Improving air quality inquiry ~ Response from Campaign for Better Transport

November 2017

Campaign for Better Transport is a leading charity and environmental campaign group that promotes sustainable transport policies. Our vision is a country where communities have affordable transport that improves quality of life and protects the environment.

We welcome the opportunity to respond to the House of Commons joint Committee inquiry on improving air quality.

Air pollution is a public health emergency that demands urgent action. Lethal and illegal levels of air pollution are causing a health crisis across the UK, causing thousands of premature deaths as well as life-limiting conditions, particularly for children exposed to pollution with homes and schools near fume-filled roads.

Every community is at risk, particularly in cities. London is the dirty diesel capital of Europe, with its main roads break EU legal standards on pollution every year. The legal cases brought by ClientEarth have added further pressure to national and local government to act. We welcome the Committee members holding this inquiry and making this vital issue a priority.

In summary we believe the Government should:

- Reallocate the record levels of spending for the strategic roads network into boosting the comparatively low levels of spending for walking, cycling and buses.
- Review the National Planning Policy Framework and the viability test requirements
- Give greater weight to health concerns and priorities within decision making
- Better integrate national health (air pollution and obesity) and environmental (climate change and biodiversity) priorities with transport, planning and fiscal priorities which currently appear on a divergence
- Take national action to reduce air pollution such as through targeted scrappage schemes, expanding OLEV, significantly increasing the green bus fund and other measures
- Give local authorities the means and resources to take effective action on air pollution at a local level.

The Inquiry's call for evidence posed a number of questions to which we respond in this submission.

1. **How effectively do Government policies take into account the health and environmental impacts of poor air quality?**

Transport policy fails sufficiently to take this into account. The links between motor vehicle traffic and air pollution are well-established. Some 80 per cent of NOx in areas exceeding EU limits comes from road transport, primarily diesel vehicles. Latest figures indicate that 97 per cent of all modern diesel cars emit more toxic nitrogen oxide (NOx) pollution in real-world conditions than in laboratory compliance testing,

contributing further to illegal pollution levels. PMs from motor vehicles will continue to be an issue even if zero emission fuels become the norm.

By greenlighting new road capacity and the development of car dependent new housing sites, Government policy is acquiescing in worsening air quality while passing the buck to local authorities to solve it.

Air quality is an increasingly important issue for freight transport, especially larger HGVs, which, according to the DfT, will continue to use the current engine technology well into the next decade. Rail produces 90 per cent fewer PM10 particulates and up to 15 times fewer nitrogen dioxide emissions than produced by HGVs for the equivalent journey. Government policy should explicitly recognise that rail freight is part of the solution to reduce air pollution, with modal shift to rail playing a larger role in reducing both NOx and particulate emissions.

Government plans to cancel train electrification are also undermining air quality. Unlike diesel trains, electric trains have zero emissions at the point of use. A 2015 study of peak time emissions at London's Paddington station found that emissions were far higher than those on the nearby busy road, and far exceeded European recommendations[3]. Government rail planning needs to better take into account not just the needs of passengers, but also the needs of people (especially rail staff) who breathe the air polluted by diesel and bi-mode trains; and prioritise electrification in areas which have high levels of air pollution and many people using those areas (i.e. where rail lines go through towns and cities).

In addition, rail policy can potentially play an important part in attracting people to travel by public transport, reducing emissions from cars. However, Government policy on rail fares currently incentivises many people to drive where they could travel by train. Train journeys are 'pay-as-you-go' whereas the cost of car travel is mostly sunk costs in the vehicle. The Government raises train fares every year, but has frozen fuel duty for the last ten years. Furthermore, the complexity of rail ticketing compared to the relative simplicity of driving deters people from rail. Smart ticketing appears to be a promising way to make train ticketing less complex, especially if train companies introduce capped pay-as-you-go travel, but in the meantime, fares policy which offers a bewildering array of options and is opaque on many issues (including how advance fares are set and where they apply, and different definitions of peak time travel) encourages people to travel by car and thereby indirectly increases air pollution.

