



## 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)

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