

Electric Vehicle Market in India – A Snapshot

REPORT EXTRACT



Electric Vehicle Market in India – A know how

The electric vehicle landscape is rapidly changing in India as both technology and interest evolve, and the coming years will see many more EVs take to the roads, seas, and skies. In India, electric vehicles sales have climbed by more than 70 percent a year since 2016 till 2021. By 2035, it is anticipated that the automotive market in India will be fully electric—providing both a glimpse of a green future and significant economic opportunity.

As the central government and respective state governments are giving impetus on developing the electric vehicle segment in the country, the progress is seen at concurrent levels. In India, presently 20 states have announced their EV policies for encouraging EV manufacturing, EV demand and development of supportive infrastructure. In this regards, Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles (FAME I & II) was launched. FAME I was launched in 2015, while FAME II was introduced in 2019 with more embellished EV targets.

Phase-II of FAME India Scheme was notified on 8th March 2019 for a period of three years commencing from 1st April 2019, with a total budgetary support of Rs. 10,000 crore. This phase mainly focusses on supporting electrification of public & shared transportation and aims to support, through demand incentive, 7090 e-Buses, 5 lakh e-3 Wheelers, 55000 e-4 Wheeler Passenger Cars and 10 lakh e-2 Wheelers.

In addition, creation of charging infrastructure is also supported to address range anxiety among users of electric vehicles. Under Phase-II of FAME India Scheme, 56,900 Electric Vehicles have been supported, as on 10.03.2021, by way of Demand Incentive amounting to about Rs. 170 Cr. Further, 6265 electrical buses have been sanctioned to various State/ City Transport Undertakings under Phase-II of the Scheme. This involves Government incentive of around Rs. 3000 Cr.

As of June 2022, India boasts over 1 Million of electric vehicles on road, of which above 90% is dominated by electric three & two wheelers cumulatively.

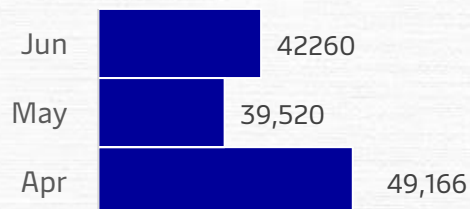
Growth in Electric Vehicle Sales in India

Electric Vehicle sales in India is likely to jump almost three times from 340,000 units in FY21-22 to close to 800,000-900,000 units in FY'2022-23. As per industry estimates, sales of electric two wheelers, three wheelers, buses, cars and other vehicles almost doubled twice over in the January-May period from 78,903 units in 2021 to 3,17,890 units in 2022 despite the fire incidents.

Exhibit 1.1 Month Wise Trends in the Electric Vehicle Sales in India – Q 1' 2022



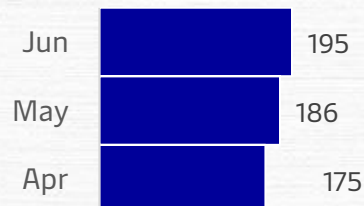
Electric 2-Wheeler



Electric Passenger Vehicle



Electric Commercial Vehicle



FAME II, Supporting Government's Vision for Electric Vehicles

Apart from the demand incentives, key initiatives taken up by the Government of India for promotion of electric vehicles in the country under Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME) II are –

- (i) GST on electric vehicles has been reduced from 12% to 5%; GST on chargers/ charging stations for electric vehicles has been reduced from 18% to 5%
- (ii) Ministry of Power has allowed sale of electricity as 'service' for charging of electric vehicles. This would provide a huge incentive to attract investments into charging infrastructure
- (iii) The Government, vide S.O. 5333(E) dated 18th October 2018, has also granted exemption to the Battery-Operated Transport Vehicles and Transport Vehicles running on Ethanol and Methanol fuels from the requirements of permit
- (iv) In the budget of 2019-20, the Hon'ble Finance Minister announced provision of additional income tax deduction of Rs 1.5 lakh on the interest paid on loans taken to purchase electric vehicles
- (v) In order to promote electric vehicles, the Government has notified for retro-fitment of hybrid electric system or electric kit to vehicles and has specified the type approval procedure of electric hybrid vehicles
- (vi) The Ministry of Road Transport & Highways has notified certain specifications for the grant of license to age group of 16-18 years to drive gearless E scooters/ Bikes upto 4.0 KW
- (vii) Ministry of Housing and Urban Affairs has made amendment in the Urban and Regional Development Plans Formulation and Implementation (URDPFI) guidelines to provide for electric vehicle charging stations in private and commercial buildings

