Evidence requests on reducing the impact of heavy goods vehicles and buses on air quality: summary of responses

While air quality has improved in recent years, current levels of air pollution remain harmful to health in some locations, and road transport is known to be a significant contributor, particularly in urban areas. The Coalition Programme for Government states that the Government will work towards full compliance with European air quality standards.

On 21st February 2011 the Department for Transport (DfT) issued evidence requests on how emissions of harmful air pollutants from Heavy Goods Vehicles (HGVs) and buses could be best reduced. The evidence requests took the form of an online questionnaire on the DfT consultation website. Comments for the bus evidence request were received from 30 businesses, public bodies and political groupings. Comments for the HGV evidence request were received directly from 37 businesses and local authorities, as well as the Freight Transport Association, whose response was informed by a survey of their members based which received 91 responses. The evidence requests closed on 21st April. This document summarises the responses received.

Respondents were asked what measures they had taken to improve air quality and what impacts these had had on their businesses. In particular operators were asked about fleet measures, such as purchasing newer, cleaner vehicles, retrofitting pollution control equipment and installing telematics to monitor and guide driving behaviour. They were asked for their views about training measures for drivers on fuel efficient driving and avoiding idling, and they were asked about traffic management measures such as low emission zones, managed motorways and bus lanes.

The responses detailed in this document will help inform the Government's approach to improving compliance with European standards, while it seeks to promote industry-led initiatives and build on best practice to avoid the need for future regulation.

Responses to the evidence request on reducing the impact of buses on air quality

Who responded?

Responses were received from 30 bus and coach companies, manufacturers, public bodies and other interested private companies. The evidence request was most frequently completed by company directors. A full list of respondents is included at Annex A.

How many vehicles did respondents operate?

Most companies were small with fewer than 100 vehicles, but there were a few very large companies. The biggest respondent operated over 8000 vehicles. A Passenger Transport Executive, a local authority, representatives of product producers and designers and a local political group, some of whom did not operate any buses directly also responded.

Age of fleets

Almost half of respondents stated the average age of their fleets as 6-10 years old, with about two thirds of the remainder responding that their fleet average age was 3-5 years old. Two respondents had fleets with an average age of 11 years or more; one of these was in the heritage hire industry. Almost half of respondents kept their vehicles in their fleet for 6-10 years. About two thirds of respondents said they considered air quality in the procurement process.

Understanding of issues

About half of respondents professed to have a very good understanding of air quality in relation to both transport and health, and about one third said their understanding was good. No respondents rated their understanding as worse than 'fair'.

What steps, if any, have you taken that may have reduced pollutant emissions from your operations in the last five years?

Technical measures taken by respondents included the purchase of higher Euro Standard vehicles, and one respondent offered discounted terminal access charges to operators of higher standard vehicles. Other measures included conversion of their vehicles to LPG or ethanol, operation of full electric or hybrid buses, retrofitment of emissions control equipment, use of fuel additives, use of automatic idling cut outs and installation of telematic traffic light systems to warn drivers of harsh acceleration and braking.

Respondents had also made behavioural changes by implementing SAFED or Institute of Advanced Motorists training, and by using driver incentives, such as employee energy saving competitions. One respondent fined operators using its terminals for idling, and several respondents had clear anti-idling policies.

If you have taken any steps which may have reduced pollutant emissions, have you been able to quantify the impacts on your business?

Six respondents reported that fuel costs had been reduced by between 4-10% thanks to eco-driver training and anti-idling measures. Concern was expressed by three respondents that the retrofitment of pollution control equipment could lead to financial and carbon disbenefits.

Respondents had mixed views on the impact of their environmental measures on their ability to attract business – one company said their positive action led to repeat work but others had seen no clear benefit to business.

Please indicate the importance of the following when considering changes to your operations: concern about air quality, concern about greenhouse gas emissions, concern about future government regulation, saving fuel and improving company image.

Saving fuel was ranked as a very important factor underpinning fleet changes by around three quarters of respondents, and as important by the rest. The next most important factor was improving company image, then concern about government regulation, and finally climate change and air quality.

Views on further local authority emissions control schemes like the London Low Emission Zone (LEZ)

Four respondents already use their newest, cleanest vehicles in urban locations, sending their older vehicles to more rural routes. One respondent saw the benefits for the environment and the resulting good public image favourably, whilst another saw a potential for growth if LEZs were to restrict private transport.

