

CONGESTION CHARGING IN THE UK

by David Wood

CONGESTION CHARGING – sometimes called road pricing – is gradually being introduced to Britain. Although charges in the form of tolls are common in many parts of the world, including many parts of Europe and the USA, this approach to financing roads has been rare in the UK, with the exception of some river bridge crossings such as the Humber bridge, the newer of the two Severn bridges and the Tay and Forth bridges in Scotland (Figure 1).

The city of Durham (Figure 1) was the first British city to introduce a charge for vehicles wishing to access the ancient city centre. This began in 2002, although Cambridge had experimented with a charging system in 1993. The Central London scheme (see Figure 2) followed in February 2003. Initially, Londoners were charged £5 to enter central London but this has now risen to £8, with no charge between the hours of 6 pm and 7 am. Currently, around ten British cities are considering congestion charging schemes, although the citizens of Edinburgh voted to reject their council’s proposed charging scheme when they were consulted in February 2005.

Why introduce congestion charging?

The original bridge tolls such as those charged to cross the Humber between Lincolnshire and Yorkshire were justified to cover the costs of construction and ongoing maintenance. However, **congestion charging**



Figure 1: Major toll bridges in the UK, 2007

(or road pricing) is a completely different concept.

Congestion charging is viewed as a system that makes motorists and other road users pay for the costs associated with traffic congestion. It also aims to reduce traffic levels while also encouraging car sharing and a switch to public transport. Supporters of charging argue that using road space is

expensive both in terms of road building and maintenance and the financial cost of time wasted sitting in traffic jams. The *real* cost of motoring has also fallen in the last 25 years. In a speech in 2005, the then Transport Minister, Alistair Darling, put these costs at 2p per mile in rural areas rising to as much as £1.34 per mile on motorways during peak periods.

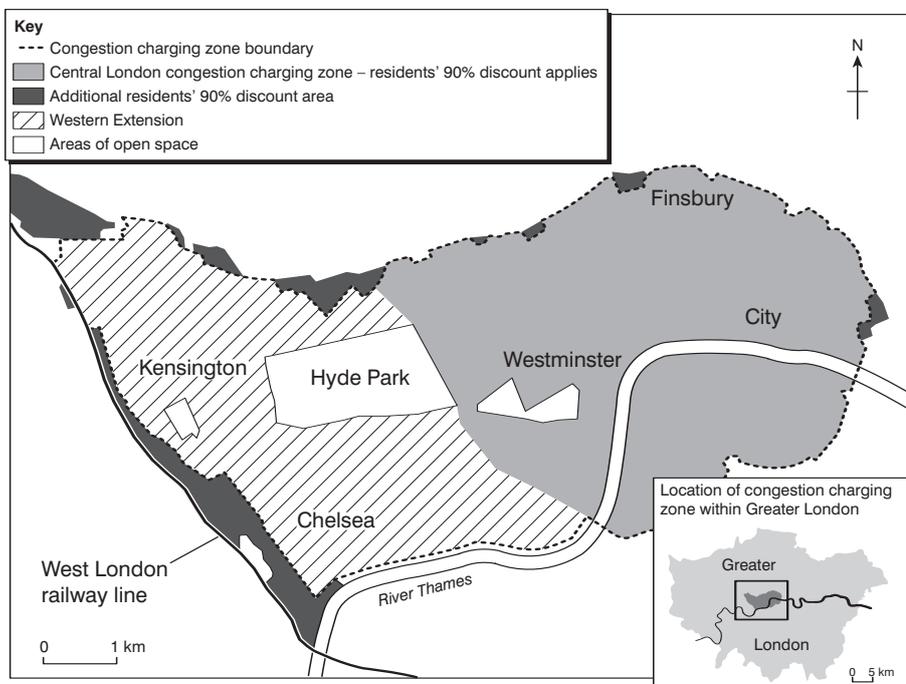


Figure 2: The inner London charging zone

In June 2005, the British government suggested that in future all vehicles might be required to carry black boxes which would allow them to be tracked by satellite. Depending on the type of vehicle and time of day, the vehicle's movements would be charged at varying rates and the owner billed as appropriate. This type of charging would mean the abolition of current motoring charges such as road tax and petrol duty.

The Labour government claims that a charging system is the only way to avoid the type of excessive congestion known as **gridlock** which is all too common in cities such as Los Angeles, for example. In a statement in 2006, the government reported that the number of vehicles on British roads had gone up from 26 million in 1997 to 33 million today. If nothing is done, numbers could climb by another 25% by 2015 in the larger urban areas.

However, many ordinary people as well as businessmen are opposed to the introduction of road pricing. For example, in 2007 an on-line petition against such schemes attracted 1.8 million signatures.

