

## Road pricing

What are the facts?





## Contents

Green Light Group	
Introduction	01
Key facts	02
Congestion in the future	06
What are the options?	07
What is road pricing?	08
Conclusion	09

## Green Light Group

The Green Light Group (GLG) is a body of organisations that use their technical expertise to consider how road pricing could be implemented in the UK.

Led by the Institution of Civil Engineers (ICE), other members include Chartered Institute of Logistics and Transport (CILT), the Institution of Highways and Transportation (IHT), the Institution of Mechanical Engineers (IMechE) and the Transport Planning Society (TPS).

The bodies making up GLG have over 185,000 members.

Led by:



Supported by:



## References and acknowledgements

### Acknowledgements

#### The Green Light Group

Martin Richards OBE, Report Leader	Chartered Institute of Logistics and Transport (CILT)
Howard Potter, Chairman	Institution of Civil Engineers (ICE)

Jim Coates CBE	Chartered Institute of Logistics and Transport (CILT)
----------------	--

Brian Robinson	Institution of Mechanical Engineers (IMechE)
Robin Shaw	Institution of Civil Engineers (ICE)
Adrian Sheppard	Institution of Civil Engineers (ICE)
John Smart	Institution of Highways and Transportation (IHT)

Bill Wyley	Transport Planning Society (TPS)
Paul Woolford	Institution of Civil Engineers (ICE)

Thanks also to	
Nicola Bates	Institution of Civil Engineers (ICE)
Lotte Grant	Institution of Civil Engineers (ICE)
Ed Horton	Institution of Civil Engineers (ICE)
Dr Chrissie Pepper	Institution of Civil Engineers (ICE)
Lizzy Peto, Matthew Blackburn	Copywriters

### References

Feasibility Study of Road Pricing in the UK, Department for Transport, July 2004

Government Response to Kate Barker's Review of Housing Supply: The Supporting Analysis, Communities and Local Government, 2005

Motoring Towards 2050, The RAC Foundation for Motoring, 2002

Traffic Congestion in Europe, Round Table 110, ECMT, 1998

Transport Trends 2006, Department for Transport, 2006

Transport's Role in Sustaining UK's Productivity and Competitiveness: The Case for Action, Sir Rod Eddington, December 2006

## Introduction

Traffic can be the most frustrating part of our day. From that sinking feeling when you realise you are late, to the frustration at seeing a queue of cars in front of you, none of them going anywhere. From having to leave early to avoid it, to having to change plans to beat it. But we are going to have to get used to it. Because unless the UK does something to ease its traffic congestion, things can only get worse.

So what can we do? Implementing road pricing in the UK alongside other carefully thought out measures, would reduce congestion and make charging for road use fairer. Doing nothing is not an option as congestion has serious impacts on the economy, the environment and our quality of life.

Road users pay the Exchequer £28 billion each year – £5 billion in Vehicle Excise Duty and £23 billion in fuel duties. At the moment, none of the taxes we pay for driving is specifically earmarked for improving our roads, or our transport system more generally. Successive UK governments have ensured that tax is not directly returned to the sector from which it is collected.

As the cost of using roads, in terms of taxes paid, does not vary whether the road is congested or running freely, there is no price incentive not to travel at busy times. When we want to fly, or travel by train, we are used to paying more at busy times, and less, much less, when not many others are travelling.

