FACTORS RESPONSIBLE FOR RAISE IN DEMAND OF ELECTRIC VEHICLES IN INDIA

HISTORY : The history of electric vehicles was started in the late 19th century. the first electric car in india was named as 'lovebird ' which was launched in the year 1993 by EDDY CURRENT CONTROLS which can travel 60 km in one single charge.

Reasons for raise of electric vehicles in india :

- TO REDUCE PETROL CONSUMPTION : From an efficiency perspective, electric vehicles can covert around 60% of the electrical energy from the grid to power the wheels, but petrol or diesel cars can only convert 17%-21% of the energy stored in the fuel to the wheels. That is a waste of around 80%.
- 'Enabling India's Transition to Electric Mobility', in the passenger vehicle sector, the country's shift to shared, electric and connected mobility could help save up to $300 Bn (INR 20 Lakh Cr) in oil imports and nearly 1 gigaton of carbon dioxide emissions by 2030.
- According to the Petroleum Planning and Analysis Cell (PPAC) India spent USD 111.9 Bn on oil imports in 2018-19, up from USD 87.8 Bn in the previous fiscal year, observing an 84% jump. India imports about 80% of the oil consumed in the country, which means the exchequer is susceptible to crude price swings, which have impacted the economy in the past.
- India's Paris pledge includes steps to reduce the per capita emission based on the GDP by 33-35% from 2005 levels by 2030. But the government has not released data on greenhouse gas emissions since 2014 when India was the fourth-worst offender globally.
  The push towards meeting these climate goals has resulted in a lot of focus on EVs.

- 40% of electricity is generated from non-fossil fuel by 2030
- Drop in emissions intensity per GDP by 33-35% by 2030
- Generation of 175 gigawatt (GW) energy through renewables by 2022
- Afforestation to store 2.5-3.0 Bn tonnes of carbon dioxide in sinks or reservoirs

India's installed green energy capacity stands at about 65 GW today. It was expected to cross 100 GW by December 2022, definitely short of the government's 175GW target and far behind the 450 GW target that Prime Minister Narendra Modi committed to while speaking at the United Nations Climate Action Summit in New York in September.

FUTURE OF ELECTRIC VEHICLES IN INDIA : According to an independent study by CEEW Centre for Energy Finance (CEEW-CEF), the EV market in India will be a US$206 billion opportunity by 2030 if India maintains steady progress to meet its ambitious 2030 target. This would require a cumulative investment of over US$180 billion in vehicle production and charging infrastructure. In 2021, the Indian EV industry attracted US$6 billion in investment and is becoming steadily more attractive to private equity/venture capital investors.

India's EV market is estimated to grow at **49 percent CAGR in the 2022-2030 period** in a business as usual scenario as per the IESA report.

The following are the references of this topic inc24.com,india -briefing websites.