Public Health Association of Australia submission on the use and manufacture of electric vehicles in Australia
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Preamble

The Public Health Association of Australia

The Public Health Association of Australia (PHAA) is recognised as the principal non-government organisation for public health in Australia working to promote the health and well-being of all Australians. It is the pre-eminent voice for the public’s health in Australia.

The PHAA works to ensure that the public’s health is improved through sustained and determined efforts of the Board, the National Office, the State and Territory Branches, the Special Interest Groups and members.

The efforts of the PHAA are enhanced by our vision for a healthy Australia and by engaging with like-minded stakeholders in order to build coalitions of interest that influence public opinion, the media, political parties and governments.

Health is a human right, a vital resource for everyday life, and key factor in sustainability. Health equity and inequity do not exist in isolation from the conditions that underpin people’s health. The health status of all people is impacted by the social, cultural, political, environmental and economic determinants of health. Specific focus on these determinants is necessary to reduce the unfair and unjust effects of conditions of living that cause poor health and disease. These determinants underpin the strategic direction of the Association.

All members of the Association are committed to better health outcomes based on these principles.

Vision for a healthy population

A healthy region, a healthy nation, healthy people: living in an equitable society underpinned by a well-functioning ecosystem and a healthy environment, improving and promoting health for all.

The reduction of social and health inequities should be an over-arching goal of national policy and recognised as a key measure of our progress as a society. All public health activities and related government policy should be directed towards reducing social and health inequity nationally and, where possible, internationally.

Mission for the Public Health Association of Australia

As the leading national peak body for public health representation and advocacy, to drive better health outcomes through increased knowledge, better access and equity, evidence informed policy and effective population-based practice in public health.
PHAA submission on the use and manufacturing of electric vehicles in Australia

Introduction

PHAA welcomes the opportunity to provide input to the Inquiry into the use and manufacture of electric vehicles in Australia. PHAA strongly supports the uptake of electric vehicles if they are an alternative to internal combustion powered vehicles.

However, PHAA also strongly supports an overall decrease in reliance on individualised vehicle use and an increase in public transport and active travel options as being better for both the environment and health.

PHAA Response to the Inquiry Terms of Reference

a) The potential economic, environmental and social benefits of widespread electric vehicle uptake in Australia

Air pollution from vehicle emissions results in thousands of deaths, and therefore there is a moral imperative to minimise these deaths. Reducing these emissions will have a measurable effect on savings to the health system since they are associated with heart disease, lung cancer, respiratory disease and stroke.

Environmentally, carbon emissions from vehicle transport in Australia contribute about 17% of our greenhouse gas emissions, and therefore plan an important role in our overall reductions. Significant reductions are required in order to meet our obligations under the Paris Agreement 2015 to keep global average temperature increase to less than 2 degrees.

The potential for electric vehicles to provide part of the solution to this problem, depends largely on how they are re-charged. It may well be possible to have high percentages of electric vehicle uptake sustained in existing electricity networks without requiring any further network upgrades. However, replacing fossil fuel powered vehicles with electric vehicles recharged using fossil fuel derived electricity would largely miss the point. A simulation modelling study showed that without cleaner electricity generation, electric vehicles are unlikely to provide a greenhouse gas emissions abatement benefit beyond that of hybrid vehicles; overnight recharging may actually increase emissions relative to daytime or evening recharging, and that there may need to be different models of recharging adopted in different parts of Australia given our current electricity generation practices. It has been estimated that electric vehicle use may increase demand for electricity by about 10% in New South Wales based on information from the NSW Household Travel Survey 2014/15.

Electric vehicles also require use of rare earth metals. In line with our Rare Earth Element Policy, PHAA would like to see proper safeguards on rare earth metal access, transportation and use to minimise any adverse social or environmental consequences. These elements must be recycled.

Finally a transition to electric vehicles does not address social and economic concerns about traffic congestion, especially in cities. Electric vehicles are not of themselves part of the solution here, unless combined with other strategies and technologies such as car sharing schemes. They need to be placed within a broader set of polices to address transport, work, recreation, and population.
c) Measures to support the acceleration of electric vehicle uptake

Unless electric vehicles are economically comparable with standard fuel vehicles, uptake will be largely limited to those who are interested enough in the green technology to be prepared to pay more for it. Widespread uptake will require costs to come down. A life-cycle costing comparison between a 2011 Nissan Leaf and a comparable standard Toyota Corolla found that costs for the electric Leaf were substantially higher because of vehicle purchase cost, insurance costs, electricity costs, and replacement batteries. The study concluded that for the costs to be comparable, either the price of unleaded petrol would need to be $2.96 per litre or an upfront Government subsidy of $12,011 would need to be provided.8

There is potential for other forms of support for the acceleration of electric vehicle uptake through measures such as differential registration and toll charges, and car sharing schemes.

One of the long held concerns around electric vehicles is their limited range. In Australia particularly, where travel across long distances is common, this is a legitimate concern slowing the uptake of electric vehicles in this country. The slow roll out of charging facilities in cities and rural areas has inhibited uptake. Battery rental / swapping stations may potentially provide a key part of the solution, through addressing high upfront and replacement battery costs, slow charging as well as range concerns.9

f) Any other related matters

The ultimate goal for responding to the health and environmental impacts of fossil fuels used in transportation must include both zero emissions vehicles and reducing car use in favour of public transport and active transport, and the use of electronic communications to minimise the need for travel. The benefits of moving away from individualised vehicle transport will be much broader than just a reduction in greenhouse gas emissions. Cars, and the notion that private car transport is preferable and ‘fast’ contributes to ill-health through local air pollution, greenhouse gas production, inactivity, obesity and social isolation.10

Moving from fossil fuel to electric cars (assuming they are recharged using renewable energy) will only address the pollution and emissions aspects of this problem. Australia is one of the most car dependent nations in the world, and public and active transport are required to address the remaining issues of inactivity, obesity and social isolation.11

Urban and suburban development and redevelopment to reduce need for car use will have health, environmental and equity benefits.12
Conclusion

PHAA supports the broad directions of the inquiry into the use and manufacturing of electric vehicles in Australia. However, we are keen to ensure a whole of society perspective that looks at health benefits across a broader set of elements than just greenhouse gas emission reductions in line with this submission. We are particularly keen that the following points are highlighted:

- In order for electric vehicles to fulfil their promise to reduce carbon emissions, recharging must occur using renewable energy.
- At current life cycle prices, economic incentives such as Government subsidies for up-front costs of the purchase of electric vehicles and regulation or subsidies to drive roll out of supporting recharging and battery infrastructure are required.
- Rare earth metals must be accessed, transported and used in ways to minimise adverse social or environmental consequences. These elements must be recycled.
- Broader environmental, social and health benefits require a transition away from individualised motor vehicle use in favour of public transport and active travel, and reconsideration of transport requirements through optimising use of electronic communications.
- Transition to electric vehicles needs to occur within a broader policy response to a series of interrelated issues: car dependent urban design, traffic congestion, work and recreational practices, and population levels.

The PHAA appreciates the opportunity to make this submission and the opportunity to contribute to increased uptake of electric vehicles in Australia.

Please do not hesitate to contact us should you require additional information or have any queries in relation to this submission.

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References


