London, United Kingdom

London is a major global business, financial, and cultural centre. The city is one of the most popular tourist destinations in the world and its popularity has increased over the years due to continued economic growth. As of July 2007, it has an official population of 7,556,900 within the boundaries of Greater London. Congestion as a result has been steadily increasing over the years.

Why was urban road user charging introduced in London?
The Congestion Charging Scheme was introduced as a result of the increasing congestion within Central London. The Congestion Charge contributes directly to the achievement of four of the Mayor’s transport priorities. These are: the reduction of congestion; improving bus services; better journey time reliability for car users; and making the distribution of goods and services more efficient. It is the largest fully operational existing Congestion Charging scheme in the United Kingdom.

What are the features of the London scheme?
Users pay a daily charge to enter or be within the Charging Zone. They can then exit and enter as many times as they like during the day. The charge is operational between the hours of 0700 and 1800 Monday to Friday. The charge was originally set at £5 (£5.75) per day which rose to £8 (£9.20) per day in July 2005. This assumes payment in advance of travel. There are many ways to make payments such as: via the internet; telephone; retail outlets and petrol stations; self service stations in car parks; and by post.

Some vehicles are exempt from the charge such as black cabs, NHS vehicles and emergency services vehicles. Residents of the zone have a 90% discount.

The system uses Closed Circuit Television (CCTV) and Automatic Number Plate Recognition (ANPR) technology. The CCTV cameras record the vehicle registration (number plate) of all vehicles that enter the charging zone between 0700 and 1800, Monday to Friday and within the charging zone. The ANPR technology converts the details captured in the image into text which can be compared to the database of valid payments, exemptions and discounts. Therefore drivers who have not paid will receive a Penalty Charge Notice, notifying that they have not paid the charge.

Revenues from the charge have been used for improvements public transport and road networks, road safety initiatives and enhanced walking and cycling facilities.

How was the London scheme implemented?
Congestion Charging was introduced in Central London on 17 February 2003 as a cordon charging scheme. The
Western Extension was implemented on 19 February 2007. The ‘original’ 2003 zone covers approximately 22 square kilometres and the Western Extension covers a further 20 square kilometres.

**Impacts of the London scheme**

During charging hours in 2006, there was a reduction in cars and taxis entering the charging area by 36% (compared with the 2002 levels i.e. before charging was introduced). Emissions of NOx have fallen by 17%, PM10 by 23% and CO2 by 3% in 2006 (compared with 2002 levels) Alternatives to car travel such as pedal cycles have become very popular – a 49% increase between 2002 and 2006.

Surveys of the Central London charging zone in 2003 indicated average delays were about 1.6 minutes per kilometre - a reduction of 0.7 minutes per kilometre, compared with the 2002 baseline, a reduction of 30%. Subsequent years recorded a 30% (2004) and 22% (2005) reduction, compared with the 2002 pre-charging baseline.

During 2006 congestion reduction fell to only 8% against the 2002 baseline, while in 2007 congestion returned to the levels experienced in 2002. This was not due to a rise in traffic levels, which remain relatively unchanged. It is thought the increase was caused by other factors, in particular a notable rise in the street works projects that have affected capacity on the road network and thus traffic flow.

In terms of network speed, Transport for London observes a fluctuation over time since the introduction of Congestion Charging in 2003. The figure in 2003 was approximately 17 km per hour, compared to 14 km per hour in 2002. More recently, observed charging hour speeds have fallen to 16 km per hour in 2005 and 15 km per hour in 2006.

Bus patronage figures for passengers entering Central London increased year on year between 1999 and 2002 – from approximately 70,000 passengers in 1999 to just below 88,000 passengers in 2002. There was a significant increase in 2003 to approximately 104,000 passengers, and a further rise to 116,000 in 2004. Patronage stabilised at around 116,000 in 2005 and 2006.

The Underground has seen less of a significant change in patronage since 2003. A recorded average of approximately 516,000 passengers exited stations in and around the central charging zone during the morning peak period in 2002. This rose to 523,000 in 2006 having been 498,000 in 2005.

**Conclusion**

The London Congestion Charging scheme has been operational for over 5 years. Extensive monitoring and data is now available.

The overall conclusion is positive. Many of the fears, prior to implementation, amongst key groups such as the business (retail) sector have been allayed. Bus service reliability and patronage both appear to have steadily improved over time, compared with pre-charging conditions, although there has been some indication that increased traffic congestion is beginning to impact on service performance, both within the charging zone and more widely across London.

The key change in 2008 has been the change in political administration. The new Mayor of London, Boris Johnson, announced in November 2008 that he had initiated the process to remove the Western Extension. This is in response to results from a non-statutory public consultation exercise.