

GOVERNMENT OF INDIA
MINISTRY OF HEAVY INDUSTRIES
LOK SABHA
UNSTARRED QUESTION NO. 4004
ANSWERED ON 25.03.2025

CONSUMER PERCEPTION TOWARDS ELECTRIC VEHICLES

**4004. SHRI CHHOTELAL:
SHRI ZIA UR REHMAN:**

Will the Minister of HEAVY INDUSTRIES be pleased to state:

(a) whether it has come to the notice of the Government that consumer perception towards Electric Vehicles (EVs) remains skeptical about their reliability and lifespan as compared to Internal Combustion Engine (ICE) vehicles; and

(b) if so, the details of the steps being taken by the Government to boost consumer confidence in this sector, considering the fact that EVs do not have an established and familiar technological base like ICE vehicles?

**ANSWER
THE MINISTER OF STATE FOR HEAVY INDUSTRIES
(SHRI BHUPATHIRAJU SRINIVASA VARMA)**

(a) & (b): With increase in the Electric Vehicles (EVs) adoption in last five years, it appears that consumer confidence is growing in EVs as EV Penetration level has gone up from 0.71% in 2019-20 to 6.82% in FY 23-24. The EV Penetration in current FY 2024-25 is 7.35%.

(No. in lakh)

Financial Year	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25 (till 18/03/25)
Category						
ICE Vehicles registered.	244.20	173.79	179.86	211.49	229.60	232.98
Electric Vehicles (EVs) registered	1.74	1.43	4.59	11.83	16.81	18.48
EV Penetration	0.71%	0.82%	2.49%	5.30%	6.82%	7.35%

Source: Vahan Portal

Further, the Government of India has taken following steps to give incentives/ subsidies on electric vehicles to resolve structural challenges in electric vehicles like, high cost of vehicles, lack of charging infrastructure, and consumer perceptions around battery performance and safety:

- i. **Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India) Scheme Phase-II :** FAME-II Scheme was implemented for a period of five years from 1st April, 2019 with a total budgetary support of Rs.11,500 crore. The scheme-incentivized e-2Ws, e-3Ws, e-4Ws, e-buses and EV public charging stations. More than 16 lakh EVs have been supported under the scheme. Under the FAME-II scheme, budget allocation of Rs.839 crore was made for setting up of Electric Vehicle Public Charging Stations (EVPCS).

- ii. **PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM EDRIVE) Scheme:** This scheme with an outlay of Rs.10,900 crore was notified on 29th September, 2024. It is a two-year scheme which aims to support electric vehicles including e-2W, e-3W, e-Trucks, e-buses, e-Ambulances, EV public charging stations and upgradation of testing agencies. Under the PM E-DRIVE scheme, an allocation of Rs.2,000 crore has been made for setting up electric vehicle public charging infrastructure.
- iii. **PLI Scheme for Advanced Chemistry Cell (ACC):** The Government on 12th May, 2021 approved PLI Scheme for manufacturing of ACC in the country with a budgetary outlay of Rs.18,100 crore. The scheme aims to establish a competitive domestic manufacturing ecosystem for 50 GWh of ACC batteries.
- iv. Ministry of Power (MoP) has issued "Guidelines for Installation and Operation of Electric Vehicle Charging Infrastructure-2024" on 17.09.2024 that outline standards and protocols for setting up of EV charging infrastructure network in the country. Further, MoP has also issued "Guidelines for Installation and Operation of Battery Swapping and Charging Stations" on 10.01.2025. These guidelines aim to facilitate robust EV charging infrastructure in the country.
- v. Ministry of Road Transport and Highways (MoRTH) vide S.O. 4567 (E) dated 28th September, 2022 has brought amendment to the Automotive Industry Standards, AIS:156 [Specific requirements for L (a motor vehicle less than four wheels and quadricycle) category electric power train vehicles] and AIS:038 (Rev 2) [Specific Requirements for M Category, (a motor vehicle with at least four wheels used for carrying passenger) N Category (a motor vehicle with at least four wheels used for carrying goods) Electric Power Train Vehicles] to prescribe Technical Requirements for Traction Battery of L, M and N Category of Electric Power Train Vehicles. The said Amendments are applicable from 01st December, 2022.
