



**Strathclyde**

**ROADS**

## **For Whom the Road Tolls?**

*An Initial Report on the  
Implications and Feasibility of Introducing  
Road Pricing in Strathclyde*

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## **EXECUTIVE SUMMARY**

### **Introduction**

- 1      Paying for the use of roads is not a new concept and has been discussed by transport economists since the late 1950's. The economic theory of Road Pricing is based on the assumption that people's behaviour is determined by their personal convenience and their perceptions of their own costs. Through the application of Road Pricing, it is argued that demand for use of road space can be managed to match the supply. From a technological viewpoint the practicalities of developing electronic systems have been improving all the time, but the pressure on capital spending programmes, and the more general acceptance of the impossibility of building a solution to the country's traffic problems combined with increased environmental awareness, has convinced people that Road Pricing is an idea whose time has arrived. Developments in other countries and the renewed interest of central government in the subject and in the concept of sustainable development, have put the issue back in the spotlight.

### **Strathclyde's Transport Strategy**

- 2      It was made clear in "Travelling In Strathclyde" that the Council will not seek to accommodate the unrestrained growth in the demand for movement. A carefully phased and integrated approach to transport investment was therefore proposed with action tailored to suit the varied needs of local communities within Strathclyde. The main features of this strategy include:
  - making more effective use of existing infrastructure,
  - limited new road construction to accommodate necessary movement and facilitate environmental and public transport improvements,
  - enhancement of the public transport network including improved quality of service provision,
  - research into and investigation of ways of further influencing (and especially reducing) the demand for movement to manageable levels, including Road Pricing.

### **Road Pricing Methods**

- 3      Vehicle users in the UK already pay substantial sums for the use of their vehicles either directly or indirectly. The main direct charges are for fuel, parking and tolls for bridges. The indirect charges include vehicle excise duty, garaging, insurance and maintenance costs. Included within these are VAT and other government taxes on services. However, the current taxation system in this country imposes charges on motorists in a way which bears little relation to the way in which they use their cars.

- 4 The cost of making trips can be broken down into four elements:
- Acquisition Costs - costs and taxes which are incurred when a vehicle is purchased. Typically, the private motorist will totally ignore these costs when making individual trips.
  - Periodic Costs - these are costs which are incurred by the motorist infrequently and include costs which are incurred by virtue of owning the vehicle - such as Vehicle Excise Duty, Insurance and Garaging costs - and costs which are related to the amount of use, such as Maintenance and Parking season tickets. Again, typically the private motorist does not include these costs in the calculation of the cost of individual trips.
  - Fixed Costs per Trip - these are costs which can be incurred each time a trip is made, can vary according to the destination of the trip, but do not vary according to trip length and traffic conditions. The incidence of these costs are considered by private motorist when making individual trips.
  - Variable Costs per Trip - these are costs, which are incurred on each trip, and which vary in accordance with one or more of the characteristics of the trip. For example, trip length, trip destination, timing of the trip and traffic conditions.
- 5 It is possible through various charging methods to influence the balance of the total cost of making a trip. In this way the perceived cost of a trip can be changed.

### **The Issues**

- 6 The potential introduction of Road Pricing raises a number of issues relating to its impact upon the community as a whole. Five main areas can be identified and various sub issues.
- Social Issues
    - Equity
    - Geographic Discrimination
    - Diversion
    - Planning considerations
  - Economic Issues
    - Hypothecation of Income
    - Additionality
    - Charge Determination
    - Impact on Related Taxation
    - Impact on Local Economies
  - Technology
    - Equipment

- Private Finance

- Enforcement

- Equipment

- Exemptions

- Civil Liberties

- Environment

- CO<sub>2</sub> Emissions

- Noise and Visual Intrusion

- Severance

- Sustainability

### **Application in Strathclyde**

7 Road Pricing should be seen as part of an integrated approach to the management of road transport, particularly in the urban context. In developing possible scenarios for the application of Road Pricing in Strathclyde it will be necessary to have a clear understanding of the context in which they might be applied, the problems they seek to address and the implications of implementation within Strathclyde. The Glasgow conurbation is the area that suffers the most widespread congestion problems. In this sense it is like any other major city, but Glasgow's strategic road network is quite unlike most other cities in that its M8 East - West "by pass" has a dual function as a city centre distributor road.

8 The main transportation problems in Strathclyde, which Road Pricing may help alleviate - either by helping to fund transport infrastructure or by managing demand for congested road space - are identified as:

- The dual role of the M8.

- Urban peak hour congestion in and approaching the City Centre, particularly on the M8.

- Restrictive Capital Programme Budgets.

- The lack of east - west circumferential routes around Glasgow for traffic.

- Increasing car ownership and use.