However, five respondents were also concerned about the cost to their business. Some responded that because of their small size they would find it much harder to comply than larger operators. One respondent made clear that an LEZ would affect not only an operator's buses, but also ancillary vehicles such as driver training buses and workshop vans.

One respondent stated that any future LEZ should correlate to a complete Euro standard as this is easier to enforce.

Views on greater use of traffic management measures

The question received a positive response. Around one third of respondents felt that more traffic management measures would have a significant effect on

air quality, both through smoother vehicle operation, and faster journey times increasing the attractiveness of public transport.

Poor traffic light sequencing was raised by two respondents as a problem, as was poor enforcement of bus lanes. One respondent complained that 'Non-local PCVs' (passenger carrying vehicles) cannot use bus lanes.

Views on accelerated uptake of newer or cleaner vehicles

Eleven respondents expressed concerns about the cost of buying new vehicles, but there were also concerns about newer vehicles consuming more fuel. One respondent suggested that these fears may be leading operators to "stock up" on Euro V vehicles. Some respondents proposed switches to alternative fuels, such as biomethane or hydrogen.

Views on retrofitment of pollution abatement equipment

Thoughts on retrofitting older vehicles with pollution control equipment were mixed. Five respondees felt that it could be much more cost-effective than simply replacing old vehicles, but two respondents noted that long term certainty of local authority policy is required to encourage operators to invest.

Four respondents said that the cost is still prohibitive for some companies, or for use on vehicles which may be nearly life expired. Deregulation of the retrofit market was suggested by one respondent as a way to reduce costs.

Three respondents pointed out that retrofitting may reduce funds available to purchase more passenger friendly vehicles, and that incoming (2015-2017) accessibility regulations limit the extended life of existing buses. It was also stated by a respondent that it may be better value to install new, cleaner engines than to fit emissions control equipment to old ones.

Views on more widespread Eco-driving training

Some 9 operators were very positive, reporting improvements in safety and fuel efficiency. However there were a couple of operators who expressed concerns that drivers are unenthusiastic about eco-driving as it is seen to be a criticism of their driving. One respondent felt that it was worthwhile, but 'Only effective if frequently refreshed and monitored using telematics'.

Views on stricter control of engine idling

Some respondents indicated reasons for idling, such as a lack of parking spaces, or warming up vehicles without night heaters. There were some misconceptions about the impact of idling, with one respondent suggesting that it has little impact on fuel consumption. However, a number of operators were aware of the issue and eight seek to limit idling behaviour through, for example, telematics systems. One operator identified a 2% fuel saving due to anti-idling rules, whilst a terminal owner is already fining operators if their drivers idle excessively.

Automatic engine cut outs were proposed as a solution, but it was recognised that the technology is not always straightforward. Whilst one respondent suggested increasing the Fixed Penalty Notice for idling from its current level of £20, two were against this idea, and one felt that the focus should be on providing information instead.

Are there any options not listed above that you think have the potential to reduce air quality impacts from your sector?

Respondents were able to suggest further technological methods to reduce emissions. One proposal was to introduce telematic reporting standards and require companies to demonstrate improvements on emissions. Acceleration limiters were also suggested, and it was proposed that building satellite navigation systems into commercial vehicles would make it easier for them to avoid heavy traffic, which increases outputs of pollutants. It was also argued by one respondent that vehicles are continually increasing in weight, and that strong emissions benefits could come from making new vehicles lighter.

Relaxing parking controls for coaches were suggested, and two operators saw a need for providing more coach parks. One respondent suggested that these could be conveniently sited on waste ground in parts of London, whilst another proposed electric plug points so that vehicles could be heated without needing to idle.

What would you like Government to do?

One suggestion was to better communicate the current regulations on turning off engines when parked. Another respondent suggested introducing a single vehicle approval scheme to enable companies and private owners to develop and fit their own pollution abatement devices.

Suggestions also included providing transport operator funding to educate employees about eco-driving, or running monthly courses organised by local authorities for the same purpose, further capital assistance to replace or retrofit vehicles and encourage uptake of hybrid vehicles, and replacing future fuel tax rises with a pollution reduction incentive.

Responses to the evidence request on reducing the impact of heavy goods vehicles on air quality

Who responded?

