

Written evidence submitted by the Chartered Institution of Highways and Transportation (CIHT) (EVP0064)

CIHT is a charity, learned society and membership body with over 14,000 members spread across 12 UK regions and four international groups. We represent and qualify professionals who plan, design, build, manage and operate transport and infrastructure networks. Our vision is for world-class transportation infrastructure and services. Our values are to be Professional, Inclusive, Collaborative and Progressive.

Introduction

1. CIHT welcome the opportunity to respond to this inquiry. Before commenting on the specific questions set out in the inquiry, we believe that it is important to explain CIHT's position on zero emission vehicles, road pricing and their relation to broader transport policy as CIHT sees it. CIHT's views are aligned with our Climate Change Pledge¹ that sets out our leadership role for the Highways and Transportation sector in achieving Net Zero by 2050.
2. CIHT has consistently called for the Government to look into road pricing as a demand management tool and as an additional revenue stream to fund transport infrastructure^{2,3,4} as the fuel duty freeze and potential uptake of electric vehicles leaves a gap in the Government's finances for highways and transportation infrastructure. We are supportive of efforts to introduce some form of road pricing that is equitable and supports the move to a zero-emissions transport system in which active travel and public transport must play a bigger part.
3. CIHT has also repeatedly called for an over-arching National Transport Strategy to be developed (large elements already exists in the strategies of the Sub-National Transport Bodies and the devolved nations). The benefits of a national strategy - one that sets out a long-term framework over a sustained period – are clear when it comes to determining and then delivering infrastructure priorities including delivery of the transition to zero emission vehicles. It should set out a roadmap to create the necessary infrastructure for electric vehicles as well as plans to build public confidence in electric vehicles as a viable alternative to petrol/diesel.
4. A National Transport Strategy should also set out a path to a reduction in total vehicle miles travelled, whether electric or petrol/diesel, like Scotland's target to reduce car kilometres by 20% by 2030⁵. Electric vehicles are not a silver bullet that will solve transport – like any other car they also pollute, create congestion and take up constrained public space thereby reducing the potential to create better places for people that improve quality of life and public health. Measures to reduce total vehicle miles must be accompanied by measures that improves active travel and public transport services.
5. Part of the solution is to do planning better by linking it to transport ensuring that we build places that are accessible where all or most daily needs and amenities are within a distance that can be reached via sustainable transport modes⁶. Opportunities to do so will vary between rural, urban and inter-urban areas, but there is scope for better planning and transport in all of these types of areas.

6. There will still be a need to travel and make deliveries with cars and vans, so a transition to zero emission vehicles is important and CIHT supports this. There are a range of factors inhibiting the transition to electric vehicles which can be alleviated through government investment and collaboration across the involved sectors.

Accelerating the shift to zero emission vehicles

- **The feasibility, opportunities, and challenges presented by the acceleration of the ban of the sale of new petrol and diesel vehicles to 2030;**
 - **The actions required by Government and private operators to encourage greater uptake of electric vehicles and the infrastructure required to support them;**
 - **The particular challenges around decarbonising buses and how these should be addressed;**
 - **The Government's ambition to phase out the sale of new diesel heavy goods vehicles, including the scope to use hydrogen as an alternative fuel.**
7. Despite the need to reduce total vehicle miles travelled and improve active travel, CIHT see there is a need for ongoing investment to deliver the infrastructure to support EV charging. This will provide consumer confidence in the delivery of the 2030 ban on new petrol and diesel vehicles.
 8. To secure this transition there needs to be a better alignment of how we will plan the development and subsequent use of infrastructure. This requires a collaboration across sectors including infrastructure owners, National Grid, road administrations, fleet managers and vehicle manufacturers, which Government are best placed to lead.
 9. There are a range of factors that influence the uptake of electric vehicles such as public attitudes, financial factors and technological factors.
 10. In terms of public attitudes relating to the environmental credentials of zero emission vehicles there is some scepticism. However, when accounting for the total carbon emissions associated with the full life-cycle of zero emission vehicles versus petrol and diesel vehicles they still result in 17% to 30% less emissions⁷. This will improve as the UK shifts to less carbon intensive energy production. Another factor detracting from the attractiveness of zero emission vehicles is that they still produce air pollution through brake, wheel and road wear which is estimated to constitute 50% of the total air pollution coming from vehicles⁸. Therefore a need to reduce overall vehicle mileage is important while these aspects of air pollution are also reduced.
 11. The upfront cost of zero emission vehicles is one of the key factors holding back consumers⁹. The Government should consider improving the financial incentives for purchasing zero emission vehicles in addition to funding incentives for alternative modes of transport that support more active transport.
 12. Technological factors inhibiting the uptake of electric vehicles include concerns of a limited battery range and lack of vehicle charging points¹⁰, especially for those without private drives such as terraced houses. Although for most trips electric vehicles will have a sufficient range. The average length of a car trip remains unchanged between 2002 and 2019, at 8.4 miles per trip¹¹ and the average range of