FAME II, Supporting Government's Vision for Electric Vehicles

Exhibit 1.2 Vehicle segment-wise Incentives, Maximum Number of Vehicles to be Supported and Other Details under FAME II

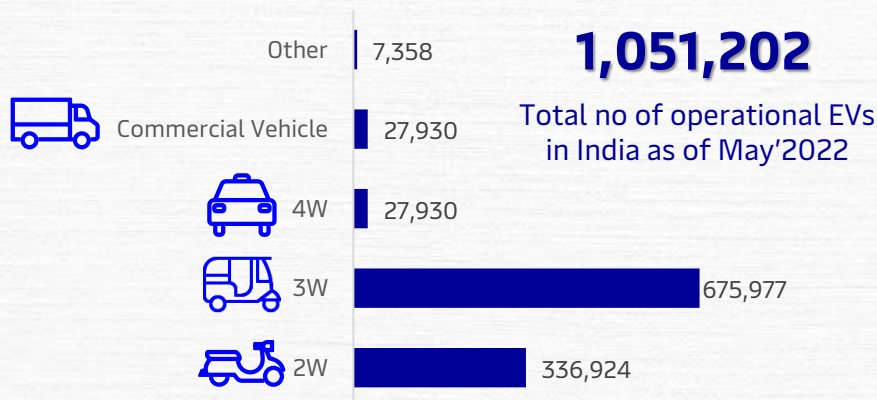
S. No	Vehicle Segment	Maximum Number of vehicles to be Supported	Approximate Size of battery in KWH	Total Approximate Incentive @ 10000/KWh for all vehicles and 20000/KWh for Buses and Trucks	Maximum Ex-factory price to avail incentive.	Total Fund support from DHI.
1	Registered e-2 Wheelers	1000000	2 KWH	INR 20000/-	INR 1.5 Lakhs	INR 2000 Cr
2	Registered e-3 Wheelers (including e Rikshaws)	500000	5 KWH	INR 50000/-	INR 5 Lakhs	INR 2500 Cr
3	e- 4 Wheelers	35000	15 KWH	INR 150000/-	INR 15 Lakhs	INR 525 Cr
4	4W Strong Hybrid Vehicle	20000	1.3 KWH	INR 13000	INR 15 Lakhs	INR 26 Cr
5	e-Bus	7090	250 KWH	INR 50 Lakhs/-	INR 2 Crores	INR 3545 Cr
Total Demand Incentive						INR 8596 Crores

Electric Vehicles Operational in India as of May'2022

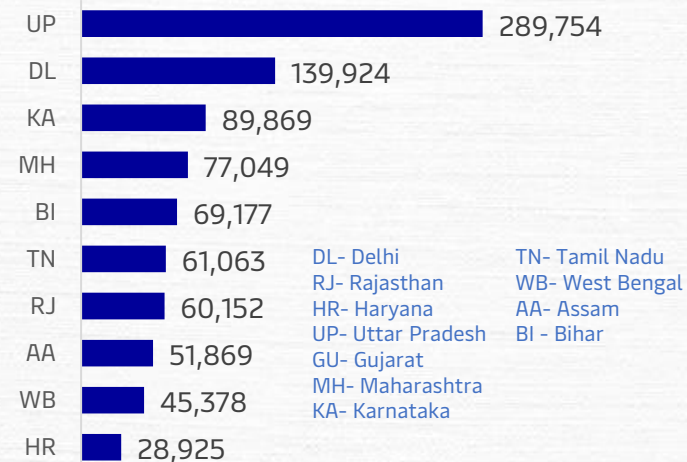
India is perceived as a prospering market for electric vehicles given the push from the Government and rate at which adaptation is anticipated. However, the road won't be that seamless and shall have its own set of challenges for the passenger segment vehicles for the competition it faces in terms of cost from CNG based vehicles and other clean fuels for years to come. But the scenario in 2W & 3W category may be diametrically opposite with adoption to electric mode may be faster than anticipated or to say the least at the rate predicted. It is pertinent to note that as of Apr'2022 the total operational EVs in India were recorded to be over one million. Of the total EV count, nearly 64% were electric 3W, while 32% were electric 2W. Further, its worth mentioning that over the past one electric 2W segment has witnessed a magnanimous growth of 938% in the sales from June 2021-22. The sales of electric 2W during this period increased from 4073 units in June 2021 to 42260 units in June 2022.