And so it would be with road pricing; the more congested the road, the more we would pay. This would reduce traffic congestion significantly; those who did pay for peak travel would get a quicker and more reliable journey. And, if the revenues were spent on the transport network – as currently happens in London – it would also help to provide a better transport system and reduce congestion. **Indeed, the Green Light Group believes that revenues raised from road pricing must be spent on transport.**

All the indications are that congestion is going to get worse:

- Economic growth increases our disposable income, giving many of us the power to travel more and to afford one or more cars.
- The continuing trend, outside London, for people to switch from bus to car travel increases the amount of road needed to accommodate the same number of people.
- The UK's population is expected to rise from 60 million in 2005 to 65 million in 2021, which means more people on the roads.
- People are leaving the inner cities and moving to the suburbs and rural areas. Although some of the new housing we need for our growing population will be built on brownfield sites (sites that have already been built on), many will be built on the edges of our towns and in the countryside leading to yet more traffic.
- We are choosing to travel to supermarkets and large out of town retail parks to do our shopping, rather than relying on local shops.
- Bigger hospitals and schools as well as cinemas and leisure facilities are locating out of town. They are too far out to reach by foot or bike so we go by car.
- With globalisation, we will be importing even more of the goods we need, including food. Most of these are trucked by road from the ports, first to distribution centres and then on to the shops and business. With greater affluence and more sophisticated technology, the service industry is growing fast. This could mean more vans will be using our roads.

# 01 Key facts

### Road congestion is expensive

The Department for Transport has predicted that by 2010 congestion in Great Britain could cost up to **£12 billion** a year due to slower, more unreliable journeys. That is **£200** for each person living in the UK. Other estimates have put it as high as **£20 billion**, around **£350** per person.

“We recommend... more research into how shoppers may change their behaviour as a result of road pricing”

*The RAC, Motoring Towards 2050*

Is everything I read about road pricing true?

#### “The technology doesn’t work.”

The congestion charging scheme in London has demonstrated that a large scale application can be successfully operated. The technology already exists to manage larger and more complex road pricing and there is expected to be capability in the UK and in other EU Member States in the near future to roll out charging schemes on a national scale.

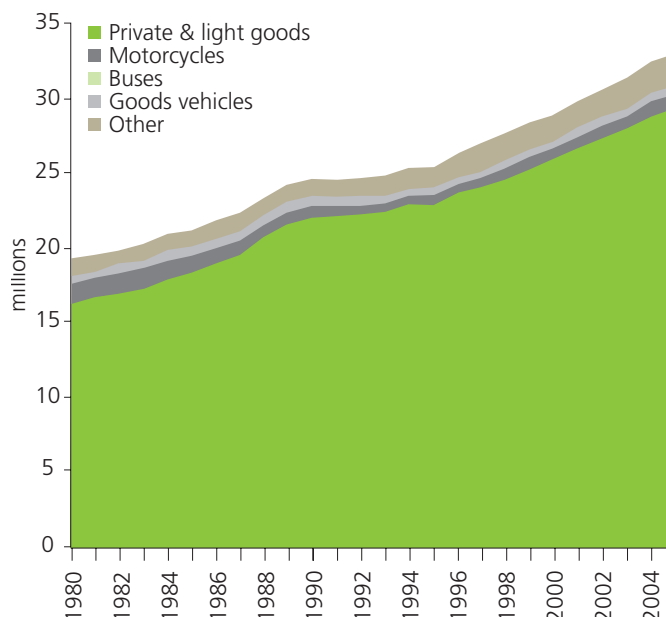
#### “Road pricing is just another way for ‘Big Brother’ to keep tabs on us.”

Addressing the issue of privacy will be vital in ensuring the success of road pricing. Road pricing doesn’t necessarily mean having our every move tracked, and decisions about how to tackle it will be part of the development process.

### The amount of traffic on our roads is increasing

Between 1995 and 2005 the number of cars, trucks and vans increased by 30%.

