



House of Commons Transport Committee: inquiry on zero emissions vehicles and road pricing

17th February 2021

CREDS responds to consultations and calls for evidence from government, agencies and businesses, providing insight and expertise to decision-makers.

This response was created for the House of Commons Transport Select Committee.

The consultation response written on behalf of CREDS by **Jillian Anable, Professor of Transport and Energy, Institute for Transport Studies, University of Leeds** on behalf of the **Centre for Research on Energy Demand Solutions**.

The full consultation response, as submitted, is below.

Personal statement by the author

I am a leading scholar of transport and energy demand reduction with internationally leading expertise in the evolution and adaptation of patterns of mobility and patterns of car ownership. I lead a large portfolio of projects on mobility, energy and climate change policy. I am co-director of the UK Energy Research Centre and co-director of the Centre for Research on Energy Demand Solutions, both acting as a focal point for the UK's research on the transition of the energy system to a net-zero carbon future. I am Steering Group Member of the UK Government's Electric Vehicle and Energy Taskforce, Expert Advisor to the Northern Ireland Panel on the Future of Energy and Member of the Review Board for the National Transport Strategy for Scotland. Previous key advisory roles have included Scientific Advisor to UK Research and Innovation's Energy Scientific Advisory Committee (2008 – 2015) and Strategic Advisor on Climate Change to the Commission for Integrated Transport (2006-2007), as well as advice commissioned to local authorities, grant giving bodies, government select committees and international agencies. I also sit on several editorial boards of high-ranking journals in the field of transport and energy.

The Centre for Research on Energy Demand Solutions (CREDS) is a research centre established in 2018 with a vision to make the UK a leader in understanding the changes in energy demand needed for the transition to a secure and affordable, low carbon energy system. We are a team of 140 academics at 24 academic institutions. CREDS is funded by UK Research and Innovation.

Cross reference

In this evidence I will confine my comments to one part of your Call for Evidence relating to the recommendations of the Climate Assembly UK (CAUK). For a fuller consideration of this Call, I refer you to my involvement in another evidence submission (Goodwin et al.)

Key points

The purpose of this note is that I think you have misunderstood the recommendations put forward by the Climate Assembly UK (CAUK) members.

- It is inaccurate to summarise the CAUK members as having rejected “large reductions in car use” and their recommendations should not be used as evidence against the introduction of road pricing.
- CAUK members were asked to consider and recommend *packages* of policies which they were told would, if implemented *together*, approximately add up to enough carbon reduction to meet carbon budgets on the path to Net Zero.
- It is a distortion of CAUK recommendations to pick out and focus on single policy instruments instead of what the members settled on as the key trade-offs they would be prepared to make.
- Members voted in favour of an accelerated removal of fossil fuels in order to ‘buy’ more freedom on car use.
- This meant that CAUK members did indeed lend fewer of their final votes to the package of policies that included road pricing. However, this was on the basis that the most polluting vehicles (e.g. most SUVs) were banned from sale *immediately* in order to avoid the need for stronger restrictions and disincentives to car use.
- It is also necessary to understand that, when considering road pricing as a policy instrument in its own right, members were not given information on the level of the charges, how they would be structured, who might be exempt, how other motoring taxes might be reconfigured, how the money would be spent, what the cost and availability of public transport might be. There is substantial evidence over the past decades showing that all of these factors have substantial impact on public acceptance.

Climate Assembly UK and my role in it

The [recommendations of the UK’s first Climate Assembly](#) were published on 10th September 2020¹. This was the culmination of a very lengthy and rigorous deliberative process with over 100 members of the UK public selected using a robust scientific sampling methodology. A third of the assembly members were allocated to each topic – one of them being ‘How we travel’ and immersed in two weekends of presentations, debate, deliberation and secret ballot voting on both individual policy options and policy packages/scenarios. Whilst CAUK was focussing on the 2050 net zero target, the importance of the speed of getting there was made clear to participants and punctuated the discussion throughout.

¹ Climate Assembly UK (2020) The path to net zero. [Climate Assembly UK Full Report](#). September 2020.

My role was somewhere between an Expert Lead and an Academic Advisor to the process. I closely supported one of the Expert Leads, Professor Jim Watson, in the design and execution of the 'How We Travel' strand of the Assembly. This includes the design and presentation of the policy scenarios. My views on the CAUK process and recommendations are my own.

I see that the Call for Evidence presents a summary of what the Climate Assembly recommended:

"Assembly members recommended a future which minimises restrictions on travel and lifestyles, placing the emphasis on shifting to electric vehicles and improving public transport, rather than on large reductions in car use."

This summary gives the impression that the members did not recommend anything different from current government thinking. I strongly suggest that this is a distortion of the CAUK members' recommendations as it portrays them as being aligned with current government policy. Given that I designed the land transport scenarios and was there to explain them and witness the debates, I attempt to explain below why I believe the results are much more radical and important than such a summary would have you believe, albeit arguably nowhere near as radical as they actually need to be (please see my further discussion of this point [here](#)²).

