government Initiatives and Policies

FAME India Scheme

The article describes FAME, launched in 2015 and discussed in its Phase II form, as a programme designed to encourage EV adoption, domestic development of EVs and components, and electrification of public transport. Consumer subsidies vary by vehicle type and battery capacity.

State Electric Vehicle Policies

State-level EV policies include measures such as vehicle subsidies, free parking and lower taxes. The source highlights Delhi's focus on public-transport electrification and Karnataka's ambition to develop as an EV hub through skill-development programmes.

Production Linked Incentive Schemes

The article highlights PLI schemes for Advanced Automotive Technology and ACC battery storage. These programmes are described as mechanisms for attracting investment and expanding domestic production of EV technologies, electric motors and batteries.

Charging Station Incentives

- Electricity tariffs for charging stations are described as capped at a rate exceeding Average Cost of Supply by 15%.
- The source states FAME subsidies of Rs. 10,000 for slow chargers and up to Rs. 1 lakh for fast chargers.
- Some states are described as offering land at concessional rates of 10-20% of market value.
- Charging stations can receive preferential electricity connections, while public-sector oil marketing companies are described as prioritizing charging facilities on their premises.

Major Players in the Indian EV Market

Company	Position and Models Stated in Source
Tata Motors	The source describes Tata as a leading Indian EV player and states a 72% market share. Models cited include Tiago EV, Nexon EV and Tigor EV.
MG Motors	The source states a 10.8% market share and highlights MG ZS EV and MG Comet EV.
Mahindra	The source states a 9% market share and highlights the XUV400.

Notable Emerging Companies

Company	Source Description
Ola Electric Mobility	Highlighted as a major two-wheeler participant; the article states a 19.07% market share in 2023 and cites the Ola S1.
TVS Motor Company	The source states an 11.89% market share in 2023 and emphasizes its dealership network and urban commuter products.
Ather Energy	Highlighted for technology-focused scooters, charging infrastructure and models such as Ather 450X and Ather 450 Plus.

Expansion of Charging Infrastructure

The article identifies charging infrastructure as critical to EV-market growth and to reducing range anxiety. It cites government programmes, state policies and private investment as the principal forces behind network expansion. It also references EESL's launch of India's first EV charging plaza in New Delhi in July 2020 as an example of public-private collaboration.

According to the source, India will require 1.32 million charging stations by 2030, with an intended ratio of approximately one charger for every 40 EVs. The article notes that high initial costs and grid-capacity constraints will require continued investment and innovation.

Market Opportunities

- Development and operation of public and fleet-focused charging infrastructure.
- Investment in EV infrastructure and supporting services.
- Fleet electrification and charging-network management.
- Domestic manufacturing supported by PLI and other policy mechanisms.
- Technology solutions for monitoring charging activity, integrating charging networks and optimizing energy costs.

Conclusion

The source presents India's EV market as a major growth opportunity supported by policy intervention, technology development, expanding vehicle choice and investment in charging infrastructure. It places particular emphasis on the need for continued charging-network expansion, public-private collaboration and domestic manufacturing to sustain the transition toward electric mobility.