Overall, rail plays an important role in reducing the environmental impact of transport and is well-placed to do more. Rail freight's per tonne air pollution figures are much better than HGVs but despite representing only a small percentage of overall air pollution, in some locations such as urban aggregates terminals, rail freight and its associated operations could be significantly impacted by measures to improve air quality. Rail freight operations in urban Clean Air Zones are likely to become targets for local authorities. If the need to reduce emissions cannot be mitigated, local authorities may levy charges against rail freight. As well as jeopardizing the viability of some rail freight operations, this could shift freight from rail to road with potential impacts on carbon emissions as well as safety and congestion. The Government will need to support the sector in the same manner it does road transport.

Bus policy also largely fails to take into account environmental and health impacts from air pollution. Government funding to green bus vehicles, through initiatives such as the Green Bus Fund are very welcome. In addition, we welcome the Government's intention to review the Bus Service Operators' Grant (BSOG). A funding mechanism which calculates payment based around fuel burnt actively undermines cleaner air, and is ripe for reform. A system which funded buses based around connectivity to key destinations (housing developments; employment centres and public services) would enable more people to travel by public transport, and thereby reduce air pollution from cars.

The Bus Services Act explicitly aims to grow the number of bus passengers, and provides new policy levers for local authorities to set standards for their bus fleet, such as electric vehicles or buses meeting Euro 6 emission standards, taking into account the need for modal shift and cleaner air. However, bus funding has

[3] Eva Grey: The big stink: how much do trains really emit? (Railway Technology, 7 March 2016)

been greatly reduced over the last few years. BSOG was cut by 20 per cent in 2012; and local authority funding for buses has been reduced by a third since 2010. This reduction in funding is partly, though not wholly, responsible for a decline in passenger journeys. While some journeys previously made by bus are now not made at all, or made by emission-neutral modes such as cycling and walking, many are now made by car, minibus or taxi instead, leading to a rise in air pollution. Research suggests that cuts to funding for school and college buses have resulted in 100 million extra car journeys a year[4], disproportionately polluting air around schools and damaging children's health.

The emerging aviation strategy embraces growth in airport capacity and the number of flights, with inevitable adverse impacts on air quality. Surface access to airports has significant impacts on air pollution from road traffic, given that the London airports have fewer than 50 per cent of customers arriving by public transport, and other airports under 25 per cent.[5] The latest assessments prepared for the DfT on Heathrow expansion warn of the risks for air quality compliance. [6]

Emissions from shipping should also be considered when tackling air quality around ports and cruise terminals. Across Europe, NOx from shipping is set to exceed NOx from all EU land-based sources in the coming decade. The Government could do more to tackle air pollution from shipping by transposing the International Maritime Organisation standards for NOx into UK law and explore measures to incentivise use of greener fuels using the 'polluter pays' principle.

Measures to cut pollution from transport will also help achieve climate change obligations. CO2 emissions from surface transport currently represent around 26 per cent of UK emissions, rising to 36 per cent when aviation and shipping are included. [7] The UK CCC advises that we need to reduce motor vehicle miles (even with an electric fleet) by 5 per cent beyond base to meet our carbon budget. Government transport policy is taking us in the opposite direction.

2. Do these plans set out effective and proportionate measures to achieve necessary emissions reductions as quickly as possible?

The legal test set by the High Court was that any measures should take the route that reduces exposure as quickly as possible but we are concerned that the current Government plans will not achieve this. To achieve compliance requires a combination of a robust network of Clean Air Zones including charging zones; fiscal measures to discourage the most polluting vehicles; and accelerated promotion of modal shift to reduce traffic levels.

2.1 A robust network of Clean Air Zones

If air pollution is taken seriously as a public health crisis, then local authorities must be empowered and resourced to take whatever measures are necessary at the earliest possible date.

