



Bright Green Business helps Scottish businesses recruit skilled students & graduates, improve environmental practices & develop business networks. To find out more about our other services visit our website [www.brightgreenbusiness.org.uk](http://www.brightgreenbusiness.org.uk).

## Introduction

In the UK almost 50% of the population are employed demonstrating the influence businesses have on engaging and supporting employees to move towards methods of sustainable transport. Managing your organisations transport activity not only entails monitoring and measuring but also looking at implementing sustainable transport measures to reduce environmental impact whilst reducing your costs. After establishing a baseline outlining the amount of carbon emissions and the rate of fuel consumption on average you can now begin looking at reducing your transport activity and set targets for reductions.

## Benefits of sustainable transport

- Saves your company money by gaining financial control of your transport expenditures (i.e. business mileage, parking, fleet management costs etc.).
- Improves the efficiency of fleet operations and deliverables
- Aid local communities by:
  - reducing traffic congestion
  - reducing air pollution
  - reducing noise levels
  - reducing road maintenance costs
  - reducing road danger
- Improves health and well being of your employees and reduces stress levels
- Improves the productivity of your staff
- Allows you to report positive corporate social responsibility (CSR)
- Reduces global greenhouse gas emissions
- Helps your company achieve environmental management certification
- Enhances public image



## Making your businesses transport more sustainable: Business Travel Plan

Developing a Business Travel Plan promotes employees to use public transport, car-share, trip-share or active travel such as walking or cycling. Other measures to reduce greenhouse gas emissions include implementing: fuel good driver training; vehicle efficiency devices; and video and telecommunication facilities.

- Car and trip-sharing: There are 38 million empty car seats on the UK's roads every rush hour. Trip-sharing is a free service which locates drivers and passengers within Edinburgh. The average member saves over £770 per year. Car-sharing reduces risks associated to liability such as insurance and vehicle safety. Reduces business costs from

suspicious employee mileage claims, administrative burdens and seasonal peak charges.

- Active travel: Opting into 'cycle to work schemes' helps to encourage your employees to use a more active methods of transport helping to reduce the carbon footprint of your company. There is more information about how your company can join the cycle to work scheme [here](#).
- Public transport: Currently 68% of the UK's population commute to work by car. Your company can promote the use of public transport by offering employees a free or low-interest season ticket loan up to £5,000 per year. The hybrid buses are diesel-electric parallel hybrids meaning that both small engines and electric batteries power the gear box. The engines are smaller making them 30% more efficient than diesel buses helping to reduce carbon emissions and other pollutants.
  - The Edinburgh trams were introduced to help mitigate air pollution. It is expected that the trams will reduce the number of streets failing to decrease nitrogen dioxide and fine particulate matter levels by 5%. Congestion and noise pollution within the



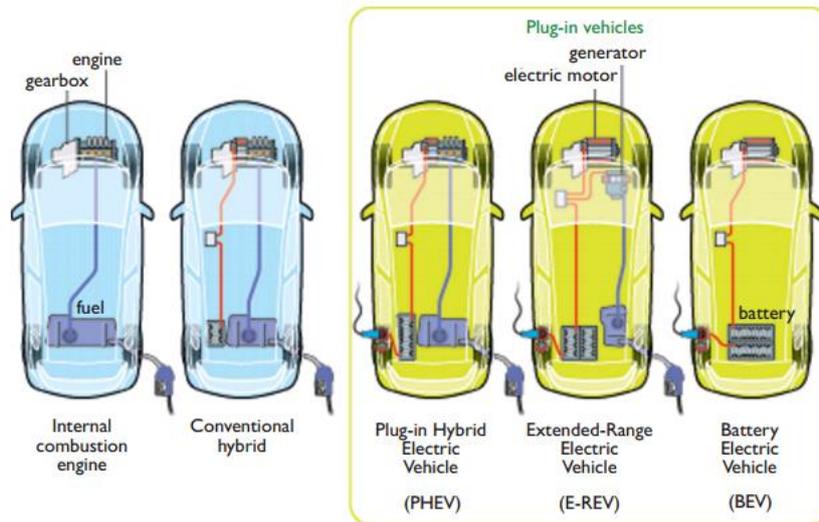
- Fuel good driver training: training your employees to be more efficient drivers can save your company 15% on fuel costs which can equate to £250 per year based on 12,000 miles per annum. This reduces CO<sub>2</sub> emissions helping your company reach carbon reduction targets. Surveys of the programme show that 75% of respondents believed the training would definitely alter their style of driving.
- Vehicle efficiency devices: fuel catalyst enables combustion engines to extract the maximum amount of energy with minimal emissions. This increases the fuel economy by 8-16% on average and reduces overall engine maintenance.
- Video and telecommunication facilities: reduce travel costs as fewer long distance trips are required. Last minute meetings often incur large costs from higher transport fares and unexpected lost time. The Energy Savings Trust offers interest-free loans to purchase the required equipment. To find out more visit their website [here](#). There is more information about the benefits and tips of conference calling tips [here](#).

## Technology

### Electric vehicles

Electric or plug-in vehicles have a wide array of technologies. Pure electric vehicles are powered solely by on-board batteries. The new generation of electric cars have a range

typically of 80 to 100 miles on a full charge, sufficient for the commuting and daily driving patterns of many people. The government supports the growth of the electrical vehicle industry as they offer up to £5,000 and £8,000 towards purchasing an electric car or van. A perceived limitation is the lack of public recharging facilities; however, they are already 80 in place and a further 200 to be installed in the near future. You can find out more about where public charging stations are located [here](#).



Plug-in vehicles offer a number of potential savings compared to conventional vehicles:

- A full charge will cost around £2 to £3 and will give a typical range of 100 miles. Driving 100 miles in a petrol or diesel car will cost around £12 to £18 in fuel (around six times the cost of the electric car).
- Plug-in vehicles are currently exempt from Vehicle Excise Duty (road tax).
- Plug-in cars are eligible for a 100% discount from the London Congestion Charge, worth up to £2,400 a year.
- Free parking may also be available to further encourage the uptake of electric cars in some urban areas.
- There are fewer mechanical components than conventional vehicles so servicing costs are likely to be lower and we anticipate that maintenance costs will be lower too.
- For company car drivers, there is zero 'Benefit in Kind' company car tax to pay on fully electric cars until 2015, as well as exemption from tax on the provision of free private fuel.

## Biofuels

Biodiesel is a renewable fuel produced from the oil of crops including oilseed rape, sunflowers and soybeans, as well as from waste cooking oils. Bioethanol is a liquid biofuel made from



starch and sugar plants or cellulosic materials. It is produced by fermentation, followed by distillation and finally dehydration. The British standard allows a blend of up to 7% biodiesel combined with other fuel.

Pros	Cons
<ol style="list-style-type: none"> <li>1. Crops sequester CO<sub>2</sub> as they grow thus removing it from the atmosphere.</li> <li>2. They are biodegradable therefore do not accumulate and pollute the environment</li> <li>3. Price is the same for 5-30% blend and it delivers the same fuel economy compared to mineral diesel and unleaded petrol.</li> </ol>	<ol style="list-style-type: none"> <li>1. Biodiesel produces oxides of nitrogen which is a smog forming gas</li> <li>2. Potential for the net release of carbon emissions resulting from the sourcing of crops causing environmental and social damages. Competition for land arises if land is used to grow biofuel as it can no longer be used for human consumption.</li> <li>3. Not all vehicles can run on higher concentrations of biofuels</li> </ol>

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