



How Supportive Are Indian EV Policies To Charging Infrastructure In Order To Power The Mobility Transition?

It is known that adequate and accessible electric vehicle (EV) charging infrastructure is a necessary precondition for the mass adoption of EVs in India. To support an electric mobility future, governments must focus on building the necessary charging infrastructure - one that supports the target vehicle numbers it hopes to achieve. Even though there is no perfect EV to charging station ratio to aim for, every country will have to design fit-for-purpose solutions to cater to their electric mobility needs. Accordingly, policymakers will have to set and finalise targets, standards and financial solutions to accelerate the transition. This transition to electric mobility is governed by both central and state policies in India. The efforts by the government will play an important role in laying the foundation for an electric vehicle based future. Policies must be such that they encourage private participation through new business models suited to public charging in India. The government, vehicle manufacturers, and independent charge point operators and other industry players are all part of this ecosystem, and thus have to play a very proactive role in mass adoption of EVs in the future.



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Earlier this month, NITI Aayog released a handbook to guide state governments and local bodies in developing a robust charging infrastructure for electric vehicles (EVs). The handbook aims to facilitate a rapid transition to electric mobility in the country by enhancing the charging infrastructure, a key determinant of EV uptake.

This, indeed, is a timely move. Studies have shown that electric vehicle per charger ratios are crucial for the sustainable adoption of EVs. Currently, India has only 2,300 public charging points, which means one charger for 300 EVs (as compared to a global average of 8 EVs per public charger).

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GOVERNMENT EFFORTS

Though the Indian EV market is growing gradually (due to incentives at the national and state levels, and increasing fuel prices), the current share of EVs in the overall vehicle sales stands at a meagre 1.32%. At this rate, India's target-of EVs forming at least 30% of new sales by 2030-seems ambitious. While factors like high capital costs, limited model availability, and low land availability also obstruct growth, the chief impediment is the inadequacy of charging infrastructure (and the associated issue of consumers' range anxiety).

In the past, the central and state governments have taken several measures to facilitate the expansion of charging infrastructure. For instance, under the Faster Adoption and Manufacturing of Hybrid and Electric Vehicle (FAME) scheme, the government has allocated funds for 2,636 public charging stations across 62 cities. Also, the GST rates for the chargers have been reduced from 18% to 5% since 2019. Further, the Ministry of Housing and Urban Affairs has made amendments to the building bye-laws to enable the setting-up of charging infrastructure, along with the additional power load.

Supporting these central schemes, around 14 states have approved dedicated EV policies since 2017. Most of them provide 25% capital subsidy for charging stations and concessions on power tariff for public charging connections. Other provisions include land provision incentives, amendments to land use and building codes, and promotion of renewable energy (via captive generation or open-access route).



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**GOING LOCAL MAKES SENSE**

The policy landscape so far indicates that the most crucial aspects in the expansion of EV-charging infrastructure are - finances, land, and governance. Globally, success in this area has been driven by government funding, public-private partnerships (PPP), and pilot projects. While funding is a challenge in the current economic scenario, targeting localised charging demand is economically feasible. Competitive grants to urban local bodies can nudge them to install chargers at key locations that can later be scaled through PPP arrangements. As land is a major consideration in installing chargers, the local bodies should actively aggregate the available public land parcels near bus stops, petrol stations, post offices, electricity boards, public-sector banks, etc. Urban local bodies can, thus, play a prominent role in creating a robust EV-charging network. For effective governance, a city-level task force with representation from all relevant agencies should be established. This would ensure cooperation at several levels for fast-tracking the implementation of strategies, and address issues related to land and electricity through a single window.

IN CONCLUSION

With NITI Aayog emphasising the need for coordination between public and private stakeholders, India has set its foot in the right direction. But this won't be enough. For building a well-connected charging network that would support India's EV targets, decentralising funding and power, and according a central role to local bodies is the key.