

EMISSION FREE MODES OF PUBLIC TRANSPORT

Organisation: Australasian College of Road Safety

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ACRS Submission

Emission Free Modes of Public Transport Inquiry



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 His Excellency General the Honourable David John Hurley AC DSC (Retd), Governor-General of the Commonwealth of Australia.

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Table of Contents

Introduction	3
a) United Nations Sustainable Development Goals	3
b) Broader emission-free, end-to-end trip should be considered	4
c) Newer vehicles support better environmental and safety outcomes.....	5
d) ‘Movement and Place’ and Active Transport.....	5
e) Other safety considerations for emission free modes of transport.....	6
Conclusion.....	6
References.....	7

Introduction

The Australasian College of Road Safety (The College) 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.

ACRS-NSW welcomes the Emission Free Modes of Public Transport Inquiry. Currently in Australia, 3 people die and 110 are seriously injured on our roads every day (1, 2). The NSW Government has committed to a vision of eliminating deaths and serious injuries on our roads by 2050 (3). With public transport being the safest form of travel (4), the provision of emissions free public transport represents a key element of improving road safety.

In regards to the Inquiry's Terms of Reference, our submission relates mainly to *e) any other related matters*.

a) United Nations Sustainable Development Goals

Road safety and sustainable transport are now inexorably linked, through the United Nations Sustainable Development Goals and the Second Decade of Action for Road Safety 2021-2030.

Road safety requires addressing broader issues of equitable access to mobility and that the promotion of sustainable modes of transport, in particular safe public transport and safe walking and cycling, is a key element of road safety.

UN General Assembly Resolution – Second Decade of Action for Road Safety (5)

Indeed, the links are made explicit in Sustainable Development Goal 11.2: By 2030, provide access to safe, affordable, accessible and sustainable transports systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disability and older persons (6).

'Exposure' is a critical risk factor for fatal and serious injury crashes. We know, for example, that certain times of the day or week present a higher risk for alcohol crashes (7). Effective public transport provides alternatives for the use of private vehicles and reduces exposure as a risk factor.

Providing emission free public transport is key element of achieving SDG 11.2. Air pollution from transport emissions results in millions of premature deaths (8) and increased disease in children and adults every year around the world (9). Transport systems cannot be considered truly safe and sustainable unless they are also emissions free and no longer contributing to this preventable mortality and morbidity. Indeed, a factor in determining development approval for future road and infrastructure projects should be the provision of emission free transport options.

b) Broader emission-free, end-to-end trip should be considered

Whilst public transport services particular routes, the ACRS-NSW believes that the broader travel of the road user should be considered. The promotion of safe, emission free end-to-end travel should be also considered as a related matter within this Inquiry. Specifically, when a road user alights from a public transport service, their subsequent travel should also be supported to be both safe and emission free.

ACRS-NSW acknowledges policies and initiatives that promote sustainable end-to-end travel, such as allowing passengers to bring bicycles onto trains and ferries without charge. In regards to buses, we note the recent trial of bike racks on buses in regional NSW and eagerly await further developments in this space (10). These trials are being conducted in NSW towns bordering the ACT, where, after successful trials some years ago, this is now standard on Canberra buses, with over 90% of buses being equipped with bike racks (11). Improving safe, secure, and free bicycle storage at transit interchanges would also be helpful.

ACRS has previously supported rebates for the purchase of e-bikes (12). Bicycles and other micro-mobility devices can 'book-end' many a public transport journey, provided they can be carried on-board without jeopardising the health and safety of others. They can reduce demand for commuter car parking, reduce suburban traffic congestion, and reduce emissions.

Based on the Inquiry's Terms of Reference, a considerable focus will be on the development of new zero emission buses. These buses should improve the safety and amenity for passing pedestrians and other vulnerable road users. With regards to trains, it is noted that the Sydney electric train network does not extend beyond Macarthur railway station, despite new housing developments under construction in Menangle and Wilton. Without viable alternatives, preferably emission free, the private motor vehicles will be the primary choice for new residents in these areas. Safe and sustainable mobility must be a core feature of planning new housing developments.

COVID-19 health orders resulted in a move away from the patronage of public transport (13). Many turned to bicycles and pop-up lanes were introduced (14). Data indicates public transport patronage is yet to recover (15) but traffic volume is now higher that it was pre-COVID (16). This highlights the need not only to support emission free public transport but to actively promote it.

c) Newer vehicles support better environmental and safety outcomes

Newer vehicles are equipped with safety features not found in older vehicles. As emission free vehicles are fitted with modern safety technology, ACRS-NSW supports measures that increase the take up of safer vehicles and we publicly endorsed the NSW electric vehicle strategy (17).

