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DAILY EDITORIAL ANALYSIS

TOPIC

INDIA'S EV TRANSITION AND THE DILUTION OF CAFE NORMS

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Context

- Recent draft **Corporate Average Fuel Efficiency (CAFE) Norms** proposed by the **Bureau of Energy Efficiency (BEE)** raise serious concerns regarding India's long-term EV ambitions.

What are Corporate Average Fuel Efficiency (CAFE) Norms?

- These are regulations that require automobile manufacturers to improve the average fuel efficiency of vehicles sold in the country.
- It aims to reduce fossil fuel consumption, lower greenhouse gas emissions, promote cleaner technologies, encourage electric mobility, and enhance energy security.
- These standards are implemented by the **Bureau of Energy Efficiency (BEE).**

Bureau of Energy Efficiency (BEE)

- It is a statutory body established under the **Energy Conservation Act, 2001,** responsible for promoting efficient use of energy and conservation of energy in India.
- It became operational in **2002** and functions under the **Union Ministry of Power.**

Objectives of BEE

- The primary objective of BEE is to reduce energy intensity of the Indian economy, promote energy efficiency across sectors, enhance energy security, support sustainable development, and reduce greenhouse gas emissions.

Key Functions of BEE

- **Formulating Energy Efficiency Policies:** BEE develops regulations and standards related to energy conservation, fuel efficiency, and industrial energy use.
- **Standards and Labelling Programme:** It includes a **star-rating system** for appliances, and helps consumers identify energy-efficient products.
  - **Covered Products:** Air conditioners, refrigerators, fans, LED bulbs, and geysers etc.
- **Corporate Average Fuel Efficiency (CAFE) Norms:** BEE is responsible for implementing fuel efficiency standards for automobiles.
- **Perform, Achieve and Trade (PAT) Scheme:** A market-based mechanism for improving industrial energy efficiency.
  - **Covered Sectors:** Thermal power plants, cement, steel, fertiliser, and aluminium etc.
  - Energy-efficient industries receive Energy Saving Certificates (ESCerts)
- **Energy Conservation Building Code (ECBC):** BEE develops building energy efficiency standards for commercial buildings and urban infrastructure.
- **Promotion of EV Ecosystem:** BEE supports EV charging infrastructure standards, energy-efficient transport policies, and clean mobility initiatives.

Why is EV Adoption Critical for India?

- **Energy Security:** India spends enormous foreign exchange reserves on crude oil imports. Increased EV adoption can reduce oil import dependency, improve current account balance, and strengthen strategic autonomy.
  - Vision of Viksit Bharat 2047 emphasizes clean energy transition.

- **Climate Commitments:** India has committed under the **Paris Agreement** to reduce emissions intensity, expand non-fossil energy capacity, and achieve **net-zero by 2070.**
  - The transport sector contributes significantly to urban pollution and carbon emissions. EVs are essential to meeting climate targets.
- **Economic Opportunity:** According to **NITI Aayog**, India's EV ecosystem could generate a **$200 billion economic opportunity,** large-scale manufacturing jobs, domestic battery and semiconductor industries.
  - Schemes such as **FAME India Scheme, PLI Scheme for ACC Batteries, PM E-Drive initiatives** support this transition.
- **Global Competitiveness:** Countries across the world are rapidly adopting EVs ie Nepal (around 75%), Singapore (more than 40%), Vietnam (more than 40%), Thailand (23%), Indonesia (20%), South Korea (more than 15%), Brazil (around 10%), and India (around 2.5%).
  - India risks becoming a market for obsolete technologies if it delays electrification.

Concerns with the New Draft CAFE Norms

- **Dilution of EV Targets:** The draft norms indicate a **gradual weakening of EV ambition,** contradicting India's stated policy direction.
  - **Draft Year 2024** targeted EV share around 14–15%, reduced to 11–12% in **2025 Draft** and further reduced to **8–9% by 2032 in 2026 Draft.**
- **Excessive Incentives for Flex-Fuel Vehicles (FFVs):** The draft provides 22.3% carbon neutrality benefits, and additional super credits.
  - **Problems** include real-world emission reduction is only 1–3%; and E85 fuel infrastructure is negligible in India. Thus, compliance becomes easier without meaningful environmental gains.
- **Over-Promotion of Plug-in Hybrid Vehicles (PHEVs):** The draft gives PHEVs a multiplier of 2.5, nearly equal to battery EVs.
  - **Global Experience** from the European Union, United States, and China show that PHEVs emit significantly more in actual driving conditions than laboratory tests indicate.
  - Many countries are reducing such incentives, whereas India appears to be expanding them.
- **Rewarding Existing Technologies:** The norms provide credits for start-stop systems, mild hybrids, and LED lighting.
  - These technologies are already common in vehicles and do not represent transformative innovation.
  - It effectively subsidises the status quo instead of encouraging advanced clean mobility.
- **Contradiction with India's Policy Vision:** The diluted CAFE norms are inconsistent with the Prime Minister's call for an eightfold increase in EV sales by 2030.
  - It also contradicts NITI Aayog's EV roadmap, and India's climate commitments.

Strategic Risks of Weak EV Regulations

- **Technological Obsolescence:** If India delays transition, legacy automobile manufacturers may continue selling outdated ICE technologies.
  - India may become a dumping ground for obsolete vehicles.
- **Loss of Manufacturing Leadership:** The global automotive sector is undergoing its biggest transformation in a century.
  - Countries investing aggressively in EVs are attracting battery manufacturing, semiconductor ecosystems, and green technology investments.
  - Weak regulation may result in India losing this opportunity.
- **Economic and Trade Vulnerability:** Continued fossil fuel dependence exposes India to oil price shocks, geopolitical instability, and currency pressures.
  - EVs can significantly reduce these vulnerabilities over time.

Way Forward

- **Strengthen CAFE Standards:** Set ambitious emission reduction targets, and align norms with global best practices.
- **Prioritise Battery EVs:** Focus incentives on zero-emission vehicles, and avoid excessive concessions to transitional technologies.
- **Expand Charging Infrastructure:** Public-private partnerships, urban and highway charging networks.
- **Promote Domestic Manufacturing:** Strengthen battery supply chains, encourage indigenous R&D, and support MSMEs in EV ecosystem.
- **Stable and Predictable Policy Framework:** Industry requires long-term regulatory certainty, clear EV transition timelines, and consistent fiscal support.

Source: HT

Daily Mains Practice Question
[Q] India's transition towards electric mobility is a strategic and economic imperative. Examine the concerns associated with the dilution of Corporate Average Fuel Efficiency (CAFE) norms in India.

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