

ACRS Submission to Inquiry into Infrastructure for Electric and Alternative Energy Source Vehicles in NSW



About the Australasian College of Road Safety

The Australasian College of Road Safety was established in 1988 and is the region's peak organisation for road safety professionals and members of the public who are focused on saving lives and serious injuries on our roads.

The College Patron is Her Excellency the Honourable Sam Mostyn AC, Governor-General of the Commonwealth of Australia.

To:

NSW Legislative Assembly Committee on Transport and Infrastructure
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Introduction

The Australasian College of Road Safety is the region's peak membership association for road safety with a vision of eliminating death and serious injury on the road. Our members include experts from all areas of road safety including policy makers, health and transport professionals, academics, community organisations, researchers, federal, state and local government agencies, private companies and members of the public. The purpose of the College is to support our members in their efforts to eliminate serious road trauma through knowledge sharing, professional development, networking and advocacy. Our objectives include the promotion of road safety as a critical organisational objective within government, business and the community; the promotion and advocacy of policies and practices that support harm elimination; the improvement of relative safety outcomes for vulnerable demographic and user groups within the community; the promotion of post-crash policies and practices; and the promotion of a collegiate climate amongst all those with responsibilities for and working in road safety.

The College believes that we should prevent all fatal and serious injuries on our roads; the road traffic system must be made safe for all road users; system designers should aim to prevent human error and mitigate its consequences; life and health are not exchangeable for other benefits in society; and that all College policy positions must be evidence based.

This inquiry is considering matters affecting the operation of motor vehicles into the future. In NSW the operation of motor vehicles accounts for:(1, 2)

- Around 350 deaths from road crashes each year
- More than 10,000 hospitalisations from road crashes each year
- The largest proportion of worker fatalities

Recommendations stemming from this inquiry must be cognisant of road safety.

ACRS response to the Terms of Reference

a) Funding and location of electric vehicle chargers or infrastructure for other potential energy fuel sources

The shift from internal combustion engine (ICE) vehicles to electric and alternate energy source vehicles is an opportunity to shift from the existing revenue stream based on fuel excise to a new formula that accounts for congestion, environmental impact and safety. Transport economists have long promoted the benefits of road pricing to address congestion.(3)

This should be broadened to include safety characteristics such as differential road pricing to take into account vehicle safety ratings, vehicle mass and other safety considerations. The changing circumstances and vehicle fleet composition give governments a reason for change. The recent High Court decision to block Victoria's usage-based electric vehicle (EV) tax shows that such charges are for the Commonwealth to impose(4) and provides an opportunity to implement new policy levers that have a broader base than just distance travelled.

b) The viability of alternative energy sources for freight, heavy vehicles and other licenced vehicles in regional communities

ACRS has long recommended investment in sustainable freight options. In terms of heavy vehicles, a range of factors determine the time needed to recharge a truck or bus which could be a barrier, particularly as the Heavy Vehicle National Law considers refuelling to be work time.(5) Planners need to think beyond the construction of fixed infrastructure such as charging stations and/or retrofitting petrol/diesel filling stations to accommodate alternative energy sources. Sweden is planning to build a permanent electrified highway by 2025 that would enable EVs to charge while they are being driven.(6) This uses a conductive charging system which relies on a charging rail embedded in the roadway. Inductive charging roads have also been deployed in the USA.(7) If such roads were to become commonplace, EVs could be safer with smaller, lighter batteries. The mass of a vehicle is a large determining factor to crash outcomes due to the kinetic energy contained in a moving vehicle.(8) EVs with smaller batteries will be more attractive and will have a positive impact on overall trauma outcomes. A further benefit would be less range anxiety.

c) Use of existing infrastructure and measures to ensure a competitive market, including 'ring fencing policies'

No comments

d) Measures to ensure the transition of workers from affected industries and industry standards

Safework NSW provides guidance in regard to this term of reference.(9) This is important as not all workers will be familiar with issues such as the use of EV charging infrastructure. The process to re-charge an EV can take considerably more time than refilling an ICE vehicle, depending on the charging system and the vehicle battery. There are work health and safety implications regarding journey planning as more time (a longer workday) may be required to travel from A to B. The guidance provided by Safework NSW is silent on journey planning and fatigue management.

e) Any other related matters

The transition to alternative electric and alternate energy source vehicles is an opportunity to not only reduce emissions from transport, but with the right policy reinforcement, to also improve other fleet characteristics. Changes in policies to allow growth in electric and alternate energy source vehicles should also improve conditions for other aspects of road safety. These could include modal shift, speed management, road user attention (and distraction). We should not lose sight of these aspects of road safety as we transition the vehicle fleet.

We must be careful to ensure there are no unintended negative safety outcomes from the introduction of electric and alternate energy source vehicles and manage them where possible. We address some of these in this submission but mention in particular a concern about the increased mass of EVs relative to their ICE counterparts, the acceleration characteristic of some of these vehicles, and the potential for fire incidents.

Conclusion and Recommendations

The transition underway in transport from ICE to EV and other alternative energy source vehicles provides an opportunity to increase focus on road safety. ACRS recommends consideration of:

- differential road pricing to take into account vehicle safety ratings, vehicle mass and other safety considerations
- electrified highways for EVs

ACRS appreciates the opportunity to comment on this inquiry and contribute to improved road safety in NSW. Please let us know if you need any further information.



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