



# **An Alternative Method of Road-User Charging for Lorries**

*A Response to Feedback*

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## 1. Introduction:

This is the third in a series of reports concerned with lorry road-user charging (LRUC) in the UK. The first report<sup>1</sup> provided a critical review of the government's LRUC plans as outlined in several progress reports and conference presentations. The second<sup>2</sup> discussed in greater detail the objectives of road user charging for trucks and proposed an alternative method of charging which could meet the government's main objectives much more cheaply and easily than its proposed system. Our alternative method has generated a good deal of discussion in the trade press and at conferences. We have also received a substantial amount of feedback from organisations and individuals. Much of this has been positive and supportive. Our attention has, nevertheless, been drawn to a number of potential shortcomings. The most thorough (and negative) critique of our proposed system has been undertaken by Customs and Excise. Their review document was originally intended solely for internal use by government officials. Under the terms of the Freedom of Information Act, we were able to obtain a copy of this document. As part of its inquiry into road pricing, the House of Commons Transport Committee requested a copy and invited us to prepare a paper responding to Customs and Excise's criticisms of our proposal. Both documents are to be published by the Transport Committee as written evidence to its road pricing inquiry<sup>3</sup>.

In this report we summarise our response to all the critical feedback that we have received. It is based on the paper rebutting Customs and Excise's criticisms but also incorporates issues raised by other organisations, particularly the Road Haulage Association and Freight Transport Association. We have condensed this feedback into twenty-three points and grouped them under six headings:

- General efficiency and integrity of the system
- Treatment of foreign hauliers
- Operational flexibility
- Rebating of fuel duty
- Cash flow problems for hauliers
- Other issues

These points are presented below as critical statements or questions.

## 2. General Efficiency and Integrity of the System

### ***2.1 The system would be inferior to LRUC in terms of operational efficiency, ease of use, accuracy and integrity.***

Until the nature and cost of the LRUC system is determined at the end of the procurement process and our system has been fully specified and costed it is not possible to make such a comparison. We strongly support the conclusion of the House of Commons Transport Committee<sup>4</sup> that, 'When the procurement process has identified a potential technological solution, the Government should undertake objective comparisons of the different solutions, including Alan McKinnon and David McClelland's alternative system, using a standard set of criteria such as cost effectiveness, risk of fraud, burden on industry and technical robustness.'

**2.2 The system would be 'heavily paper-based and bureaucratic, requiring arduous administrative processes'<sup>5</sup> and 'impose quite a lot of extra manual record keeping'<sup>6</sup>.**

On the contrary, it would create the need for little extra paper. It would largely rely on existing systems of data and revenue collection, some of which could be streamlined with the use of standard data-entry technology.

- Annual distance readings would be taken from tachographs at the time of the annual road-worthiness inspection. The inspector could key the information into a hand-held terminal, creating an electronic record and eliminating the need for a paper record of annual distance-travelled. The downloading of distance data would be even easier from the new generation of digital tachographs. Mileage readings are not routinely collected at the moment though this is being considered by VOSA. Analysis of this distance data would enable VOSA to determine more accurately the relationship between the vehicle's condition and distance travelled and thus help them to improve the targeting of non-compliant vehicles. Collection of the mileage data would therefore yield spin-off benefits for VOSA.
- The main system of revenue collection would remain the payment of fuel duty on a regular basis throughout the year. The conversion of this tax revenue into a form a distance-based taxation would involve a fairly simple reconciliation of fuel duty and distance records undertaken at the time of the vehicle's annual MoT inspection. The tolling authority would invoice the operator for any additional payment required. For large fleet operators, who have vehicles coming up for their annual MoT inspections on a continuous basis, monthly invoicing could be arranged.
- Companies are required to retain receipts from fuel purchases for VAT purposes. They will presumably also have to retain them for the fuel rebate system accompanying LRUC. Moreover, any electronic system that is developed for recording fuel purchases for LRUC could be applied equally well to our system.
- Procedures for collecting distance information and tolls at the ports could be carried out within a few minutes and with minimal disruption to the flow of lorry traffic. These procedures are outlined in paragraph 3.1 below.

