Enhancing Electric Vehicle Infrastructures

What is the issue?

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- For reducing carbon footprint union government promotes electric vehicles.
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- But the government is not pursuing plans for a separate policy on electric vehicles (EVs).
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What is the plan of India to promote electric vehicles?

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- Union government has left to the automotive industry to determine the scale and pace of a transition from fossil fuels to electric motors.
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- Union Ministry for Road Transport announced that the move towards EVs would be accelerated by the higher efficiencies and lower cost of EVs compared to those with internal combustion engines.
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- Recently ministry of Heavy Industries and Public Enterprises also clarified that there is no target for a shift to electric vehicles by the year 2030.
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- Union government isincentivising purchase of electric vehicles through the Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME) programme.
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- Under this scheme the end users and consumers pay a reduced price.
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What are the benefits of Electric vehicles?

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- Converting a significant part of the transport fleet, led by public transport, to electric or hybrid vehicles is predicted to sharply cut dependence on imported oil, and reduce carbon emissions.
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- The current economics of EVs favour larger vehicles in the longer term, given the high capital expenditure involved.
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- Which has good cost-benefit outcomes even now for two-wheelers and rickshaws.
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What are challenges in electric vehicles transition?

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- The level of growth means India’s plan to only sell electric cars by 2030, would require nearly eight times the global stock of such vehicles.
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- There is no plan for the government to develop nationwide charging infrastructure.
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- Instead, the government hopes that by promoting the uptake of electric vehicles, it will create the ecosystem by which charging networks will become a necessity.
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- India has only 222 community EV charging stations when compared withnearly 56,000 traditional fuel stations.
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- In developing India's EV charging infrastructure there are other predominant dilemmas ranging from
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1. **Business model -** Free or revenue generating,
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2. **User type -**Mass transit or private EV owner,
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3. **Charging mechanism -**Battery swap, community charger or high-speed super-charger.
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What measures needs to be taken?

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- Developing India’ electric vehicle charging infrastructure is of utmost importance, to see a growth rate in electric vehicles.
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- Infrastructure is needed to produce, maintain and recycle a large number of batteries as the population of EVs rises.
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- Infrastructures with considerable expertise in both power generation and power supply projects from both grid and renewable sources needs to be established.
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- Whether operating on a commercial business model, charging a bus fleet, or ministerial cars, EV charging stations and networks demand a reliable power supply, this must be ensured.
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- Public Private Partnership needs to be made with experience of delivering EV charging programmes for both mass transit as well as private ownership.
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Source: The Hindu, First Post

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