

Cutting Congestion in London

United Kingdom

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Background

Transport for London, an executive arm of the Greater London Authority, successfully implemented a Congestion Charge Zone (CCZ) on behalf of the Mayor of London who serves as part of Her Majesty's Government of the United Kingdom, in 2003. The CCZ aimed to reduce the volume of cars and therefore congestion in order to limit traffic waiting times and CO₂ emission levels within the city.

As of 2008, the world's cities were responsible for up to 80 per cent of greenhouse gas emissions. London's first elected Mayor, Ken Livingstone, wanted to improve the liveability of London whilst responding to its rapid growth. In order to do this, he created the local government body 'Transport for London' (TfL), an organization that is responsible for all modes of transport within London, including cycling and walking. In 2000, a study by a group of independent transport professionals - the Road Charging Options for London (ROCOL) was commissioned by the Mayor. This report concluded that a charging system based

Quick facts

Zone	London City
Programme started	2003
Topic	Transport congestion
Implementing Agency	Transport for London

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upon the monitoring of vehicle registration numbers implemented by cameras and carrying a daily fee a) could have a 'significant impact on traffic conditions' in central London and b) would be 'feasible and enforceable'. Based upon these findings, the Mayor of London asked TfL to investigate the practicalities of implementing a congestion charging scheme for central London.

Opinions on many features of the practical aspects of the proposed congestion charge were pursued from key stakeholders, including the area boundary, charge structure, hours of operation, penalty fees, exemptions / discounts and potential use for the proceeds. Six times as many stakeholders supported the concept of introducing a congestion charging scheme in central London as opposed it.

Project Details

The congestion charge was implemented within Central London by Ken Livingstone in 2003, in contradiction of the popular opinion of his advisors. The system requires motorists to pay £8 per day to drive within the CCZ, which is defined by a map published by TfL (Figure 1). A camera system of cameras monitors the edges of the zone and observes the number plate of all vehicles that enter and exit, against a database of those who have paid. Vehicle owners who have not paid the fee receive a £120 penalty charge notice in the post.

Impacts

Immediately, traffic was reduced by 15 per cent, congestion reduced by 30 per cent, CO₂ emissions were reduced by 16 per cent and pollutants such as PM10 and NOX were reduced by 8-13 per cent within the CCZ. The £123 million per year accrued by the congestion charge was re-invested entirely back into public transport within London. A total of 80 per cent of this fee was used exclusively on buses, resulting in a 5 per cent modal shift from the use of cars to public transport.

Figure 1. Map of the CCZ within London, TfL.



Challenges

In 2006, the Mayor of London proposed that variable charges be enforced within the CCZ, based upon vehicle CO₂ emission rate. Charges would be graded in correlation to the band of emission. Band A (lowest emissions: less than 100g/km CO₂) would be charged £0 per day and band G (highest emissions: more than 225g/km of CO₂) would be charged £25 per day.

This proposal was met with great resistance from a large percentage of the population, including various car production companies such as Land Rover and Porsche, who claimed that 'the new charges would make no meaningful difference to the environment'. A study was commissioned by Porsche that suggested the proposed new system would reduce CO₂ emissions in central London by 2,200 tonnes by 2012, but would increase CO₂ emissions by 182,000 tonnes in outer London, due to drivers of polluting vehicles avoiding the CCZ.

The emissions based congestion charge remained controversial during the run up to the 2008 mayoral election, but ultimately the new Mayor of London announced that CO₂ emissions based charging would not go ahead.

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References

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Video Material

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<http://www.youtube.com/watch?v=pIfxI7XYI5o&list=UU3m4pS6Ge6wjyEnWyExebJA>