The evidence base for the Government's Clean Air Zone guidance identified that charging zones are the most effective way to achieve air quality compliance with legal standards, yet the Government has made charging zones a last resort. Local authorities are expected to explore all alternatives before considering charging zones. This risks leaving too many communities to continue to suffer unhealthy air for longer.

Charging zones are not only the most effective way to tackle air pollution but also contribute to the costs of tackling pollution. Residents in the areas most affected should not face the added burden of paying through general taxation to clean up pollution to which they are exposed yet have not generated. The "polluter pays" principle should be followed.

[4] STC: School Transport Matters 2016
[5] CAA: Passenger Survey Report 2014
[6] WSP for DfT: 2017 plan update to air quality re-analysis: impact of 2017 air quality plan and associated pollution climate mapping sensitivity testing
[7] Campaign for Better Transport: Environmental quality, climate change and transport innovation (2017)

Government can also take action at national level, by setting a national statutory framework for Clean Air Zones which phase out diesel and accelerate the shift to zero emission transport. National Government needs to give strong policy direction, supported by funding so that devolved and local authorities have the capability to implement meaningful policies.

Furthermore, the suggested process for implementing new requirements around the UK could lead to differing standards and policies in different authorities, giving rise to significant complications and costs for businesses.

A comprehensive national network of Clean Air Zones would facilitate data collection and better monitoring of the plan's effectiveness. This could be combined with anonymised data on travel patterns from public transport operators, mobile phone companies and ANPR systems to identify where there is the greatest need and opportunity for low pollution transport provision.

Highways England's work on the Strategic Road Network should be brought within the UK Air Quality Plan as a key player in delivering improved air quality, and empowered to contribute their dedicated funds for air quality work outside the narrow boundary of the SRN in partnership working with local authorities to deliver clean air zone compliance. This could include use of speed limits to reduce emissions; improved provision of EV charging points on the Strategic Road Network; better integration with bus, coach and rail freight interchanges; sharing best practice on pollution absorbing construction materials. Highways England designated air quality fund, which is aimed predominantly at NOx emissions, should also recognise the growing problems from particulates, especially from HGV tyres and brakes, and support projects to reduce HGV traffic volumes, as part of its wider work to improve air quality on the Strategic Road Network.

2.2 Fiscal measures

Fiscal measures have the double benefit of incentivising less polluting behaviour while also helping generate the revenue to implement the necessary changes. Vehicle Excise Duty needs to be reviewed in order to discourage use and purchase of diesel vehicles. Options include a higher levy on new diesel purchases: first year VED graduation for new vans, as for cars; and review of the HGV levy.

An additional surcharge for diesel vehicles would help discourage the purchase of diesel cars and could contribute to the promised Clean Air Fund. The Clean Air Fund could then be used to contribute to a diesel scrappage scheme targeted at the areas with air quality problems. A national framework for scrappage schemes is needed: otherwise schemes could be patchy and inconsistent, leading to a 'postcode lottery' which is seen to be unfair without delivering a comprehensive solution.

A scrappage scheme could be introduced in advance of the implementation of Clean Air Zones around the UK to support and accelerate compliance. A universal scrappage scheme would be extremely expensive, and spending large amounts of public money on purchasing private vehicles would raise a number of ethical concerns. Any scrappage scheme should aim to deliver fewer cars not simply newer cars.

Those driving older diesel vehicles should be offered mobility vouchers to give them a range of options to replace these vehicles through an expanded OLEV scheme, including public transport season tickets, support for electric bikes, including e-cargo bikes, and subsidised membership of car clubs. The OLEV scheme should be particularly targeting small businesses and residents in areas not well served by public transport. E-bikes and e-cargo bikes make a valuable contribution to addressing congestion and pollution and are a viable alternative to cars and vans that deserve support.

