

# Zero CO<sub>2</sub> Transportation

Professor Rob Thring  
Loughborough University



Delhi, November, 2009



# Battery Electric Vehicles

- In UK, Electric Vehicles carry:
  - zero road tax
  - subsidy of £3,000 each from 2011
  - free parking and re-charging in Westminster
- Coming soon - Battery electric cars with Fuel Cell range extenders



# Sample Calculations

- If all cars in UK (27M) could be powered with fuel cells consuming hydrogen from electrolyzers using power only from wind turbines, how many wind turbines would be needed?
- Answer: about 20,000, or about the same as the number of existing high voltage pylons in the UK.

# UK Government Leadership - More Economical Usage

- Vehicle tax now split into 13 bands ranging from 0 to £405 per year. But £405 per year is small cf running cost of ca £8000 per year (£19,074 for a Porsche Cayenne, source: The Times, 5 Jan, 2006)
- Taxation after April 2010 – new registrations for vehicles producing >255 g/km of CO2 is £950. Vehicles already registered will be charged up to £30 more, i.e.£435.  
([www.direct.gov.uk/en/motoring/owningavehicle](http://www.direct.gov.uk/en/motoring/owningavehicle))

