

# Auto Bytes

## OEMs making significant investments in hybrid and electric vehicle (xEV) supply chain

With the help of rapid transition of global energy and combined initiatives of the government and companies to reduce the lithium-ion battery prices, the government aims to significantly improve the rate of EV adoption in the country. The growing demand for EVs across the globe coupled with favourable government policies have added impetus for a change in the automotive and battery manufacturing industries both domestically and globally.

In the present scenario, as Original Equipment Manufacturers (OEMs) sell both conventional and EVs in tandem, it is going to create a significant impact on the automotive ecosystem. Virtually all reusability between existing models and new models is gone, and a complete disruption of the industry economics is on the cards. New supply-chain partnerships are the need of the hour, and industry suppliers are ready to redefine their entire product portfolios in order to retain their position in the changing automotive landscape. Some OEMs already have and others are ready to invest billions to stay relevant in this new normal.

Gegadyne Energy, a Mumbai-based EV and energy storage start-up, has secured a considerable amount of funding from the Mumbai Angels Network. Emflux Motors showcased its first prototype, which was an electric bike called the Emflux One; it hit Indian roads in April 2019. They need INR 325 million to expand operations and are already in talks with multiple investors. Ola Electric Mobility Pvt. Ltd., a company backed by the app-based taxi-hailing service provider Ola, raised INR 400 crore in its first round of funding from Tiger Global and Matrix India, among others. Further, Eagle10 Ventures, Blue Hill Pvt. Ltd., and Angel Investors have invested in Pi-Beam Labs Pvt. Ltd, a clean-tech automotive start-up which makes electric utility vehicles for the micro-mobility market. In May 2019, Salzar Electronics announced that it is purchasing a majority stake of 72.3% in the listed Kaycee Industries Ltd. for \$2.28 million.

The xEV supply chain in the country should attempt to understand the levers that are highly influential in the adoption of emerging new technologies, and then analyse, explain and meet the choices for auto players to pursue. India should also consider domestic manufacturing of lithium-ion batteries, which are currently considered an EV's most expensive component.

Manufacturing batteries for EVs domestically can help automakers price EVs at affordable rates for Indian consumers. India can also become a net exporter of batteries, and help other countries adopt electric mobility and renewable energy seamlessly.

Here, the major shift is going to be from engine management, emission control and fuel efficiency to batteries, drive motors, and other aspects of technology. Electricity companies would become new power centres, driving innovations in future vehicles along with technology companies. As a result of this, the focus has now shifted to new technologies as cars become actual computers on wheels. We are on the path to achieving complete electrification and a green future.

The declining price trend of lithium-ion batteries has contributed to making high-mileage electric service vehicles cost competitive in terms of the total cost of ownership in several geographies. Investments through private equity (PE) and mergers and acquisitions (M&A) in these geographies encapsulate the massive potential that EVs possess for shaping the future of the automotive industry in the country. Estimates by NITI Aayog show that the valuation of the domestic market for EV batteries may expand to \$300 billion by 2030. This is why the industry has witnessed a significant commitment towards this larger objective from OEMs, coupled with increased investment in xEV supply chains.



On 13 November 2018, **Hyundai Motor India Limited** announced an investment of **INR 7,000 crore** in its Chennai plant for development in new models, including EVs.

**Mahindra Electric Mobility's** electric technology R&D and manufacturing lab in Bengaluru involves an investment of **INR 400 crore**.

**EV Motors** has envisioned the establishment of **6,500 charging stations across India**, committing around **\$200 million** for it.

In March 2019, **Hyundai Motor Company and Kia Motors** pledged to invest **\$300 million** in Ola to construct India-specific EV infrastructure.

**KTM Industries AG and Bajaj Auto Ltd.** will be working together to manufacture **Two-wheeler EVs**, including scooters, mopeds and small mopeds, with a **power output of 3-10 kW**.

In June 2019, **MG Motors India** decided to invest over **\$700 million** in plant set-up, product development, marketing and EVs.

Novel projects and investments mentioned above demand the support of a comprehensive policy, an enduring ecosystem, charging infrastructure, further collaboration within the auto sector, and cooperation of the power sector in order to ensure sustainability and international competitiveness.

In 2018, the EV market accounted for a mere 1% of the total automobile sales. But FY 2019 saw significant progress with total sales of EV units reaching 7,59,600. The break-up of sales is as follows:



Two-wheelers (2Ws)  
**1,26,000**

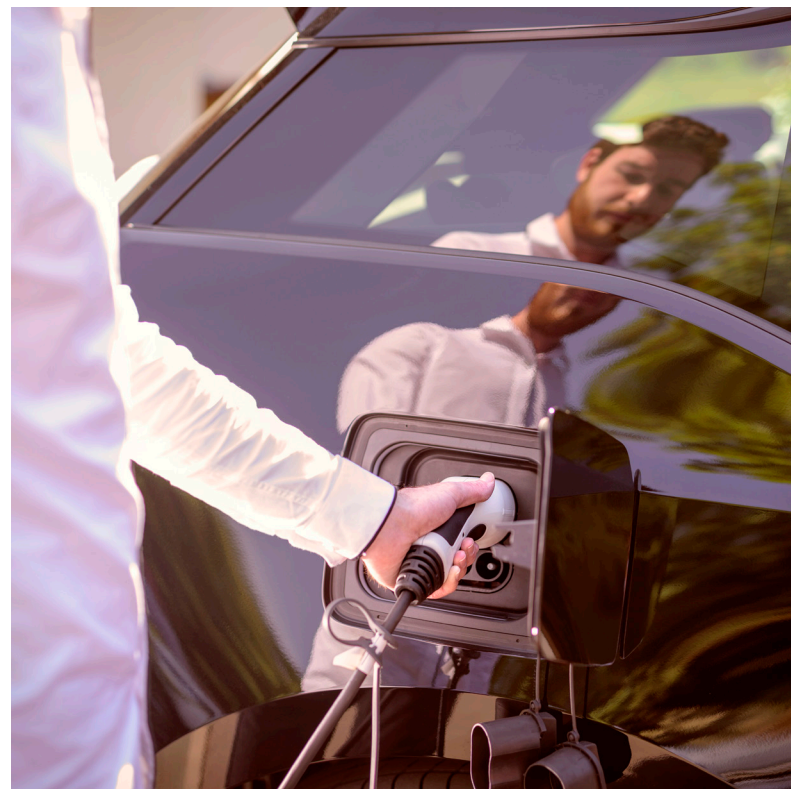


Three-wheelers (3Ws)  
**6,30,000**



Passenger Vehicles (PVs)  
**3,600**

Several challenges prevail for OEMs in terms of maintaining an optimum level of profitability and retaining the most important units and resources. We look forward to seeing how batteries made in the country can support the government's goals for vehicle electrification, renewable energy integration and job growth, and speed the world's transition to a clean energy economy.



For more information or for any queries, write to us at [contact@in.gt.com](mailto:contact@in.gt.com)



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