Another option would be a "feebate" scheme [8] where a purchase tax is imposed on the highest real-world emitters with the revenue used towards a reduction in costs for electric vehicles and e-bikes, through an expanded OLEV scheme, as well as towards tax free employer support for mobility packages including public transport and other sustainable transport options.

[8] Campaign for Better Transport: A Feebate Scheme for the UK (2012)

Refrigerated lorries currently use low tax 'red diesel', and other fleet operators use it to run unregulated secondary engines which power their refrigeration units. This gives operators a perverse incentive to use diesel instead of switching to cleaner technologies. Transport refrigeration units emit up to 93 times more NOx and 165 times more PM than the standard Euro 6 diesel car. The Government should end this tax loophole.

2.3 Road traffic reduction

Existing policies that encourage greater use of sustainable transport will assist in cutting air pollution. In particular, we would advocate

- Investing in low emission bus priority lanes and zones to encourage modal shift;
- Investing in dedicated cycle lanes to encourage active travel;
- Restrictions on vehicles close to schools, particularly at peak pollution times;
- Variable pricing of parking permits by vehicle emissions;
- Smarter last mile logistics, including use of cargo bikes and ultra/zero emission vehicles;
- Workplace parking levy, which has proved successful in Nottingham.
- Greater support for rail freight infrastructure and local consolidation centres through the planning process.

Tackling road freight traffic, both HGVs and LGVs, is a priority area for improving air quality, yet goods vehicles are often exempted from clean air zone controls while public transport vehicles are included. Measures to promote modal shift for freight receive less attention than for passenger trips yet have great potential to benefit air quality, cut congestion and save business costs.

Effective Clean Air Zones should include support for rail connected consolidation centres on edges of cities using rail for long distance trunk haul for transhipment into low emissions road vehicles. For example, urban aggregates rail freight terminals can be used to bring construction materials into the heart of cities and for removing industrial waste. There is also potential to use existing passenger rail terminuses at night for freight trains: two Colas trials with TNT and Sainsburys at Euston show the merits of this approach.

In addition, we believe additional local powers and national policy changes are required to allow for:

- area-specific bans on diesel and other polluting vehicles
- rolling out PTAL type site appraisal in local plans to encourage locating new homes and jobs near public transport hubs
- a scrappage scheme that incentivises non-motorised replacement (e-bikes, season tickets, etc)
- a change to the appraisal framework for new transport infrastructure, particularly new road capacity, that places a far higher priority on air quality impacts (requirement for all schemes to be at least air quality neutral)
- travel planning for major employment and visitor centres, such as schools, hospitals, business parks, with powers to review business rates to reward low vehicle dependency
- road user pricing (using existing congestion charge powers) with pricing linked to vehicle emissions.
- HGV distance based lorry charging which takes into account the air quality emissions of lorries, using euro engine classifications could incentivise use of modern less polluting engines and reward efficient use of loading capacity: we note that DfT has committed to reviewing the existing time-based HGV levy.

Such policies have multiple benefits not only to air quality but also for tackling obesity, reducing CO2 emissions, improving social inclusion with better access to jobs and services, and creating more liveable towns and cities.

3. Are other nations or cities taking more effective action that the UK can learn from?

There are many excellent examples of effective schemes to cut traffic and cut pollution, which could also have a positive impact in the UK if local authorities were given the political backing to use existing powers and the resources to implement them.

In particular there are good examples of packages of measures: of schemes to support electrification; and policies to tackle emissions from freight transport.

3.1 Packages of measures

Packages of measures bring multiple benefits, providing alternatives to polluting transport modes, incentivising their use and creating more healthy and liveable communities.

Paris has introduced a package of measures, including incentives to scrap diesel vehicles, a low emission zone, additional vehicle restrictions on high pollution days, and a phasing out of diesels by 2025.

