# Taxing Trucks:
# An Alternative Method of Road User Charging

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**Foreword**

In an earlier report[1] I provided a critique of the government's plans for Lorry Road User Charging. This has generated a good deal of discussion and attracted comment from a broad range of interested parties. Several of those who have contacted me have asked what alternative method of lorry taxation the government might adopt. The earlier paper explores several options but does not make any firm proposals. In this paper, my colleague David McClelland and I outline a lorry road user charging system which would achieve most of the objectives of the LRUC at a fraction of the cost and with much less disruption to the industry.

Alan McKinnon

[1] 'Lorry Road User Charging: A Review of the UK Government's Proposals' (May 2004) available from http://www.sml.hw.ac.uk/logistics

## 1. Lorry Road User Charging: the government's objectives

The government is planning a fundamental reform of the system of lorry taxation. Its new Lorry Road User Charging (LRUC) system to be introduced in 2008 was originally presented as a means of taxing British- and foreign-registered on a similar basis for their use of the UK road network. As foreign operators do not currently pay vehicle excise duty here and buy most of their fuel outside the UK, where the level of fuel duty is much lower, they make little contribution to the cost of maintaining our road infrastructure.

The LRUC system, however, will do much more than simply 'level the playing field' with foreign hauliers. It will employ satellite tracking and communication technology to determine how far vehicles travel on different types of road at different times of day. The procurement prospectus issued by Customs and Excise[2] in May 2004 specifies the required capability of the first and second 'generation' LRUC (Table 1). In the first generation system, it will be possible to vary the charge between motorways and other classes of road and also between a peak and off-peak period. The second generation of LRUC will have a much more complex charging matrix, with much greater variability of tolls by road type, time of day and geographical area. This goes well beyond what is required to establish tax parity between British and foreign hauliers. The government therefore wants the new system to meet other objectives.

**Table 1: Variability of Toll Rates in the 1st and 2nd Generations of LRUC**

| *1st Generation System* | Motorway | Non-Motorway |
|---|---|---|
| Peak | A rate | B rate |
| Off-peak | C rate | D rate |

| *2nd Generation System* | Motorway | Trunk | A roads | …… |
|---|---|---|---|---|
| Time Slot 1 | A rate | B rate | C rate | D rate |
| Time Slot 2 | G rate | H rate | I rate | J rate |
| …… | | | | |

Source: HM Customs and Excise 2004

One of these objectives is to relate the taxes that a lorry pays more closely to the environmental damage that it causes. This can be largely achieved by varying the toll in relation to the characteristics of the vehicle and the distance it travels. The LRUC will enable the government to add an extra dimension of variability to reflect differences in the environmental sensitivity of particular roads at particular times of day. The marginal environmental benefit that this will yield is likely to be quite small, however, particularly as tightening Euro emissions standards are sharply reducing externalities per vehicle-km. This extra benefit is certainly not enough to justify the heavy investment in LRUC.

[2] HM Customs and Excise 'The Lorry Road-User Charge Programme: Procurement Prospectus' 2004

The ability to vary charges by road type, time of day and location is only worth having if you plan to use the LRUC for congestion pricing. In his statement to the House of Commons on the 20th July 2004 launching '*The Future of Transport'* White Paper the Secretary of State for Transport admitted that LRUC *'would allow us in the future, for example by varying charges, to encourage lorries to use motorways at off-peak times*' This might be acceptable as part of a general system of congestion pricing applied to all categories of traffic. A study published by the Government at the same time as the White Paper indicates that general road pricing for cars will only become 'technically feasible in the next 10 – 15 years'[3]. There will therefore be a gap of at least 6-10 years between the LRUC providing the government with the capability to impose congestion tolling on trucks and the introduction of similar system for car traffic.

A pre-tender analysis by the public sector IT research and consultancy company INPUT has estimated that the total value of the LRUC contract will be in the region of £4 billion over next ten years[4]. This would be around three times the additional revenue that will be raised from foreign hauliers (estimated to be around £140 million per annum[5]). What other benefit will the government derive from the scheme to justify the net expenditure of around £2.6 billion if it is not to be used for congestion charging?