zero emission vehicles is around 200 miles¹². Informing consumers about this would support the case for purchasing electric vehicles.

Road pricing

- **The case for introducing some form of road pricing and the economic, fiscal, environmental and social impacts of doing so;**
- **Which particular road pricing or pay-as-you-drive schemes would be most appropriate for the UK context and the practicalities of implementing such schemes;**
- **The level of public support for road pricing and how the views of the public need to be considered in the development of any road pricing scheme;**
- **The lessons to be learned from other countries who are seeking to decarbonise road transport and/or utilise forms of road pricing.**

13. CIHT believes that the Government should consider how a National Road Pricing system, that is fair, simple, and transparent, could be implemented in the UK. Faced with diminishing income from fuel duty, the climate and air quality crisis, road accidents and a deteriorating road network there is a need to change how we pay for motoring, how much we drive and how we fund road infrastructure to support a green transition. Road pricing could be part of a green and healthy future for transport.
14. There is a pressing need to come to a funding solution for our roads as the £40bn income from motoring taxes is set to diminish in the next two or three decades¹³. Not all £40bn are currently re-invested into roads and transport, but CIHT believes that a road pricing scheme should hypothecate funding towards roads and transport. It needs to reverse the poor state of particularly the local road network in the UK and to support the transition to Net Zero for transport, the most polluting sector, through increased investments in active travel measures and public transport.
15. Charging and hypothecation of funds does not in itself solve the issue of underfunded transport as the case of the London Congestion charge shows how funds were used to increase the bus services in London although with the subsequent drop in vehicle charges (because of falling vehicle numbers travelling into London) availability of funding was reduced. However, charging will still be able to support funding for transport and roads.
16. The economic, fiscal and social case for increased funding for local highway maintenance was highlighted in a review¹⁴, published by CIHT and developed through engagement with CIHT members and key sector bodies. The knock-on effects from an underfunded road network are that it becomes increasingly more vulnerable to more frequent extreme weather events, and the network not being maintained in a condition that supports active travel by keeping roads and footpaths in a safe condition. This review of the local highway network was undertaken in a similar time frame to the July 2019 report of the UK Parliament Transport Select Committee into local roads funding¹⁵.
17. Both CIHT's and the Transport Select Committee's reviews highlighted the need to reverse the cuts in revenue funding that local highway authorities have experienced

since 2010. Revenue funding is needed to support the skills and capacity needed at local highway authorities to deliver and keep in a good condition the “thousands of miles of protected bike lanes” that the Government has planned¹⁶ along with the roads and footpaths that also need continuous support. Income from road pricing will need to boost revenue funding to support this.

