



Decarbonising Transport – a response to the DfT's paper

Ref: [Decarbonising Transport: Setting the Challenge](#)

Future Transport London is the successor organisation to Campaign for Better Transport London group. We are dedicated to campaigning for sustainable solutions to our transport problems,

You rightly draw attention to the legal requirement to achieve zero carbon by 2050 and, without carbon capture, this means every transport mode, and every vehicle in that mode, must individually achieve zero carbon. However, your projections clearly indicate that present plans are going to miss that target by a substantial margin. Setting out policies and plans is therefore urgent and your request for contributions is welcome.

It has to be stressed that, like the consultation document to which it is a response, this was written before the consequences of the coronavirus pandemic become clear and may require revision in the light of any long-term consequences that may have.

1. Private cars. This is the nub of the problem. As you point out 28% of UK GHG emissions come from transport (fig 2) and of that 55% comes from cars (fig 3). Continuing efficient gains will decrease the GHG emissions from the average car (you say by 52% between 2018 and 2050 – para 2.15) and yet two factors combine to ensure that emissions will continue to rise (fig 9). One is the projected 35% rise in the total number of car kilometres (para 2.15). The other is the continuing growth in the engine capacity of new cars and particularly of SUVs: (In 2018, SUVs made up 21% of new car registrations, up from 14% in 2015 – para 2.7). The issue then is how to reverse these trends.

1.1. Motoring is getting cheaper whilst other modes are becoming more expensive. An immediate way to counteract this is to end the moratorium on fuel tax.

1.2. Car use appears much cheaper than public transport alternatives at the point of use because the cost of motoring is biased heavily towards ownership rather than use. A road user charge in which drivers are charged by the mile at rates which reflect the level of demand at that hour or location would remedy that.

1.3. New roads attract traffic. The government's £27 billion new roads plan will increase the total car mileage and increase road accidents.

1.4. Driving is only possible if it is possible to park at the end of the journey. It is the difficulty of finding parking places that helps make journeys into central London overwhelmingly by public transport, walking and cycling. Charging for and restricting parking helps to persuade drivers to seek other ways of travelling. A workplace parking levy is another way of discouraging car use.

2. Car fuels. The government encourages the purchase and use of electric rather than ICE fuelled vehicles. This is clearly desirable but there are problems.

2.1. All cars pollute – at least from tyres and brakes. They also cause congestion, present a danger and promote a sedentary lifestyle causing health problems such as obesity.

2.2. There are considerable CO₂ emissions during vehicle assembly and, for electric vehicles, there are problems attached to the manufacture of batteries, not only in the process of manufacture but also in the procuring of the metals required. This concerns not only cars but other devices which use batteries including e-scooters which are likely to be able to be used legally on British roads in the near future.

2.3. Policies to make the purchase and use of electric vehicles cheaper than the alternative will lead to the encouragement of private vehicle ownership and make it more difficult to regulate the circulation of vehicles (for example making access to central London free of the congestion charge).

3. Buses and trams. Use of road public transport is falling. Buses are perceived as being for the poor, the young and the elderly. This needs to be reversed.

3.1. There needs to be a unified and regulated system of public transport with a clearly understood and integrated fares policy including integration with trains.

3.2. There needs to be a regular service at all hours and covering all parts of urban areas. It is also important that a good service is provided in rural areas to minimise car use.

3.3. There needs to be a robust system of bus priority measures including bus lanes operating 24 hours a day and seven days a week.

3.4. Tram systems and bus rapid transit corridors with dedicated buses attract passengers, particularly where they have priority over cars.

4. Bus and tram fuels. Bus engine efficiency has reached a point where they are often less polluting than private cars. However using fossil fuel is polluting however little there is. Other fuels are being used which are less polluting.

4.1. Direct electric transmission. This is the fuel normally used by trams and trolley buses. It can be pollution free if the generation of the electricity is by renewable means.

4.2. Battery electric. There are problems with the use of batteries (see para 2.2 above) but considerable advances have been made in their efficiency and they make

an important contribution to decarbonisation. Subsidies are required for their further development.

4.3. Hydrogen. There is a need for more research into this form of energy. It might be the fuel for the future, particularly if the electricity used for electrolysis can be procured from wind farms when producing electricity surplus to immediate need.

5. Freight. Freight movement should be moved as far as possible from road to rail and water for the sake of carbon reduction and the safety and attractiveness of roads for people.

5.1. Transferring freight to rail necessitates an increase in the number of freight terminals, including in London, and the linking of industrial premises with the rail system. Where viable the same applies to water transport. Freight also requires Euro gauge track, which means that future infrastructure upgrades should focus on raising bridges or providing diversionary routes around them.

5.2. Freight should be consolidated for its 'last mile' between the freight terminal and the customer to minimise duplication and to ensure vehicles are fully used.

5.3. Over the last 20 years van kilometres driven have increased by 71%, whilst car and HGV kilometres have increased by 13% and 2% respectively (2018 Progress Report to Parliament: Committee on Climate Change). This could be reduced by consolidation, see above, but also by replacing vans by cargo bikes. Efforts should also be made to ensure that vans for local delivery are not powered by fossil fuels.