In its critique of our system, Customs and Excise argue that 'complex technology should not be seen as a problem (why shouldn't we be confident enough to develop it).' Unfortunately, the government's past record in introducing large-scale IT systems does not inspire confidence. It is good business practice always to find the simplest and most cost-effective way of achieving one's objectives. This is what we have attempted to do in devising our system.

**2.3 The recording of tachograph distance readings at the annual MoT inspection would create a 'significant risk of fraud' and 'any tachograph fraud would be automatically translated into LRUC fraud' <sup>7</sup>.**

Operators might be tempted to reduce the distance reading on the tachograph to cut the annual road toll. The rebating of fuel duty at benchmark levels of fuel efficiency, however, would make this counter-productive. The lower the distance reading, the lower would be the eligible fuel rebate. Care would have to be taken in setting the benchmark fuel efficiency level to ensure that the rate at which fuel duty was rebated per-km travelled did not exceed the per-km toll rate.

The main form of tachograph fraud at present, relating to drivers' hours, would not have any impact on the distance readings.

***2.4 Having the MoT inspector record or validate the distance readings would be 'wide open to collusion'<sup>8</sup>.***

All of these MoT inspectors are employed by the government vehicle inspection agency, VOSA. Surely the government has confidence in the trustworthiness of its own inspectors. Moreover it is likely that these inspectors will also have a role in checking on-board units within the LRUC system. If they are dishonest, the integrity of the LRUC system will also be compromised. Our system has the advantage that the rebating of fuel duty at benchmark levels will discourage the under-reporting of mileage as this will incur a financial penalty.

### **3. Treatment of Foreign Hauliers**

***3.1 The system treats foreign hauliers in a different way and hence is likely to infringe European Union rules.***

It is correct that foreign hauliers will have a different registration process, but this also applies to the truck tolling systems currently in operation in Germany, Austria and Switzerland and is also likely to be a feature of LRUC. Until full inter-operability of lorry road charging system is achieved across the EU and a centralised vehicle registration system established, foreign vehicles will have to be separately registered by tolling authorities in each country. Systems will also have to be put in place to collect tolls from foreign vehicles leaving the country, either with payment at the point of departure or subsequent billing for those foreign hauliers that have set up accounts with the UK tolling authority.

Foreign hauliers could register online at a multi-lingual website, removing the need for manual registration at the point of entry. The German tolling system, for example, permits registration on the internet. This appears to have been working well since the re-launch of the tolling system in January 2005.

The same system would be used for reading distances from the vehicle tachographs on foreign and British-registered vehicles. In Switzerland, special cameras are placed over the tachograph to take the reading. This operation takes only a few minutes. In Switzerland, this is used to check the accuracy of a sample of distance-readings for enforcement purposes. In the UK it could be applied to all lorries entering and leaving the country to provide an electronic record of distance readings. The introduction of digital tachographs will facilitate the recording of distance data. It will be possible to download this information directly through a connector on the front of the device.

Trucks without on-board units crossing the German border pass frontier control points at which they must register and pay for the trip they are planning to make on the autobahn network. They can avoid this by registering online, as outlined above. These manual and online options would be available in our system. As the German Maut is deemed acceptable under EU rules, it is not clear why our proposed system would not comply.

**3.2 It will be necessary for the enforcement system to target non-UK hauliers, contrary to EU legislation.**

Any system of spot checks required to deter the under-reporting of tachograph distances would apply equally to British international hauliers and foreign hauliers. There would therefore be no discrimination against foreign operators. One could avoid the need for self-declaration and spot checks by photographing / scanning all conventional tachographs and downloading the relevant information from all digital tachographs.

**3.3 It would be difficult to examine the commercial records of foreign-registered businesses.**

The only 'commercial records' that foreign hauliers would be required to show would be the receipts for fuel purchased in the UK to permit the calculation of their fuel rebate. They would, therefore, have a financial incentive to retain and show this evidence of fuel purchases.