Motor vehicles currently licensed by taxation class: 1980 to 2005

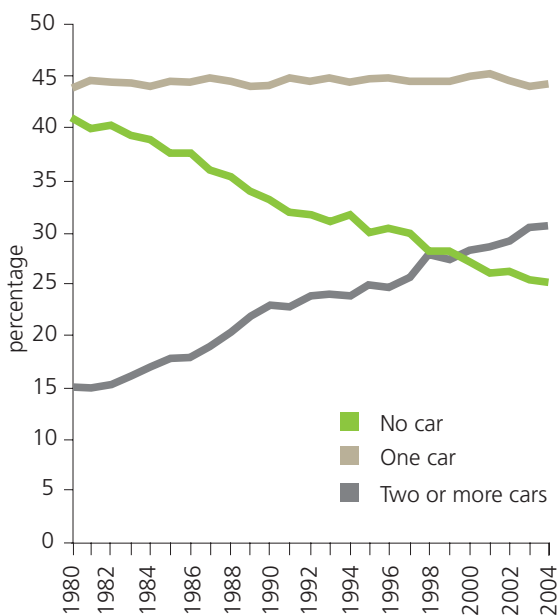


Source: Department for Transport

### More people have more cars

Households with access to more than one car increased from **15%** in 1980 to around **30%** in 2004. The number of households without access to a car at all dropped from just over **40%** to under **25%**.

Household access to a car: 1980 to 2004

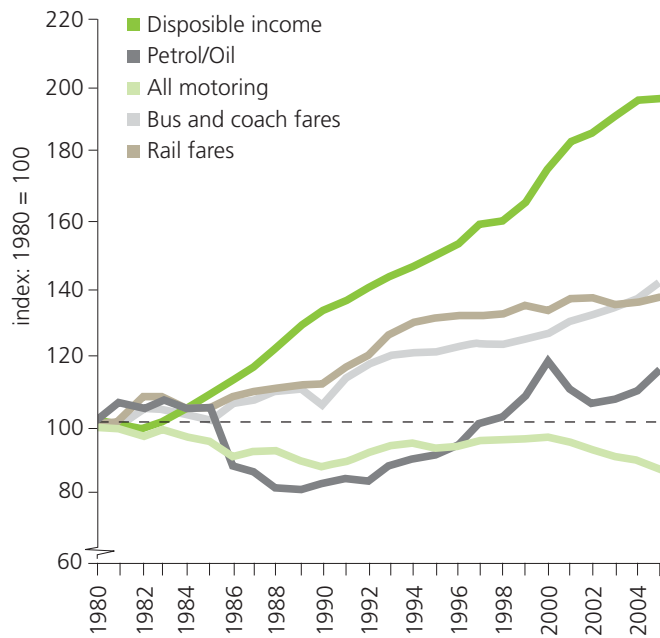


Source: Department for Transport

### Travel costs have changed

It has become cheaper to travel by car and more expensive to go by bus or train.

Changes in relative costs of transport



Source: Office for National Statistics

### Investment in the UK's road network is low

Investment levels have dropped, hitting a low point in 1999. The level of investment has not yet reached the amount planned in the government's ten year plan, which was launched in 2000.

# 01

## Key facts

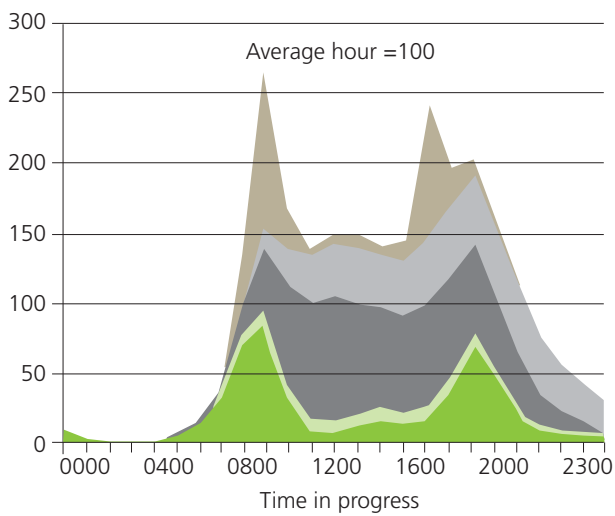
### The school run

This has a huge impact on the peaks of congestion during the day adding to congestion 8-9am and 4-6pm on weekdays.

