

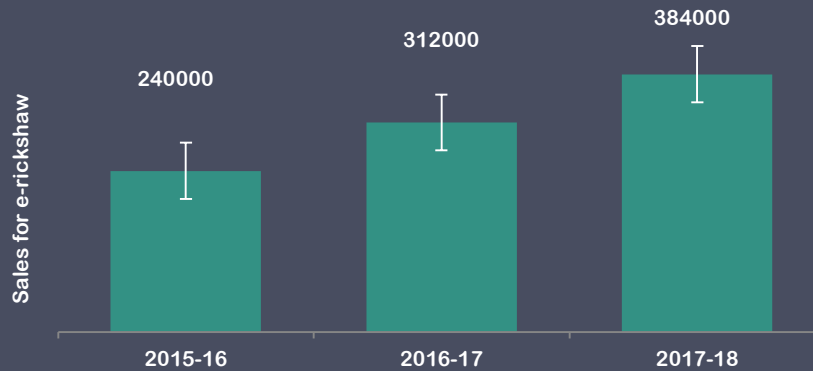
The logo for MRAC+, consisting of the letters 'MRAC' in a bold, sans-serif font enclosed in a rectangular box, with a plus sign to the right.

2 & 3 Wheeler Electric Vehicle Market in India & Future Outlook 2025

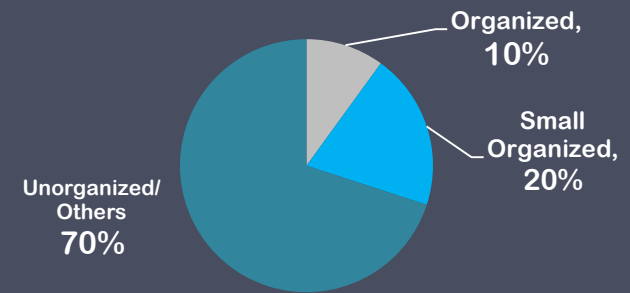
January 2022

Exhibit: Sales of EV (2&3 Wheeler Segment) in India till FY 2018 and Policy initiatives under FAME programme

Sales of EV (3&2W) in India till FY 2018

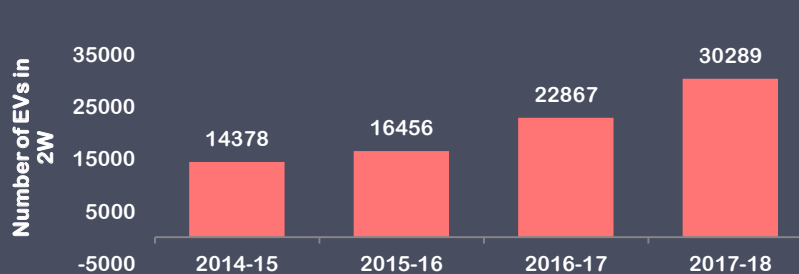


Share of EV Production in India till FY 2018

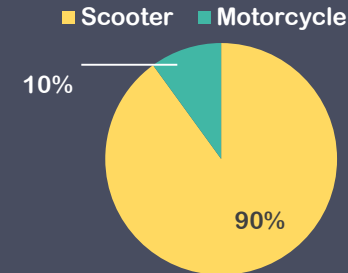


Development of E- Rickshaw Market in India

Development of 2W EV Market in India



Share Anticipated in 2W EV Sales



Policy Initiatives

Indian government is quite keen on giving push to new “National Auto Policy” and ambitious “FAME II” scheme in early 2019 to enhance e-mobility. The FAME II scheme is projected to have a total budgetary outlay of **INR 5,500 crores** spanning over five years with a subsidy support to all type of electric vehicles and incentives for the **EV manufacturers and other connected OEMs**.

Why eninrac's report upon "2 & 3 Wheeler Electric Vehicle Market in India & Future Outlook 2025"

India being the one of the world's biggest market for automobile sector with annual domestic sales of 24 Million to drive the electric vehicle market mainly in 2&3W segment owing to the ambitious plans and initiatives of the government.

