



National Electric Vehicle Strategy

CAHA Submission

31 October 2022

Introduction

The Climate and Health Alliance (CAHA) welcomes the opportunity to provide feedback on the consultation paper of the National Electric Vehicle Strategy (NEVS). The NEVS sets out a set of proposed goals, objectives and actions to increase the supply and uptake of electric vehicles in Australia¹.

CAHA is a national charity and the peak body on climate change and health in Australia. CAHA is an alliance of organisations within the health sector working together to raise awareness about the health risks of climate change and the health benefits of emissions reductions.

The membership of CAHA includes a broad cross-section of health sector stakeholders with nearly 100 member organisations, representing healthcare professionals from a range of disciplines, as well as healthcare service providers, institutions, academics, researchers, and consumers.

CAHA recognises that the NEVS is a crucial step to tackle Australia's transport emissions in a more coherent, national manner. Transport is the second largest source of national emissions, and ambitious action in this sector will be critical to achieving Australia's emissions reduction targets, while providing people with healthier transport choices.

¹ National Electric Vehicle Strategy: consultation paper. ([link](#))

Why we need healthier transport choices

Addressing emissions from transport is essential for Australia's response to climate change. The sector accounts for 18% of the country's greenhouse gas emissions. Road transport is responsible for an estimated 85% of total transport emissions².

Personal transport is Australia's fastest growing source of emissions, and is second only to the energy sector as the largest source of total emissions. Cars and light commercial vehicles alone make up over 60% of Australia's transport pollution.

In addition, the transport sector is a major source of air pollution, through its contribution to elevated levels of fine particulate matter (PM2.5), ozone, and nitrogen dioxide³. Transportation contributes to various types of air pollution, including tailpipe emissions, evaporative emissions, resuspension of road dust, and particles from brake and tire wear⁴. Exposure to air pollution from transport is known to increase people's risk of cardiovascular and respiratory diseases⁵.

In Australia it is estimated that, in a single year, air pollution from motor vehicles causes between 900 and 2,000 early deaths and between 900 and 4,500 cases of bronchitis, cardiovascular and respiratory disease. These cost Australia, between \$1.5 and \$3.8 billion⁶.

A study looking at only two sources of air pollution, PM2.5 and ozone, found that transport-related air pollution in Australia caused 620 deaths and USD 6.4 billion in health damages in 2015 alone. On-road diesel vehicles were responsible for almost half (36%) of transportation-attributable deaths in Australia⁷.

But there is also good news: decarbonised transport choices would bring significant health and economic benefits. The latest report of the Intergovernmental Panel on Climate Change (IPCC) concluded that a transition to a low-emission transport sector would bring many benefits, including for health. Many mitigation strategies in the transport sector would have co-benefits, including air quality improvements, health benefits, equitable access to transportation services, reduced congestion, and reduced material demand. The electrification of transport, combined with the

² Climate Change Authority, 2020. Transport Factsheet. ([link](#))

³ Anenberg S, Miller JO, Henze DA, Minjares R. A global snapshot of the air pollution-related health impacts of transportation sector emissions in 2010 and 2015. International Council on Clean Transportation: Washington, DC, USA. 2019 Feb.

⁴ Anenberg S, Miller JO, Henze DA, Minjares R. A global snapshot of the air pollution-related health impacts of transportation sector emissions in 2010 and 2015. International Council on Clean Transportation: Washington, DC, USA. 2019 Feb.

⁵ WHO Regional Office for Europe, 2013, Health effects of particulate matter: Policy implications for countries in eastern Europe, Caucasus and central Asia. ([link](#))

⁶ Bureau of Transport and Regional Economics, Health impacts of transport emissions in Australia: economic costs. 2005, Department of Transport and Regional Services: Canberra.

⁷ Anenberg S, Miller JO, Henze DA, Minjares R. A global snapshot of the air pollution-related health impacts of transportation sector emissions in 2010 and 2015. International Council on Clean Transportation: Washington, DC, USA. 2019 Feb.

expansion of renewable energy, and shifts to public transport, can enhance health and employment. Such changes can also strengthen equity and energy security ⁸.

