

PERSPECTIVE

FLEET ELECTRIFICATION IN INDIA

WHAT ARE SOME OF THE TOP TRENDS IMPACTING IT?



Electrification is a key solution to growing levels of vehicle pollution in metropolises and is of particular importance to India today. The automotive industry is already feeling the effects of electrification, both globally and in India. As environmental regulations become more binding, many fleets have started to recognize the need for electrification. Integrating electric or hybrid electric vehicles into the fleet portfolio helps address sustainability and environmental goals. Hence, a staged procurement strategy will enable the fleets to support efficient operations and business continuity. Read on to find out what some of our experts have to say about how the electrification scenario currently looks in India and what are top trends impacting it..



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Fleet owners in India are warming up to the potential of EVs, which offer clean and economically viable mobility. Most online business-to-business (B2B) and business-to-customer (B2C) platforms (e.g., e-commerce, delivery services, and on-demand mobility providers) are switching to EVs to meet their sustainability targets. Companies such as Amazon, Flipkart, BigBasket, and IKEA are making conscious efforts to transition to EVs for their deliveries through logistic fleet owners (e.g., DOT, EFleet Logix, and Gayam Motor Works).

Similarly, passenger fleet owners such as Ola and Bounce have started replacing their existing fleet with EVs. This positive trend is boosted by Government of India schemes—such as FAME II that provides a purchase incentive of INR 20,000 to INR 1,50,000 based on the type of vehicle purchased (e.g., two-wheeler, three-wheeler, or four-wheeler).

The main challenge in this transition is the cost of procuring an EV fleet. EVs are known to have about three times higher purchase cost than internal combustion engine (ICE) vehicles. However, for fleets with high vehicle utilisation the operating cost would be lower than their ICE counterparts. EVs can attain parity with ICE vehicles when they run for more than 100 km/day. This implies a lower cost of ownership for EVs used in commercial fleet operations when compared to ICE vehicles.

Some of the recent trends in the EV space seem favourable for fleet operators:

BATTERY INNOVATIONS

The high cost of EVs is largely attributed to their batteries. However, with innovations in battery technology and the Government of India’s support for local manufacturing, the cost of batteries has come down in recent years. In fact, the cost of batteries has seen a drastic 60% reduction in the last five years and is expected to reduce further.

BATTERY-AS-A-SERVICE

Along with innovations in technology, battery-as-a-service models are also evolving. The Government of India is allowing the sale of vehicles without batteries, and batteries can now be leased with battery replacement options. In Delhi, customers who opt to buy EVs without battery get a 50% purchase incentive

and the remaining 50% is given to battery service operators to settle the deposit to be paid by battery users. This makes batteries affordable and flexible to use. Battery-as-a-service operators provide batteries on pay-per-use or prepaid contracts. This also removes the burden of battery maintenance downtime from fleet owners.

CHARGING NETWORK

Lately, India has been focussing on establishing an efficient charging infrastructure network to enable the smooth transition to EVs. Several innovative charging business models have emerged, as a result. Most passenger fleet owners such as Ola Electric, Bounce, and SmartE are opting for a decentralised charging network to serve a large catchment area. Bounce, a two-wheeler passenger fleet operator, has set up battery swapping facilities in small shops (or kiranas).

On the other hand, logistic fleet owners that operate on fixed routes prefer centralised captive charging systems. Logistic fleet owners such as Gayam Motor Works, DOT and EFleet Logix have set up their charging stations where EVs are charged twice a day.

Battery-swapping-only-facilities are also being experimented where the swapped batteries are collected and charged at a central location.

VEHICLE INNOVATIONS

Most states have EV policies that encourage the local manufacture of EVs. This move is envisioned to reduce the purchase cost of EVs and also provide employment opportunities. Among the Indian EV models, most manufacturers or fleet owners focus on innovative designs customised to suit Indian operations.

These trends highlight the dynamic nature of the Indian EV ecosystem. Today, the industry provides several options that fleet owners can choose from depending on their budgets. The vehicles in the fleet can be either owned or leased and bought with or without batteries. Further, the batteries can also be owned or leased by paying upfront or per use. These options have made the transition to EVs affordable for fleet owners.

This large-scale adoption of EVs in fleets could be crucial in achieving India’s electric mobility goals.