The 'how we travel' recommendations of CAUK

The three land transport scenarios put to the vote in the assembly tested *the* main trade-off involved in achieving the required speed and scale of carbon reduction for surface passenger transport in line with these budgets – ***the quicker we remove the most carbon intensive cars from our roads, the less people will have to have their car use constrained through pricing or physical restrictions***³. However, there are no future 'Paris compliant' pathways for surface transport that do not include at least some degree of reduction in car use, including the recently published 6th Budget report by the Climate Change Committee and many other papers and reports⁴. Therefore, some travel demand reduction was included in all three

² Anable, J. (2020) You Can't Always Get What You Want. A reflection on Climate Assembly UK's deliberations on decarbonising passenger transport. Available here. <https://www.creds.ac.uk/you-cant-always-get-what-you-want-a-reflection-on-climate-assembly-uks-deliberations-on-decarbonising-passenger-transport/>

³ CAUK members were asked to consider and recommend *packages* of policies which they were told would, if implemented *together*, approximately add up to enough carbon reduction to meet carbon budgets on the path to Net Zero

⁴ Brand, C., Anable, J. and Dixon, J. (2020) [Response to DfT and OLEV Consultation: Ending the sale of new petrol, diesel and hybrid cars and vans](#). Joint UK Energy Research Centre and Centre for Research on Energy Demand Solutions Response. July 2020. This builds on Brand, C., Anable, J., Watson, J. and Ketsopoulou, I. (2020) [Road to Zero or Road to Nowhere? Disrupting transport and energy in a zero carbon world](#). *Energy Policy*. 139, Article 111334; Hopkinson, L. and Sloman, L. (2018) [More than electric cars. Why we need to reduce traffic to reach carbon targets](#). Transport for Quality of Life and Friends of the Earth. December 2018; Hill, G., et al., (2019), The role of electric vehicles in near-term mitigation pathways and achieving the UK's carbon budget. *Applied Energy*. 251: p. 113-111.

scenarios. The proposed reductions in car use were from today's total traffic levels – not relative to a growing baseline or on a per capita basis.

At one extreme was a scenario with the immediate phase out of the most polluting cars (e.g. most SUVs) plus the earliest suggested phase out of conventional fossil-fuelled vehicles (ICEs), Hybrid Electric Vehicles (HEVs) as well as Plug-in HEVs (PHEVs)) in 2030, alongside the lowest absolute cuts in car use (2% per decade = -6% by 2050). On the other end was a later ICE/HEV/PHEV phase out but requiring 10% car use reduction per decade (-30% by 2050) and including road pricing to achieve this. Improvements to public transport and active travel were in all three scenarios.

The result of the assembly members' deliberations was not a surprise – **they chose to have the types of cars they could drive restricted to secure only a modest limit on future car use for everyone** (Figure 1). Consequently, they came to see that in order to achieve this and reach net zero, it will be necessary to stop the sale straight away of the most polluting cars such as most SUVs, go for an earlier target than currently proposed for the phase out of ICEs and HEVs *as well as* PHEVs (although there was push back and confusion as to why PHEVs would be included in this), and accept there will not be any new road capacity until well into the 2040s once most vehicles on the road are electric⁵. **This is already well beyond current government thinking.**

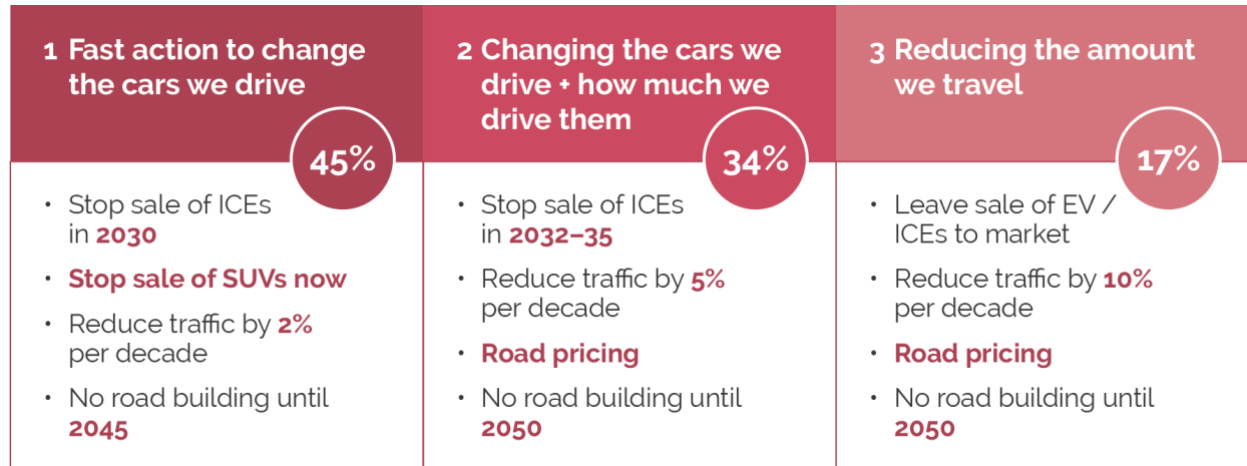
To facilitate the rapid car market transformation/lowest car use reduction scenario, assembly members recommended fifteen policies aimed at accelerating the low carbon vehicle transition, discouraging car ownership and use and increasing public and active transport. Of these policies, three quarters of the assembly members supported the need to bring public transport under public control in order to meet their call for better services and their universal criteria of a fair and affordable transition. Again, this is a radical and important outcome of the assembly and deserves wide recognition.

