The crucial role of state policies in accelerating EV adoption

To achieve a truly sustainable transportation future, it is critical for Indian states to consistently prioritize the promotion of electric vehicles (EVs). The Central government has introduced various incentives through the PM E-Drive program to encourage EV adoption across different categories. With a reduced Goods and Services Tax (GST) of 5% on EVs—compared to the significantly higher 28% or more on conventional internal combustion engine (ICE) vehicles—the financial environment for EV buyers is becoming increasingly favorable.

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Recent news reports headlined that despite experiencing a chronic and severe AQI problem, Delhi saw a sharp decline in zero-emission electric vehicles (EV) registrations this year. Registrations in the national capital slumped from 1,455 units in January to just 220 in November, a staggering 85% fall. Sector experts say that lack of clarity, whimsical halts and restarts of policy encouraging EV adoption and unrealized promise of benefits have deterred customers from buying EVs in Delhi.

Unfortunately, this is not an isolation for the same is true for several other states too.

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In addition, many states are offering additional benefits including incentives and waiving Road Transport Office (RTO) charges, which typically range from 6% to 15% for ICE vehicles. This state-level support is essential, as it directly addresses regional challenges and harnesses local opportunities to accelerate EV adoption. Experts stress that state EV policies are not merely supportive but are critical drivers in realizing the national vision of electric mobility. Consistency in policy execution at both state and national levels is vital for achieving lasting and impactful results.

Hemal Thakkar, Senior Practice Leader and Director of Consulting at CRISIL, asserts, "State EV policies are a huge propeller of EV adoption." Ashim Sharma, Partner & Group Head – Business Performance Improvement at Nomura Research Institute (NRI), also emphasizes that state incentives significantly reduce the acquisition costs and total cost of ownership (TCO) for EVs, making them more accessible to consumers.

Speaking on similar lines, Saket Mehra, Partner at Grant Thornton Bharat, highlighted that states like Gujarat, Odisha, and Punjab, with compound annual growth rates (CAGRs) exceeding 200% from FY21-24, demonstrate how progressive policies can drive rapid EV growth.

Gujarat is targeting two lakh EVs across segments by July 2025, including 1.1 lakh e-two wheelers, 70,000 e-three wheelers, and 20,000 e-four wheelers. Subsidy will be disbursed directly via DBT mode and there's an incentive of Rs. 10,000 per kWh to e-2W (maximum ex-factory price of INR 1.5 lakh), e-3W (max. ex-factory price of INR 3 lakh) and e-4W (max ex-factory price of INR 15 lakh).

As per the Bureau of Energy Efficiency (BEE), 28 states and Union Territories in India have implemented EV policies, with two more in the pipeline. However, it is vital that these policies evolve continually to keep pace with the rapidly changing EV landscape.

States/UT EV Policy Status Notification Policy Period (Validity)

State/UT	EV Policy Status	Notification	Policy Period (Validity)
Andaman & Nicobar Islands	Draft	May 2022	5 years
Andhra Pradesh	Notified	Jun 2018	5 years
Arunachal Pradesh	Draft	NA	5 years
Assam	Notified	Sep 2021	5 years
Bihar	Notified	Dec 2023	5 years
Chandigarh	Notified	Jan 2022	5 years
Chhattisgarh	Notified	Aug 2022	5 years
Delhi	Notified	Aug 2020	5 years
Goa	Notified	Nov 2021	5 years
Gujarat	Notified	Jan 2021	4 years
Haryana	Notified	Jul 2022	5 years
Himachal Pradesh	Notified	Jan 2022	5 years
Jammu & Kashmir	NA		
Jharkhand	Notified	Oct 2022	5 years
Karnataka	Notified	Sep 2017	5 years
Kerala	Notified	March 2019	5 years
Ladakh	Notified	Aug 2022	5 years
Lakshadweep	NA		
Madhya Pradesh	Notified	Nov 2019	5 years
Maharashtra	Notified	Jul 2021	4 years
Manipur	Notified	Aug 2022	5 years
Meghalaya	Notified	Feb 2021	5 years
Mizoram	NA		5 years
Nagaland	NA		5 years
Odisha	Notified	Feb 2021	5 years
Puducherry	NA		5 years
Punjab	Notified	Feb 2023	5 years
Rajasthan	Notified	Aug 2022	5 years
Sikkim	Notified	Sep 2023	5 years
Tamil Nadu	Notified	Feb 2023	5 years
Tripura	Notified	May 2022	5 years
Telangana	Notified	Oct 2020	10 years
Uttar Pradesh	Notified	Oct 2022	5 years
Uttarakhand	Notified	Dec 2019	5 years
West Bengal	Notified	July 2021	5 years

The current EV market share stands at only 3.38% of overall vehicle sales, according to the Vahan portal. While some large states including Karnataka, Maharashtra and Uttar Pradesh have succeeded in achieving double digit penetration, several states are yet to have any meaningful penetration of EVs.

