



## Project 3: Electric cars - related projects

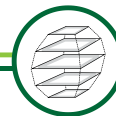
*These projects draw on some of the information assembled in the Electric Car analysis, but the prime objective, the stakeholders, the operating requirements and expectations of users are all significantly different from those for electric cars.*

**P1. Electric busses.** Repeat the analysis of this chapter, applying it instead to electric busses for inner city transport. The motive for introducing them is to reduce the level of central-city air pollution. The use-pattern of busses has the following characteristics. Busses follow regular routes. The operating company knows the length of each route, how frequently they are traversed and where each bus will be at each moment in the day, and it has central service facilities. A privately owned car has none of these characteristics. How much difference does this make?



**P2. Electric bicycles.** An electric bicycle (“e-bike”) is a bicycle with an integrated electric motor that assists or replaces pedaling. They offer cheap, powered transport for short city commutes. In most countries they are classified as bicycles and require no license or registration. They cost between €425 and €1,800 (\$500 - \$2,100), are limited to about 30 km/hr and have a range about 30 km between charges. E-bikes are aimed at commuters – you still get some exercise yet you also don’t arrive at your destination all hot and sweaty. The case study of electric cars revealed that their take-up was small, inhibited by cost and range. Are electric bicycles a more sustainable option?





## Sustainable Development Projects

### ■ Projects

- Project 1 : Greener Beer Cans
- Project 2 : Expanding Biopolymer Production

### ► Project 3 : Electric Cars

### ■ Resources

#### Students

- Problem statement
- Templates
- Assessing Sustainable Development

#### Educators

- Summary Presentation
- Sample Analysis
- Related Projects

A White Paper called Materials and Sustainable Development and a book of the same name describe this methodology and the rationale behind it in more detail.

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