Although taxis and other hire vehicles must be roadworthy, the Point-to-Point Transport Act no longer places a limit on the age of such vehicles (18). This is unfortunate for road safety, and it has been left to service providers to implement their own policies in this regard (19). This not only lowers the proportion of emission reducing technologies that are common in newer vehicles (such as stop-start engines, or hybrid vehicles), but also reduces the proportion of safety technologies which ultimately reduce road trauma. As such, moving the point-to-point transport sector towards newer vehicles will inherently support emission free vehicle technologies and would also improve public safety through a take-up of newer, safer vehicles.

Charging facilities would be a significant factor in such a move and authorities would need to consider the provision of charging points at ranks and other areas to allow taxis in particular to re-charge as not all cabs are garaged in a central depot.

d) 'Movement and Place' and Active Transport

Consideration of emission free public transport coincides with the evolution of 'Movement and Place' as a road safety principle. 'Movement and Place' recognises that the planning, design and management of streets and roadways on our transport networks need to maximise benefits for the people and places they serve (20). As described by the NSW Government Movement and Place website, the:

"framework recognises that streets are not just about moving people and goods, they are also places for people to live, work and spend time...by broadening our thinking about movement to include both mobility and access, we can promote the right mode for each trip purpose, and plan places that serve local areas and minimise the need to travel long distances" (21).

The 'place' function promotes greater 'active transport' modes, walking and cycling, which are by their very nature, emissions free and was widely discussed at the NSW Government's Mobility Summit held earlier this year (22).

It should be highlighted that in the promotion of 'active transport' consideration should be given safe infrastructure to prevent injuries whilst travelling. For example, uneven pavements may present trip hazards, particularly for seniors. Better lighting, preferably energy efficient LEDs, in and around transport interchanges and commuter car parks, could also encourage seniors, vulnerable, and disadvantaged people onto public transport and greater confidence to walk and cycle. Infrastructure improvements to encourage safe active transport such as cycling, have been found to increase safety for all road users (23).

e) Other safety considerations for emission free modes of transport.

Dependent on the fuel source, emission free vehicles may also be significantly quieter than traditional internal combustion engine vehicles. The quietness of these vehicles has been demonstrated to have a significant impact on safety (24, 25). Specifically quieter vehicles do not provide road users, particularly vulnerable road users, with auditory cues to signal their approach.

The European Union has mandated that all electric vehicles must be fitted with an Acoustic Vehicle Alerting System which generates a sound to alert pedestrians and other road users to a vehicle in operation (26). Emissions free vehicles, including for public transport, should be fitted with this technology. The ACRS-NSW believes this emerging issue must be considered and addressed as part of any changes to emission free modes of transport – road user safety cannot be compromised.

Conclusion

ACRS strongly supports emissions free public transport to improve road safety. The nexus between active transport, emission free public transport, and movement and place could offer the greatest potential towards achieving road safety targets and sustainable development goals.

ACRS-NSW appreciates the opportunity to contribute to improved road safety in NSW and is happy to provide further assistance and advice to the Committee.



