

Battery Electric Vehicle (BEV)



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Description

**Use of high density batteries and on-board electric motors as a power source for road vehicles such as cars, buses and trucks*

Electric vehicles powered by batteries (BEVs) are the most advanced alternative fuel vehicles commercially available today.

1. Expected impact

- Significant reduction in noise pollution - electric motors are nearly silent
- Reduced carbon emissions
- Affordability is expected to increase as cost of EVs decreases along with cost of batteries
- Limited range, but improvements are expected
- Power grids could be challenged by increase in demand for electricity

2. Technology and infrastructure requirements

Increase in battery capacity and charging station accessibility will be crucial to the development of electric vehicles

3. Regulatory requirements

- Regulations for construction, maintenance and safety of charging stations
- Regulations for manufacturing and disposal of batteries

4. Investment requirements:

- Cost per charging point is currently estimated at ~13-60k USD

Tags

BEV **Electric** **Electric vehicle** **Future mobility**

STEEP

- Technological

Links

TRENDS

Alternative Energy Sources
Demand For Electricity
Flexible Transport Solution
Hydrogen Vehicle
Rise of alternative Batteries - The Fuel Cell

Projects

RTA Future Scanning - Information & Trends

Rating criterion	04.06.2020
Importance	