6. Walking. 10% of car journeys are under a mile and 58% under five miles (para 2.2). To encourage a modal shift of these journeys from car to foot requires making the walking environment more attractive.

6.1. Pavements need widening.

6.2. Kerbside parking needs to be removed.

6.3. Residential streets need protecting from through traffic.

6.4. More crossing points need to be installed and pedestrian traffic lights need to be more responsive.

6.5 Construction and road works should not take place without adequate provision for pedestrian movement.

7. Cycling. Cycling is rightly perceived by many as too dangerous. These dangers need to be removed.

7.1. Continuous cycle lanes need to be installed to keep cyclists away from vehicles and pedestrians. A debate needs to be conducted over the use of cycle lanes by micromobility vehicles.

7.2. Cycle lanes need to be continued over road junctions and cyclists need to have priority at junctions.

7.3. Where cyclists have to share space with vehicles these should be restricted to 20mph.

7.4. A greater emphasis on cycle training including training for older people.

7.5. Make it easier for cyclists to claim against motorists' insurance.

8. Rail. In contrast to road public transport, rail is becoming increasingly popular for travellers. Compared with other forms of transport it is not nearly so polluting (fig 6 refers).

8.1. There is an urgent need to increase investment in an expanded interconnected regional network, eliminating bottlenecks, redoubling track on routes which have been singled and enabling it to continue to serve its current passengers and attract passengers from other modes.

8.2. More incentives need to be given to attract freight onto the railway including upgrading freight corridors such as Felixstowe to Nuneaton.

8.3. There needs to be established more freight terminals including in London and links between the railway and firms which might be encouraged to use rail.

9. Rail fuel.

9.1. Direct electric power is the most efficient and the most environmentally friendly form of power. There is also no viable alternative for high speed passenger or heavy haul freight trains except for diesel. A rolling programme of electrification of the majority of lines is urgently required to achieve this target and also to keep the teams of skilled workers together.

9.2. Electrification schemes should reflect the needs of freight operators. Not only should freight routes like the one cited above between Felixstowe and Nuneaton be electrified but attention should also be given to 'last mile' electrification into freight terminals and short unelectrified links such as that between the Great Western and the North London line at Acton and between the Gospel Oak to Barking line and the Great Northern at Harringay. This is urgent because freight operators are purchasing diesel locomotives which will need to be utilised for the next 30 years to cover their capital cost.

9.3. It might be thought desirable to equip electric locomotives with a small auxiliary power source, for example batteries, for emergencies and for short stretches without wires.

9.4. Battery and hydrogen power might be suitable for lightweight and short distance trains but are not otherwise a suitable substitute for overhead electric power.

10. Aviation. Modern aircraft are far cleaner than older ones and this improvement is likely to continue. Nevertheless it is suggested that by 2050 that: 'Unless market constraints are put in place, growth in aviation emissions will result in the sector's emissions amounting to all or nearly all of the annual global CO₂ emissions budget by mid-century, if climate change is to be held to a temperature increase of 2 °C or less' (https://en.wikipedia.org/wiki/Environmental_impact_of_aviation). This is unacceptable.

10.1. There needs to be a moratorium on new runway capacity throughout the UK.

10.2. Some financial disincentive needs to be put in place to restrict the amount of air traffic. One suggestion is a 'frequent flyer' tax which progressively increases as flights in any one year are increased. 15% of flyers make 70% of flights. Tariffs on air freight should also be considered.

10.3 Airlines need to be taxed more, preferably on their fuel. This needs international cooperation that is effective. When the UK leaves the EU it will leave the EU Emissions Trading Scheme (EUETS). The UK Government proposes either to implement its own UK Emissions Trading Scheme or to impose a carbon tax. See the Government Response at <https://www.gov.uk/government/consultations/the-future-of-uk-carbon-pricing>

For a UK ETS to be implemented, agreement with the EU will be needed on the relationship between the EU ETS and the UK ETS. Legislation will also be required. The proposed UK ETS will apply to flights leaving the UK for EEA countries and to and from Gibraltar. The Government has also proposed providing 'free' permits to airlines so we will need to keep a close watch on the details of the scheme to see if it will actually be effective in reducing carbon emissions from aviation.

11. Finally there needs to be concerted moves to make it less necessary to travel or to move goods. Such measures might include the following:

11.1. Planning building developments in conjunction with transport development to make sure that, as far as possible, people have whatever they need in terms of employment, shopping and leisure activities within easy reach of their home by bicycle, walking or public transport, see Transport for New Homes checklist <https://www.transportfornewhomes.org.uk/the-project/checklist-for-new-housing-developments/>. Paris's mayor, Anne Hidalgo, champions the 'fifteen minute' city in which 'Paris ... remodel[s] itself so that residents can have all their needs met—be they for work, shopping, health, or culture—within 15 minutes of their own doorstep' (quoted in <https://www.citylab.com/environment/2020/02/paris-election-anne-hidalgo-city-planning-walks-stores-parks/606325/>.) Financial incentives are needed to encourage people to carry their own shopping rather than have it delivered, with all the implications that has for traffic congestion, air quality and obesity.

11.2. Continue to explore methods of keeping in touch by Zoom or other electronic means.

11.3. Take steps to reduce the need to transport goods around the country for processing, storage or selling.