A review of 4734 scientific studies of Electric Vehicles (EV) found that a switch from fossil fuel transportation to EVs causes an overall reduction in both greenhouse gas emissions and air pollutants (even though EVs still produce a certain level of air pollutants, such as through tire and brake wear)⁹.

We welcome the Government's draft National Electric Vehicle Strategy as a key part of the roadmap to guide this journey towards healthier transport choices.

CAHA believes it is important that this strategy sets out a clear direction for significant and long-term policy reform, technology acceleration and improvements to enabling infrastructure and planning. At the same time, the strategy should also map out actions and policy opportunities which can get underway relatively quickly to start driving down transport emissions and pollutants.

We also note that a whole-of-sector approach will be required to fully decarbonise Australian transport beyond light passenger vehicles. Transport sub-sectors including aviation, shipping, freight and heavy vehicles also contribute significantly to national emissions and air pollution. Investment and policy support to accelerate appropriate technology solutions for these sectors is essential, particularly where electrification may not be the optimal or appropriate solution.

Lastly, the electrification of transport should go hand in hand with promoting non-motorised and public transport, as these have large health and economic benefits and can help reduce car-dependency. From a health perspective, walking, cycling and public transport are the healthiest transport choices. Walking causes no emissions and is a form of transport available to nearly all. Emissions related to cycling can be more than 30 times lower for each trip than driving a car powered by fossil fuels, and about ten times lower than driving an electric car, when comparing the life cycle of each travel mode¹⁰. Both walking and cycling have major health benefits, such as reducing the risk of many chronic health conditions and improving mental health and wellbeing¹¹. A National EV strategy should therefore go hand in hand with a broader effort to reshape Australian mobility with a mode-shift towards convenient, affordable, sustainable, and healthy transport choices.

⁸ CAHA - May 2022. Climate Action for a Healthy Future. Health Messages from the IPCC Sixth Assessment Report on Mitigation of Climate Change. ([link](#))

⁹ Requia WJ, Mohamed M, Higgins CD, Arain A, Ferguson M. How clean are electric vehicles? Evidence-based review of the effects of electric mobility on air pollutants, greenhouse gas emissions and human health. *Atmospheric Environment*. 2018 Jul 1;185:64-77.

¹⁰ Brand C, et al. The climate change mitigation effects of daily active travel in cities. *Transportation Research Part D. Transport and Environment*. 2021; 93, 102764.

¹¹ Lee I M, et al. Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. *Lancet*. 2012; 380(9838), 219-229.

Recommendations

CAHA sees the development of fuel efficiency standards as a priority action that would deliver large climate, health, and economic benefits, and recommends the Australian government move swiftly to introduce strong fuel efficiency standards.

Fuel efficiency standards aim to limit the greenhouse gas (CO₂) emissions produced, on average, across a given vehicle fleet. They do this by setting a maximum allowable average level of emissions across a manufacturer's overall new vehicle offerings for a given compliance period, with financial penalties applying where this average is exceeded¹².

In short, fuel efficiency standards incentivise vehicle makers to supply low and zero emissions vehicles by penalising them financially if they fail to do so. The agreed allowable CO₂ limit (fuel efficiency standard) can be progressively reduced over time, requiring vehicle manufacturers to produce increasingly efficient vehicles and/or grow the share of zero emission vehicles they produce. In international markets where fuel efficiency standards have already been implemented, this has had the effect of dramatically increasing the supply of EVs while driving down their price¹³.

Importantly, fuel efficiency standards also have large health benefits, as they significantly reduce air pollution from vehicles. The implementation of standards for fuel quality and new-vehicle emissions in the EU and United States have led to a decline in transportation-attributable deaths from 2010 to 2015 by 14% and 16%, respectively. For example, standards such as Euro VI for heavy-duty vehicles and Tier 3 for light duty vehicles reduce emissions of PM_{2.5} by 99% or more¹⁴.