The lesson here is of crucial importance - that communication of the key trade-offs between the kinds of cars and quantity of their usage leads to breakthrough understanding and acceptance of the hard choices that are required for the decarbonisation of personal travel. We cannot have it all ways. **Taken one by one, restrictive policies are clearly unpopular even when they are acknowledged as potentially leading to deep carbon cuts. It is only when placed together in a bundle of measures showing the combination of carrots and sticks that their acceptability or otherwise can be examined. Designing a meaningful and**

⁵ It is worth noting that the Assembly did not cover freight and heavy goods vehicles. Some members queried this and were keen to know whether the passenger travel sector was being expected to do more in order to make up for any lack of policy ambition or progress in freight. They were told not to assume this. It is true to say, however, that many modelling exercises referred to in this note do look at the whole transport sector and the resulting cuts in car use partially result from this compensatory effect.

effective decarbonisation agenda is not about the acceptance of individual policies – it is about which particular combination of hard choices is acceptable.

Figure 1: CAUK results of the ranking of surface passenger travel scenario options



Source: Results as presented in CAUK 2020 (Main report) – own graphic

Wider considerations of public acceptability of road pricing

As we robustly contend in [this](#) paper⁶, road user charges must be considered in terms of the net impacts of who gains and who loses, including via the use of the revenue. Whilst calculation of the net impacts may be complex, the principle as considered in detailed public debate on these types of charges, is not. There is substantial evidence from experimental or real-world studies that consistently shows:

- Acceptance depends on what the revenue will be used for. It cannot be seen as just another tax instrument.
- Acceptance depends on the quality of alternatives to the car before the charge
- Even where very good communication of costs and benefits, there will still be resistance due to status quo bias: it is not that the public necessarily overestimate the bad effects, they just want things to stay the same.
- This is why experience of charging schemes leads to further acceptance of charging schemes. Acceptance has been shown to improve after implementation (e.g. London, Stockholm) but only if the ‘goal posts’ are not changed too soon after implementation.
- Public support for climate focused tax reform is looking stronger than ever.

⁶ Anable, J. & Goodwin, P. (2018) *Assessing the Net Overall Distributive Effect of a congestion charge*. Discussion Paper. OECD / International Transport Forum Roundtable on Social Impacts of Road Pricing, Auckland, November 2017.

Conclusion

The Department for Transport has been studying the public acceptability of road pricing for many years (see this report⁷ for a review). What has not been studied, however, is public acceptance after a detailed deliberation of who will pay what, how other taxes will be structured, how the revenue will be spent and the implications for wider objectives of climate change, air quality and accessibility.

The assembly members have sent a strong signal to policy makers that when a full suite of options is set out, and the end-objectives and trade-offs are made clear, tough measures can be accepted. As with previous research⁸, and as with other thematic areas explored in the assembly, regulation (including regulating to accelerate technology transitions) is more acceptable than fiscal measures that restrict activity and lifestyles. However, if very strong regulation to phase out the most polluting cars from now is not implemented, alongside re-regulation and lowering the cost of public transport, then another package of policies is likely to come into view for the public in light of growing support for climate focused tax reform. The policies debated in CAUK cannot be selectively highlighted and cherry-picked – they only work as whole packages. Even then, they are unlikely to be enough to meet our climate obligations.

⁷ Walker, J. (2011) The acceptability of road pricing. RAC Foundation. https://www.racfoundation.org/wp-content/uploads/2017/11/acceptability_of_road_pricing-walker-2011.pdf

⁸ This is not the first time these propositions have been tested in robust deliberative research exercises with members of the UK public. In 2008, for instance, participants preferred regulation – through restricting access to high CO₂ options – to taxation, seeing this as less regressive and as having more impact. See: ITS (2009) Exploring public attitudes to climate change and travel choices: deliberative research, Final report for Department for Transport. London and Leeds: PSP and ITS Leeds. <http://www.sasig.org.uk/wp-content/uploads/2009/07/Attitudes-to-cl-ch-trnsprt ITS-PeoplePolicyScience Jan-2009.pdf>