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A downshift: Why India's EV push is leaving cars behind — and betting big on trucks

A new Rs 500-crore subsidy aims to support 5,600 e-trucks on Indian roads.

Written by Aggam Walia
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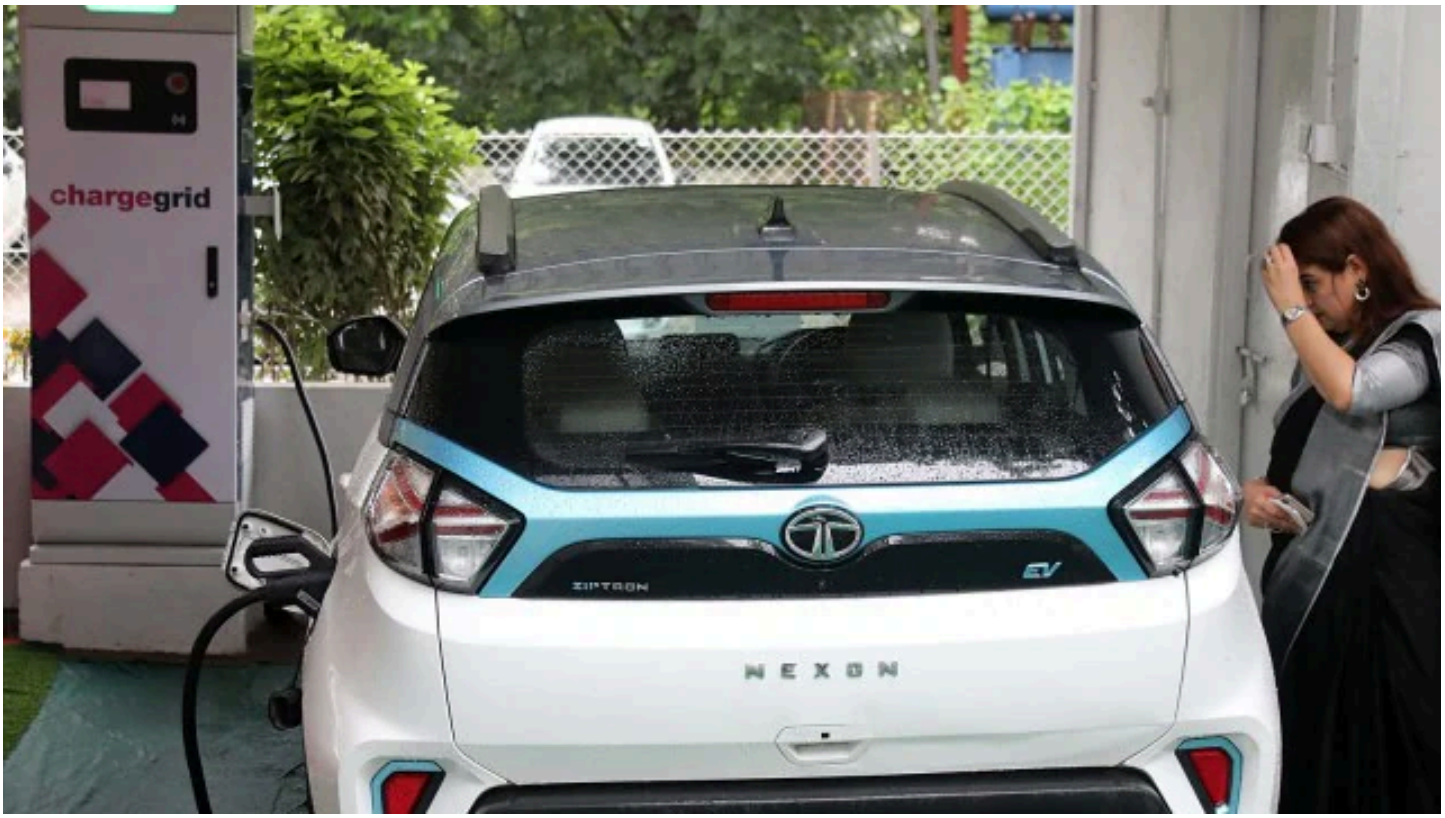

In 2024, the share of electric cars in total four-wheeler sales — or EV penetration — remained low at just 2 per cent. (Express Archives: Narendra Vaskar)

Over the past year, India's electric vehicle (EV) policy has undergone a quiet but significant pivot: electric cars are no longer centre-stage, while e-trucks have emerged as the new priority.

