



New Electric Vehicle Policy 2024

For Prelims: [Electric Vehicles](#), [Make in India campaign](#), [Production Linked Incentive](#), [FAME I and II](#), Electric Mobility Promotion Scheme (EMPS) 2024

For Mains: Electric Vehicles Challenges, Government Policies & Interventions, Mobilization of Resources

[Source: PIB](#)

Why in News?

In a significant development, the Government of India has greenlit a strategic policy aimed at **positioning India as a prime manufacturing hub for [electronic vehicles \(e-vehicles\)](#)**.

- This initiative is not only geared towards bolstering the nation's technological prowess but also aligns with the overarching goal of fortifying the '[Make in India](#)' campaign.

What is the Centre's New Electric Vehicle Policy?

▪ Highlights of the Policy:

- **Duty Reduction for EV Imports:**
 - The policy slashes **customs duty rate to 15%** (applicable to Completely Knocked Down - CKD units) will be imposed on EVs with a minimum CIF (Cost, Insurance, and Freight) value of USD 35,000 or above for a total period of 5 years.
- **Import Cap and Investment Prerequisites:**
 - While allowing reduced-duty imports, the policy **caps the number of imported EVs at 8,000 per year**.
 - Manufacturers must invest a minimum of Rs 4,150 crore (~USD 500 Mn) to avail duty concessions.
 - There's no ceiling on the maximum investment, incentivising substantial capital infusion into the sector.
- **Manufacturing and Value Addition Requirements:**
 - To promote local manufacturing, companies must set up operational facilities **within 3 years** and achieve a **minimum domestic value addition (DVA) of 25% within the same period**, escalating to **50% within 5 years** from the date of issuance of approval letter by the **Ministry of Heavy Industries**.
 - DVA is a percentage share of value that represents the value an economy adds to goods and services produced for export.
- **Maximum Import Allowance:**
 - If the investment exceeds USD 800 Mn, up to 40,000 EVs can be imported, not exceeding 8,000 per year.
 - Companies can carry over any unused annual import limits.
- **Duty Limit:**
 - The total duty waived on imported EVs will be capped at the investment made or Rs 6484 Cr (equal to incentive under the [Production Linked Incentive \(PLI\)](#))

[scheme for Automobile and Auto Components](#)), whichever is lower.

- **Bank Guarantees:**

- The bank guarantee will only be returned upon achieving 50% DVA and making an investment of at least Rs 4,150 crore or to the extent of duty foregone in 5 years, whichever is higher.

- **Key Benefits:**

- The policy stimulates innovation and progress in electric vehicle technology.
- It promotes indigenous manufacturing, aligning with the government's **Make in India campaign**.
- By promoting EV adoption, the policy helps reduce crude oil imports and narrows the trade deficit.
- The shift to electric vehicles contributes to mitigating air pollution, particularly in urban areas.
 - The new **EV policy aligns with [India's climate goals](#)** of reducing emissions intensity by **45% by 2030** and achieving **net-zero emissions by 2070**.
- Positive Impact on Health and Environment.

- **Impact:**

- The policy aims to attract global players like Tesla by offering investment incentives and import duty reductions.
 - Global EV manufacturers, including Tesla, Inc., had been advocating for **tariff concessions as a prerequisite** for establishing manufacturing plants in India.
 - The new policy effectively fulfils this demand, signalling India's commitment to attracting foreign investment in the EV sector.
- With **India currently being the world's third-largest automobile market** and one of the fastest-growing, the EV sector is poised to emerge as a major category within the automotive industry.
 - The automotive sector's substantial contribution to **India's GDP underscores its strategic importance**.

The EV market in India

- The Indian EV market is witnessing rapid growth, with EV sales surging by **over 45% in 2024** despite regulatory changes.
- Total EV registrations surpassed **1.5 million units by the end of 2023**, a significant increase from just over 1 million in the previous year.
- The growth in EV registrations has elevated **India's overall EV market penetration to 6.3%**, indicating significant progress in EV adoption.
- Indian automakers are making substantial investments in electrification, encouraged by the government's plan to eventually phase out subsidies.

What are the Other Initiatives Related to Electric Vehicles in India?

- **Electric Mobility Promotion Scheme (EMPS) 2024:**

- The Indian government has introduced the EMPS 2024 to promote the purchase of **electric two-wheelers (e2W) and three-wheelers (e3W)**. With a budget of Rs 5 billion, it will **replace the [FAME-2 scheme](#)** and will be effective from April to July 2024, with the possibility of being replaced or extended thereafter.
 - The main goal is to **increase the adoption of e2Ws and e3Ws** while gradually reducing industry reliance on subsidies.
 - The subsidy is now reduced to Rs 5,000 per kilowatt-hour of battery capacity, down from Rs 10,000, and capped at Rs 10,000 per e-2W, which is a reduction of 15% from the price under FAME-II and is expected to cover 3,33,387 e-2Ws.
 - The scheme **does not cover electric four-wheelers (e4Ws)** and e-buses.

