

India needs both e-vehicles and biofuels

E-vehicle adoption needs changes in building bye-laws and huge charging infra. Complementing with biofuels is pragmatic

Sanjib Pohit
Anupma Mehta

Given that vehicles are the biggest culprits for polluting Delhi, the government has launched a stringent drive against polluting vehicles this year, through measures such as banning petrol and diesel vehicles older than 15 years and 10 years, respectively; promoting e-vehicles; and the deployment of nearly 400 teams on Delhi's roads to check the vehicles' pollution certificates and prevent the plying of over-age cars.

The most far-reaching move is, however, the push for the widespread adoption of electric vehicles. The Ministry of Road Transport and Highways has announced a policy of EV30@2030, where by 2030 30 per cent of the newly registered private cars, 40 per cent of buses, 70 per cent of commercial vehicles, and 80 per cent of two- and three-wheelers will be electric vehicles.

THE CHALLENGES

But the chief of The Energy Resource

Institute (TERI), Ajay Mathur contends that the target to switch to e-vehicles within the next 10 years is hard to achieve as the vehicle market is consumer-driven, and ensuring acceptability and desirability among consumers is vital.

The other challenges include affordability concerns stemming from high battery costs; limited facilities for building a robust battery manufacturing ecosystem; lack of a consistent policy framework for e-vehicles; and high charging times and inadequate availability of charging stations for such vehicles, especially in space-constrained urban areas like Delhi.

Experts point out that providing dedicated charging stations for every e-vehicle in cities would necessitate re-engineering of building laws and widespread construction of multi-level parking lots across the entire urban landscape.

The introduction of e-vehicles thus needs to be implemented in a graded fashion in tandem with other feasible options.

The replacement of fossil fuels with biofuels, for instance, can not only



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counter environmental pollution but is also a more affordable alternative to the rapid adoption of e-vehicles. Since biofuels are generated from renewable stocks, their production and use could be sustained indefinitely, unlike fossil fuels that come with expiry dates.

Moreover, since ethanol-based biofuels can be produced domestically on a large scale, their introduction into the vehicle manufacturing ecosystem would also bring down overall costs, reduce the need for oil imports, and enable the country to better deal with the adverse impacts of global supply disruptions in oil and gas.

Biofuels derived from waste and farm residue can also re-energise the rural economy and augment farmers' incomes. In this context, recent policy efforts to promote biofuel production are already showing results. According to Government sources, the target of 10 per cent ethanol blending for 2022 was achieved comfortably, leading to notable savings in forex outflows.

Hence, combating the scourge of air pollution and vehicular emissions warrants the twin strategies of pragmatic introduction of e-vehicles on roads coupled with changes in building bye-laws and making charging infrastructure compulsory for large real estate (residential/commercial) project, and promoting greater use of biofuels to eventually phase out conventional polluting fuels. Both measures require policy interventions for creating appropriate infrastructures and investments in research and development to help achieve India's net zero and decarbonisation goals.

Pohit is Professor and Mehta is Head of Publications and Senior Editor at NCAER. Views expressed are personal.