

## **ISSUES IN ENVIRONMENTAL ENGAGEMENT: PROMOTING CLEANER TRANSPORT IN LONDON**

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### **ABSTRACT**

This paper discusses some of the problems faced when trying to engage a multitude of small urban polluters on environmental issues. It sets out a number of different approaches to engaging the diverse business community and individuals which exist in a large city. This paper is based on our experience of promoting cleaner road transport in London.

Road transport is a major focus of our work as it is the largest source of pollution emissions in London. Regulation plays a role in improving air pollution from transport, but it is limited in power and scope; we need voluntary buy-in from businesses and individuals in order to achieve a healthy urban atmosphere.

This paper summarises the complex system of regulation, penalties and incentives which operate in London to make cleaner transport a more attractive option to vehicle users, whether they own one car or hundreds of lorries. This includes provision of information, emission standards, tax incentives, grants, discounts and other perks. Why, given all these measures, is progress towards widespread cleaner transport so slow?

Road transport is common to many organisations and individuals, but they all have different issues, needs and barriers. Cost is a common barrier, but time, ease, perceived irrelevance, lack of information and fear can influence choices. Trying to engage with big business, small enterprises and the public on cleaner transport (and other environmental issues) requires many different approaches, addressing the different barriers that exist for each sector, group and individual.

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## **INTRODUCTION**

London is famous for its air pollution, London's smogs feature in both literature and art. These days, though less visible, it is estimated that 1,600 prematurely deaths are caused by air pollution in London every year. It also affects our parks and wildlife, increases the erosion of our buildings and contributes to climate change.

Historically air pollution in London was due to industry and the use of solid fuel for domestic heating. These have been dramatically reduced over the last fifty years. Now the largest source of emissions in London is road transport, which is responsible for 58% of NO<sub>x</sub> and 68% of PM<sub>10</sub> emissions<sup>[1]</sup>.

The Mayor's Air Quality Strategy sets out the issues relating to air pollution in London, and contains proposals to address pollution from all sources (transport, domestic and commercial) within London, and work with the national and European government to address imported pollution. It focuses on road transport as the largest source.



**Figure 1 The Changing Sources of Pollution in London - Road Transport and the Tate Modern Art Gallery (previously the Bankside Power Station)**

The problem with trying to reduce pollution from road transport is that there are a huge number of road vehicles, each of which emits a relatively small amount of pollution. In order to make a sufficient impact on these emissions, we need support from a large number of people and organisations.

There are two ways to reduce emissions from road transport.

1. reducing traffic - by encouraging more environmentally friendly travel choices, effective fleet management and improving the alternatives;

2. reducing emissions - by promoting cleaner vehicles, alternatively fuelled vehicles and cleaner driving style and better maintenance.

37% of London households do not own a car<sup>[2]</sup>, and use cleaner options like public transport, cycles or foot to get about. Promoting cheaper alternatives is another good way to discourage car use, providing the alternatives are comparable in terms of reliability, speed and convenience. The Mayor is working to improve these alternatives by increasing the number of buses, bus routes and cycle routes, and providing up to date information on these services. The Mayor is also working to reduce the need to travel by promoting mixed use developments. The use of infrastructure and planning to control transport demand is not discussed further in this paper.

Some cleaner transport options, such as the efficient use of vehicles, are cost effective. Others, including alternative fuels and technologies, are made cheaper and more attractive through a complex system of regulations, penalties and incentives. These include EU directives on fuel standards and the “Euro standards” for vehicles, penalties for failure to meet emission standards in a roadside vehicle emission testing programme, tax breaks on cleaner vehicles and fuels, and discounts for the cleanest vehicles from the Central London Congestion Charge.

However, the use of cleaner transport is still limited to a small proportion of the business community and population. By looking at the reasons why businesses are missing the opportunities presented by cleaner transport, and why public take up is so low, this paper considers ways in which these can be addressed.

## **BARRIERS TO CLEANER TRANSPORT**

Many of the barriers to the take up of cleaner transport are common to everyone, whether big business or concerned individuals, although some are specific to particular sectors. Table 1 shows some of the main barriers to the take-up of cleaner transport options. These are divided into several themes, including cost, perceived irrelevance, lack of awareness, risk and time.