This diversity of state-specific policies mirrors India's unique challenges, setting it apart on the global stage. A similar case was only seen in the US, where California had a distinct EV policy compared to other states.

Yet, the road to widespread EV adoption is not without its hurdles. Recent policy changes, such as Delhi's temporary withdrawal of road tax exemptions for EVs, demonstrate the need for agile, responsive governance. Fortunately, the government recognized the adverse effects of this decision and reinstated incentives, extending the EV policy to March 2025.

Full electrification the only way forward

The Uttar Pradesh government's recent tax waivers for hybrid cars, alongside similar initiatives in Karnataka, experts warn, are diverting resources from the critical goal of achieving full electrification.
Amit Bhatt, India Managing Director at ICCT emphasizes that such investments may hinder progress towards a fully electric future, as hybrids are a stop-gap solution rather than a sustainable strategy.

Moving forward, clarity, alignment and consistency in central and state policies is essential for a cohesive strategy and incentive program to maximize EV adoption. Moreover, financial instruments, such as guarantees for longer-term loans and Viability Gap Funding (VGF) for public charging infrastructure, can significantly enhance EV market penetration.

Need for more clarity to push EVs

Previously, vehicles registered under the FAME scheme were also eligible for state-level incentives. However, with the introduction of PM E-Drive, there is a pressing need for clarity regarding the operational dynamics of registering vehicles under state-specific EV policies. "It is essential that state and central policies work in harmony to effectively promote EV adoption; otherwise, implementation could face significant challenges," a dealer told ETAuto.

The previous verification system relied on a One-Time Password (OTP) structure, but it has now transitioned to facial recognition technology. This shift presents new challenges, as photographs on ID cards may be outdated, potentially complicating the verification process and creating obstacles for both consumers and manufacturers, the dealer noted.

Mehra emphasizes that achieving India's national electrification goals requires a coordinated effort between the central and state governments. "Public-private partnerships and centralized coordination will facilitate seamless implementation and align state-level policies with national net-zero commitments," he stated.

Reports indicate that battery prices are expected to fall below $100/kWh by 2030, enhancing the competitiveness of electric vehicles (EVs) across most categories, potentially reducing their reliance on government support. However, Vaibhav Pratap Singh, Executive Director of the Climate and Sustainability Initiative (CSI), believes that e-buses and e-lorries, which require larger battery sizes, may still need assistance beyond 2030, with lorries possibly requiring support until 2040.

At that time, the payback periods for EVs—characterized by lower operating costs—will become more competitive, positioning them as a preferred technology despite existing challenges. In the interim, Singh suggests that the government consider introducing financial instruments such as guarantees to encourage financiers to offer longer-term loans, addressing the disadvantage of extended payback periods faced by EVs.

Additionally, measures like a Viability Gap Funding (VGF) scheme could enhance the business case for public charging infrastructure, promoting the development of a robust public charging network that supports deeper market penetration of EVs.

Nikhil Dhaka, Vice President at Primus Partners, highlights the importance of retrofitting buses, trucks, taxis, and auto rickshaws to significantly reduce emissions and support electrified mass mobility.

States like Assam, Chandigarh, and Telangana were among the first to offer retrofitting subsidies; Assam provides a 15% subsidy (up to INR 15,000) for three-wheelers, while Telangana has emerged as a leader in retrofitting auto rickshaws, hosting 70% of kit manufacturers based in Hyderabad.

"By retrofitting these high-emission vehicles, which are crucial for public and freight transportation, India can make a substantial impact on advancing electric mobility in mass transit and commercial sectors," Singh noted.
While many states are implementing innovative measures and policies to promote EV adoption and manufacturing, it is vital that they prioritize fiscal incentives, streamline disbursement processes, provide affordable financing, and eliminate regulatory hurdles related to permits and vehicle registrations. These steps are essential to making the generally established green goals viable and achievable.

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