### Slower journeys

Between 1995 and 2003 average speeds on major roads in England fell at all times of the day, both within and outside urban areas. Speeds during the evening peak fell from 55mph to 51mph, a drop of **6%**.

**Trips in progress by hour of day and purpose, Great Britain, 2002-2004**

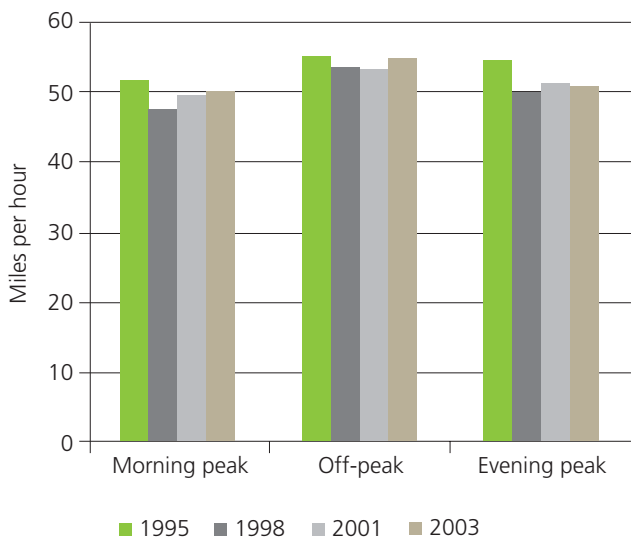


Source: National Travel Survey, 2005, DfT

- Commuting
- Business
- Other personal
- Leisure
- Education

**Traffic speeds and congestion: England**

Average traffic speeds on trunk roads: 1995, 1998, 2001, 2003



Source: Department for Transport

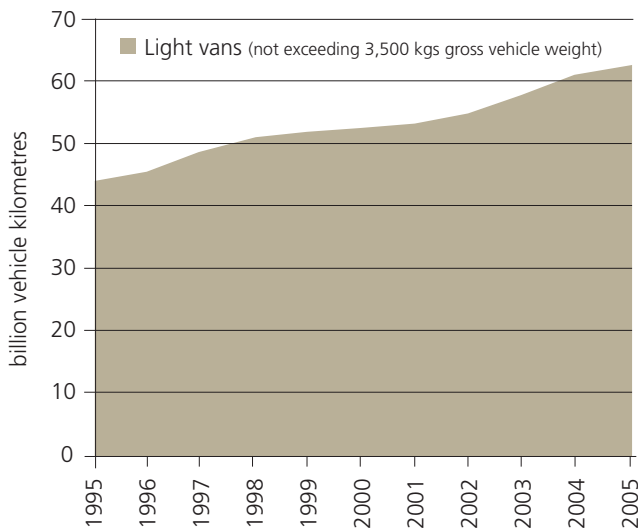
“The current fuel duties are inefficient and unfair and would be better replaced, at least in part, by road charges which influence motorists directly at the point and time of congestion”

*Motoring Towards 2050, The RAC Foundation for Motoring*

#### White van man

The total freight carried on our roads increased by **13%** between 1994 and 2004 but light vans and similar vehicles are doing **41%** more miles than they were 10 years ago.

Road Traffic: Light vans: 1995-2005



#### Worst in Europe?

Traffic congestion in the UK is worse than in any other of the 15 members of the EU before enlargement. In Germany, 7% of road users experience congestion, while that figure is only 4% in France. In the UK 20% of road users experience congestion, making UK roads much less reliable.

As highlighted by Sir Rod Eddington’s review for the Government published in December 2006, an efficient transport system is vital for the success of the UK economy in an increasingly global economy.

Is everything I read about road pricing true?

#### “The price is disproportionate.”

Charge levels should be set at the lowest amount necessary to achieve a reduction in congestion – taking into account the combined impact of the other traffic reduction measures being implemented. It is essential that implementation and operating costs are kept low – avoiding over-design, focusing on the basic requirements and setting a clear limit to costs relative to revenues. The motorist as a consumer would be paying for improved conditions on the road but also for better quality alternatives to car use. A relatively small reduction in traffic flow can produce a significant reduction in congestion.