	<b>Barrier</b>
<b>Cost</b>	Cleaner transport options must be at least cost neutral, and preferably cheaper than the existing option, for widespread take-up, otherwise they will only be used by environmental champions.
	Perception that environmentally friendly options are expensive, as they are innovative technologies which often carries a cost premium. <sup>[3]</sup>
	Perception by business that cleaner transport options are a threat to competitiveness and will be opposed by the shareholders (due to the perception that they are expensive).
<b>Perceived Irrelevance</b>	Perception by most businesses and individuals that they do not cause a significant impact on the environment <sup>[4]</sup> , and that changing their behaviour will not make a significant difference, especially if their peers are not doing anything.
	Some organisations still feel that the environment is not a serious business issue, but one for ‘crazy tree-hugging hippies’.
	Perception by some of the public and general media that cleaner

	transport can be fixed by Governments and technology, with no need for personal involvement.
	<b>Barrier</b>
<b>Lack of Awareness</b>	Many people are simply not aware that there are cleaner transport technologies and techniques that provide cheap and effective alternatives to their current transport choices.
	Where there is awareness, there is often confusion over the options, and what is applicable in their personal (or professional) situation.
	When trying to raise awareness with business, it can be difficult to make first contact (or even identify the relevant person).
	Perception that staff will be against the changes.
	Perception that getting support from top management can be difficult (support is necessary to approve fleet policy changes and address conflicting practices, such as offering company cars as perks).
<b>Risk</b>	Uncertainty and change in the financial regime, including tax on fuel and the availability of grants.
	Trying a new approach or technology is a risk, whether this is an environmental innovation, or an economic one. There is a perception among fleet managers that “no one ever got sacked for buying a diesel vehicle”
	Confusion and lack of easily accessible information on which of the technological options are sound, and will deliver robust and cost effective emission improvements.
	Previous bad experience with something that was sold as a cleaner transport option but did not deliver the promised benefit, through lack of environmental improvement, unreliable technology, or lack of support from the manufacturers.
<b>Time and Priorities</b>	Transport is often considered to be a low priority by London’s businesses, especially compared to core business activities such as production or sales (or survival, in small and micro-companies).
	Perception that changing to cleaner transport is a hassle, and will take a large amount of time and effort.
	Many vehicles are owned or leased over a defined period. Major changes cannot be made mid contract.

**Table 1 Barriers to the Take-up of Cleaner Transport Options**

## **POSSIBLE SOLUTIONS TO CLEANER TRANSPORT**

Due to the wide variety of barriers to the take up of cleaner transport, no single measure will suffice. There are a range of options to address general and specific issues. The two main areas of potential for encouraging voluntary take up are in making the options cost effective and raising awareness to address incorrect perceptions and confusion over the options and their costs and benefits.

### **Mandatory Schemes**

Making cleaner transport a legal requirement is one way of ensuring that a large number of people is involved. This can speed up the introduction of technological improvements into London’s vehicle fleet.

Mandatory initiatives which are used or planned in London include:

- a Low Emission Zone (LEZ), which will restrict all heavy goods vehicles (HGV), buses, coaches, taxis and vans which do not meet a minimum emission standard;
- schemes which focus on specific fleets under the Mayor's control, such as the London Taxi Emission Strategy and the London Bus Improvement Programme;
- setting cleaner transport requirements for new developments in planning decisions, such as Low Emission Schemes (which could use better or more wide ranging emissions requirements than the general LEZ), and exemptions for cleaner or quieter alternatively fuelled vehicles from delivery curfews and parking restrictions.

### **Cost**

The majority of people and businesses will not take measures which carry a cost premium, without seeing some direct benefits to their performance.

Currently there are a number of initiatives to make cleaner fuels and technologies cheaper. Alternative fuels have reduced fuel duty, and limited grants are available for innovative technologies. The Mayor has offered discounts for the cleanest vehicles in the Central London Congestion Charge Scheme<sup>[5]</sup>, and several local authorities offer free parking for electric vehicles.

Alternative fuelled vehicles do make financial sense over the longer term, as they tend to have lower running costs than conventional vehicles, despite the higher capital costs. This makes them more attractive to businesses who are able to consider whole life costs. However this approach requires a certain degree of stability in the financial regime (tax and funding), which has been lacking recently.

Where they use a car, the general public tends to be less keen to accept large upfront costs, despite longer term savings in running cost. To address this, there may be potential of selling cleaner technology through emphasising the whole life costs of the vehicle.

Cheap or zero cost<sup>[6]</sup> options, such as effective fleet management for business, and using a smoother driving style and improved maintenance for both business and public, can be more attractive.

### **Information Provision**

To address the lack of awareness and confusion over cleaner transport, we have provided clear and objective information on the various options. It is essential that this is simple and easy to understand. We have tried a number of approaches, which have differed according to the market.

When working with businesses, we have provided the relevant information, costs, benefits and overall business case for cleaner transport. We have presented this in a professional manner, working with respected advice organisations, the London Development Agency, trade organisations and high profile businesses. Where possible, these include case studies, peer experience and individually or sector tailored advice.

Some of the Mayor's initiatives have included:

- providing clear information on the costs, benefits, and other issues (maintenance, refuelling, etc.) of alternative fuels, technologies and fleet management, through our Fleet Operator's Guides<sup>[7]</sup>;
- promoting the benefits, including cost savings, improved public image, marketability and contribution to Corporate Social Responsibility (CSR) work, through our leaflet "help create a green London: advice for business"<sup>[8]</sup>;
- speaking at specialist and mainstream trade conferences and seminars; and
- a series of business seminars (to be held in Autumn 2004).