The lack of mandatory emissions standards in Australia has meant that new cars sold in Australia emitted 43% more CO₂/km on average compared with new cars sold in Europe (for 2015 data)¹⁵.

There is a considerable time-lag between the implementation of vehicle emission standards and the public health benefits from reduced air pollution. Experiences in large vehicle markets such as the EU and US, shows that it takes several years

¹² Climate Council of Australia. 2022. Submission to National Electric Vehicle Strategy Consultation.

¹³ Nasdaq, 2022. Australia plans fuel efficiency standards to boost electric car supply. ([link](#))

¹⁴ Anenberg S, Miller JO, Henze DA, Minjares R. A global snapshot of the air pollution-related health impacts of transportation sector emissions in 2010 and 2015. International Council on Clean Transportation: Washington, DC, USA. 2019 Feb.

¹⁵ National Transport Commission (2016) Carbon Dioxide Emissions Intensity for New Australian Light Vehicles 2015. ([link](#))

before the full benefits of a cleaner in-use vehicle fleet become apparent¹⁶. This reflects the long lifetimes of vehicles and equipment.

CAHA strongly recommends Australian fuel efficiency standards should be at least equivalent to those in other major global markets. Weaker standards in Australia would mean Australia would remain at the back of the global supply queue, and will not achieve the NEVS' desired objective of increasing supply of affordable and accessible EVs to meet demand across all segments.

Any fuel efficiency standards should also avoid incentivising the ongoing purchase of large, high emitting, highly polluting vehicles. For example, in Australia, there has been a growing shift to bigger and more polluting vehicles. In 2021, half of all new car sales were Sports Utility Vehicles (SUVs), up from a quarter of all sales a decade ago¹⁷. This growth is partly driven by individual consumer preference and policy settings, which may indirectly incentivise the purchase of these vehicles, such as through fringe benefits tax settings. Any fuel efficiency standards should take into account these Australian-specific dynamics, and disincentive the uptake of heavier, higher emitting vehicles.

Getting the design of fuel efficiency standards in Australia right will be challenging, and might require a tiered approach with further consultation. Nonetheless, doing so swiftly will deliver significant health, economic and environmental benefits.

CAHA recommends the National EV strategy to be developed alongside a whole-of-sector plan, to ensure the full decarbonisation of the transport sector.

The NEVS should be part of a broader national effort to reshape Australian mobility, with a mode-shift away from private vehicles and towards convenient, affordable, sustainable, and healthy transport choices.

Key issues that a comprehensive transport strategy should address include:

- The planned phase out of the internal combustion engine and reduction of private car use.
- The prioritisation of walking and cycling as healthy low-carbon modes of transport.
- The creation of people-centred cities, by integrating health, equity and nature considerations into urban and transport planning, in order to create compact and future-proof cities.

¹⁶ Anenberg S, Miller JO, Henze DA, Minjares R. A global snapshot of the air pollution-related health impacts of transportation sector emissions in 2010 and 2015. International Council on Clean Transportation: Washington, DC, USA. 2019 Feb.

¹⁷ National Transport Commission, 2021. Carbon Dioxide Emissions Intensity for New Australian Light Vehicles.

- The development of strategies and investment plans to genuinely transform how Australians move around, including significantly increasing uptake of public transport, walking and bike riding.
- Transition pathways and technology options for hard-to-abate segments of the transport sector, including: aviation, shipping, heavy vehicles, rail.

CAHA strongly recommends a rapid phase out of public fossil fuel subsidies. Ending fuel tax credits would remove a significant source of fossil fuel subsidies and incentivise the uptake of Electric Vehicles.

The NEVS consultation paper called for other proposals that could help drive demand for EVs and provide a revenue source to help fund road infrastructure. A phasing out of fossil fuel subsidies would be an important contribution to these efforts.

The ongoing payment of fossil fuel subsidies is increasingly indefensible, fueling the climate crisis, and counterproductive in the context of promoting the uptake of EVs.

