Central London Congestion Charging

ECMT TfL London User Charges Conference

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OVERVIEW

- Context
- Central London scheme
- Results so far
- Next steps
ROAD PRICING CHALLENGES

• Over the last 50 yrs there has been a huge increase in the number of vehicles on our roads
• Road space is scarce
• Road pricing, charging vehicles for journeys made on roads, parts of roads, can help manage the demand placed on road space
LONDON CONTEXT

- Greater London - largest urban area in Europe
- Central London - 1 million workers
- Worst traffic congestion in the UK
  - average traffic speeds 15km/hr
  - vehicles typically spent half their time in queues
- Congestion was costing time and money
- General acceptance - ‘something had to be done’
SUPPORTING STUDIES

- ROCOL report 2000
  - Aimed at Mayoral candidates
  - Considered implications of new legislation in London and future powers of Mayor
  - Considered feasibility, effectiveness and acceptability of congestion charging
  - Concluded that in the Mayor’s first term a simple scheme for central London would:
    - be feasible
    - significantly reduce traffic
    - if ‘fair’ would be supported
PART OF A WIDER STRATEGY

- Congestion charging part of London-wide Strategy - No.1 priority ‘tackling congestion’
- Integrated approach: public transport; parking & loading enforcement; congestion charging
- Extensive public consultation over 18 months
  Public transport improvements in advance
- Associated traffic management
- Commitment to monitoring and adjustments
Objectives

- To reduce traffic congestion
- To make radical improvements in bus services
- To improve journey time reliability for car users
- To make the distribution of goods and services more reliable, sustainable and efficient
Where exactly is the Congestion charging zone?
Central London only.
So how does congestion charging work?
PAYING THE CHARGE

- Daily, weekly, monthly or annual payment, for individual vehicle registration number
- Flat charge of £5 per day (Monday - Friday 7am - 6.30pm) for all vehicles
- Payment by post, telephone, internet, SMS, or at self service machines, retail outlets and some petrol stations
- Payment available up until midnight, but charge rises to £10 after 10pm
ENFORCEMENT SYSTEM

- Vehicle registration numbers observed by fixed and mobile cameras and compared with payment database
- Cameras linked to automatic number plate recognition technology
- If no record of payment by midnight, £80 penalty charge sent to registered vehicle keeper
- Vehicles of persistent evaders will be clamped and / or removed
CAMERA ENFORCEMENT

CCS Evidential Records

Colour Contextual Image

Monochrome Image from ANPR camera

Number Plate image from ANPR camera, Lane 1

ANPR 1 -  K924 BEC

ANPR system output

Evidential Record Summary

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<th>Site</th>
<th>195 - Finchley Road - northbound</th>
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Current split of payment channels

- Retail outlets (35%)
- Internet (25%)
- Call centre (automatic payment) (7%)
- Call centre (manual) (13%)
- Mobile phone text messaging (19%)
- Post (1%)
ENFORCEMENT PROCEDURE

- 40,000 PCNs issued per week on average
- Representations made on 16% of PCNs
- Appeals are currently being made on 2% of PCNs
- The full range of enforcement procedures are now in place
Impacts after 6 months
KEY FINDING

Congestion charging has had an unprecedented beneficial effect on traffic conditions in Central London.
Driver responses to charging appear to have settled

Charging is delivering significant traffic benefits

Traffic delays inside the zone reduced by 30%

Drivers in the zone spending less time in queues

Journey times to, from, across zone down by 14%

Journey time reliability improved by 30%
HEADLINE FINDINGS (2)

- Diverting traffic being effectively managed
- Public transport is coping well with ex-car users
- Improvements in bus reliability and journey speed
- Concerns about detrimental impact of scheme on economy appear misplaced
- Accidents continuing to fall
- Significant net revenues to spend on transport
Mayoral priority: congestion reduction

TfL projected a congestion reduction of 20-30% inside the charging zone

The scheme has delivered 30% reduction

TfL sought to contain congestion on the Inner Ring Road

Less than projected increases observed and successfully managed
CONGESTION WITHIN CHARGING ZONE

Survey period

Travel rate (min/km)

Excess delay
Nighttime travel rate

Jun / Jul 86
Jun / Jul 90
Jun / Jul 94
Jun / Jul 97
Jan / Jul 00
Mar / Apr 02
May / Jun 02
Jul / Aug 02
Sep / Oct 02
Nov / Dec 02
Jan / Feb 03
Mar / Apr 03
May / Jun 03
Jul / Aug 03