**3.4 It would not be necessary to issue 'smart' registration cards to foreign-registered lorries.**

We suggested in the *Taxing Trucks* report that 'smart cards' be issued to foreign vehicles on their first entry to the UK following the introduction of the road charging scheme. A smart card system operates very effectively at Swiss border control points. Several hundred thousand cards have so far been issued by the Swiss government to foreign vehicles. In contrast, foreign vehicles account for only around 2000 of the 55000 on-board units supplied by the Swiss government. Although these OBUs are available free of charge to foreign operators, the vast majority are content to use the manual system involving the use of smart cards.

As Customs and Excise have pointed in their critique of our scheme, it may not be necessary to introduce smart cards in the UK. After initial registration, information about the vehicle and operator could be held on a central computer database. Retrieval of this information could be activated by entering the vehicle's registration number or using Automatic Number Plate Recognition (ANPR) at the ports and the Channel Tunnel terminal.

**3.5 How would the system deal with the Northern Ireland land border.**

It would be impossible to operate our system in Northern Ireland. Northern Ireland will also pose formidable problems for LRUC, however. As there are over 300 uncontrolled border crossing points, it is not clear how the LRUC system will address this issue. In a written answer to a Parliamentary question on this subject (January 19<sup>th</sup> 2005), the Treasury Minister responsible for LRUC gave no indication of how the problem might be solved. He replied that Customs and Excise 'are including these requirements in their specification for a modern, automated system for the UK'.

We believe that it will be extremely difficult to develop a robust system of lorry road user charging for Northern Ireland, with or without the use of sophisticated telematics, and would recommend that the province be exempted until a compatible system can be developed with the Irish Republic, possibly within a broader EU road tolling framework. Until this can be achieved, lorries registered in Northern Ireland would be treated in a similar manner to foreign-registered vehicles.

Our proposed system would therefore be confined to the UK mainland.

## **4. Operational Flexibility**

### **4.1 How would the system deal with a change in vehicle ownership between annual MoT inspections.**

A procedure for dealing with this situation was outlined in our *Taxing Trucks* paper:

‘The V5 form which is used to register the sale of vehicles with the DVLA 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.’ Both parties would have to agree on this mileage.

The distance reading at the time of sale would therefore be captured by DVLA and fed into the central data-base of the tolling authority. For the previous owner, the reconciliation of the road toll and fuel duty would take place shortly after the date of the sale in a final settlement with the tolling authority for that vehicle. For the new owner, payment of the toll and fuel duty rebating would occur at the time of the next MoT test and relate only to the distance travelled since the vehicle was purchased.

### **4.2 How would the system deal with ‘short term hire where the operator of the vehicle changes frequently’<sup>9</sup>.**

The hiring company, as registered owner of the vehicle, would be liable for the annual distance-based toll. It would therefore charge clients for the toll they incurred during the period of hire. By providing receipts for the fuel purchased during this period, the client would qualify for a rebate on this distance charge. The hiring company would rebate the fuel duty paid at the official benchmark level of fuel efficiency applied by the government. After all, at the end of the year when the hiring company is reconciling road tolls and fuel duty for each vehicle, this will be done at benchmark fuel efficiency levels. Very little extra administration would be created for hiring companies as they routinely record the tachograph distance and fuel levels at the start and end of a hire.

### **4.3 What happens when the government changes the kilometre charge rates and / or the level of fuel duty?**

Drivers are required to write the vehicle distance on the tachograph disk at the start and end of a shift. All lorry operators are required by law to keep tachograph disks for a year. They would simply have to bring the tachograph disk for the date on which the toll-rate or fuel duty changed to the vehicle test station where the annual inspection was being performed. In years during which the toll-rate / fuel duty changed, therefore, the inspector would record both the end-of-year mileage and the mileage on the date of the rate change. This could be defined as the start mileage on the disk relating to the first shift of that day. This additional distance reading, like the annual mileage, could be keyed into a computer at the vehicle test centre. It could also be downloaded electronically from the new generation of digital tachographs.

#### **4.4 This system does not permit variable charging by road type.**

We made it clear in the *Taxing Trucks* report that, by not tracking vehicles, our alternative system would not allow the government to vary toll rates by road type and time of day. In this report, we also explained why we do not believe that it will be necessary, for at least a decade, to vary toll rates in this way.