Exhibit 1.3 Electric Vehicles Operational in India as of May'2022

Vehicle type wise split of total operational EVs in India as of May'2022 (In units)



Top ten states that have maximum count of on-road EVs as of May'2022 (In units)

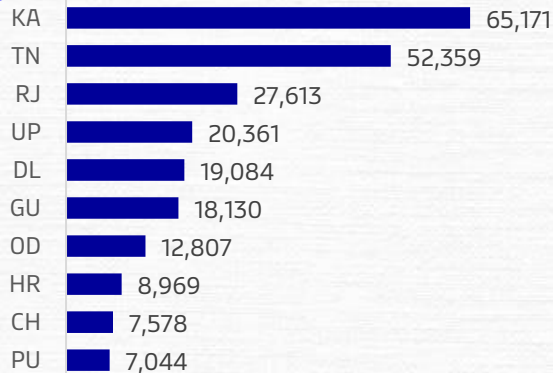


Electric Vehicles Operational in India as of April'2022

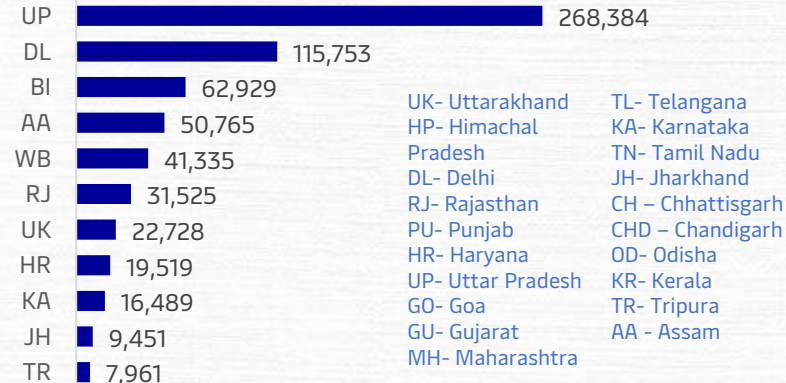
Exhibit 1.4 Electric Vehicle Category Wise Leading States in India having High Penetration



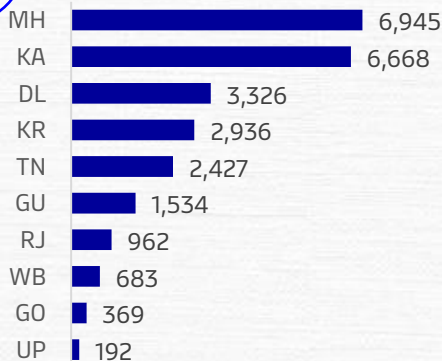
Leading states in India with maximum operational e-2W



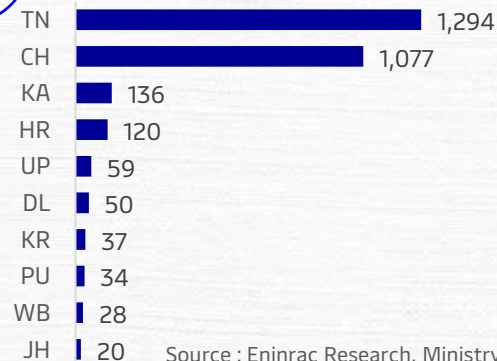
Leading states in India with maximum operational e-3W



Leading states in India with maximum operational e-4W



Leading states in India with maximum operational commercial vehicle



Source : Enirac Research, Ministry of Heavy Industries India, MoRTH

Electric Vehicles Manufacturing Market Scenario in India

Electric Vehicle (EV) market in India is dominated by close to 400 players covering both organised & unorganised market participants. With the increasing adoption of electric vehicles in the landscape, this number is only expected to increase further. EV manufacturing market is largely dominated by three-wheeler segment followed by two-wheeler. Across the e-2 wheeler segment in India, Hero Electric is the market leader followed by Ather Energy, Okinawa and Ola Electric. It is pertinent to note that as of April 2022, nearly 59 new EV manufacturing units were established in the country under FAME II. Of this, the count of EV three-wheeler manufacturing units stood at 31.