BY 2022, SALES OF ELECTRIC 2W & 3W ARE EXPECTED TO REACH 1.6 MILLION IN INDIA

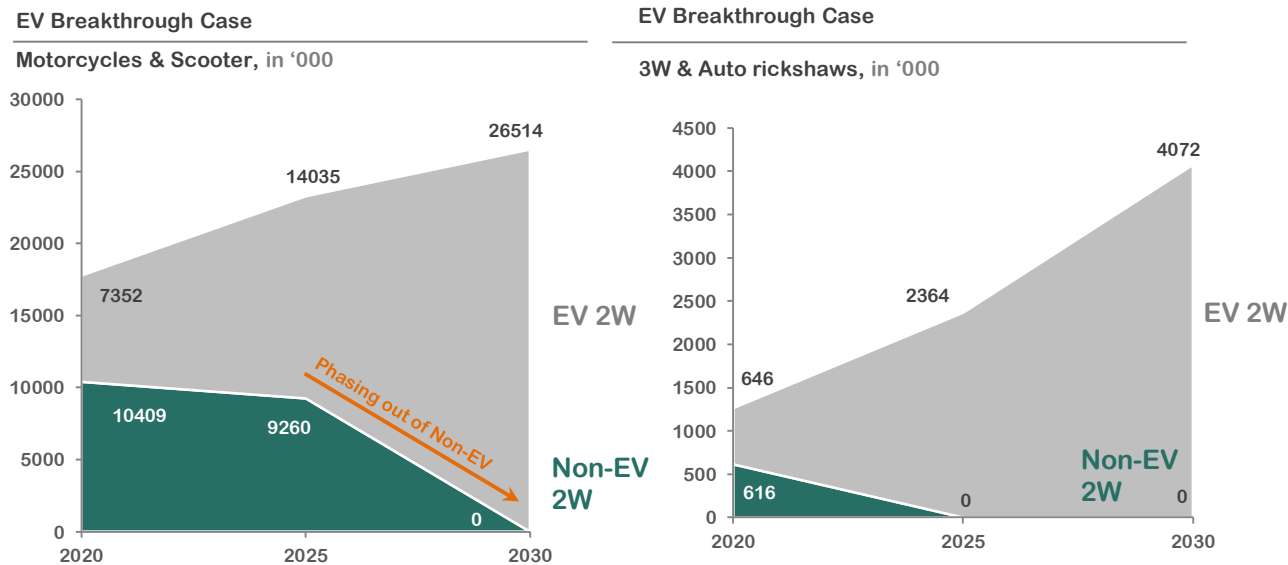
The Global automobile industry landscape is on the verge of disruption due to adoption of new business model, digitization given the government thrust in the industry. Similarly, India is not behind to revolutionize its own automobile sector where electrification is the prime agenda of the government. Electrification of the automobile sector is one of the reason to curb pollution as government is planning towards building the green economy. With the help of thrust from government's policies and subsidies schemes like FAME, the business preposition in the electric vehicle market has grown specially in 2W and 3W market in India. Considering the great potential in 2W & 3W segment, the government targets 30% Electric Vehicles (EV) on the roads by 2030. Going by the current rate of 7-8% CAGR growth in automobile sales, over 46,000,000 vehicles (two-, three-, and four wheelers) could be sold in 2030. This annual market size would present an opportunity for Indian companies to become leaders in EV technology on a global scale.

2 WHEELER & 3 WHEELER SEGMENT TO DRIVE THE EV SEGMENT IN FUTURE AS 95% OF THE TOTAL SALES COME FROM THESE SEGMENTS

The electric vehicle (EV) market in India has been amped up and has seen a significant growth since past 3-4 years specially in 2&3 Wheeler segment. India is the world's largest two-wheeler market, and a leading market for three wheelers — both kinds of vehicles are heavily used for quicker mobility and for transporting smaller cargo across the country. These two segments offer a huge opportunity for electrification in India, and are likely to move towards e-mobility faster than four-wheelers. With over 95% of the total EV sales came from 2&3 wheeler segment as on March 2018, the future outlook to remain strong for these segment taking the affordability and cost of the batteries into the consideration.

With the government aiming high on 2&3 W segment, the battery storage market to see a hike in growth rate as well. Moreover, India is aiming close to 90 Lakhs vehicles on road from 2W & 3W segment in India by 2023. Thus India would require the battery storage capacity of 27 GW which requires the investment of INR 60,000 crores to support the target. Hence there shall be an urgent need for investment inflow that will also attract the foreign players to invest in EV segment. The report comprehensively assess the 2&3 Wheeler market in India by 2025. The report makes an attempt to capture the demand and major demand centres till 2025 under high, Low and medium growth scenarios. It lists out the growth factors driving the EV market particularly in 2&3 Wheeler segment. Furthermore, it showcases the regulatory landscape in 2W and 3W market to assess the market so that opportunities for the value chain payers could be determined. It also assesses Vehicle type wise Market till 2025 so that players could determine opportunity as per the line of service for the value chain.