#### **4.5 The system cannot cope with differences in the nature of the vehicle on a trip-by-trip basis (such as the presence / absence of a drawbar trailer or variation in the number of trailer axles).**

It is true that our system would not permit changes to the vehicle specification on a trip-by-trip basis. As explained in our *Taxing Trucks* report, it would employ the procedure currently adopted in the determination of vehicle excise duty (VED). At time of registration the operator would define the gross (plated) weight of the vehicle and axle configuration. An operator wishing to have flexibility to vary the number of axles on an articulated unit or to attach a drawbar trailer would pay a higher rate, as is the case at present with VED. We concede that this is sub-optimal and conflicts with the RHA's wish that 'any system should be able to cope with different charges applying to the same vehicle'<sup>10</sup>. It must be asked, however, if it is worth investing in a costly and sophisticated vehicle tracking system to gain this capability.

### **5. Rebating of Fuel Duty**

**5.1 The proposed fuel duty rebating scheme would require British hauliers to declare how much fuel they had purchased abroad. 'In reality this would mean that all hauliers would need to keep a record (and make a declaration of) fuel purchased in the UK. If such a system was purely manual, potential fraud figures could be extremely high'<sup>11</sup>.**

All UK hauliers would have to retain a record of fuel purchased in the UK. A large and increasing proportion of the fuel consumed by lorries in the UK is bought using fuel card accounts for which verifiable electronic records are available. For fuel purchases made by other means, paper-based records would have to be retained. In accordance with VAT regulations, all businesses have to maintain these records anyway. The retention of these records of fuel purchases is not, therefore, any additional burden imposed on the haulage industry nor a new potential source of fraud. It is something that they are already required to do. Furthermore, as Customs and Excise carry out VAT inspections and as fuel is one of the main expenses of any haulage business, it would seem logical to combine compliance checks for the rebate system with the monitoring of VAT returns.

The fuel duty rebate system which will accompany the LRUC will probably also require operators to retain records of fuel purchased in the UK. No details have yet been given of the government's proposed fuel rebate system. Whatever method it uses for recording and validating fuel purchased in the UK could also be used in our system.

**5.2 The rebating of fuel duty at benchmark levels of fuel efficiency would result in more fuel-efficient vehicles qualifying for some repayment of fuel duty. Operators of these vehicles would have an incentive to over-report distance travelled to maximise the repayment. Conversely, operators of less fuel efficient vehicles would try to under-report distance.**

The rebating of fuel duty at an appropriate benchmark level of fuel efficiency would deter operators from under-reporting the annual distance travelled. To prevent operators from gaining a financial benefit from over-reporting the distance travelled, and thereby defrauding the fuel rebate system, it would be necessary to limit the value of the fuel duty rebate to the actual amount of fuel duty paid.

In our *Taxing Trucks* report we raised the possibility of some duty being repaid to fuel efficient hauliers as part of an end-of-year reconciliation of fuel duty and road tolls. We now concede that this could not be permitted. Restricting the fuel duty rebate to the actual duty paid would not only discourage fraudulent over-recording of the distance travelled, but also remove any incentive for UK-registered operators to purchase fuel outside the country. If one did not impose this restriction, some hauliers' transport operations might appear fuel efficient on the basis of receipts for fuel purchased in the UK, when in fact they were running some of their UK road mileage on fuel bought abroad. Requiring operators to provide evidence of UK fuel purchases and restricting rebates to the actual fuel duty paid in the UK would strongly discourage this practice.

**5.3 Fuel efficiency varies by type of area, road conditions, make and model of vehicle etc. A broad range of benchmarks would have to be devised to accommodate this variability and 'a whole industry set up to challenge the decisions taken by Customs and Excise staff about the real fuel efficiency of vehicles' <sup>12</sup>.**

This issue is addressed in our *Taxing Trucks* report:

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

The only alternative to using a benchmarking system is to refund duty on all the fuel consumed by a vehicle. As Brown (2005) has pointed out, this would mean that 'the more fuel you use, the more money you will get back through the rebate to offset the cost of the toll. If you imagine two identical trucks travelling the same distance, the one that used the more fuel would receive the greater amount back in rebate' <sup>13</sup>. This would have the perverse effect of encouraging hauliers to consume more fuel and run completely counter to one of the main objectives of the government's Sustainable Distribution policy <sup>14</sup>. If Customs and Excise is opposed to the use of benchmark fuel efficiency values in the rebating of fuel duty, it is difficult to see how they can design a rebate system that is consistent with the government's current policy to raise fuel efficiency in the road haulage industry.