Travel rate (min/km)
Traffic changes

- TfL expected traffic reductions of 10-15% inside charging zone
- Reduction of 10-15% achieved
- Inner Ring Road traffic successfully managed
- Small changes in orbital traffic (+/- 7%) as projected; no significant displacement to local roads
OVERALL TRAFFIC CHANGES

Orbital movements
- north + 3%
- east + 3%
- south -7%

On Inner Ring Road + 5%

Inside Inner Ring Road
- West + 7%
- -10; -15%

Orbital movements
- east + 3%
- south -7%
Majority of ex-car users have transferred to public transport

- 5,000 journeys diverting around the zone
- 10,000 switched to other modes e.g. Taxis etc.
- 30,000 transferred to public transport
JOURNEY TIME CHANGES

Car journeys to and from the zone are quicker and more reliable

→ Journeys times to or across the charging zone have reduced by 13%

→ Journey time reliability has improved by an average of 30%

→ Driver time spent stationary or < 10 km/hr has reduced by about a quarter
TRAVELLING TIME IN CHARGING ZONE

Speed bands (km/h)

Length of time (hours)

- 0-10
- 10-20
- 20-30
- 30-40

May/June 2002
May/June 2003
MAYORAL PRIORITY: IMPROVING BUS SERVICES

- Level of disruption caused by traffic congestion has fallen by around a half
- Bus journey speeds have risen
- Excess waiting time has fallen by around one third (routes into the charging zone and up to or along the inner ring road)
EXTRA BUS PASSENGERS SUCCESSFULLY ACCOMMODATED

- 15,000 additional bus passengers expected with about half during the peak hour
- Passenger increases in line with that forecast
- Peak hour bus capacity increased by 11,000 spaces; no evidence of increased crowding
- Patronage growth continues and is being matched by schemes to further increase capacity
Therefore........

60,000 fewer car trips coming into zone....

....only 4,000 people no longer travelling to central London as a result of congestion charging
Impacts in central London retail activity

- Some expressed concern is misplaced
- 60,000 - 80,000 fewer people entering central London by all modes
- Background traffic trends
- Central line closure
- War in Iraq & terrorism
- World economy
- General fall in consumer spending & tourism
- SARS
- Exceptional weather - fewer discretionary trips
Scheme net revenues are less than the originally projected £130 million/year resulting from:

- successful congestion reduction
- higher than expected exempt & discounted vehicles
- higher than expected evasion levels

Current expectation £68 million in 2003/2004

£80 - £100 million in future years
SUPPPPORT FOR THE SCHEME

• GLA telephone survey of sample of 1,000 residents in Greater London area, June 2003

• 51% of Londoners strongly support or tend to support congestion charging

• 73% of Londoners believe that congestion charging has been very effective or fairly effective in reducing traffic congestion
Lessons Learnt (1)

- Political commitment of Mayor
- Effective research and traffic modelling
- Clear policy objectives
- Extensive public consultation and stakeholder engagement
- Clear procurement strategy
- Hands on approach
Lessons learnt (2)

- Use of proven technology
- Strong project management
- Engagement with third party providers and decision makers
- Early development of traffic management measures and programme
- Delivery of bus improvements
- Importance of PI campaign

*Enthusiasm and ‘can do’ attitude can deliver an ‘impossible’ project*
NEXT STEPS - FUTURE DEVELOPMENTS

- Following early indications of traffic conditions settling down, TfL is undertaking initial feasibility work on:
  - Geographical extension
  - Migration to more sophisticated charging technology
The Consultation Process

*indicative timetable*

- **Revision to Mayor’s Transport Strategy**
  - London Assembly: Nov / Dec 2003
  - Public & Stakeholders: Feb - Apr 2003
  - Mayor publishes revision: Summer 2003

- **Scheme Order**
  - Public & Stakeholders: Summer 2003
  - Mayor confirms Order: Spring 2005

- Earliest scheme ‘go-live’ 2006
MOVING FORWARD

More sophisticated technology

- Technology trials looking at:
  - longer term opportunities for better ways of charging using satellite systems and tag and beacon technology - units in cars
- To be conducted over 2003 to 2006
- Working with Department for Transport and Customs & Excise
MOVING FORWARD

National and international context

- HM Customs & Excise: national charging for lorries by 2006

- Department for Transport examining longer-term potential for national charging for all vehicles
  - London represented on national working group

- Co-operation at a European level:
  - electronic toll systems that work together
  - charging lorries to cover their costs to others
  - further guidance is likely
MOVING FORWARD
National and international context

Road user charging will be used for a variety of purposes in London and elsewhere.

Solving congestion problems in London would solve one third of national congestion.
www.tfl.gov.uk