The Evidence Request was generally completed by fleet or transport managers, CEOs and sales directors, and 37 responses were received from a mixture of businesses including hauliers, vehicle hire companies, removals companies, the retail sector and local authorities. A full list of respondents is included at Annex B. The Freight Transport Association ran a survey of their members on the issues identified in the evidence request, and used the information gathered from 91 companies to inform their own response.

How many vehicles did respondents operate?

The size of companies varied, from those with just a few rigid HGVs to those operating 500+ rigid and articulated HGVs. Most respondents operated a range of freight vehicles, including rigid and articulated HGVs, and vans.

Age of fleets

Around two thirds of respondents estimated the age of their fleet as between 3-5 years old. Around half typically kept their vehicles in their fleet for 6-10 years and around one third kept vehicles for 3-5 years. About three quarters of respondents said they considered air quality in the procurement process.

Understanding of issues

Most respondents professed to have a 'good' understanding of air quality in relation to both transport and health. Only one respondent declared they had a 'poor' understanding of air quality's relationship to health.

What steps, if any, have you taken that may have reduced pollutant emissions from your operations in the last five years?

Over one third of respondents listed the purchase of newer, cleaner vehicles (typically Euro 4 or 5 compliant) and the removal of older vehicles from their fleet as their main contribution to improving air quality. Four respondents had also fitted pollution abatement devices to control particulate emissions.

Other technical measures included the introduction of ultra-low emission vehicles: one company is operating an electric transit vehicle as part of a long term trial, while another has swapped all its diesel fork lift trucks for LPG or electric. The use of speed limiters, and control and monitoring of fuel use through onboard diagnostics and telematics were also listed. Automatic idling engine cut outs were fitted, and the use of roof and side fairings to reduce fuel consumption and emissions was a common and longstanding approach. Using super single tyres and regularly checking tyre pressure was another simple method of reducing fuel consumption and emissions. Behavioural changes included minimising empty running and planning routes, often with the aid of satellite navigation, to avoid congested areas. Driver training was also used, sometimes in conjunction with incentives such as monetary bonuses or extra holiday.

If you have taken any steps which may have reduced pollutant emissions, have you been able to quantify the impacts on your business?

Four respondents reported that they had saved in the region of 10% on fuel as a result of introducing driver training, onboard diagnostics to monitor vehicle and driver performance, and journey planning.

Two respondents reported that any saving on fuel as a result of the purchase of a new vehicle was wiped out by the cost of upgrading. One commented that fuel consumption had increased as a result of purchasing vehicles meeting newer Euro Standards. One respondent in the vehicle hire sector commented that they bear the cost of periodically upgrading the fleet but do not receive the benefit of improved fuel consumption.

Three said that customers were still only really interested in price, and therefore no extra business had been obtained from investing in 'green' measures. However, others said they had gained business as a result of their 'greener' actions. One said that a high percentage of high profile tenders now request environmental information on the fleet.

Please indicate the importance of the following when considering changes to your operations: concern about air quality, concern about greenhouse gas emissions, concern about future government regulation, saving fuel and improving company image.

For most respondents saving fuel costs was the most important factor underpinning fleet changes and over three quarters rated it as very important. This was followed by improving company image, then concern about government regulation, and finally climate change and air quality.

Views on further local authority emissions control schemes like the London Low Emission Zone (LEZ)

One operator has moved their oldest vehicles away from the London area. It was suggested that the impact of an LEZ on business may vary depending on the hours of operation. One respondent noted a particularly large impact on low mileage companies who can maintain their vehicles for many years.

Just over one third of respondents noted concerns about the costs to operators of LEZs and the impacts to business if costs cannot be passed on. In particular two respondents were worried about the impact on the value of older vehicles which can no longer enter a zone. The FTA noted that its members saw LEZs as the only intervention by Government which would have an overall negative effect on their businesses.

One respondent pointed out that in some parts of the country, operators cannot avoid driving through urban centres due to the design of the road network and accordingly any LEZs would need careful planning. One respondent favoured a harmonised approach in UK and across the EU with well planned timescales so that industry can plan fleet replacement programmes effectively.

Views on Freight Consolidation Centres

Freight consolidation centres were thought by three respondents to be useful for some haulage companies who have to drive into London. However, 11 more respondents thought that they are only of use to some companies, as others may be carrying full loads to begin with, or running just-in-time deliveries. The FTA stated that the majority of members responding to its survey had indicated that consolidation centres would have no impact on their activities.