The benchmarking system would encourage manufacturers of less fuel efficient vehicles to improve their fuel performance and generally promote greater energy efficiency across the haulage industry.

**5.4 As the fuel rebate is calculated according to mileage run in the UK rather than litres of fuel purchased in the UK, it will be necessary for hauliers to provide records of fuel purchased. 'It is a lot of paper for the haulier to keep safe for up to 12 months' <sup>15</sup>.**

As explained in paragraph 5.1, hauliers will have to retain evidence of fuel purchases in the UK. To summarise our earlier comments on this issue:

- Many operators now have electronic records of fuel consumption and this should be encouraged as good management practice.
- Hauliers have to retain records of fuel purchases anyway for VAT purposes.
- The LRUC fuel rebate system will also require hauliers to retain records of fuel purchases.

It is worth re-emphasising too that our alternative system will not create a major new revenue stream and require the disbursement of billions of pounds of fuel duty. It will involve a relatively small-scale financial reconciliation once a year for each lorry.

## **6. Cash Flow Problems for Hauliers**

***6.1 The imposition of the distance charge and rebating of fuel duty on an annual basis would create cash flow problems for hauliers.***

The end-of-year reconciliation of annual road toll and fuel duty would involve the transfer of relatively small sums of money. The main revenue stream would remain fuel duty paid on a regular basis throughout the year. For most operators the payments would represent a very small proportion of total turnover. In the case of larger operators, the annual cycle of toll payment would be staggered across the fleet (reflecting the phasing of vehicle purchases / annual inspections throughout the year). This would spread the reconciliation of toll payments and fuel duty rebates across the year and ease any cash flow problems for individual operators.

It has been pointed out by Customs and Excise that 'under the LRUC scheme, the fuel duty rebate would be offset against the charges due and these would be reconciled on a more regular basis'. As LRUC will generate a new stream of toll income, the offsetting of tolls against fuel duty will have to be done on a short-term basis to prevent hauliers running into severe cash flow problems.

***6.2 The rebating of fuel duty for foreign hauliers on a trip-by-trip basis rather than the annual basis for UK hauliers would give them a competitive advantage.***

In fact, the opposite is the case. Foreign operators would have to pay their distance charge on a trip-by-trip basis, whereas British hauliers would only pay this on an annual basis. As, in most cases, this distance charge is likely to exceed the amount of fuel duty paid, it will be in the British hauliers' interests to have distance charges and fuel duty reconciled annually.

## 7. Other Issues

**7.1 The procedures required at the ports would cause an 'unreasonable delay', exacerbating current congestion problems and creating a 'fiscal barrier'<sup>16</sup> which would contravene EU rules.**

The extra time required to record tachograph distances and make toll payments at the ports would be very small relative to the total time that a typical vehicle spends at a UK port or the Channel Tunnel terminal. The additional activities required by our proposed road charging system would take only a few minutes and cause minimal disruption and delay. They could be easily combined with the existing procedures of inspecting tickets and passports at a single check-point. No additional space would be required to park vehicles while the road charging activities are carried out. Operators could also streamline the process by registering vehicles online prior to their first entry to the UK. It is unlikely therefore that the current congestion problems at major RoRo ports such as Dover would be exacerbated.

It is also very likely that under the LRUC scheme foreign-registered vehicles are likely to be stopped at the ports for registration and payment.