#### “Road pricing is nothing more than a stealth tax.”

The latest Concise Oxford English Dictionary defines a stealth tax as one which is covert or goes unnoticed. Road pricing would be neither of these things; it would be an upfront cost for driving on the UK’s roads.

## 02 Congestion in the future

### Congestion in the future

We have outlined some of the reasons why traffic, and congestion, are increasing. It is implausible that these will diminish without intervention, leading us to conclude that yes, congestion will get worse if we do nothing about it.

If we continue to enjoy economic growth, and only invest at the level of recent years, then congestion will get worse, much worse. According to the Eddington review the rising cost of congestion will waste an extra £22 billion worth of time in England alone by 2025. By then nearly one in every eight journeys will be subject to stop-start travel conditions. It is not just the roads where congestion is getting worse, we also face more overcrowding on commuter rail lines as well as on intercity rail lines, particularly on the approaches to cities.

“If congestion can be eased and investment improved by a fair and totally transparent realignment of how we pay for our motoring, it is worth serious discussion. The AA will contribute to that debate and work to ensure that clarity and honesty overcomes myth and speculation”

AA

The RAC Foundation for Motoring carried out its own studies, looking forward to 2050. These concluded that between 2001 and 2031 there would be an increase of 46% in the distance travelled by people driving cars. There would also be a 28% increase in the distance travelled by their passengers. This would be the case if growth in traffic was not constrained by shortages of road or rail capacity, and was not affected by changes in the relative costs of transport. That growth would mean that each kilometre we drive would, on average, take 29% longer. In 2031 we would drive 17 minutes more for every hour we drove in 2001. If investment remains at the same level as proposed in the Government's Ten Year Plan – which has not been achieved – then congestion would constrain the growth in traffic to 33%. Even then, a journey which took 60 minutes in 2000 would take 72 minutes in 2031. We would be spending longer in our cars – going nowhere.

With no prospect for investment in roads matching increasing demand for travel on them, it is hardly surprising that a variety of organisations, including the CBI and the Freight Transport Association, as well those with representing the interests of motorists – the RAC and the AA – consider we need to think again about how we pay to use our roads, and how much we are charged, particularly to use the most congested ones.



## 03 What are the options?

### What are the options?

It is clear that something must be done. The options include:

- Build more roads.
- Make better use of our roads – such as driving on the hard shoulders of motorways.
- Invest in new or improved public transport routes and services.
- Encourage working from home, teleconferencing and driving at non-peak hours.
- Encourage people to walk or cycle instead of going by car.
- Concentrate new development in areas well served by public transport and limiting the amount of out of town development.
- Managing demand through parking schemes and road pricing.

#### Is everything I read about road pricing true?

##### **“Road pricing is a tax on the poor”**

Charging schemes can be designed to ensure that people with low incomes who are fully dependent on their cars can get discounts.

##### **“Road pricing is inherently unfair.”**

The Green Light Group argues that it is the way we pay for using the roads at the moment that is unfair, because the amount we pay in tax doesn't fairly reflect the amount we use the roads. A 'pay as you go' road pricing system would be much more rational.

There is no simple or single solution to the worsening problem of congestion. Doing nothing is not an option. We must address the economic and environmental problems it causes. One-sided solutions such as simply increasing road capacity, or alternatively, rationing access to the road network through pricing or regulation are extreme responses which are unlikely to be feasible or acceptable.

Allowing congestion itself to limit demand, making people decide not to travel because of it, cannot be a good thing for anyone, least of all for people making urgent or essential journeys. Congestion is bad for the economy, particularly with increasingly globalisation. It is bad for the environment, cars and trucks emit more greenhouse gases when idling in congestion. And it is bad for the quality of our lives. Equally, substantial investment in public transport is not, on its own, sufficient to persuade car drivers to switch travel mode. Let's not forget that the government already pays some £5 billion a year for rail, and London's bus services are subsidised by over £600 million a year.