Freiburg (Germany) has achieved high air quality standards as a result of its green city policy, underpinned by a long term prioritisation of car share, public transport, walking and cycling over private car use. [9]

Gothenburg (Sweden) has adopted a comprehensive Smart City approach, using a range of apps to manage electric bike hire schemes, low emission delivery vehicles, as well as sharing data with private sector partners to deliver integrated transport such as electric buses and park & ride services across neighbouring local authorities.

Rotterdam's Low Emission Zone was extended in January 2016 to include cars and light goods vehicles, with a ban on diesel vehicles registered after 1 July 2001 and petrol and LPG vehicles registered after 1 July 1992. The impact of this scheme has been to reduce the number of severely polluting cars by half. [10]

3.2 Supporting electrification

Converting to electric vehicles is a challenge for fleet operators if there is uncertainty over access to a reliable re-charging infrastructure.

In Portugal, the Government underwrote provision of a national electric charging network. Portugal's MOBI.E is a nationwide network of over 1,000 EV charging points, including a smaller number of fast charging points. With national Government and EU support, it was provided free of charge in its pilot phase, with usage fees introduced from 2017. The key strength of the MOBI.E scheme is that while users can subscribe to different suppliers, all the charging points are inter-operable, providing a truly comprehensive network.

Electric buses deliver multiple benefits, cutting congestion and CO2 emissions as well as pollution. In Gothenburg (Sweden) and Trondheim (Norway), the local authorities are investing in electric buses and providing charging facilities along key routes. In Gottingen (Germany) and Zielona Góra (Poland) the local authorities are providing electric charging infrastructure at the city's bus stations, enabling bus operators to convert their fleets with confidence.

3.3 Tackling freight emissions

A smarter last mile logistics plan should be a key part of Clean Air Zones. Investment in local consolidation centres with delivery by low emission vehicles has proved successful in many cities. In Paris, the retail chain Monoprix has a dedicated rail freight terminal, from which low emission vehicles deliver to over 70 stores across the city. In Utrecht, a city wide low emission strategy has seen businesses use cargo bikes, electric vans and zero emission boats for local deliveries.

In Gothenburg, the City Delivery scheme provides a central HGV terminal from which city centre deliveries are completed by electric van and delivery bikes. In London, Regents Street has pioneered a similar approach, with a consolidation centre outside the congestion charge zone where multiple deliveries are transferred to electric vehicles for scheduled delivery: the scheme has seen an 80per cent reduction in retail lorry movement, with resulting time and cost savings to businesses.

[9] Greencity Freiburg: approaches to sustainability (2017)
[10] ELTIS: New Rotterdam LEZ halves dirty cars in a month

4. Is there enough cross-government collaboration to set in place the right fiscal and policy incentives?

It is good to see closer working between DfT and DEFRA, and the joint approach taken by the Committees sponsoring this inquiry: but we need truly cross government cooperation. This will include HM Treasury setting appropriate fiscal measures as outlined in section 2.2 above; BEIS investing in ultralow and zero emission vehicle technologies, and encouraging workplace travel plans; DCLG joining up with DfT allocate more resources to support local cycling and walking implementation plans.

Technology investment has focused on cars, but there is also great potential for greener rail technology. This should include examining the potential for retrofitting existing diesel freight engines, reversing the cuts to passenger rail electrification and exploring opportunities for enlarging the electric freight network, and exploring the potential for bi-mode trains for both passenger and freight operation.

There is also a need to join up with wider transport and planning policies. Building major new roads is an expensive way to increase traffic levels, and will increase congestion in towns and cities, undermining action to tackle pollution. [11] Using the planning system to reduce car dependency, locating new homes and jobs near new or existing transport hubs, is necessary to deliver cleaner air.

There are many examples of good practice that could be rolled out nationwide (including in the Campaign for Better Transport's report 'Getting There' and the 2008 Master planning checklist). [12] The outline and detailed design of new commercial and housing developments have a much stronger influence on levels of car use, and on propensity to cycle and walk for shorter journeys, than conventional transport and emissions modelling assumes.