**7.2 In this alternative system, the driver, rather than the operator, will be liable for the charge, something which Customs and Excise 'have already discounted as unworkable and unfair'<sup>17</sup>. The Road Haulage Association also wants any 'driver intervention ...kept to an absolute minimum'<sup>18</sup>.**

It is not clear why Customs and Excise have rejected this practice as 'unworkable and unfair'. Drivers are expected to buy fuel for their vehicles and pay tolls on estuarial bridges and tunnels. Many of them regularly pay tolls on motorway links in France, Spain and Italy and on the M6 toll road here in the UK. Some also pay for the ferry / Channel Tunnel crossing at point of use. There is little evidence that this creates problems for the drivers, operators, filling stations, ferry companies or toll collection agencies.

Only drivers on international journeys would have any direct involvement in the charging process. If international hauliers did not wish their drivers to be responsible for paying the UK distance charge with cash or credit card, they could set up an account with a facility for direct billing. Even where the driver did assume responsibility for paying the charge, this would be no more onerous than buying fuel or paying a bridge toll.

**7.3 By advocating a simple, low-tech solution when a much more technologically-advanced and 'future-proofed' option is available one displays 'luddite tendencies'.**

We firmly believe that the application of telematics to the road haulage industry offers enormous benefits. Our criticism of the government's plans for LRUC is not, therefore, based on any aversion to new technology. One must apply the appropriate technology at the right time to meet the specified objectives. For the next decade, a much less costly and complex technological solution than the one the government is currently proposing will adequately meet the taxation requirements of the British road haulage industry.

## 8. Conclusions

It is possible to address all but one of the shortcomings identified in the Customs and Excise critique and other feedback that we have received. The insurmountable problem for our alternative method of lorry road user charging is that presented by the Northern Ireland land border. This is a problem, however, that will afflict all systems of lorry road user charging and will only be satisfactorily resolved when the whole of Ireland is subject to the same system of distance-based charging, probably within the context of an EU-wide tolling system.

In the light of all the feedback we have received, we have made several modifications to our original proposal:

- The value of the fuel duty rebate must not exceed the actual duty paid as verified by evidence of fuel purchases in the UK.
- Distance readings at the ports and Channel Tunnel terminal should be taken from all lorries and not rely on self-declaration and spot checks. Technology exists to collect this information quickly and reliably.
- It would not be necessary to issue foreign-registered vehicles with smart cards.
- Foreign-registered hauliers would be able to register online at a multi-lingual website.
- Procedures have been outlined to deal with vehicles on short-term hire and changes in toll rates / fuel duty during a vehicle's annual cycle.

Some of the points raised by Customs and Excise had already been anticipated and discussed in our *Taxing Trucks* report. Others appear to have been based on a misinterpretation of what we originally proposed.

Many of the practical difficulties that would be encountered in implementing our system, particularly relating to the rebating of fuel duty, will also affect LRUC. For example, Customs and Excise have challenged the principle of rebating fuel duty at benchmark levels of fuel efficiency. The alternative, however, would be to refund the actual fuel duty that an operator paid. This has the disadvantage of favouring less fuel efficient operators. The lower their fuel efficiency, the larger would be their rebate and hence the lower the effective km-toll toll rate they would be paying. It is not clear how this anomaly could be corrected without recourse to form system of fuel efficiency benchmarking.

Criticisms of our approach are one-sided at this stage as the LRUC system is yet to be specified. It would be fairer to compare LRUC with our alternative method using a standard set of criteria. Until the LRUC contract is awarded and the system specification made public it is not possible to conduct such a comparison. We strongly support the recommendation of the House of Commons Transport Committee that when the procurement process is complete, 'the Government should undertake objective comparisons of the different solutions ... using a standard set of criteria such as cost effectiveness, risk of fraud, burden on industry and technical robustness.'

Overall, we believe that assessments of our proposed method made by Customs and Excise and the Freight Transport Association exaggerate the amount of new paperwork required and additional administrative burdens imposed on hauliers. Its potential vulnerability to fraud and the extent to which it would create 'fiscal barriers' at the ports have also been substantially overstated. Among those committed to a hi-

tech solution there is a natural reluctance to acknowledge the merits of our system which are its low cost, low risk and close alignment with the government's declared policy objectives of:

- Levelling the competitive playing field with foreign hauliers
- Decoupling the taxation of trucks from that of cars and vans
- Moving to a system of distance-based taxation.