Case Studies

1 London

The largest congestion charging system in Britain currently operates in central London. Vehicles entering the inner charging zone (Figure 2) are met with a series of signs and road markings. Registration plates are photographed on entry and exit and drivers must pay within 24 hours. Ways of payment include:

- on-line
- at selected shops, filling stations and post offices
- by post
- by telephone
- by SMS text message from a mobile phone
- at BT internet kiosks.

Drivers can also pay in advance by the week, month or year. In February 2007, the charging zone was extended west to cover a whole new part of inner London (Figure 2).

Undoubtedly, the charging scheme has had a major impact on central London. On the first day of the scheme, traffic levels fell by 25%. An estimated 60,000 fewer cars entered the charging zone with

around 50–60% of former drivers switching to public transport. An extra 300 buses were laid on to cope with demand in addition to the 20,000 existing buses already serving central London each day. Bus journey times were also reduced by an average of 37%. Bearing in mind that over 1 million people commute into central London each day, this is a major improvement.

Businesses such as department stores were mainly against the scheme when it was first introduced and retail sales dipped in many shops by 7%. However, most businesses are now much more supportive. Meanwhile, airborne pollutants such as nitrous oxide, carbon dioxide and particulates fell by around 14%, helping to improve air quality in central London.

Today, about 110,000 London motorists pay the daily charge of £8. However, the scheme still attracts criticism:

- The charge is not based on the actual mileage a vehicle covers.
- The fee does not vary depending on the time of day, eg it is just as cheap to drive during the rush hour as off-peak.
- The fee is the same on all inner London roads rather than higher on the most congested roads.
- The scheme is fairly expensive to administer.
- Many public transport alternatives to the car, such as the Underground, are often overcrowded.
- There is a fear of a spill-over of traffic to neighbouring 'free' roads. In practice, however, traffic levels on these roads have only increased by around 10% without significantly affecting congestion levels.

In August 2007, the Mayor of London, Ken Livingstone, was criticised by so-called 'green activists' for suggesting that about 25,000 small cars should be offered free access to the

Winners	Losers
<ul style="list-style-type: none"> • Bus passengers • Taxi passengers and drivers • Motorists whose journeys add high financial value to their lives, eg high salaries in central London • Pedestrians and cyclists 	<ul style="list-style-type: none"> • Motorists whose journeys add little financial value to their lives, eg low wage-earners in central London • City centre businesses that depend on low-cost weekday car access • Residents and motorists in border areas of the charging zone who experience greater traffic levels • City centre parking revenue businesses (private car parks)

Figure 3: Winners and losers from congestion charging in inner London

charging zone. He also proposed that, in future, the highest polluting cars might face higher charges. Currently, the only private cars to be exempt from charges are electric and hybrid-fuel models.

Any profits from the current scheme are directed to improving public transport, in particular the bus and Underground service with future plans for new tram links. The main ‘winners’ and ‘losers’ from the scheme are listed in Figure 3.

2 The M6 toll road

Currently, only one motorway charges motorists for its full length. This is the M6 (Toll) which runs south-eastwards from the Colehill exit of the M6 to the north of Birmingham for 43 km to join the M42 (Figure 4).

The M6T currently charges between £2.50 and £8 for vehicles wishing to avoid the notorious traffic jams which affect many of the motorways around Birmingham. Prices are higher for large trucks. The road opened in 2003 and is operated by a private company, Midland Expressway Limited. It cost £900 million to build and is used by an average of 50,000 vehicles a day. Eight junctions along the road provide convenient entry and exit points. The M6T fits very well into the current government’s philosophy that drivers should pay for the ‘real’ costs of congestion.

The future of congestion charging in the UK

In 2006, a government report proposed that a nationwide system of congestion charging would cut traffic levels in the UK by half, as well as releasing as much as £28 billion to invest in road improvement and better public transport. However, the report did admit that the technology needed to implement such a nationwide system is both new and relatively untested.

Shrewsbury, Birmingham, Newcastle and Bristol are currently considering road pricing schemes. However, a scheme proposed for Manchester is making most progress and may be operative by 2012. A test trial, with vehicles being charged £2 for entering inner Manchester and £1

to exit, is likely to begin in the near future.

Manchester already has a tram system known as Metrolink and is keen to expand it. A road pricing scheme might realise as much as £3 billion which could be reinvested. If the Metrolink was expanded to centres such as the Trafford Centre and Stockport, 40% more people could easily be carried during the rush hour compared to present. However, many residents in outlying areas such as Stockport are currently against the proposals which they feel would penalise motorists.

Because congestion charging is still viewed as a relatively untested system outside London, there are still many questions to answer before it becomes more widely used. For example:

- the technology used to collect the tolls needs further assessment
- the system has to be seen as ‘fair’ by the public
- evidence of considerable investment in transport from tolls collected will be needed before pricing schemes are likely to become acceptable to the wider public.

