



# Electric Vehicle Industry

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- ✦ Electric vehicles are noiseless, zero emission vehicles driven by a DC motor that operates on rechargeable batteries
- ✦ They require less space for driving and parking as compared to conventional vehicle
- ✦ If EVs can substitute cars or conventional motorcycles, substantial energy savings and greenhouse gasses reductions would happen
- ✦ The electric vehicle can be charged from any domestic charging socket
- ✦ E-bikes can be operated at as low as 1/10<sup>th</sup> the cost of the petrol two wheeler, with 2/3<sup>rd</sup> maintenance cost

A

Run on rechargeable batteries

B

Running cost is 10 paisa/km as against INR1 per km for petrol vehicles

C

Noise and vibration free

D

Pollution free

E

Require fewer components as compared to petrol vehicles

F

Ideal city ride – range of 60km - 100km

G

Elegant design and style

H

Fewer mechanical components & lower maintenance

I

Tested durability

J

Affordable prices

K

Speed limit of 70km/hr. Good acceleration and Pick up

L

Carrying capacity of 75 - 100 kgs

Particulars	Petrol Bike	Electric Bike
Total usage in km	25,000	25,000
Mileage (assumed)	50km/litre	50km/charge
Fuel cost	INR 50/litre	INR 5/CHARGE
Running cost per km (A)	INR 1.00	INR 0.10
Maintenance cost (B)	INR 3,500	INR 6,000
Total Variable cost (A) + (B)	INR 28,500	INR 8,500
Total variable cost per km	INR 1.14	INR 0.34
Monthly usage (in kms)	750	750
Monthly Cost	INR 855	INR 255

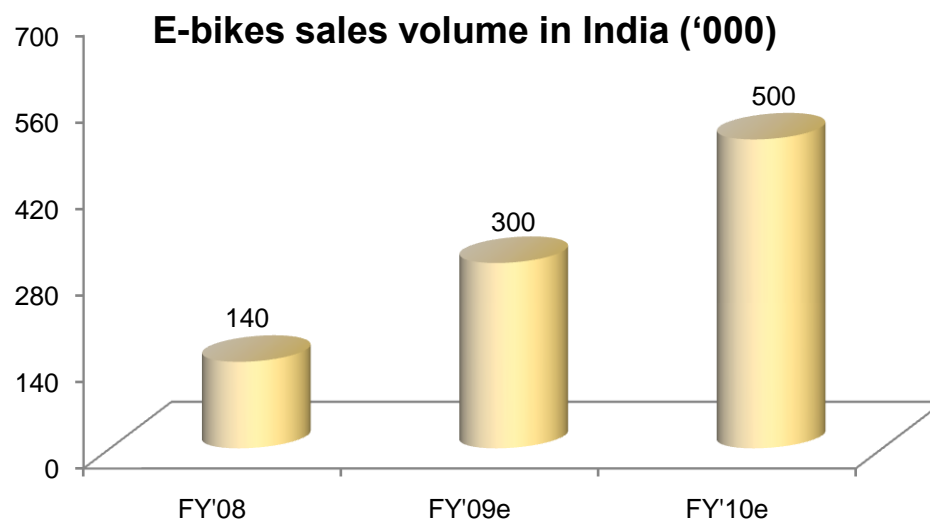
✦ The face of auto industry, that was redefined with the invention of fuel-efficient four-stroke engine technology, is all set to see dawn of a new era in two wheeler industry. It's not petrol or diesel or any other fuel, but it's electricity that have initiated a revolution in two wheeler industry in India

✦ Indian two wheeler industry has embraced the new concept of E-bikes and Scooters that are very popular mode of personal transport in the developed countries like America, Japan and China. With the rising cost of fuel at International and national level, increasing levels of pollution and congestion in transport system specially in Urban areas, higher running and maintenance cost of vehicle, the electrically charged bikes or scooters have very bright future in area of personal transportation

✦ Riding the crest of rapid growth of e-bikes, automobile companies are entering into the business of manufacturing e-bikes trying to tap the nascent electric two-wheeler segment, currently (June'08) estimated at INR 4,500MM. The electric vehicle industry is in its infancy in India and has experienced substantial growth and change in the last few years

✦ The electric two wheeler segment has potential to grow as already 7 conventional two wheelers are sold for every one car sold in India. The market forecasters are taking a positive look in the e-bike segment. Indian manufacturers of electric bikes are gearing up for what they call a 2<sup>nd</sup> wave of growth for these 'plug and ply' bikes

✦ According to market assessments around 140,000 electric two wheelers were sold in FY'08 (Apr'07 to Mar'08) which is expected to go around 300,000 by end of FY'09 and beyond 500,000 be end of FY'10



Source: ARC Research, Industry Data

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