In particular, we agree with RTPI that the Government needs to revisit the National Planning Policy Framework and associated Planning Practice Guidance to give greater weight to planning to reduce the need for motorised travel and support development that promotes alternatives to car use. This needs to include a review of the test for viability which is being used by developers as an excuse not to deliver a whole range of necessary supporting infrastructure for new developments. This then creates new car based communities, exacerbating issues for future generations and leaving local and national government to pick up the bill for resolving the worst problems.

Even where policies are supportive of prioritising sustainable travel, these are undermined by the Government's record investment in the strategic roads network, while the more modest sums required to make a real difference for walking and cycling and bus use are not forthcoming. This is perhaps the biggest blockage to achieving real change in a meaningful timeframe.

Current transport investment priorities also fail to take into account the public health emergencies, not just around air pollution, but rising obesity and all the associated conditions such as diabetes and poor mental health. Much greater weight needs to be given to the advice from the health profession to steer public investment in active travel and public transport, away from road building.

It is a similar situation with the need to address climate change and reduce carbon emissions. The focus is often on tackling the emissions associated with the operation of the body concerned, such as Highways England, rather than the impact and higher emissions that result from building new roads.

Investment in local infrastructure should focus on improved public transport, walking and cycling, and rail freight provision, and better integration of active travel and public transport (for example, bike racks at rail stations and multi-modal tickets) rather than trying to make motor vehicle dependency more sustainable. Such infrastructure delivers wider social, environmental and economic benefits in addition to improving air

[11] CPRE: The end of the road? Challenging the road-building consensus (2017)
[12] Campaign for Better Transport: Getting there; how sustainable transport can support new development (2015)

quality and so represents better use of public funds than subsidising private motor vehicle use. There is a wealth of positive experience in local authorities from the Local Sustainable Transport Fund, demonstrating the wider social and economic benefits of modal shift and investment in local transport.

5. How can those charged with delivering national plans at local level be best supported and challenged?

5.1 Local authorities

Local authorities need the legal powers and national government backing to adopt the policies that will be most effective in delivering compliance with air quality standards, including charging zones where appropriate. Charging-based Clean Air Zones are the most effective way to deliver legally compliant air quality. Councils should be encouraged to implement Clean Air Zones in ways that maximise economic, social and environmental benefits overall: for example, in assessing the impact of measures they should consider the public health benefits of promoting cycling and walking, and the economic benefits of public realm with reduced traffic.

Local authorities need support with good quality information on the real levels of pollution including real world driving emissions. Real world performance of vehicles is generally more polluting than the laboratory tests, and that some vehicle owners are modifying their vehicles post-purchase, rendering them less compliant. Existing remote sensing technology can be used to operate Clean Air Zones based on “real time” enforcement that measures live emissions, rather than registration based on lab-tested vehicle types: this would not only be the most effective approach, but would also be the fairest, based on the established “polluter pays” principle. This would also enable local authorities to identify and target the most polluting vehicles rather than rely on broad categories that are not all equally polluting in practice.

Conventional parking management including charges for on- and off-street parking and residents parking schemes can be very effective at controlling traffic and air pollution, but authorities have been discouraged for using these measures. One simple way to support local authorities would be to implement section 6 of the Traffic Management Act 2004, which will give councils the powers to enforce moving traffic offences. This would allow local authorities to enforce a ban on pavement parking to make walking safer and more attractive for people and allow junction (yellow hatch) bans to be enforced as the flouting of road markings and blocking of junctions often causes unnecessary congestion and pollution.

London Boroughs have made good use of such powers, for example in Camden where the Healthy School Streets programme has seen the approaches to primary schools closed to traffic at either end of the school day. This is an example that local authorities across the country should have the power to implement.