We are also considering:

- streamlining the existing environmental advice provision (at present there are many organisations providing overlapping, and occasionally conflicting, environmental advice in London);
- working with non-environmental advice providers (such as accountants and lawyers) which are the main source of information for many businesses;
- working with vehicle manufacturers, to develop and promote new technologies;
- encouraging businesses and other organisations to consider cleaner transport in their procurement policies (and maybe work with the suppliers to help them meet the higher requirements);
- considering individual impacts to relate the problem to the solution; and
- working with groups or trade sectors to see cumulative, and therefore visible, environmental results.

When working with the public, we have focussed on providing simple advice on easy to implement cheap or zero cost measures. We have run a number of events including a series of lectures on environmental issues by popular scientists (linked to an exhibition on London's environment), followed by handy hints on how to green your life; and we are considering running a major "green fair" next year.

One of the main problems with engaging with the public through specific events, is that the audience for each event tend to be those who are already environmentally aware, and already use cleaner transport and other environmentally friendly options. To reach a wider audience we are writing articles for mainstream papers and magazines. We also ran a roadside vehicle emission testing programme with a high profile publicity campaign, which we linked with discounts for vehicle maintenance and servicing at participating garages.

There is potential to work with one sector of London's society to influence another. For instance, encouraging businesses to develop a travel plan will help employees find better ways to travel, and also improve employees' awareness of the issues and choices. Also, all employees (including managers) are members of the public, so raising public awareness may influence business behaviour.

### **Specific Barriers**

We have also undertaken various measures to address specific barriers. For instance, to address the confusion over which technologies are reliable, we are

encouraging TransportEnergy (a government funded agency who already accredit alternative fuel conversions and retrofitted abatement technology) to widen their remit and set up accreditation systems for cleaner fuels and other emission abatement devices.

There are several ways to encourage staff involvement in cleaner transport initiatives, including cash alternatives to company cars to encourage use of alternatives, and using reward recognition schemes (one highly successful scheme offered gold (painted) hubcaps for the best team).

## CONCLUSIONS

Promoting clean transport in London has highlighted numerous barriers that need to be addressed. Many are common to other environmental issues.

Environmental options must be cost neutral or cheaper than the conventional options. The Mayor does not have the power to change this, and needs help from national Government and EU.

Information on the options (including costs and benefits) must be easily available and understandable. In order to be effective, this should come through trusted sources, for example, in business this could be advice providers, trade associations or peers. It is also important to work with other organisations promoting cleaner transport (or other environmental issues) to ensure that the message is coherent, correct and current. Keeping published information up to date with technology and Government incentives can be a challenge.

Regulation can drive technology forward, and speed up penetration of technological fixes into the fleet, but this needs support from national Government, the EU and the public. Regulation such as a Low Emission Zone would give significant improvements, but an LEZ alone would not be sufficient to bring London's air quality within the EU limit values and national air quality objectives.

Identifying why people do not use cleaner transport options has helped us to tailor solutions to overcome these issues. However, there is always more work to be done, and we would welcome input or suggestions from others on other barriers and possible solutions.

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[1] "Mayor's Air Quality Strategy", Mayor of London, 2002, [www.london.gov.uk](http://www.london.gov.uk).

[2] "London Travel Report", Transport for London, 2003, [www.tfl.gov.uk](http://www.tfl.gov.uk).

[3] A recent survey found that people were particularly bad at estimating the cost of transport, and were likely to underestimate the cost of running a car by up to 50% ("RAC Report on Motoring 2004", RAC, 2004, [www.rac.co.uk](http://www.rac.co.uk)). It has also been suggested that that businesses rarely take the full cost of providing a company car into account when assessing an employee's benefits ("Government throws weight behind green travel plans –but can employers be persuaded to play their part?" Local Transport Today, 17 June 1999).

[4] There is a fundamental issue in the mismatch in peoples' perception between the scale of the problem and the solution. It is hard to relate large scale and ubiquitous problems, such as air pollution in London, to changes in individual transport habits and choices.

[5] Further information on the Central London Congestion Charge Scheme, including information on the discounts for the cleanest alternative fuel vehicles, can be found at [www.cclondon.com](http://www.cclondon.com).

[6] Zero cost options are those which carry no cost premium, and cost no more than the current option.

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- [7] “The Fleet Operator’s Guide to Cleaner Fuelled Vehicles”, “The Fleet Operator’s Guide to Reducing Emissions from Diesel Vehicles”, and “The Fleet Operator’s Guide to Green Fleet Management”, jointly produced by TransportEnergy and the Mayor of London, 2003, [www.london.gov.uk](http://www.london.gov.uk).
- [8] “Help create a green London: advice for business”, Mayor of London, 2004, [www.london.gov.uk](http://www.london.gov.uk).