18. Transport, road transport in particular, is perhaps the most extreme example of an activity whose impacts outside its users’ experience are far greater than the costs perceived by those users. These third party (external) costs are very wide ranging and include direct impacts like road deaths and injuries, community severance, landscape, pollution and climate change as well as congestion.
19. The economic case for a road-pricing system is to reduce the driving behaviours that lead to large costs that are imposed on society by congestion, pollution, road maintenance, accidents and so on. As has been outlined above there is a significant need to change these behaviours for a variety of reasons.
20. The way we currently pay for driving fails to reflect the true costs of it. Approximately 10% of kilometres driven account for 60% of the external costs¹⁷, but that is not reflected in the motorists charge for driving, the fuel duty, which is a flat rate regardless of when, where and what you drive.
21. However, the legacy of car ownership and how we have historically paid for using roads also means that many believe they have an inalienable right¹⁸ to drive on roads free of charge, or at least free of any additional charges to those that have been in place for years: fuel duty, Vehicle Excise Duty and VAT on fuel.
22. CIHT believes that a road pricing system should ensure that the public can see the benefits from the charges, such as improved public transport, traffic flows and better condition of road infrastructure as this will help build public acceptability.
23. CIHT believes that the best road pricing scheme is one where the price of driving varies according to time and location of driving such as the system currently in place in Singapore¹⁹. This would mean that the most expensive driving will be at times when roads are highly congested and for road pricing to be acceptable to the public there needs to be affordable, convenient and healthy alternatives in place for those whose only option it is to drive.
24. Any road pricing scheme should aim to be:
 - a. Equitable and not place proportionally larger costs on lower-income groups compared to high-income groups.
 - b. Designed with a charging structure that aims to reduce overall traffic levels and improve air quality, traffic, carbon and congestion.
 - c. User-friendly and have a transparent and simple but variable pricing structure that is easy for drivers to understand.

February 2021

Endnotes

- ¹ <https://www.ciht.org.uk/knowledge-resource-centre/resources/climate-change-pledge/>
- ² <https://www.ciht.org.uk/media/10980/ciht-improving-local-highways-the-route-to-a-better-future.pdf>
- ³ <https://www.ciht.org.uk/media/12148/ciht-comprehensive-spending-review-2020.pdf>
- ⁴ <https://www.ice.org.uk/ICEDevelopmentWebPortal/media/Documents/Media/Policy/nna-submissions/Responses-ICE-National-Needs-Assessment-from-CIHT-29-02-2016-final.pdf?ext=.pdf>
- ⁵ <https://www.transport.gov.scot/publication/national-transport-strategy-nts2-delivery-plan-2020-to-2022/>
- ⁶ https://www.ciht.org.uk/media/10218/ciht-better-planning-a4_updated_linked_.pdf
- ⁷ <https://www.eea.europa.eu/publications/electric-vehicles-from-life-cycle>
- ⁸ https://uk-air.defra.gov.uk/library/reports.php?report_id=992
- ⁹ <https://www.smmf.co.uk/2020/09/billions-invested-in-electric-vehicle-range-but-nearly-half-of-uk-buyers-still-think-2035-too-soon-to-switch/>
- ¹⁰ <https://www.ovoenergy.com/blog/ovo-news/whats-stopping-the-electric-vehicle-revolution.html>
- ¹¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/906276/national-travel-survey-2019.pdf
- ¹² <https://www.fleetnews.co.uk/news/fleet-industry-news/2019/04/29/average-ev-range-exceeds-200-miles#:~:text=The%20average%20range%20of%20the,EVs%20can%20cover%20202%20miles.>
- ¹³ <https://www.ifs.org.uk/publications/14407>
- ¹⁴ <https://www.ciht.org.uk/knowledge-resource-centre/resources/improving-local-highways/>
- ¹⁵ <https://publications.parliament.uk/pa/cm201719/cmselect/cmtrans/1486/report-files/148602.htm>
- ¹⁶ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904146/gear-change-a-bold-vision-for-cycling-and-walking.pdf
- ¹⁷ <https://www.ifs.org.uk/publications/14426>
- ¹⁸ <https://commonslibrary.parliament.uk/research-briefings/sn03732/>
- ¹⁹ <https://www.mot.gov.sg/about-mot/land-transport/motoring/erp>