## 9. Post-script

Since the completion of this report the government has published a 'Regulatory Impact Assessment' of LRUC <sup>19</sup> which contains a comparison of the benefits and costs of 'manual' and 'automated' systems of road-user charging for lorries. The review of the manual scheme is essentially a summary of the Customs and Excise critique of our alternative method (soon to be published by the Transport Select Committee), though no explicit reference is made to our proposal. The automated system is the much more technologically-sophisticated option currently favoured by the government and involving vehicle tracking.

The use of the terms 'manual' and 'automated' are very misleading. As we have explained in this report, online registration, scanning devices and computer terminals would be extensively used in our system to minimise the amount of manual intervention. Moreover, an LRUC system involving vehicle tracking would require a significant amount of manual control in the operation and maintenance of on-board equipment (OBE).

We consider this comparison of the 'manual' and 'automated' systems to be strongly biased in favour of the latter.

Points relating to the manual system are divided into 'benefits' and 'costs'. The 'so-called' benefits, however, are merely a list of shortcomings, giving the impression that there would be virtually no advantage in opting for such a system. As we have tried to demonstrate in this report, most of the criticisms that Customs and Excise have levelled at our method are unfounded or can be adequately addressed by practical modifications to our original proposal. We do not wish to labour points already made in this and earlier reports, but we must take issue with several of the claims in the 'Regulatory Impact Assessment' document:

1. It is suggested that 'the cost of the automated scheme **might** be greater than for a manual system' (p.18) (our emphasis). Given the experience of electronic road tolling systems for trucks elsewhere in Europe, there is no doubt that an 'automated' LRUC scheme, with the capability of meeting the operational requirements set out in the government's Procurement Prospectus <sup>20</sup>, will be an order of magnitude more expensive than our proposed system.
2. The document also argues that 'the general level of risk associated with an automated system is expected to be lower than the risk posed by manual schemes' (p. 18). This claim cannot be substantiated at this stage. We have explained in this report how the risk of non-compliance could be minimised within our system. A telematics-based LRUC 'solution' would be exposed to many different types of risk, including malfunctioning of OBEs

across the UK road fleet of 430,000 lorries plus tens of thousands of foreign trucks, tampering with OBEs, vehicle tracking errors in the GPS / microwave systems and the host of possible problems than can hamper the development and installation of massive new computing and communication networks.

3. It claims that 'the Irish Land Border poses specific problems' (p.15) for the manual system but offers no explanation of how the 'automated scheme' will deal with these problems. As we discuss in paragraph 3.5 of our report, the Irish border will, for the foreseeable future, present serious problems for any system of road-user charging, regardless of the technology deployed.
4. It is asserted that 'an automated scheme also represents the best opportunity to be interoperable with other countries' tolling systems' (p.18). This assumes that the LRUC system to be adopted in the UK at the end of this year (when the current procurement process is completed) will be compatible with those in other European countries. The three lorry road charging schemes currently in operation, in Germany, Austria and Switzerland, are quite different and offer very limited inter-operability. Only when EU standards for electronic tolling of trucks are agreed, probably not for several years, will true inter-operability be achieved. We argued in our *Taxing Trucks* report that by delaying the introduction of an electronic, tracking-based system of tolling until it is actually required, 10 years or more from now, the UK could ensure that its system was fully compatible with EU standards. We have proposed our alternative method as a cost-effective means of reforming lorry taxation in the intervening period.

The comparison of the two methods of lorry road-user charging contained in the 'Regulatory Impact Assessment' report has little credibility. Although the report states that the government 'has not specified what the technical solution for LRUC would be' (p.19), it is clearly committed to a telematics-based charging regime involving vehicle tracking. Only a system with this degree of technological sophistication will be able to meet the operational requirements specified in the Procurement Prospectus. The government therefore has a strong vested interest in portraying any alternative, low-tech system in a negative light, despite the fact that it could meet the main, declared objectives of road-user charging more cheaply and easily. Its latest report on LRUC demonstrates the need for a truly objective, independent and wide-ranging assessment of the different approaches to road-user charging for lorries, as recommended by the House of Commons Transport Committee.

## REFERENCES:

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