

Press Release

Is Bengaluru prepared to support the increasing number of electric vehicles?

More than 36,000 public charger guns, 400 charging stations, and 141-acre land would be needed in Bengaluru to meet the demand from electric vehicles by 2030

For Immediate Release

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As electric vehicles (EVs) have zero tailpipe emissions and lower running costs, an increasing number of Bengalureans are adopting EVs over their conventional counterparts. As per a Bengaluru-based think tank, the Center for Study of Science, Technology and Policy (CSTEP), the city will have more than 23 lakh EVs by 2030. However, for a smoother transition to EVs, challenges related to battery charging need to be overcome.

In this regard, CSTEP conducted a study 'Bengaluru 2030: EV Charging Demand and Infrastructure', which assessed the number of charger guns required in 2030, impact of these guns on the grid, and potential locations for setting them up. The study also proposed charging tariffs for 2030 by considering the current utilisation rates, tariffs, and anticipated demand in 2030. Consumer surveys were used to gauge perceptions about EVs and their charging patterns.

As per the results, more than 36,000 public charger guns—25 times the guns in 2023—would be required in 2030 to meet the charging needs of more than 23 lakh EVs. Further, the annual estimated energy demand from EV charging in 2030 would be 3.3–4.1 BU, accounting for 7%–9% of the city's annual energy demand in 2030. The peak load due to EV charging is expected to reach 1.2 GW by 2030, as against 0.096 GW in 2023.

The study also assessed the demand for public charger guns in each Regional Transport Office (RTO) zone in Bengaluru. Subsequently, it identified approximately 400 potential charging locations (e.g. IT parks, metro stations, fuel stations, and shopping malls) in nine RTO zones to meet the demand from EVs in 2030. The land required for establishing these charging stations would be 141 acre, which is equivalent to the land for approximately 700 petrol pumps.

To assess the business viability for charge point operators to set up charging stations in the metropolis, a commercial analysis was performed by the study. As per the results, the charger utilisation rates will be 25%–50% in 2030, and the corresponding tariffs for various types of charger guns can be capped at INR 11–15/kWh.

The study highlights that overnight home charging, which is currently preferred by EV users, results in the least strain on the grid. However, going ahead, promoting daytime charging at workplaces or public charging stations, through policy measures, may be beneficial for increasing the share of renewable energy used for EV charging.



The full report is available [here](#).

For more details and interviews, please write to us at cpe@cstep.in

About CSTEP: The Center for Study of Science, Technology and Policy (CSTEP) is one of India's leading think tanks, involved in solving Grand Challenges that the country faces. These include Sustainable and Secure Future, India's Green Energy Transition, Clean Air for All, and Digital Transformation.