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References

1. Bureau of Infrastructure Transport and Regional Economics (BITRE). Road Deaths Australia-Monthly Bulletins https://www.bitre.gov.au/publications/ongoing/road_deaths_australia_monthly_bulletins: Department of Infrastructure, Transport, Regional Development and Communications; [updated 14 January 2022; cited 2022 14 January].
2. Office of Road Safety. National Road Safety Data Hub - Injuries Data: Australian Government; [cited 2022 10 July]. Available from: <https://www.officeofroadsafety.gov.au/data-hub/serious-injuries-data>.
3. NSW Government. 2026 Road Safety Action Plan [cited 2022 10 July]. Available from: <https://towardszero.nsw.gov.au/roadsafetyplan>.
4. Hasan R, Watson B, Haworth N, Oviedo-Trespalacios O. A systematic review of factors associated with illegal drug driving. *Accident Analysis & Prevention*. 2022;168:106574.
5. United Nations General Assembly. Resolution adopted by the General Assembly on 31 August 2020. Seventy-fourth session, Agenda item 12: Improving global road safety. A/RES/74/299. <https://undocs.org/en/A/RES/74/299>; UN; 2020.
6. Sustainable Development Goals. Road Safety for All. https://unece.org/sites/default/files/2020-12/Road_Safety_for_All.pdf; United Nations; 2019.
7. Hobday M, Meuleners L. Alcohol and non-alcohol-related motor vehicle crashes in Perth, Australia: Do alcohol outlets make a difference? *Accident Analysis & Prevention*. 2018;113:117-24.
8. Fuller R, Landrigan PJ, Balakrishnan K, Bathan G, Bose-O'Reilly S, Brauer M, et al. Pollution and health: a progress update. *The Lancet Planetary Health*. 2022.
9. Yang X, Zhang T, Zhang Y, Chen H, Sang S. Global burden of COPD attributable to ambient PM_{2.5} in 204 countries and territories, 1990 to 2019: A systematic analysis for the Global Burden of Disease Study 2019. *Sci Total Environ*. 2021;796:148819.
10. Bikes on Buses trial in Queanbeyan and Yass [press release]. <https://transportnsw.info/news/2022/bikes-on-buses-trial-in-queanbeyan-yass>; NSW Government, 30 March 2022.
11. Transport Canberra. Cycling in Canberra <https://www.transport.act.gov.au/travel-options/walking-and-cycling/cycling>; ACT Government; [cited 2022 10 July]. Available from: <https://www.transport.act.gov.au/travel-options/walking-and-cycling/cycling>.
12. ACRS Signs on to Support the Three Transport Priorities [press release]. <https://acrs.org.au/newsroom/acrs-signs-on-to-support-the-three-transport-priorities/>; ACRS, 14 February 2022.
13. Saunokonoko M. NSW bus and train capacity decimated by coronavirus, police to stop crowding <https://www.9news.com.au/national/coronavirus-nsw-update-public-transport-bus-train-ferry-commuter-capacity-slashed-covid19/bf2ed16a-1fe2-485d-aaaa-52a0d2b3a889>. 9News. 2020 18 May.
14. Transport for NSW. Pop-up transport: NSW Government; [updated 10 March 2022; cited 2022 10 July]. Available from: <https://roads-waterways.transport.nsw.gov.au/projects/popup-covid-19-infrastructure/index.html#:~:text=From%20August%202020%20in%20response,or%20driving%20during%20the%20pandemic>.
15. Transport for NSW. Public Transport Patronage - Monthly Comparison: NSW Government; [cited 2022 10 July]. Available from: <https://www.transport.nsw.gov.au/data-and-research/passenger-travel/public-transport-patronage/public-transport-patronage-monthly>.
16. Transurban. March Quarter 2022 Update. <https://www.transurban.com/content/dam/investor-centre/qtrly/March-Quarter-2022-Update.pdf>; Transurban; 2022 14 April.
17. NSW Gets It Right with New Electric Vehicle Strategy [press release]. <https://acrs.org.au/newsroom/nsw-gets-it-right-with-new-electric-vehicle-strategy/>; ACRS, 29 June 2021.
18. Point to Point Transport (Taxis and Hire Vehicles) Act 2016 No 34, (2021).

19. Safety of ride-share users prioritised as Uber Australia introduces a 5 star policy [press release]. <https://www.ancap.com.au/media-and-gallery/releases/safety-of-ride-share-users-prioritised-as-uber-australia-introduces-a-5-star-policy>: ANCAP, 3 April 2019.
20. Office of Road Safety. Speed management through the Movement and Place approach. National Road Safety Strategy 2021-2030 fact sheets <https://www.roadsafety.gov.au/nrss/fact-sheets/movement-and-place-approach>: Australian Government; 2021 [cited 2022 3 July]. Available from: <https://www.roadsafety.gov.au/nrss/fact-sheets/movement-and-place-approach>.
21. NSW Government. Movement and Place <https://www.movementandplace.nsw.gov.au/>: NSW Government; [cited 2022 10 July]. Available from: <https://www.movementandplace.nsw.gov.au/>.
22. Transport for NSW, editor. Mobility Summit 2022: Active Transport; 2022 28 April; ICC Sydney. <https://www.transport.nsw.gov.au/news-and-events/active-transport-mobility-summit>.
23. Marshall WE, Ferencak NN. Why cities with high bicycling rates are safer for all road users. Journal of Transport & Health. 2019;13:100539.
24. Morgan PA, Morris L, Muirhead M, Walter LK, Martin J. Assessing the perceived safety risk from quiet electric and hybrid vehicles to vision-impaired pedestrians. Published Project Report PPR525. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/4486/PPR525-assessing-the-perceived-safety-risk-from-quiet-electric-and-hybrid-vehicles.pdf: Transport Research Laboratory; 2011.
25. Liu C, Zhao L, Lu C. Exploration of the characteristics and trends of electric vehicle crashes: a case study in Norway. European Transport Research Review. 2022;14(1).
26. Commission Delegated Regulation (EU) 2017/1576 of 26 June 2017 amending Regulation (EU) No. 540/2014 of the European Parliament and of the Council as regards the Acoustic Vehicle Alerting System requirements for vehicle EU-type approval, (2017).