Exhibit 2: Segment wise 2W & 3 W market size as per technology – Future Overview and regulatory landscape to support the EV market



Source: NITI Aayog, Companies & eninrac research

Regulatory Landscape

Subsidy for 2W in a range of INR 1,800 to INR 29,000

For three-wheelers, the incentives will range from INR 3,300 to INR 61,000

Centre was ready to invest USD 1.3 Billion (INR 9,381 Cr) over five years to roll out the FAME II scheme.

The government may offer incentives of up to INR 2.5 Lakh to those scrapping old petrol or diesel-fired vehicles.

BUSINESS CASE FOR 2 & 3 WHEELER ELECTRIC VEHICLE MARKET IN INDIA

- Currently, a 12% GST applies on EVs, as against a 28%-plus GST on petrol and diesel cars and hybrid vehicles.
- 11,000 electric rickshaws are sold in India every month and sales are expected to increase around 9% by 2021.
- M&M tied up with Three Wheels United to promote Treo range in Bangalore and Hyderabad with an aim to sell another 10,000 units.
- SmartE, an Uber-style app using 800-plus e-rickshaws around New Delhi.
- The potential market for e-rickshaws could be sales of 20 million vehicles a year.
- Hero Electric plans to sell 40,000 electric two-wheelers during the current financial year. Hoping to double its volume every year and reach the 100,000 mark by fiscal 2020 or 2021.
- SmartE plans to deploy a total of 10,000 Mahindra electric three-wheelers across India by 2020

REPORT INSIGHTS

- Overview of the 2&3 Wheeler market in India 2019-20.
- The regulatory landscape in 2W and 3W market to assess the market opportunities for the value chain players.
- Comprehensive assessment of the 2&3 Wheeler market in India by 2025.
- Capture the demand and major demand centres till 2025 under high, Low and medium growth scenarios.
- Lists out the growth factors driving the EV market particularly in 2&3 Wheeler segment.
- PAN India & Region wise anticipated penetration for 2&3 Wheeler EV till 2025.

KEY HIGHLIGHTS

- Present status of 2&3 Wheeler EV's in India.
- Development trends of 2&3 Wheeler EV's in India.
- Key Regulatory & Policy initiatives taken up in different states to promote 2&3 Wheeler EV market in India.
- Future Outlook of 2&3 Wheeler EV in India till 2022 under different scenario's.
- Penetration of 2&3 Wheeler EV PAN India & Region wise for different segments till 2025.

PRESS EXCERPTS

“India’s EV goals are being realised on two wheels, not four. Prime Minister Narendra Modi’s government has set a target of electric vehicles making up 30 % of new sales of cars and two-wheelers by 2030 from less than 1% today”

Hindustan Times

“The panel decided to offer subsidy to all categories of electric vehicles, including two-wheelers, three-wheelers and four-wheelers, to promote green vehicles and check pollution. Under the scheme, depending on technology, battery-operated scooters and motorcycles are eligible for incentives ranging between Rs 1,800 to Rs 29,000, while in three-wheelers it is between Rs 3,300 and Rs 61,000”

Economic Times

KEY QUERIES ADDRESSED

- What shall be the Business Case for 2&3 Wheelers (By Value & Volume) in India by 2025?
- What are the various growth factors for 2&3 Wheelers?
- What are the various growth barriers for 2&3 Wheelers?
- What are the trends over the years in electric vehicle segment?
- What is the current Regulatory & Policy Landscape for EV in India?
- What are the available opportunities for various value chain players in India by 2025?
- What are the trends in 2&3 Wheeler EV segment?
- What is the future outlook of EV 2W Market till 2025?
- What is the future outlook of EV 3W Market till 2025?

MUST BUY FOR

- **Automobile OEMs (2W, 3 W & 4 W developers)**
- **Power distribution companies**
- **PSUs in Power Generation Business**
- **IPPs**
- **Smart Grid & Smart City Operators**
- **EV Charger Suppliers**
- **EV Charging Station Set up providers**
- **EV Manufacturers**
- **Battery Manufacturing OEMs in India**
- **Power Project Funding Bodies**
- **Foreign Collaborating Agencies**
- **Utility Solar Power Project Developers**
- **Government & Regulatory Bodies**
- **Research Institutions/Bodies**
- **Funding Bodies/Banks**



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THANK YOU!

Happiness does not come from doing easy work but from the afterglow of satisfaction that comes after the achievement of a difficult task that demanded our best

- Theodore Isaac Rubin