Fuel tax credits are estimated to have cost the Commonwealth Budget over \$7 billion in 2022-23 alone¹⁸. While not a direct subsidy to the fossil fuel industry, the payment of fuel tax credits entrenches Australia's reliance on expensive, and increasingly volatile fuel sources. It also dampens market signals for the rapid uptake of zero emission alternatives across Australia's 2.5 million businesses. When combined with other, more direct fossil fuel subsidies, these represent billions of dollars in Commonwealth funding. These funds could be repurposed to support the uptake of EVs and other decarbonisation initiatives in the transport sector.

For more information, please contact:

Arthur Wynn
CAHA Policy Manager
arthur.wynn@caha.org.au

¹⁸ Australian Government, 2022. 2022-23 Commonwealth Budget, May. ([link](#))

Annex: Climate and Health Alliance

Members

CAHA membership as of October 2022.

2XE

Abilita

Arriba Group

Asthma Australia

Australasian College of Health Service Management

Australasian College of Nutritional and Environmental Medicine

Australasian Epidemiological Association

Australasian Society of Lifestyle Medicine

Australian Association of Gerontology

Australian Association of Social Workers

Australian Chiropractors Association

Australian College of Nursing

Australian Council of Social Service

Australian Federation of Medical Women

Australian Health Promotion Association

Australian Healthcare and Hospitals Association

Australian Indigenous Doctors Association

Australian Institute of Health Innovation

Australian Lesbian Medical Association

Australian Medical Students' Association

Australian Nursing and Midwifery Federation (Federal)

Australian Physiotherapy Association

Australian Podiatry Association

Australian Primary Health Care Nurses Association

Australian Psychological Society

Australian Women's Health Network

Brooke Shelton

Cairns Hand Clinic

Central Australia Rural Practitioners Association

Children's Healthcare Australasia

Climatewise Design

Codesain

CoHealth

ConNetica Consulting

Consumers Health Forum of Australia

Coota Girls Aboriginal Corporation

CRANApus

Cultivate Impact

Dietitians Australia

Doctors for Nutrition

Doctors Reform Society
Enliven Victoria
Enriching Lives Psychology
Environmental Health Australia
Faculty of Health, University of Technology Sydney
Food for Thought Consulting
Friends of CAHA
Health Care Consumers' Association ACT
Health Issues Centre
Health Nature and Sustainability Research Group
Health Services Union
Healthy Food Systems Australia
Healthy Futures
Indigenous Allied Health Australia
Institute for Sustainable Futures (UTS)
Kooweerup Regional Health Service
Lowitja Institute
Mayfield Medical Connection
Medical Association for Prevention of War Australia
Medical Scientists Association of Victoria
Metta Health & Psychology
MinterEllison
Motion Energy Group
Mott MacDonald
National Association of Aboriginal and Torres Strait Islander Health Workers and Practitioners
National Rural Health Alliance
Naturopaths and Herbalists Association of Australia
NSW Nurses and Midwives' Association
Nursing and Midwifery Health Program Victoria
Nutrition Australia
Optometry Australia
OraTaiao: New Zealand Climate and Health Council
Orygen
Pharmacists for the Environment Australia
Psychology for a Safe Climate
Public Health Association of Australia
Pura Vida Behavioural Nutrition
Queensland Nurses and Midwives' Union
Royal Australasian College of Physicians
The Royal Australian and New Zealand College of Ophthalmologists
Rural Doctors Association of Victoria
SANE Australia
School of Public Health, University of Sydney
School of Public Health & Social Work, Queensland University of Technology
Services for Australian Rural and Remote Allied Health
Second Chance Psychology
Thoracic Society of Australia and New Zealand

University of Queensland Mental Health in Climate Change Transdisciplinary Research Network

Veterinarians for Climate Action

Victorian Allied Health Professionals Association

Vote Earth Now

Walter and Eliza Hall Institute of Medical Research

Weenthunga Health Network

WHO Collaborating Centre for Environmental Health Impact Assessment

Women's Health East

Women's Health Goulburn North East

Women's Health in the North

Women's Healthcare Australasia