- **Phased Manufacturing Programme (PMP):**

- The Ministry of Heavy Industries has introduced a PMP **to promote indigenous**

- **manufacturing of Electric Vehicles** and their components over time.
- A graded duty structure is envisioned to incentivise local manufacturing.
- **National Mission on Transformative Mobility and Storage:**
 - The aim of the mission is to drive strategies for transformative mobility and Phased Manufacturing Programmes for **electric vehicles, electric vehicle Components and Batteries.**
- **EV30@30 campaign:**
 - India is among a handful of countries that support the **global EV30@30 campaign**, which aims for at **least 30% of new vehicle sales to be electric by 2030.**
- **Faster Adoption and Manufacturing of (Hybrid and) Electric Vehicles (FAME) - I and II.**
- **Production Linked Incentive (PLI) scheme for Automobile and Auto Components.**
- **National Electric Mobility Mission Plan (NEMMP).**

What are the Challenges for the EV market in India?

- **Charging Infrastructure:**
 - **Limited Availability:**
 - There aren't enough charging stations, especially outside major cities.
 - This creates a lack of accessibility and makes **long-distance travel impractical for many EV owners.**
 - **High Installation and Maintenance Costs:**
 - Setting up charging stations requires significant investment, and maintaining them adds to the operational cost.
 - This can limit the number of operators willing to invest, hindering infrastructure growth.
 - **Range Anxiety and Long Charging Times:**
 - The limited availability of charging stations, coupled with the relatively **short driving range of EVs compared to gasoline vehicles**, creates anxiety for potential buyers. Filling a gas tank is quick while charging an EV can take hours.
- **Cost:**
 - **High Upfront Cost of EVs:**
 - Electric vehicles themselves are **more expensive than comparable gasoline models**, due to battery and technology costs. This is a major hurdle for budget-conscious Indian consumers.
 - **High Battery Costs:**
 - Battery technology is still evolving, and **production costs remain high.** This significantly impacts the overall price of EVs.
- **Customer Support and Awareness:**
 - **Lack of Service Options:**
 - The service network for EVs is still developing. **Finding trained technicians and service centres** equipped for EVs can be challenging for some owners.
 - **Lack of Consumer Awareness:**
 - Some potential EV buyers may not be familiar with the benefits of electric vehicles, or they may have **misconceptions about them.**
 - This can make it difficult to convince them to switch from gasoline.
- **Supply Chain and Policy:**
 - **Supply Chain Challenges:**
 - India relies on **imports for critical EV components** like lithium and cobalt. Disruptions in the global supply chain can affect EV production and costs.
 - **Policy Uncertainty:**
 - Government policies and regulations are not constant. This can make it difficult for automakers and consumers to plan for the future.
 - However, recent initiatives like EMPS aim to provide some stability and incentivize EV adoption, though the long-term impact remains to be seen.
 - **Subsidy Dependence:**
 - While initiatives like EMPS 2024 can help reduce the upfront cost of EVs, **over-reliance on subsidies can create uncertainty in the market** if they are reduced or phased out in the future.
- **Other Challenges:**

- **Uncertain Consumer Behaviour:** The long-term economic and environmental benefits of EVs are clear, but it's **uncertain how quickly consumers will adopt this new technology.**
- **Lack of Standardisation:** The lack of standardised charging protocols can create confusion for consumers and limit interoperability between different EV models and charging stations.

Way Forward

- Expand the **charging infrastructure** network in urban and rural areas to address underdeveloped infrastructure challenges. Encourage private investments in **high-speed, commercial-grade chargers** to meet increasing EV demand.
 - The government plans to implement the **battery swapping policy** announced in the **Union Budget in 2022** can enhance the charging infrastructure.
 - This policy involves exchanging discharged batteries for fully charged ones, making EV charging as fast as refuelling conventional vehicles.
- Promote private sector innovation in **lightweight and high energy density batteries** for improving EV driving range. Offer incentives and tax credits for battery technology research and development.
- Conduct educational campaigns to inform the public about the benefits of electric vehicles and the importance of transitioning to sustainable transportation options.
 - Offer **attractive leasing and rental schemes** to facilitate easy access to EVs and mitigate resistance to change.
- Implement regulatory frameworks and standards to ensure the safety and quality of EVs and charging infrastructure.
- Promote the adoption of **smart digital solutions to enhance the EV ecosystem**, including fleet management systems and charger management platforms.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Mains

Q. How is efficient and affordable urban mass transport key to the rapid economic development in India? (2019)