Two respondents were against the possibility of centres charging for their services, and one made clear that they would need to be planned early in the implementation of new road networks and retail developments if they are to be effective.

Views on a reassessment of night time delivery restrictions

The possibility of a relaxation of night time delivery rules was seen favourably by five respondents. There was agreement that night time deliveries would ease congestion and reduce idling considerably, and a reduction of "no go" routes would reduce fuel consumption by shortening journeys. One respondent suggested that any conditions should be harmonised to make operator compliance easier.

It was clear from responses that more relaxed rules would make no difference to companies required to deliver during the day, and the issue of the impact on driver recruitment and wages of more night time operations was also raised. Respondents also pointed out that support industries such as vehicle workshops and retail centres would also have to be operational at night, and costs would therefore be likely to increase.

Views on managed motorways

Managed motorways received a very positive response with ten respondents commenting in their favour. Respondents reported improvements on the M42, and on sections of the M25 covered by variable speed limits. One respondent remained concerned that long term issues of congestion and road planning should be addressed appropriately, including through traditional road widening where appropriate.

Views on accelerated uptake of newer or cleaner vehicles

Around one third of respondents were concerned about the cost of accelerated uptake, with many commenting that their fleet replacement programme was geared towards the life of vehicles, and that to accelerate it would involve losses on capital assets.

One respondent argued that there should be more of a focus on moving operators from the oldest Euro Standards up to Euro IV and V, as this is more beneficial for pollution than moving operators from Euro V to Euro VI. Nevertheless, several operators saw benefits to having a modern fleet in terms of both running costs and image. The FTA indicated that a significant minority of members surveyed were trialling gas engine or hybrid technology, but that only around half of those had firm plans to deploy them permanently in their fleets.

Views on retrofitment of pollution abatement equipment

The costs of retrofitting pollution abatement equipment were a major concern for one third of respondents. It was also pointed out that some older vehicles may not be suitable for retrofit, and on short journeys, equipment may not reach the temperature needed to function properly. Two respondents were concerned about worsened fuel consumption. One respondent indicated that for the age of the vehicles concerned the costs of retrofitment can often exceed the depreciated value of the vehicles.

One respondent suggested that particulate matter traps offer less benefit to modern engines which are already relatively clean. Awareness of conflicting issues in managing pollution was also shown – one respondent thought that fitment of 'oxycat' systems to reduce particulate matter outputs has resulted in a significant increase in direct NO_2 emissions.

Views on more widespread eco-driving training

About one third of respondents were impressed with the benefits of eco-driver training, reporting both savings of fuel and other benefits such as a reduced accident rate. One respondent suggested that eco-driving could be incorporated in 'CPC' training and included as part of the driving test to be a HDV driver. The FTA indicated that 44% of its members surveyed used eco-driving in an urban environment.

Six respondents expressed views that drivers may not put the training into action and concerns about the cost of training.

Views on stricter control of engine idling

With regards to the Fixed Penalty offence of unnecessary idling four responses were favourable but raised the difficulty of enforcement. One respondent was also keen that any fines issued should continue to be directed at the driver and not at their employer.

Five respondents saw the potential of idling controls to reduce fuel costs, and experiences of automatic engine shut offs were generally favourable. The FTA indicated that by 2013 almost 60% of members responding to its survey planned to have fitted these devices to their vehicles. However, three respondents pointed out that idling is sometimes necessary to power heaters, ancillary equipment and lights on trailers used while unloading.

One respondent asserted that starting an engine uses more fuel than idling for all but the longest periods; with modern engines this is not the case. One respondent also had concerns about the potential for increased wear and tear, particularly on starter motors, and another pointed out that on some vehicles a more complicated starting process has to be followed than is the case with, for example, cars.

Views on encouraging more freight movements by water or rail

Five respondents had favourable views of possible modal switches and saw the potential for reduced road congestion. However, nine respondents were clear that it would only be possible and appropriate in certain circumstances, and that for many forms of delivery this was not a practical option. Three respondents also suggested that more information would be needed on the environmental performance of alternative modes in order to be able to make an informed and fair comparison.

Are there any options not listed above that you think have the potential to reduce air quality impacts from your sector?

Respondents suggested a wide range of other possible solutions. Improving traffic flow was thought by many operators to offer strong benefits. Suggestions included permitting HGVs to use bus lanes and reopening roads more quickly after accidents. More flexible parking controls and more loading bays in urban centres were also suggested to reduce unnecessary vehicle movements.