### **Inter Urban Roads**

9 The Government's recent announcement that it intends to introduce Electronic Road Pricing (ERP) for Motorways (and possibly some Trunk Roads) has as its main objective the facilitation of the introduction of Private Finance to traditionally publicly financed infrastructure. The level of charge that is currently being suggested is unlikely to lead to

any significant transfer of trips to the rail network, but it could result in transfer to local road networks.

- 10 The likely impacts that the introduction of Inter Urban ERP could have for the main road network in Strathclyde are:
- Adverse affects on the quality of bus services arising from increased congestion.
  - Diversion through towns and villages that have been by-passed by the Motorway / Trunk Roads .
  - Overall economic disadvantage to the community through increased delivery charges / operating costs.
- 11 In addition, if tolling were also applied to the urban section of the M8 through Glasgow, this could lead to serious problems of diversion off the M8 in and around the city centre and on the east and west approaches to the city centre.
- 12 In contrast, there are few, if any, benefits to Strathclyde resulting from inter urban pricing as the Regional Council has no control over the Trunk Road Network, and this could be enlarged as part of the reform of local government.

#### **Urban Roads**

- 13 Glasgow City Centre, and the approaches to it, are the only areas where significant widespread congestion exist and ERP tolling of the M8 would adversely affect the levels of traffic congestion in and around the City Centre. Glasgow has a number of features which could facilitate the introduction of Road Pricing. It has:
- A well defined Central Area. (bounded by the M8 - River Clyde - and the proposed Townhead / London Road Link) which could form the basis for a single pricing zone.
  - A good rail network with extensive Park and Ride facilities which could be further developed as an attractive alternative to car based trips.
  - Considerable spare capacity on the bus system.
  - A well developed integrated strategy for the future covering:
    - Parking Control.
    - Public Transport Developments to further improve accessibility of the City Centre by Rail and the proposed LRT system.
    - Improved Traffic Management and Passenger Information Systems to make bus travel more reliable and predictable.
    - Provision of additional road routes to bypass the city centre.
- 14 Within this context, Road Pricing could be presented as a method of ensuring that the city's road network operates at an optimal level. Income from Road Pricing could also

help fund the creation of the integrated transport system including both high quality public transport systems and new roads infrastructure at an earlier date than otherwise envisaged.

### **Conclusions and Recommended Programme of Work**

- 15 It is clear from an examination of the various studies and pilot projects that have been undertaken, and recent Government Statements, that the use of Road Pricing (and particularly ERP) will increase over the remainder of this century and into the next. All the practical experience and studies to date emphasise:
- The need for Road Pricing to be seen as part of an Integrated Package of Transport Proposals.
  - It is a tool for managing the level of congestion / modal split.
  - Funds generated by Road Pricing should be seen to be used to improve the transport system as a whole.
  - We are at an important phase in the development of the technology which requires specifications and standards to be agreed nationally and internationally.
  - There is considerable public opposition / scepticism about Road Pricing, but if the above points are addressed it can be reduced and overcome.

#### **Inter Urban Roads**

- 16 The Government has stated its intention to introduce ERP for Motorways (and possibly some Trunk Roads). This will create a particular difficulty for Strathclyde.

**It is recommended, to Central Government, that because of its unique role as by pass and City Centre distributor road, the section between St James Interchange and Baillieston Interchange should be excluded from any tolling proposal. This exemption would also include the proposed M77 Ayr Road Route (from the City boundary) and the M80 Steps By Pass.**

#### **Urban Roads**

- 17 The main opportunity for applying Road Pricing within the urban context in Strathclyde is within Glasgow City Centre as part of the Integrated Strategy detailed in "Travelling in Strathclyde". The Regional Council faces a twin problem of trying to solve the problems of increasing road congestion with a reducing capital allocation. Road Pricing may offer the possibility of reducing road congestion (and its attendant costs) by "encouraging" more people to use public transport - which the Regional Council supports financially - and of generating additional revenue which can then be used to improve public transport and the City Centre Environment generally. The completion of a comprehensive integrated transport model for the Glasgow conurbation will facilitate the assessment of options.

**It is recommended that the possibility of introducing Road Pricing in Glasgow City Centre be the subject of a further study which will include:**

- The identification of the level of costs incurred, through traffic congestion, by the community in the Greater Glasgow area.**
- The identification of possible practical Road Pricing schemes and the modelling of the impact these would have on congestion levels in the area, including calculation of costs and benefits accruing, and the potential diversion to other towns.**
- The identification of alternative strategies for managing the travel demands for the area and the costs and benefits associated with these.**
- The identification of the way in which these alternative strategies can be integrated with Road Pricing to manage traffic in the area and the identification of the associated cost and benefits.**
- The commissioning of an impact study of the possible effects on the economy of the City Centre.**
- The commissioning of a Public Acceptability Study.**
- The establishment of a Forum representing all sectors of the community to act as a consultative body for the study.**
- Further investigation of developments in ERP in other cities.**