The Government's road pricing feasibility study helps to answer this question: '*LRUC will…provide important insights into the procurement and establishment of business structures and into the operation and development of technology'*. In other words, lorry operators are partly being used as 'guinea pigs' for a wider roll-out of satellite-based road pricing. It has to be asked, however, to what extent we will be able to extrapolate from the experience of road freight operators in either technological and behavioural terms? Given the rapid rate of technological change, the telematics systems available in 10-15 years time may be significantly different from those being procured today for LRUC. The behavioural responses of commercial businesses and private motorists are also likely to be quite different. The feasibility study claims, however, that LRUC's *'immediate purpose is to ensure a fairer system of taxation rather than explicitly to change operators' behaviour'*. If, therefore, LRUC is not being used as a congestion charging system to alter behaviour, the government is going to be paying a very high price over the next decade merely for testing the 'procurement', 'business structures' and 'technology' associated with road user charging.

A more likely scenario is that once LRUC is in place it will be used for lorry-only congestion charging. The use of the LRUC for this purpose has not been openly debated, however. Nor has adequate research been done on its likely effects on companies' distribution operations and road traffic levels.

[3] Department for Transport '*Feasibility of Road Pricing in the UK: Report'* London, 2004
[4] INPUT '*Pre-tender Analysis Programme: Lorry Road User Charge (LRUC)*' 2004
[5] McKinnon, A.C. '*Lorry Road User Charging: A Review of the UK Government's Proposals'* 2004

## 2. The Case against Lorry-only Congestion Charging

The arguments against using the LRUC as a congestion charging scheme solely for freight vehicles have been discussed in the earlier report. They can be briefly summarised as follows:

1. Lorries represent only 7% of all traffic on the road, 14% if, like highway engineers, you assign them a weighting of 2.5 passenger car units (PCUs) to reflect the relative amount of road space they require[6]. According to the government's traffic forecasts, lorries will only account for 4% of traffic growth between 2000 and 2010, even with the 2.5 PCU weighting. Cars and small vans, on the other hand, will be responsible for respectively 70% and 14% of this traffic growth. These types of vehicle are far and away the main causes of traffic growth and congestion.

2. If congestion charging managed to reduce the amount of lorry traffic at peak periods, the small amounts of road space that would be released would be quickly absorbed by the growth of car and van traffic.

3. It is unlikely to be in the best interests of the economy to reallocate road space from freight traffic to private cars.

4. The rescheduling of freight journeys to avoid peak periods and premium tolls will be constrained by the complex regulatory frameworks governing drivers' hours and working time (following the application of the EU Working Time Directive to road haulage operations in March 2005) and by the need for transport operations to synchronise with production and distribution operations.

5. The suggestion that lorries could interrupt their journeys and could be 'parked up' during peak periods is impractical. Given the high cost of operating heavy goods vehicles (e.g. around £44 per hour for a 44 tonne artic[7]) and the new constraints soon to be imposed on drivers' working-time, peak-time tolls would have to be set at punitive rates to make this worthwhile. It is also questionable if there would be sufficient off-road parking space to accommodate enough trucks to have a noticeable effect on congestion levels.

The two main trade bodies representing the UK road freight sector, the Road Haulage Association (RHA) and Freight Transport Association (FTA), have so far given the government's LRUC plans qualified support, primarily because they see them as a means of creating tax parity between UK and foreign hauliers and of decoupling the taxation of trucks from that of cars. Both organisations, however, oppose the use of the LRUC as a congestion pricing scheme. The RHA is against this in principle, while the FTA believes that it will only be acceptable when congestion charging is imposed on all categories of traffic. As the Government concedes, however, the tolling of all vehicles using satellite tracking technology is only likely to achieved, however, in the medium to long term.

[6] Department for Transport 'Transport Statistics Great Britain' 2003
[7] *Freight* (Freight Transport Association magazine) April 2004 (p.5)

## 3. Benefits of Delaying Congestion Charging for Trucks

Delaying congestion tolling of trucks until a similar road charging system could be applied to all vehicles would offer several advantages:

- It would create a more equitable and economically-efficient means of allocating road space between different categories of vehicle. A general application of the price mechanism would permit more effective management of road infrastructure and the congestion problem. The imposition of congestion charging on cars would give highway authorities much greater leverage over the total volume of traffic, and hence traffic flow, particularly at peak periods. In return for paying premium tolls at these times, hauliers could then expect average journey speed and reliability to improve.

- The quality, reliability and cost-effectiveness of GPS-based tolling equipment is likely to be much greater by the time it is ready for roll-out across the entire vehicle fleet. Poor reliability of the GPS equipment was, after all, one of the main reasons for the recent failure of the German Maut system.

