



National Electric Vehicle Strategy Consultation Secretariat
Department of Industry, Science and Resources
GPO Box 2013
Canberra ACT 2601

31 October 2022

By email: nevs@industry.gov.au

Dear Consultation Secretariat,

re: National Electric Vehicle Strategy: consultation paper

On behalf of our member councils, the Victorian Greenhouse Alliances welcome the opportunity to make a submission to the *National Electric Vehicle Strategy: consultation paper*.

The Victorian Greenhouse Alliances are formal partnerships of local governments and statutory agencies driving climate change action across Victoria's municipalities. The Alliances' work across their networks, communities and partners to deliver regional mitigation and adaptation programs and have been active for over 21 years. This includes the implementation of joint initiatives that provide economies of scale and enable projects typically beyond the reach of individual councils and agencies. Our project work is complemented by targeted advocacy, capacity building activities and regional partnerships.

This submission is focussed on the needs and experience of electric vehicle uptake and management from the perspective of local government, as early initiators and implementors in Victoria over a number of years.

In 2020 the Victorian Greenhouse Alliances finalised 'Charging the Regions' (CtR), a strategic collaboration of 53 local governments, the Victorian State Government and the Electric Vehicle Council, along with a significant collection of other key private and public stakeholders. The project objective was to provide participating councils with relevant information and tools to facilitate a coordinated EV charging network across Victoria. The project included EV Charging infrastructure mapping tools, case studies, investment and implementation modelling, an outcomes report, all underpinned by extensive consultation and communications.

Recommendation 1: Set a national target for when all new vehicles sold will need to be zero emissions

A national target establishing when the federal government expects all new vehicles sold to be zero emissions is a critical aspect of the National EV Strategy, and will be critical in driving EV uptake.

Banning the sale of new (ICE) passenger and light commercial vehicles from 2030 onwards will be crucial in ensuring Australia meets its 2050 net zero emissions targets so as to prevent significant stocks of ICE vehicles remaining in use beyond these target dates.

Our member councils see battery electric (EV) and fuel cell (hydrogen) electric vehicles filling specific roles in a zero-emissions transport future and supports them as equally important technologies. We believe that as technology evolves and as hydrogen becomes more available and the technology more



affordable, it is likely to be a better solution, and more reliable for large fleet (freight trucks, waste/recycling trucks etc) than EV technology.

The Victorian Greenhouse Alliances' recent submission to the Victorian Government on its interim 2035 greenhouse emissions target states its clear position on continuing the rollout of renewable energy, transitioning off gas, and that transport systems be fully electrified/powered by green hydrogen.¹

Recommendation 2. Use government purchasing power to drive the market and transition government fleet to all electric

Federal Government and agencies should lead on bulk procurement so other agencies and levels of government can join in and gain from its processes and economies of scale. A government-led transition of fleets to ZEVs will have the purchasing power to encourage investment in the industry, however local government, particularly those in regional areas, does not have enough buying power to undertake this transition on its own.

The early transition of government fleets will also help in the development of the second-hand EV market, making EV's financially accessible to more people and creating multiple co-benefits from the return on investment.

Recommendation 3: Rapidly raise Australian vehicle fuel efficiency standards to be on par with international jurisdictions

Australia's fuel efficiency standards need to be rapidly raised to give Australia access to international vehicle supply chains in Europe, USA and Asia.

Evidence from multiple Victorian metropolitan councils shows plug-in electric hybrid vehicles have similar fuel efficiency specifications to their ICE equivalent. Similar evidence from Europe shows their real-world emissions are much higher than standards suggest. Therefore emissions calculations for plug-in electric hybrid vehicles should be based on real-world examples in any fuel efficiency standard introduced.

Any national fuel efficiency standards should be applied to new vehicles and have a range of financial and other mechanisms applied to support the conversion of second-hand cars to EVs in an affordable way.

¹ Victorian Greenhouse Alliances 2022 submission to the Victorian Government's Interim 2035 Emissions Target consultation



Recommendation 4: Focus on geographic and social equity in the transition to EVs

EVs are unaffordable for low-income groups, small business, and others. Without government-led encouragement a second-hand EV market and EV rental/shared services, major transportation inequities will deepen across Australian society, as the cost of fuel and access to EVs becomes increasingly out of the reach for these groups.

The rollout of charging infrastructure, particularly in regional areas, is uneven and uncoordinated, with significant gaps emerging. Whilst some private companies, like Tesla, are rolling out charging infrastructure in both metropolitan and regional areas, significant gaps, inconsistencies and redundancies already exist in charging infrastructure. EV charging demand is already outstripping supply in some tourist zones, leading to significant queues and opportunity costs for regional economies. While local governments and private companies are attempting to fill these gaps with limited resources, the lack of clarity around roles and responsibilities is leading to the uncoordinated delivery and maintenance of EV charging infrastructure.

Recommendation 5: Develop nationally recognised accessibility standards to ensure a coordinated transition

There are currently no nationally recognised accessibility standards to follow in relation to charging infrastructure, training of EV professionals, EV first responders, and responsibilities of the private sector.

Technical specification standards need to be developed, covering the location of payment scanners, the height of public charge sockets, configuration of parking bays, and weight of cables. Without consistent standards, the technical aspects of charging infrastructure will differ widely across municipalities, states and territories, leading to a chaotic, disjointed, national network, and unacceptable diversity in usability of infrastructure.

The Federal Government should mandate a standardised charging connector for use across Victoria. This would ensure equity of access to charging infrastructure that is not dependent on car model. While manufacturers appear to be settling on Type 2 connectors, a mandate would help lock this in.