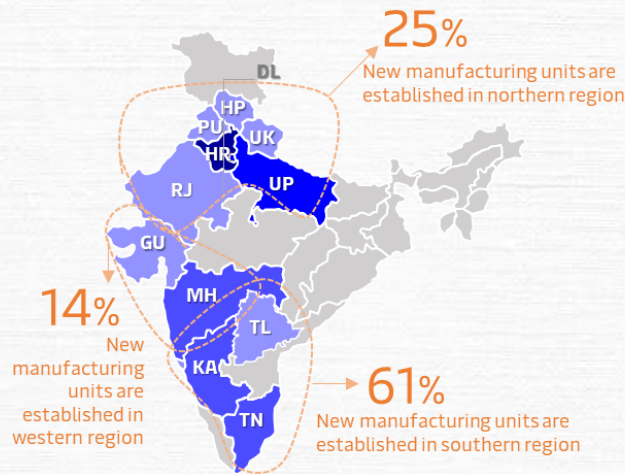
Phase II of FAME scheme was notified on 8th March 2019 for a period of three years commencing from 1st April 2019-22, with a total budgetary support of INR. 10,000 crore. This phase mainly focusses on supporting electrification of public & shared transportation and aims to support, through demand incentive, 7090 e-buses, 5 lakh e-3 wheelers, 55000 e-4 wheeler passenger cars and 10 lakh e-2 wheelers. In addition, creation of charging infrastructure is also supported to address range anxiety among users of electric vehicles. Under Phase-II of FAME India Scheme, 56,900 Electric Vehicles have been supported, as of March 2022, by way of Demand Incentive amounting to about INR. 170 Cr. Further, 6265 electrical buses have been sanctioned to various State/ City Transport Undertakings under Phase-II of the Scheme. This involves Government incentive of around INR. 3000 Cr

Further, it is pertinent to note that, of the total manufacturing units established under FAME II, nearly 61% penetrated across northern region states, Haryana being the most preferred site. Courtesy, the EV policy of Haryana that encourages new manufacturing in EV technology and give thrust to existing automobile manufacturers to diversify in EV manufacturing domain. The policy offers various financial incentives to EV manufacturers by giving incentives on Fixed Capital Investment (FCI), Net SGST, Stamp Duty, Employment Generation, etc. There is 100% reimbursement of stamp duty along with exemption in electricity duty for a period of 20 years. The SGST reimbursement shall be 50% of the applicable Net SGST for a period of 10 years.

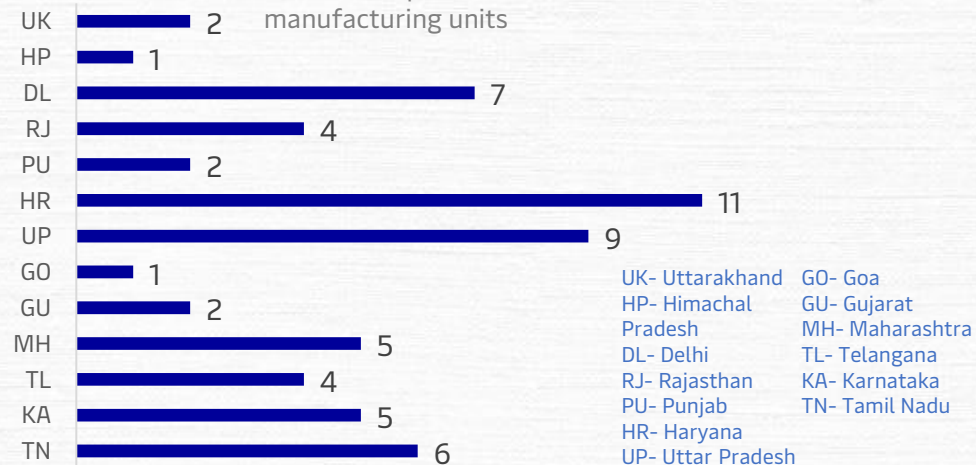
Looking these incentives at the concurrent level, many players are entering into India's manufacturing space. For instance, Taiwanese major Hon Hai Technology Group (aka Foxconn) is likely to set up an EV manufacturing unit in India through its subsidiary Foxtron. EV startup firm Mecwin India is to set up to invest INR 50 crores for establishing manufacturing plant in Bangalore for EV motors and controllers. The plant that will get commissioned by Dec 2022 or early Jan 2023 will have initial capacity of 2000 units per day.

