

How GST reduction can speed up electric mobility in two and three-wheeler segments

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EV customers in the two- and three-wheeler segments cannot be subjected to decision making challenges and uncertainties around batteries, standards, performance and cost issues.

When we talk of Electric Vehicles (EV)s in India, people generally imagine a car with a battery. Strange as it may seem from a mind-set standpoint for a country that has a unique mobility pattern much different from many countries of the world. This has also been pointed clearly in a Niti Aayog report titled “Zero-Emission Vehicles: Towards a Policy Framework” where it states that while vehicle growth in India has been rapid, a key difference between India and other countries are the types of vehicles being used. India uses a large variety of motorized transport on roads and its auto-segments are quite different from that of most of the world. Based on sales data, the vehicles on Indian roads are estimated to consist of: 79% in 2-wheelers, 4% in Three-wheelers, 3% in Buses and trucks, 12% in the economy and 2% in premium four-wheelers. Therefore, while the car segment to go electric is important, the 2 and 3 wheeler segments merit serious attention as well in their desire to go electric.

However, the triggers for adoption in these segments are heavily dependent on economic and operational viability as this segment is not only cost-conscious but also unwilling to burden itself with battery maintenance issues. The battery space is slowly evolving but customers cannot be subject to risks of evolving technology. While innovation continues in the battery space, dependencies continue heavily on Lithium-ion technology. Solutions involving aluminum-graphite, graphene-polymer, solid oxide, and sodium-based ones continue to emerge but the end EV customer in the 2 & 3 wheeler segment cannot be subjected to decision making challenges and uncertainties around batteries, standards, performance and cost issues.

It is commendable that the government has recognised the need for taking important steps in this space through programs and schemes such as National Electric Mobility Mission Plan 2020 (NEMMP), Scheme for Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India), National Mission on Transformative Mobility and Battery Storage, Phased Manufacturing Programme (PMP), State EV policies, State Electricity Regulatory Commissions on EV charging, Additional income-tax deduction on the interest paid on loans taken for the purchase of EVs, etc. but more needs to be done at the GST level for making this viable and operational.

The challenge that this sector and its consumer faces today is cost and maintenance issues. Consumers are worried about the GST tax structures and the viability of owning a battery and its back up. It may be noted that the li-on battery used in EVs constitutes approximately 40 to 50 percent of the cost of EVs. Considering that battery and its charging are essential factors in determining the overall cost of using EVs, reduction in the cost of using such batteries would go a long way in making EVs more affordable and commercially viable.

Today batteries sold as an integral part of EVs are taxable at 5% GST and batteries sold outside attract 18% GST. This difference is a major deterrent for consumers wanting to own a battery back-up or even future battery change. Most consumers want to just own the vehicle and not the battery look for third party battery swap options since this brings down cost, eliminates worries around battery performance and maintenance issues. For businesses desirous of giving such options their own business becomes economically unviable as they have to procure the battery at 18% GST and since swapping is a service, it further attracts 18% GST. There is an urgent need by the GST council to rationalise the GST rate applicable

on batteries (whether provided under sale, lease or battery swapping arrangement) and battery charging service to 5% GST.

The advantage of the encouragement of such models ensures customers do not unsafely charge or store batteries as the swapping business operator ensures batteries are pre-charged under a temperature-controlled environment thereby increasing the effectiveness of batteries. Today most of the commercial vehicles for public transport including e-rickshaws, e-cabs, e-buses already operate their EVs under a battery swapping arrangement as it enables them to achieve a higher level of operational efficiencies without incurring idle time at charging stations.

The Niti Aayog has also recommended that swappable batteries and vehicles which receive swappable batteries should be treated the same under GST of 5%. Internationally countries recognise this for eg. UK VAT notice 701/19 supplies of batteries by sale or hire, recharging of batteries or exchanging charged batteries for discharged one is liable to tax at the same rate. For India to take this leap it is important that such rate anomalies are rectified at an early stage and batteries (under sale, lease or swapping arrangement) and battery charging service is brought at par at 5% with the GST rate applicable on EVs, chargers and charging stations.