Recommendation 6: Develop a National Network Charging and Refuelling Strategy

The Victorian Greenhouse Alliances acknowledge the Federal Government's \$500m 'Driving the Nation Fund'. The Driving the Nation Fund will underpin a national EV charging network, and a hydrogen refuelling network across Australia's major highways. To date, these networks have been largely grant funded by various governments encouraging early uptake of EVs. However the diversity of grant recipients, absence of a national strategy, and regulation that is not yet fit-for-purpose means this approach has been counter to creating a harmonised charging network.

A National Network Charging Strategy and Implementation Plan is critical for this major transportation transition. A Strategy would ensure a strategic approach to the rollout of charging and refuelling, giving clear direction to industry, local governments, business and the wider community, and avoid duplication or competing service provision. Importantly it will offer certainty to the emerging EV industry, supporting businesses, and community.

A Strategy will also allow electricity distribution businesses to understand future potential and address network constraints in advance.



Recommendation 7: A strategic mix of grid management approaches is required to ensure grid capacity

The transition to EVs will not only require strategies addressing the uptake of vehicles, but also strategic planning to ensure Australia's electricity distribution networks are equipped to integrate EVs on a national scale.

Recent 2022 research by the University of Melbourne² found that metropolitan and regional distribution networks are significantly limited in their EV hosting capacity. Grid voltage drops occur with as low as 20% EV penetration, and becomes widespread at 40% penetration. This issue is most acute in regional and rural areas. Consultation and coordination with distribution providers will be crucial to ensure they are equipped to integrate a significant increase in EV penetration into the national electricity grid.

Direct or indirect management of EV charging to mitigate congestion through such tactics as staggered time-of-use tariffs, as well as strategic investment in distribution networks, and bi-directional EV charging to power the grid and homes, will be critical to increasing the grid's capacity to support increasing numbers of EVs.

Recommendation 8: Adjust road user charges to ensure a fair distribution of revenue to local government

While local governments own and maintain 80-85% of Australia's roads, this tier of government receives almost none of the transport-related taxes that federal and state governments collect. The National EV Strategy consultation paper mentions the financial implications of fuel excise very briefly. The impending change to road user charging is an opportunity to address some of the fiscal imbalances that exist between various levels of government.

Recommendation 9: Urgently undertake a National Transport Emissions Reduction Strategy to strategically identify other modes of transport and adjacent pathways to address transport emissions

In order to meet Australia's transport emissions challenges, an approach that addresses the diversity of transport options, challenges, opportunities and carbon reduction pathways is required. A National Transport Emissions Reduction Strategy must identify opportunities where incentives and policy development is best placed across the transport sector to achieve emissions reduction 'bang-for-buck', and will be crucial in guiding the priorities of the National EV Strategy. The strategy must also consider the electrification of public transport, particularly buses, trucks, heavy vehicles and rail, plus increased investment in active transport to support the transition away from ICE and private vehicles. The addition of this overarching strategic approach will ensure aspects such as land use planning, interstate freight, rail, electric bicycles, motorbikes and scooters, air transport and more, are included in the national, holistic analysis.

² L. Ochoa, W. Nacmanson, Managing EVs in Australian Urban and Rural Grids, May 2022, The University of Melbourne.



Recommendation 10: Rapidly roll out national training and development programs to upskill workers to manufacture, install, repair, service and maintain the new generation of vehicles (EVs and hydrogen fuel cell EVs) and supporting infrastructure

Many organisations, including local governments, are experiencing acute skills and knowledge shortages in the new EV vehicle and infrastructure industry, causing significant delays to installations and repairs. This is impacting on the broader appetite for transition.

Australia has many of the engineering design and manufacturing skills to support a revival in manufacturing, maintenance and repair of EVs. This represents a significant opportunity to retrain and upskill our existing workforce to ready them for the EV transition.

There is little or no current hydrogen training across school, vocational education training (VET) and higher education in Australia³. This places Australia well behind countries such as the USA which has first responder training, and Europe which has higher education and generalised hydrogen industry programs and resources. The establishment of industry-level, micro-credentials, train-the-trainer programs, and EV subjects at the secondary, VET and tertiary levels are urgently required to upskill individual's EV awareness, including diesel and other mechanics, and the electrical and plumbing trades. This includes the roll-out of EV safety and awareness training as an urgent first step.

Recommendation 11: Develop a circular economy policy and whole-of-life product stewardship schemes to manage waste from EVs and associated infrastructure

While the transition to EVs represents significant opportunities to reduce greenhouse gas emissions from the transport sector, full consideration must be given to managing products at the end of their life. If circular economy principles are not fully embedded into the transition, the shift to EVs could produce significant environmental harm in the form of excessive waste. The sustainable sourcing of rare-earth materials, and incentivising local businesses focussed on battery, vehicle, and EV infrastructure recycling, must be given full consideration to reduce the use of virgin materials and to maximise recycling opportunities. The recycling, repurposing and reuse of EV materials also represents significant job opportunities, particularly for the regions.

Thank you for the opportunity to provide feedback on the National Electric Vehicle Strategy and we look forward to working with the Federal Government in its implementation.

³ Victorian Hydrogen Hub Hydrogen Skills Roadmap, 2022, Swinburn University



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 - Borough of Queenscliffe
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This letter has been approved through the Greenhouse Alliances formal governance structures but may not have been formally considered by individual members, particularly those affected by the current Victorian flood emergency. The submission does not necessarily represent the views of all members.