State Wise Manufacturing Units Established in India under PLI*

Exhibit 1.5 State Wise Spread of New Manufacturing Units Established in India under PLI* (FAME II) from April 2019- 2022



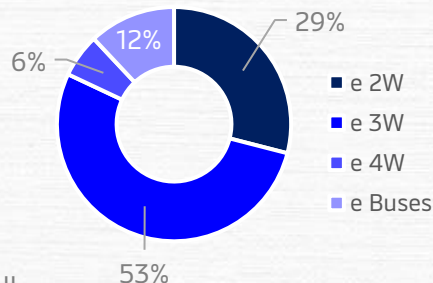
State wise spread of new established manufacturing units



New EV Manufacturing Units

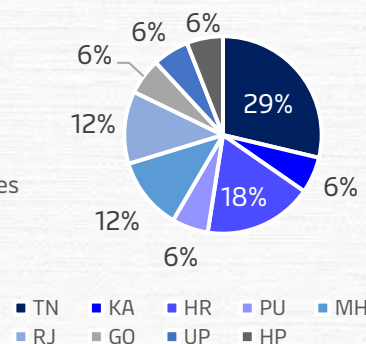


Electric vehicle wise split of new established manufacturing units

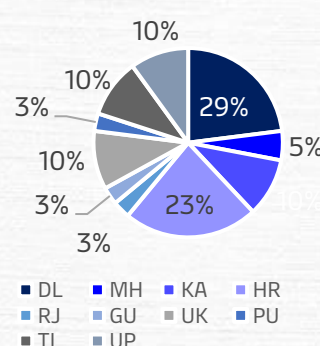


*indicates FAME II

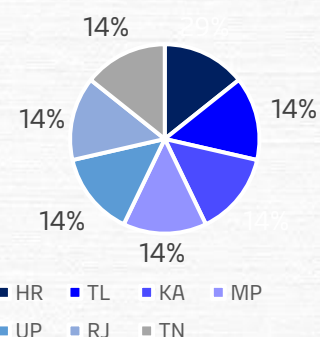
State wise spread of e-2W manufacturing units



State wise spread of e-3W manufacturing units



State wise spread of e-buses manufacturing units



Leading Players in Electric Vehicle Market in India

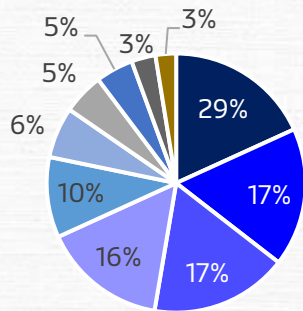


Electric Two-Wheeler

As per the industry estimates of June 2022, in India, electric two-wheeler segment is dominated by four players – **Okinawa Autotech**, **Ampere Vehicles**, **Hero Electric Vehicles** & **Ola Electric**. Cumulatively these OEMs cater nearly 61% of e-2W demand in the country.

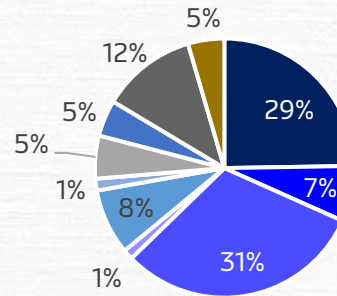
Exhibit 1.6 Market Share of Leading e-2W OEMs in India

Market Share as of June '2022



These are the top 10 OEMs for e-2W. Cumulatively they dominate 89% of e-2W supplies in India during Jun'2022

Market Share as of June '2021



These are the top 10 OEMs for e-2W. Cumulatively they dominate 95% of e-2W supplies in India during Jun'2021

■ OKN ■ AMP ■ HERO ■ OLA ■ ATH
■ REV ■ TVS ■ BJ ■ PUR ■ BIG

OKN- Okinawa Autotech
AMP – Ampere Vehicles
HERO – Hero Electric Vehicles
OLA- Ola Electric Technologies
ATH – Ather Energy
REV- Revolt Intellicorp

TVS – TVS Motor Company
BJ – Bajaj Auto Limited
PUR- PUR Energy Private Limited
BIG – Being India Energy
GOR – Goren E Mobility Private Limited

