

## Electric Vehicles

### Why in news?

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The government plans to have 100% electric vehicles by 2030.

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### What are the advantages of EVs?

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- EVs are much more **eco-friendly** than internal combustion engines.

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- They significantly **reduce the oil import** bill of nations, bolstering energy security.

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- They can also be much **cheaper than conventional vehicles** in the long run, due to fewer moving parts, lower maintenance costs, and reduced fuel expenses.

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### What are the steps taken by the government?

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- **National Electric Mobility Mission Plan (NEMMP) 2020:** It aims to achieve national fuel security by promoting hybrid and electric vehicles in the country.

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- There is an ambitious target to achieve 6-7 million sales of hybrid and electric vehicles year on year from 2020 onwards.

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- Government aims to provide fiscal and monetary incentives to kick start this nascent technology.

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- With the support from the Government, the cumulative sale is expected to reach 15-16 Million by 2020.

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- **Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles (FAME) scheme:** The scheme will provide a major push for early adoption and market creation of both hybrid and electric technologies vehicles in the country.

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- The thrust for the Government through this scheme will be to allow hybrid and electric vehicles to become the first choice for the purchasers so that these vehicles can replace the conventional vehicles and thus reduce liquid fuel consumption in the country.

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- It is envisaged that early market creation through demand incentive, in-house technology development and domestic production will help industry reach a self-sufficient economies of scale in the long run by around the year 2020.

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## **What are the suggestions?**

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- **Targeting of direct sops and incentives for EV:** From the supply side, such interventions include speed-tracking of environmental and labour clearances, tax rebates and exemptions.

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- Demand-side interventions include direct consumer subsidies, waiver of road tax and registration fees, GST (goods and services tax) refunds, and free parking spaces.

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- **Renewed commitment on the part of government:** To provide and promote greater public infrastructure for EVs, including public charging stations, dedicated electric supply lines for such stations, and battery swap stations.

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- **Boost for R&D innovation:** In February 2016, a Technology Platform for Electric Mobility was initiated jointly by the departments of heavy industries, and science and technology.

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- **Five projects have been accurately identified therein** - lithium battery, charging infrastructure, driving cycle and traffic pattern, motors and drives, and lightweighting of EVs.

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- These are clearly the most critical areas for research, and directing funding will be instrumental in meeting the NEMMP target of six million EVs/hybrids by 2020.

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- In addition, a robust system of incentives for private entities spearheading EV innovation, including tax credits for setting up research labs, is also crucial.

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**Source: Live Mint**

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