- Common standards of electronic road tolling are likely to be established across the EU in the next 5-10 years. This will permit inter-operability of tolling equipment across the EU and remove the need for a separate charging system for 'low use' operators making only occasional visits to the UK. One of the ironies of the current LRUC proposal is that the vast majority of foreign trucks operating in the UK fall into the 'low use' category as they travel less than a threshold distance of 12,000 kms annually on British roads. So the main GPS-based tolling system will not even apply to most of the foreign vehicles entering the UK.

- more experience will have been gained from the application of tolling technology in other countries, particularly Germany whose system most closely resembles that proposed for the UK.

- companies would be given more time to adapt their production and distribution systems to a new congestion-charging regime.

## 4. An Alternative Method of Taxing Trucks

If congestion tolling of lorries were to be postponed until a general road user charging (GRUC?) system is introduced, it would still be desirable to reform the system of haulage taxation in the interim to achieve three objectives:

1. Tax foreign operators on a similar basis to UK-registered hauliers for their use of the road infrastructure.
2. Decouple the taxation of trucks from that of cars. This, for example, would allow the government to grant fuel tax concessions exclusively to freight vehicles or exempt lorries from fuel duty rises targeted mainly at the private motorist.
3. Vary taxes on trucks in relation to the distance travelled, vehicle weight class and emission standard.

The freight industry has lobbied hard for a system that meets the first two objectives, while environmental groups have campaigned for distance-based taxation of trucks. The European Commission is also pressing member states to move to a system of distance-based taxation. If a charging regime could be found which met these objectives at modest cost and risk while adhering to EU regulations, it would be likely to command wide support. We propose the following system:

*Procedure for UK-registered vehicles:*

All heavy goods vehicles (of over 3.5 tonnes gross weight) must have an annual MOT inspection starting on the anniversary of first registration. At this inspection the distance that the vehicle has travelled over the past year is recorded from the tachograph. A kilometre-based toll would be levied on the vehicle which took account of its type, weight class, axle numbers, Euro-emission standard and any other environmental characteristics which the government considered appropriate.

We propose that vehicle excise duty be reduced to the minimum level permitted by the EU or to a basic vehicle registration fee sufficient to cover the DVLC administration costs (which ever is greater). This reduction in VED, which is a fixed duty that takes no account of distance travelled, would align tax more closely with distance. Almost all the tax that vehicle operators would then pay during the year would be in the form of fuel duty. This fuel duty would be rebated against the annual toll, just as currently proposed for the LRUC scheme. This would discourage operators from under-reporting the distance the vehicle actually travelled and help to make the system self-enforcing. The government could also use benchmark fuel efficiency (mpg) figures in calculating the rebate for different categories of vehicle. Initially these could be set at current industry averages, though through time the benchmarks might be gradually raised to incentivise companies to run their vehicles more fuel efficiently.

The British government would not charge UK-registered vehicles engaged in international haulage for mileage run in other countries. It would be necessary therefore to take tachograph distance readings at the points of exit from and entry to the country. Drivers could be asked to make signed declarations of the distance readings with random checks and heavy penalties on vehicle operators for mis-reporting to ensure compliance. The distance run outside the country would be recorded and aggregated for all the foreign trips made during the year. The total distance run on foreign roads would be deducted from the annual tachograph distance reading to calculate the annual toll. This would be offset

against fuel duty paid in the UK just as in the case of lorries solely undertaking domestic haulage within the UK.

Table 2 gives an example of how the proposed system could work for a British-registered articulated lorry running 140,000 kilometres annually on the UK road network. It shows how the total amount of tax paid would depend on its fuel efficiency.

**Table 2: Example of the Proposed Distance-based Charging System**

| **Fuel efficiency above the benchmark level** | |
|---|---|
| Possible toll (based on vehicle specifications) | 18.6 pence per km |
| Annual distance travelled on British roads | 140,000 kms |
| Annual distance-based toll | 18.6p x 140,000 = £26,040 |
| Average fuel efficiency | 3 kms per litre |
| Total annual fuel consumption | 140,000 ÷ 3 = 46,667 litres |
| Current fuel duty (conventional diesel) | 53 pence per litre |
| Possible benchmark fuel efficiency for rebating of fuel duty | 2.9 kms per litre |
| Total fuel duty rebate | 140,000 ÷ 2.9 x 53p = £25,586 |
| Supplementary distance toll | £26,040 - £25,586 = £454 |
| | |
| Annual fuel duty paid | = 46,667 x 53p = £24,733 |
| Supplementary distance toll | £454 |
| **Total tax paid** (annual fuel duty + supplementary toll) | **£25,187** |