Multiple respondents favoured permitting longer and heavier vehicles on certain roads, with a view to using them for hub-to-hub transport. Other vehicle related suggestions included requiring all new vehicles to have an automatic stop-start technology. A scrappage scheme to encourage replacement of most polluting vehicles was suggested, and one operator proposed banning all vehicles over five years old. Taxation incentives for cleaner operations were also suggested.

Operators also saw opportunities to make better use of spare capacity. One suggestion was that greater use should be made of air freight, whilst another operator saw potential in a Government-backed member scheme of hauliers aimed at increasing backloading, suggesting that existing private schemes are too expensive.

What would you like Government to do?

Following earlier responses, around three quarters of respondents suggested that Government could offer industry financial incentives for activities to improve air quality. Taxation advantages for operators of cleaner vehicles were consistently suggested, and one respondent suggested discounts on congestion charging.

Grants for the purchase of cleaner vehicles, potentially in conjunction with more Low Emission Zones were suggested, and one respondent proposed that Government should fund additional driver training. One operator suggested using public sector procurement to encourage the private sector to use the cleanest vehicles.

Upgrades to lorry parking and major roads where problems have been identified were again suggested, as was more "joined up planning" of major developments and the road network.

The Department for Transport's response

The Department for Transport (DfT) is keen to promote industry-led initiatives that build on best practice to improve air quality. The responses to this evidence request are helping to inform our efforts, and we appreciate the input of respondents.

DfT welcomes the efforts taken by members of the haulage and bus industries to reduce the impact of their operations on air quality. We are keen to broaden understanding about the relationship between air quality and carbon emissions. Carbon dioxide (CO₂) is not directly harmful to human health, but is a key component of the greenhouse gases which can cause global warming. Air quality is concerned with the impact on health from other emissions such as fine and very fine particulates (e.g. dust and soot but also some very small particles invisible to the human eye) and nitrogen dioxide (NO₂). Reducing fuel consumption effectively reduces CO₂ emissions, and can benefit air quality, but not all other measures help with both aims. Nevertheless, we are keen to see the haulage and bus industries develop an approach which combats both carbon and other pollutant emissions as effectively as possible.

Introducing new vehicles of higher Euro standards with lower emissions can lead to significant improvements in air quality. DfT has supported this with initiatives such as the Green Bus Fund; grants totalling near to £47m assisted bus operators and local authorities in upgrading their fleets with newer, cleaner vehicles.

DfT supports the work of the haulage and bus industries in implementing measures such as eco-driver training, conversion of vehicles to cleaner fuels, use of speed limiters and telematics, maintaining tyre pressures and using super single tyres, and combating idling. DfT's eco-driver training programme, SAFED for bus and coach, demonstrated that operators could make fuel savings of around 12%. DfT is pleased by the fuel savings of up to 10% which have been reported and attributed to such measures by respondents, especially since this is a key concern of members of both industries and can significantly boost profitability. Some respondents expressed concerns about increased fuel consumption from higher Euro standard vehicles; DfT is keen to encourage manufacturers to work with the industry on this issue.

We have noted the calls from some respondents for tax advantages for cleaner operations. When Euro VI buses and heavy goods vehicles are introduced Reduced Pollution Certificates which give a discount of £500 per year on vehicle excise duty are being reintroduced to encourage early uptake of Euro VI buses and heavy goods vehicles when they become available. DfT is pleased to see that members of both industries are sometimes able to retrofit pollution abatement equipment to improve the performance of older vehicles, and recognises the value of a competitive retrofit market so that costs can be driven down.

DfT recognises that schemes such as Low Emission Zones impact on the bus and haulage industries. We will continue to listen to the views of industry partners on schemes such as LEZs, and will ensure that they are given full and careful consideration in any potential decision taken on whether to implement a national framework.

Several respondents emphasised the importance of improving traffic flow to benefiting air quality. DfT is aware of the importance of effective traffic management schemes for air quality and operations of industry partners. We will continue to work with Local Authorities to ensure that traffic management schemes are well designed and appropriate to the needs of the of the area and those who live and work there, including in the transport sector.