The first major signal came in September 2024, when the PM E-DRIVE scheme was rolled out without any incentives for electric four-wheelers — unlike the preceding FAME subsidy. Earlier this week, the NITI Aayog reinforced this stance, arguing that measuring progress in e-mobility through cars is "not… the right metric" for India.

Instead, the government is now turning its attention to electrifying trucks, which make up just 3 per cent of India's vehicle fleet but contribute a third of all transport-related carbon emissions and over half of particulate pollution. A new Rs 500-crore subsidy aims to support 5,600 e-trucks on Indian roads.

Despite support, electric cars remain a hard sell

Electric cars simply aren't selling fast enough in India to move the needle — largely due to their relatively high cost and persistent range anxiety. India's progress in electrifying four-wheelers "has been weak compared to the global scenario," the NITI Aayog report said.

In 2024, the share of electric cars in total four-wheeler sales — or EV penetration — remained low at just 2 per cent, according to New York-headquartered think tank Rhodium Group. In contrast, the EV penetration rate in the four-wheeler segment stood at 47 per cent in China, 23 per cent in Europe, 10 per cent in the US, and a striking 17 per cent in Vietnam — up from just 3 per cent in 2022.

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The sluggish pace in India comes despite several tailwinds — the FAME scheme subsidised at a cost of Rs 537 crore over 22,600 electric car purchases between 2019 and 2024, several states offered road tax and registration waivers, battery costs fell sharply, and a domestic EV supply chain took shape under the PLI scheme for auto components.

The volumes case against electric cars

There's another reason — "While 75% of Indian vehicles are two-wheelers, only 13% of these vehicles are cars… Hence, measuring progress in the transition to electric mobility by only looking at cars, as done in developed countries, would not be the right metric in a country

dominated by two-wheelers," the NITI Aayog report said. In the two-wheeler segment, the EV penetration rate was 6 per cent in 2024-25, according to JMK Research.

In addition to cars making up a smaller share of vehicles overall, large cars costing over Rs 10 lakh account for just 2 per cent of India's vehicle fleet. When identifying which segments most warrant policy interventions to boost supporting infrastructure, the report noted, "Personal cars would come lower down in the priority primarily because they compose a relatively small share of the vehicle fleet in the country and daily usage is also relatively low."

That said, the government did launch the Scheme to Promote Manufacturing of Electric Passenger Cars in India in March 2024 — which many had seen as aimed at attracting Tesla — with guidelines released in June this year. The scheme allows global automakers to import EVs at lower customs duties — provided they invest at least Rs 4,150 crore to set up domestic manufacturing. However, Tesla is "not interested in manufacturing in India," Union Heavy Industries Minister H D Kumaraswamy had said in June.

Incentives move from cars to trucks

As far as reducing emissions, particulate pollution, and dependence on energy imports is concerned, electrification of trucks will go a long way. "The longer haul trucks are an important component of the road transport system as they emit over 34% of the CO2 from the transport sector, despite constituting only 3% of the total vehicle fleet. A significant dent in the reduction of GHG from road transport will not be possible without transitioning long haul trucks to electric," the NITI Aayog report said.

Electric penetration in the truck segment remains negligible — just 0.7 per cent in 2024. Of the 8.34 lakh trucks sold that year, only 6,220 were electric, and just 280 had a capacity above 3.5 tonnes — the kind typically used for long hauls, according to the report.

In July, the Ministry of Heavy Industries launched an incentive scheme for e-trucks under PM-DRIVE, aiming to support 5,600 vehicles with a capacity of over 3.5 tonnes. The maximum incentive is set at Rs 9.6 lakh per vehicle, which is key as e-trucks have very high capital costs. The scheme makes a special provision for 1,100 e-trucks registered in Delhi to address "the capital's serious air quality challenges".

Earlier, in May, the Office of the Principal Scientific Adviser identified 10 routes to develop for zero-emission trucking (ZET) based on high traffic volume, active industrial growth, adequate ancillary services, and grid infrastructure. These include Chandigarh-Delhi-Jaipur, Dhanbad-Kolkata-Haldia, Bengaluru-Chennai-Villupuram, and Salem-Coimbatore-Kochi.

China is already showing what electrification of trucking can do to oil consumption — with around 9 per cent of heavy-duty trucks now electric, it is displacing over 1 million barrels per day in implied oil demand, according to the Rhodium Group.

Aggam Walia

Aggam Walia is a Correspondent at The Indian Express, reporting on power, renewables, and mining. His work unpacks intricate ties between corporations, government, and policy, often relyin ... Read More

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