| **Fuel efficiency below the benchmark level** | |
|---|---|
| Possible toll (based on vehicle specifications) | 18.6 pence per km |
| Annual distance travelled on British roads | 140,000 kms |
| Annual distance-based toll | 18.6p x 140,000 = £26,040 |
| Average fuel efficiency | 2.75 kms per litre |
| Total annual fuel consumption | 140,000 ÷ 2.75 = 50,909 litres |
| Current fuel duty (conventional diesel) | 53 pence per litre |
| Possible benchmark fuel efficiency for rebating of fuel duty | 2.9 kms per litre |
| Total fuel duty rebate | 140,000 ÷ 2.9 x 53p = £25,586 |
| Supplementary distance toll | £454 |
| | |
| Annual fuel duty paid | 50,909 x 53p = £26,982 |
| Supplementary distance toll | £454 |
| **Total tax paid** (annual fuel duty + supplementary toll) | **£27,436** |

*Procedure for foreign-registered vehicles:*

An identical set of kilometre-based tolls would be imposed on foreign vehicles using UK roads. On entry to the country for the first time, a foreign vehicle would have to be registered by its driver. It would then be assigned a registration card with a smart chip containing relevant information about the vehicle and its owner. Every time the vehicle entered and left the UK, the driver would have to make a signed declaration of kilometre readings from the tachograph in the same way as British international hauliers. A similar system of spot checks would be used to discourage drivers from making fraudulent declarations. On leaving the country foreign-registered vehicles would be required to pay a toll for the total distance travelled in the UK. This is a similar system to the one that has been operating successfully in Switzerland for vehicles without on-board tolling devices since 2001. It would be much easier to operate in the UK than in Switzerland partly because it is an island, but also because of the much smaller volumes of cross-border traffic. Approximately 12,000 trucks a day enter Switzerland through 100 border stations equipped with tolling equipment[8]. Only 5000-6000 trucks enter the UK daily, with over 95% of them arriving through only seven points (Channel Tunnel and six major ro-ro ports)[9]. There would, nevertheless, be one important difference between the system we are proposing for the UK and the Swiss system. To ensure parity with UK operators, foreign hauliers would also be able to rebate fuel duty against the distance-based toll. A deduction would be made for any fuel duty paid within the UK at the same benchmark mpg levels as applied to British-registered trucks.

As at present, the main source of tax revenue from lorries would be fuel duty. Around 95% of the tax paid by the heavier classes of lorry currently comes from fuel purchases and so is already closely correlated with distance travelled. This is tax revenue which would be paid throughout the year in the normal course of operations, giving the Exchequer a steady flow of income. The annual levy of a distance-based toll would, for many operators, represent only a minor financial adjustment. In the case of an company running of a vehicle with low fuel efficiency and / or emission ratings the annual toll would be likely to exceed the fuel duty paid requiring it to make a supplementary payment. In contrast, vehicles meeting the highest Euro-emission standards and being driven very fuel efficiently might qualify for a small refund on their fuel duty.

[8] Swiss Federal Office for Spatial Development (ARE) *'Fair and Efficient: The Distance-related Heavy Vehicle Fee (HVF) in Switzerland'* Berne, 2002.
[9] Department for Transport '*Transport Statistics Report: Maritime Statistics 2002'* London 2003.

## 5. Benefits of the Alternative System

The proposed system would achieve the three objectives outlined earlier:

1. Foreign operators would be taxed for their use of UK roads on an identical basis to UK hauliers.

2. The fuel duty rebate system would offer a means of decoupling the taxation of lorries from that of other types of vehicle. This is the feature of the LRUC which most appeals to the trade associations. It can, however, be established quite independently of the LRUC.

3. The annual toll payments would relate to the distance travelled and reflect differences in environmental and track costs per kilometre for particular categories of vehicle.