DfT welcomes the views of the haulage industry on Freight Consolidation Centres. The Department published a report with guidance to industry and local authorities on how to set up successful Freight Consolidation centres and the report can be found at:

http://www2.dft.gov.uk/pgr/freight/research/freightreport/

We recognise that FCCs are not appropriate for all sectors or operations, but where they are, they can significantly benefit air quality in urban areas by reducing unnecessary running. Encouraging more freight movements by water or rail was received favourably by some respondents, but others did not think it could benefit their businesses. DfT provides grants to industry to facilitate shift of freight from road to rail and water where it is practical and economically and environmentally sustainable to do so; and is keen that industry should continue to review a range of potential transport modes to assess which is most appropriate for their operations. The Department is working with the FTA to encourage businesses to do this.

DfT welcomes the efforts of the freight and bus industries to combat unnecessary idling, such as the introduction of no-idling rules, automatic cutouts and on board telematics. We will investigate what further action we can take to support these efforts. It is not the case that modern engines use very little fuel whilst idling; unnecessary idling wastes fuel and can significantly harm local air quality, and can result in drivers being issued a £20 Fixed Penalty Notice. Whilst we are aware that engines must sometimes be left running to power auxiliary equipment, we are keen to see the haulage and bus industries develop alternatives where possible. DfT recognises that significant unnecessary engine running can occur because operators have nowhere to park. This also makes it harder for operators to do their jobs, so DfT will keep the provision of loading and parking bays and areas under review.

DfT has already trialled measures to ease the restrictions on night deliveries for goods. The results of the Quiet Deliveries Demonstration Scheme research have been published recently:

http://www.dft.gov.uk/publications/quiet-deliveries-demonstration-scheme/

The results showed that it is possible, when Local Authorities and retail companies work together, to make "out of hours" deliveries without creating a nuisance to local residents. DfT will continue to promote the benefits of all "out of hours" (and not just night) deliveries where appropriate for operators' businesses. Enabling more freight operators to do more work off peak will help to reduce congestion by spreading traffic throughout the day, reducing fuel consumption and helping to improve air quality.

Active Traffic Management on motorways, which implements hard shoulder running and variable speed limits to make the best use of existing infrastructure at peak times has already delivered reductions in emissions and fuel consumption, and improved accident rates and journey reliability. This has been developed into the Managed Motorways concept. There are 35 Managed Motorway schemes across the country.

Next steps

The Government will, later in 2011, submit air quality plans as the basis of the notification to the European Commission for additional time to comply with nitrogen dioxide limit values. The Department for Environment, Food and Rural Affairs (DEFRA) has recently consulted on these plans.

DfT will ensure that the UK's submission to the European Commission takes account of responses to this evidence request. DfT will also ensure that they inform the UK's approach to the review of the Ambient Air Quality Directive in 2013.

We will continue to promote industry led initiatives to improve air quality and avoid the need for future regulation, using the responses to this document to inform our approach. Annex A: List of respondents to bus evidence request

Augusta BackRoadsTouring Co Country Land and Business Association Eric Kennet EYMS Group Ltd. First UK Bus Foundry Coaches G4S Care and Justice Court Services George Dennis GLA Go-Ahead Group plc Henry Hulley & Sons Ltd Hugh Frost Designs Itd London Assembly Liberal Democrat Group Merseytravel ITA / PTE Metrobus Ltd Mike Beal Nottingham City Transport Old London Bus Oxford Bus Company P C Coaches of Lincoln Ltd Passenger Transport Executive Group PMP Recruitment **R-H Travels** Scania Stagecoach Group plc Stuart Jones **Transport Business Services Ltd** Volvo Bus Wright Bros Coaches Ltd.

Annex B: List of respondents to freight evidence request

Aidan Stradling Consultancy B W Aldwinkle & Son Colas Ltd **Cooper Mobile Services Limited** DHL DGF Motorsport Elite Group Logistics Ltd Fenwick Ltd Framptons Transport Services Ltd Freight Transport Association GeoPost Uk Ltd GLA ICM Gerson Ltd IFH Haulage Kapsch TrafficCom **Kirklees** Council Lancaster City Council Leeds Commercial Ltd Lombard Recycling Itd London Assembly Liberal Democrat Group Luckings Ltd Magner Scaffolding Ltd MAN Truck & Bus UK Ltd MAP Haulage Mark One Limousines Next Plc **Piper Transport** Road Haulage Association Safety Kleen UK Ltd Scania SITA UK Ltd Stan Smith & Sons Ltd Uniloads Viridor Voith Volvo Group UK Ltd Wakefield Metropolitan District Council Witrans