The solution to easing congestion lies in applying a combination of initiatives that suit local areas. Road pricing must be an important element in any of these.

## 04 What is road pricing?

Quite simply, road pricing means charging for the use of roads in a way that reflects the costs of using them – paying more when roads are congested and less when traffic is light. Under a road pricing scheme: the person who uses their car to drive to a business meeting instead of teleconferencing; to drive the kids to school rather than using the school bus; to pop down to the shops at rush hour and to drive out of town on congested motorways to visit the cinema; would pay more than someone who only uses their car to visit the local supermarket when there is little other traffic around. As it is focused on congestion, the charge would be very low for most trips by car. But for about one in 20 – those on the very congested roads in and around our bigger towns and cities – the charge could be quite high.

### **What difference will road pricing make?**

Road pricing could make us travel differently if it is used sensitively and in conjunction with a variety of positive policy and investment decisions. Charging for road use by route, time of day and car type would make drivers think about where, when and why they drive. By discouraging road use at peak times of the day – whilst encouraging people to use alternative routes, car share or use public transport – road pricing could dramatically free up traffic on our roads.

Goods are trucked up and down the country because the transport part of the total distribution costs is too low in relation to the externalities caused. Road pricing should result in a recognition of real costs, and a better allocation of costs leading to fewer trucks and fewer food miles.

The current taxation system for vehicles cannot influence drivers' behaviour. Vehicle Excise Duty varies with engine size or CO<sub>2</sub> emissions (for newer cars), but not with what we do with our vehicles. Although we use rather more fuel in congested conditions than when roads are running freely, the difference in cost is not great enough for us to change our behaviour.

The application of the 'pay as you go' principle to road use would make costs fairer, because drivers would only pay as much as they use the roads. It is already accepted as a fair means of charging to use facilities such as telephones and energy, so why not roads? Those who drive on the most congested roads would pay more and those who drive on less congested roads would pay less.

For public acceptance these measures must be applied fairly across society. The funds raised should be used to improve local transport or reduce taxation. Directing the money towards transport improvements would ensure a positive outcome for road pricing; less road congestion and better travelling conditions.

### **What next?**

Government needs to take the lead:

- It needs to explain in a clear and straightforward style the issues and options. It must promote and actively participate in the "national debate".
- It needs to say what type of system it wants and explain how that may evolve over time. Are we expecting to have:
  - a series of local schemes in some cities and towns, or
  - a system covering all congested roads, both within and between towns, or
  - a nationwide system covering all roads?
- It must fully support local initiatives, the so-called TIF trials, politically, procedurally and by providing adequate funding, when required.
- Government should pave the way for local, inter-regional and possibly national level road pricing schemes.

## 04 Conclusion

The Green Light Group considers that a restructuring of the way in which transport services are priced, and the way we pay for them, is essential. A road pricing scheme which takes into account the costs and environmental externalities, should lead to greater efficiency along with more investment into both roads and public transport. The introduction of road pricing beyond local schemes designed to deal with local problems (such as Central London) must be complemented by a restructuring of vehicle and fuel taxation, and public funding of transport.

Is everything I read about road pricing true?

**“The government should concentrate on improving roads.”**

At the moment, none of the tax that we pay for driving is earmarked for improving our roads. This is because successive UK governments have ensured that tax is not directly returned to the sector that it was charged for. If road pricing revenue was spent on the transport network, including the quality of our roads, it would have the dual effect of improving roads and reducing congestion.

One Great George Street  
Westminster  
London SW1P 3AA

t +44 (0)20 7665 2150  
f +44 (0)20 7222 0973  
e communications@ice.org.uk

ice.org.uk

Registered charity number 210252

This paper is made from  
elemental chlorine-free pulp  
from sustainable forests

Published May 2007.