The system would:

- be relatively inexpensive to set up and to operate. The marginal cost of recording and processing tachograph distance readings would be very small. The main additional expenditure would be in the creation of the fuel duty rebate system and establishment of toll payment points at ro-ro ports and the Channel Tunnel. The government is planning to set up a fuel duty rebate system anyway as part of the LRUC system. Our proposed rebate system would be much simpler and cheaper, however. Unlike the LRUC, our alternative road user charging scheme would not create a major new revenue stream. The £2-3 billion of new toll revenue that the LRUC will generate will effectively replace fuel duty. So billions of pounds of fuel duty will be collected and then paid back (to around 70,000 vehicle operators). In our system, the conversion of fuel duty into distance-based taxation involves only an annual reconciliation of distance records and fuel tax receipts. Relatively small sums of money would be transferred.

  The full LRUC system with its tolling and enforcement networks (in addition to its fuel rebate system) will be an order of magnitude more expensive to implement than our proposal.

  The Chancellor has given the road freight sector an assurance that the LRUC will be tax-neutral, with the additional road tolls raised from British operators returned through the fuel duty rebate scheme. As the annual cost of operating the LRUC will be several times greater than the extra revenue raised from foreign hauliers, it is not clear who will 'make up the difference'. The RHA insists that the road haulage industry should not have to shoulder the high cost of operating the LRUC. It would then have to be internalised by the Treasury.

  It is likely that the incremental cost of our proposed scheme would be less than the additional revenue raised from foreign hauliers, relieving both the UK haulage industry and the Treasury of any additional financial burden.

- be much less risky than the LRUC. The proposed LRUC scheme will be dependent on complex technology, highly sophisticated ICT systems and the near-total reliability of hundreds of thousands of on-board vehicle tracking units. The disastrous experience of the German Maut over the past two years illustrates the potential dangers in opting for a high-tech system. The alternative method of road charging outlined in this paper is essentially low-tech and relies heavily on existing systems of taxation and data collection.

- be quicker to implement than LRUC. The only new equipment it would require would be devices at several ports and the Channel Tunnel to record distance readings from UK- and foreign-registered vehicles. There would be no need to install, check and maintain tracking and tolling devices in hundreds of thousands of vehicles.

- be largely self-enforcing. The use of fuel duty receipts will provide an independent check on the distance that vehicles travel, making it difficult for operators to defraud the system by under-reporting annual mileages.

- ensure identical treatment of British and foreign-registered hauliers, both in terms of the level of toll per kilometre and cross border procedures, thus satisfying EU requirements.

- give companies an incentive to improve fuel efficiency. The use of benchmark mpg values for the fuel rebate system could help to reinforce the efforts of the government's Transport Energy programme to cut energy consumption and $CO_2$ emissions in the road freight sector.

- generate a wealth of information about the fuel efficiency of the nation's truck fleet. This could be used to refine the benchmark mpg values used in the fuel duty rebate system and to monitor trends in fuel efficiency.

- encourage foreign operators to buy much more of their fuel in the UK. The British fuel supply industry would enjoy a growth in sales, foreign operators would no longer incur the payload penalty of bringing full tanks of fuel in the UK (a 1000 litre tank for example weighs around a tonne) and safety benefits would accrue from having less fuel in the tanks of trucks travelling on ferries and Le Shuttle wagons into the UK. (The need to reclaim VAT from fuel purchased in the UK would, nevertheless, continue to discourage some foreign operators from buying fuel outside their home country.)

- establish a much more direct link than at present between taxation and distance travelled. Hauliers would be able to calculate a standard per kilometre toll for each vehicle and factor this into the rates quoted to shippers. As this charge would vary explicitly with the gross weight of the lorry and its emission standard, it should encourage improved matching of vehicles and loads, better utilisation of carrying capacity and more rapid uptake of clean vehicle technology.

## 6. Practicalities

Several practical issues would arise, but these could probably be resolved without too much difficulty. For example:

1. *Many operators may not be able to determine how much fuel has been purchased for a particular vehicle:*

   The majority of operators use one of two basic systems for purchasing fuel:

   - Use of a 'fuel card' supplied by an oil company or one of its agents. This card can be vehicle-specific and produce regular monthly fuel accounts for each vehicle in the fleet. Fuel is purchased as required at a predetermined price
   - Use of a 'bunker service', involving bulk purchases of fuel which can either held in the company's own storage tanks, or in other tanks across a dedicated network.