However, we reject the idea that removing speed control measures such as speed bumps is a positive measure or would actually reduce pollution. Local councils and the communities they serve have introduced speed control measures to make streets safer, particularly in areas around schools. It is not acceptable to reduce safety in an unproven bid to improve air quality, nor is it necessary. Most of the pollution comes from high volumes of traffic on major routes, not traffic calmed neighbourhoods.

Local authorities need support in implementing these solutions in terms of staff capacity as well as capital funding. There is a need for practical guidance and support to implement these solutions, such as a central best practice resource, toolkits to streamline implementation, and access to the additional financial resources needed to deliver schemes on the ground.

5.2 Transport providers and users

Businesses, their staff, suppliers and customers, are all part of the community and have the same rights to breathe clean air and the shared responsibility to play their part in delivering clean air. In particular, businesses should be encouraged to prioritise measures to reduce single occupancy car commuting to work, which is a major contributor to traffic and hence to poor air quality. Research by the University of

Northampton has identified that car sharing on the A45 could remove 14,500 peak time vehicles and reduce overall traffic on the corridor by 20 per cent. Travel planning for existing and new employment destinations, including Workplace Parking Levies, can play a positive role.

Fleet operators have a role to play in switching their fleets to ultra-low or zero emission options through replacement or retrofit. Government assistance for retrofit and upgrade should prioritise public service vehicles, buses, coaches and black cabs, along with emergency service vehicles.

Buses in particular can play a significant role in delivering Clean Air Zones. We reject the characterisation of buses as among the most polluting vehicles. The latest Euro VI diesel buses produce 95 per cent fewer emissions than previous models, and less emissions overall than a Euro 6 diesel car, despite having the capacity to carry up to 15 times more passengers. On a per passenger basis, modern diesel cars also produce 10 times more NOx emissions than modern diesel buses.

There is excellent potential from bus retrofitting. National Express West Midlands has demonstrated that fitting filters and catalytic traps can cut emissions by up to 96 per cent. Bus retrofitting would cost the taxpayer just £12 per kilogram of Nitrogen Oxides saved - 15 times less than a diesel scrappage scheme, which would cost £175 cost for every kilogram of NOx saved. [13] There is also great potential from electric and solar powered buses: however, operators may need support in making the upfront capital investment in vehicles and in fuelling infrastructure in a timely fashion to comply with Clean Air Zones.

HGVs are responsible for 21 per cent of nitrogen dioxide emissions while only accounting for 5 per cent of vehicle miles. The priority for assistance on tackling pollution from HGVs and vans should be through a modal shift package. Shifting long distance freight from road to rail in line with the Government's Rail Freight Strategy would bring significant benefits. Rail freight produces up to 15 times less nitrogen dioxide emissions than HGVs for the equivalent journey.

Strategic Rail Freight Interchanges (SRFI) have an important contribution to make: Daventry SRFI removes 65 million lorry miles mainly off the trunk network each year.[14] Rolling out rail electrification should continue as an important part of any clean air strategy, complemented by research into alternative locomotive fuels. While rail freight diesel locomotives emit far less NOx and particulates than HGVs, an electrification or retrofit programme is still needed.

In conclusion, we believe that a comprehensive strategy to invest in and incentivise the use of low and zero emission transport across all modes is an essential part of achieving compliance with air quality standards. Such a strategy will also assist with meeting the UK's challenging CO2 obligations, stimulating the green economy and creating healthy, liveable places.

November 2017

Bridget Fox
Campaign for Better Transport

Campaign for Better Transport's vision is a country where communities have affordable transport that improves quality of life and protects the environment. Achieving our vision requires substantial changes to UK transport policy which we aim to achieve by providing well-researched, practical solutions that gain support from both decision-makers and the public.

16 Waterside, 44-48 Wharf Road, London N1 7UX
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[13] Greener Journeys: Improving Air Quality in Towns and Cities (2017)
[14] MTRU: Impact on congestion of transfer of freight from road to rail on key strategic corridors (2017)