■ OKN ■ AMP ■ HERO ■ GOR ■ ATH
■ REV ■ TVS ■ BJ ■ PUR ■ BIG

Source : Eninrac Research, Channel Checks

Leading Players in Electric Vehicle Market in India

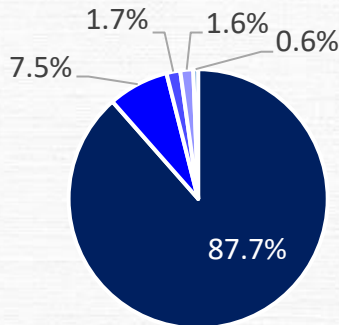


Electric Passenger Vehicle

As per the industry estimates of June 2022, in India, electric three-wheeler segment is dominated by **Tata Motors**. The company standalone catered 88% of electric passenger vehicle supplies in the country during Jun'2022 with a increased production of 582 units in June 2021 to 2709 units in June'2022.

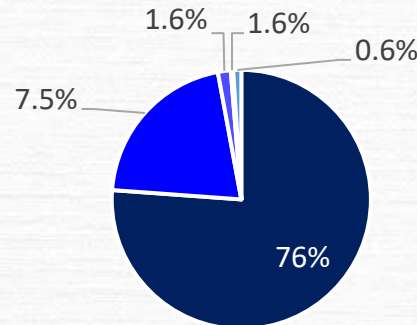
Exhibit 1.7 Market Share of Leading E- Passenger Vehicle in India

Market Share as of June '2022



These are the top 5 OEMs for e-passenger vehicle. Cumulatively they dominate 99% of e-passenger vehicle supplies in India during Jun'2022

Market Share as of June '2021



These are the top 5 OEMs for e- passenger vehicle. Cumulatively they dominate 95% of e-2W supplies in India during Jun'2021

■ TMT ■ MGM ■ HMI ■ BYD ■ M&M

■ TMT ■ MGM ■ HMI ■ MCD ■ M&M

TMT – Tata Motors
MGM – MG Motors India
HMI – Hyundai Motor India
BYD- BYD India Private
M&M- Mahindra & Mahindra

MCD- Mercedes Benz AG

Leading Players in Electric Vehicle Market in India

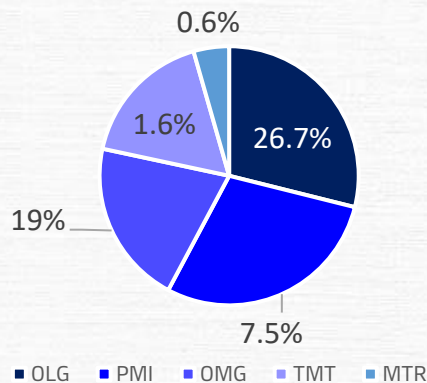


Electric Commercial Vehicle

As per the industry estimates of June 2022, in India, electric commercial vehicle segment is dominated by four players – **Olectra Greentech Ltd, PMI Electro Mobility, Omega Seiki Pvt Limited & Tata Motors**. Cumulatively these OEMs cater nearly 88% of e-commercial vehicle demand in the country.

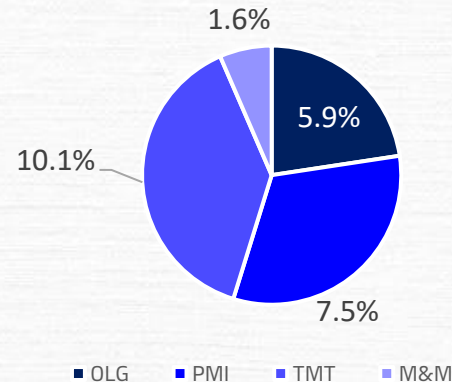
Exhibit 1.8 Market Share of Leading E- Commercial Vehicle in India

Market Share as of June '2022



These are the top 5 OEMs for e-commercial vehicle. Cumulatively they dominate 88% of e-commercial vehicle supplies in India during Jun'2022

Market Share as of June '2021



These are the top 4 OEMs for e-commercial vehicle. Cumulatively they dominate 26% of e-commercial vehicle supplies in India during Jun'2021

OLG- Olectra Greentech Limited
 PMI- PMI Electro Mobility
 OMG – Omega Seiki Private Limited
 TMT- Tata Motors Limited
 MTR – Mytrah Mobility
 M&M – Mahindra & Mahindra



Truth is ever to be found in the simplicity, and not in the multiplicity and confusion of things

- Sir Isaac Newton



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