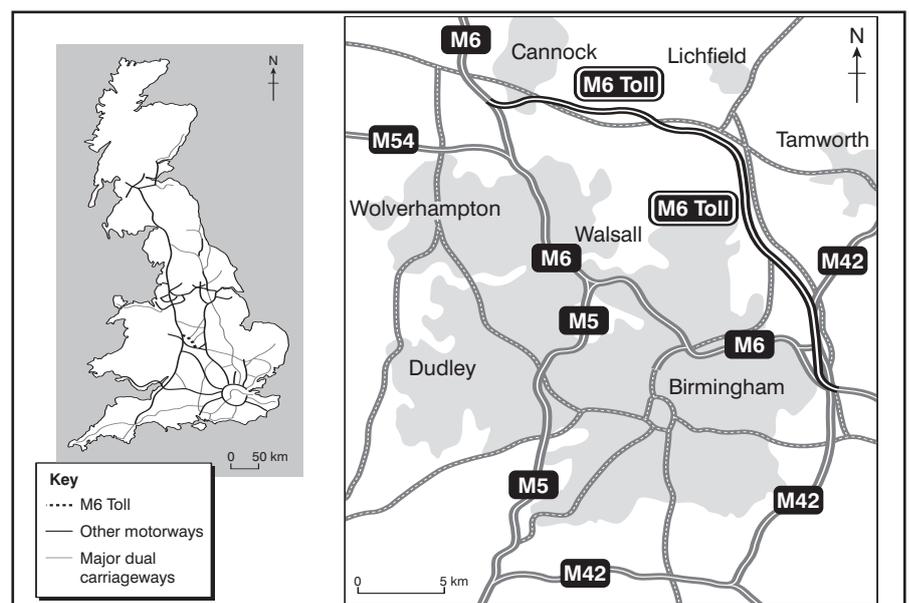


Figure 4: The M6 Toll

Activities

- 1 (a) Which British city first introduced congestion charging?
- (b) How many future congestion charging schemes are currently being considered in Britain?
- (c) Explain the argument used to justify congestion charging.
- (d) According to the former Minister of Transport, Alistair Darling, what is the 'true economic cost' of road use in the UK?
- (e) What revolutionary technological system may soon be introduced in order to charge UK drivers for their road use in future?
- (f) Explain the term *gridlock*.
- (g) What evidence is there that a substantial number of people in Britain are opposed to congestion charging schemes?

2 Copy the following paragraph, referring to Case Study 1 (London) to complete the blanks.

London operates the largest congestion charging system in the UK. Drivers are charged by having their licence plates _____ as they enter the charging zone. In 2007, the charging area was extended to the _____ of the central zone. At first, traffic levels in the charging zone fell by _____ and _____ of former drivers switched to public transport. Extra _____ were laid on to cope with demand. Bus journey times speeded up by _____ while air pollutants from vehicle exhausts also fell by _____. Today, _____ drivers pay the £8 charge on a daily basis. In 2007, the London mayor, Ken Livingstone, proposed to eliminate charges for _____ cars in addition to the current exemption for electric and hybrid fuel models. Receipts from the scheme are reinvested in better _____ transport.

3 Use the internet to research some of the signs and symbols used to warn drivers they are entering the inner London charging zone. Make sketches of some of them.

4 Summarise the current criticisms of the inner London road pricing scheme.

5 Study Figure 3. Summarise and comment on the suggested 'winners' and 'losers' from the inner London congestion charging scheme.

6 Study Figure 5. Explain why the writer feels that a national congestion charging scheme is still a long way off.

7 Complete your own on-line search using the key words *congestion charging* and *road pricing*. Use your research notes to argue the case either for or against a national congestion charging scheme.

CONGESTION CHARGING NEEDS COURAGE

by Christian Wolmar

The 1.8 million signatures on the recent road pricing petition is the least of the problems facing supporters of the concept. The plan to introduce a workable pay-as-you-drive scheme is pitted with so many potholes that it is difficult to see how politicians will ever manage to drive it through and implement anything like a comprehensive national system ...

There is no worked-out model because a national system would look very different from the only large-scale scheme currently in operation: London's congestion charge. London is exceptional for many reasons, not least the excellence of its public transport, with 12 Tube lines and 700 bus routes and a low rate of car usage. Since it came into operation in 2003 the initial congestion charge has, indeed, been a success in reducing traffic by 20 per cent, even though, at a cost of £161.7m, it has been expensive to introduce ...

The most telling phrase in Tony Blair's answer to the online petitioners was that 'it would be ten years or more before any national scheme was technologically, never mind politically, feasible'. 'Twas ever thus. Road pricing has always been ten years off. In 1993 the then transport secretary, John MacGregor, voiced commitment to introduce a scheme within a decade. Labour ministers have been saying the same thing for the past few years, seemingly unaware of the passage of time ...

Figure 5: Extract from the *New Statesman*, 5 March 2007