   In both cases, it is common for a smart card or key system to be employed that records the details of a vehicle and its specific fuel use. The minority of operators that do not use either of these systems could gain important management benefits by being able to monitor the fuel consumption of individual vehicles. This is generally acknowledged to be good practice and something strongly recommended in fuel efficiency guides. The proposed road user charging system would promote wider adoption of this practice. Until it was universally adopted, however, operators could be given the option of offsetting tolls against fuel duty receipts at a fleet rather than individual vehicle level.

2. *Many vehicles will be sold during the year between MOT inspections:*

   The V5 form which is used to register the sale of vehicles with the DVLC currently has an optional mileage box that can be completed by the seller. It would be necessary to make the recording of this distance information compulsory. This too is likely to be self-enforcing. The seller would, after all, not be able to claim back the duty paid on fuel consumed by the vehicle without a record of the distance travelled up to the time of sale. The purchaser, on the other hand, would be liable for the mileage travelled prior to the sale but have no fuel duty receipts against which to offset the tolls.

3. *The use of average fuel efficiency benchmarks would penalise companies whose distribution operations are intrinsically more energy-intensive.*

   This is true, but then the current system of fuel taxation also discriminates against companies with more energy-intensive operations. At present they pay more fuel duty per tonne-km and their logistical systems and pricing policies will have adjusted to this. It would be possible to vary the benchmark mpg values by industrial sector or type of distribution operation. Through time, the accumulated fuel efficiency data could be used to 'fine-tune' the fuel rebate system. This, however, could undermine one of the strengths of the system, which is its relative simplicity.

4. *The government could set the kilometre-based tolls and benchmark mpg values at too high level, increasing the overall tax burden on the road haulage industry*.

   The same guarantees about tax-neutrality should apply to this alternative road charging system. As the cost of implementing and operating this system is likely to be much lower than that of the LRUC this should be more easily achieved.

5. *The tractor unit of an articulated vehicle can haul trailers with differing numbers of axles during the year. As the total number of axles in the combined unit influences the amount of wear and tear on the road surface, the road track costs per kilometre will vary with the choice of trailer*.

   The current VED system adequately addresses this issue by varying the tax level in relation to the total number of axles on articulated lorries and the degree of flexibility that operators require to mix tractors and trailers. For example, a three-axle tractor unit restricted to hauling trailers with three axles pays a much lower VED rate than similar tractor unit which is licensed to haul trailers with one, two or three axles. Within the proposed road user charging system the kilometre toll rate could be similarly differentiated to reflect the degree of trailer flexibility that an operator required.

## 7. Conclusions

Over the past three years, lorry road user charging has evolved from being a system to harmonise the taxes paid in the UK by British- and foreign-registered hauliers into an elaborate road pricing scheme for trucks. The government now sees LRUC as a 'valuable step'[10] along the way to full road user charging for all vehicles. At least 6-10 years will elapse, however, between the implementation of LRUC and the introduction of general road pricing. In the intervening period, a hugely expensive and complex tolling system will exist for trucks with apparently only a small part of its full functionality actually being used - to permit uniform distance-based taxation for British and foreign vehicles. The heavy investment in this system, of around £4 billion over the next decade, is only justified if it is to be used for congestion charging.

The imposition of congestion-charging exclusively on lorries is particularly contentious and opposed by the main trade associations. This would not only discriminate unfairly against the most economically-important category of traffic; it would also prove a relatively ineffective means of relieving traffic congestion.

If the government is not planning to use LRUC for lorry-only congestion charging over the next decade, then it must be asked why it is incurring the high cost and risk of developing the system at this stage.

If satellite-based congestion charging of lorries is postponed until all categories of vehicle are subject to the same scheme, the other major objectives of LRUC could be achieved much more cheaply and with less disruption. In this paper we have outlined a system which would meet these objectives of levelling the 'fiscal playing field' with foreign operators, decoupling the taxation of lorries from that of cars and relating taxes more closely to distance travelled. This system would effectively rationalise lorry taxation in the UK by replacing the three separate revenue streams that will exist under the LRUC regime (fuel duty, VED and road tolls) with two (fuel duty an). Fuel duty, however, would be converted into a form of distance-based taxation through an annual reconciliation of tachograph distance readings with fuel duty payments based on benchmarked levels of fuel efficiency. The system would be relatively easy to enforce and largely, if not entirely, funded out of the additional revenue raised from foreign hauliers. It would not attempt to track and toll lorries while they are running on the road and instead rely mainly on existing systems of tax and data collection.

[10] Department for Transport ''*Feasibility of Road Pricing in the UK: Report' op.cit. p.40*