

Climate Council of Australia

Submission to: House of Representatives Standing Committee on Climate

Change, Energy, Environment and Water

Inquiry into Australia's transition to electric vehicles

Addressed to: Committee Secretary

Standing Committee on Climate Change, Energy,

Environment and Water

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About the Climate Council

The Climate Council is Australia's own independent, evidence-based organisation on climate science, impacts and solutions.

We connect decision-makers, the public and the media to catalyse action at scale, elevate climate stories in the news and shape the conversation on climate consequences and action, at home and abroad.

We advocate for climate policies and solutions that can rapidly drive down emissions, based on the most up-to-date climate science and information.

We do this in partnership with our incredible community: thousands of generous, passionate supporters and donors, who have backed us every step of the way since they crowd-funded our beginning as a non-profit organisation in 2013.

To find out more about the Climate Council's work, visit www.climatecouncil.org.au.

Introduction

The Climate Council of Australia welcomes the House of Representatives Standing Committee on Climate Change, Energy, Environment and Water's inquiry into the transition to electric vehicles, and appreciates the opportunity to provide input to this. Supporting a transition towards low and zero emission vehicles is important so that Australians can start sharing in the benefits of cleaner cars that are cheaper to run. These vehicles are already being enjoyed by millions of drivers around the world. Pursuing policies to incentivise manufacturers delivering the same kind of vehicles to Australia is both an important climate and cost-of-living measure.

Implementing clear policies to address climate pollution is an urgent priority now. The year 2023 was the world's hottest ever, with July being the first time in which the global average temperature rise spiked 1.5 degrees celsius (°C) above pre industrial levels (WMO, 2024). With an El Niño event underway and unstable weather systems sweeping across the nation, the threat of extreme weather is a stark reality for Australians. The New South Wales Rural Fire Service announced an early start to the fire danger season in August 2023 (ABC, 2023a) and by November 2023, more than 610,000 square kilometres had burnt across north Australia, an area larger than Spain (The Guardian, 2023a). Bushfires were also raging on the east coast in November 2023 a month before the official start of summer - with lives threatened and more than 50 properties lost in Queensland (ABC, 2023b). By December 2023 and January 2024 the same state was being hammered with cyclonic conditions, severe flooding and storm events, and heatwaves (New York Times, 2023). These storms and flash flooding tragically took ten lives over Christmas (The Guardian, 2023b). Australians are getting climate whiplash - being hurtled violently from one extreme to another (Climate Council, 2024).

These are the consequences of climate change, driven by the burning of fossil fuels, that Australians are already experiencing at 1.2°C of warming (Climate Council, 2023a). Stated climate commitments from global governments have the world on track not only to exceed the 1.5°C goal of the Paris Agreement, but blow past it, with up to 2.7°C degrees of global temperature rise projected (Climate Action Tracker, 2022). Every fraction of a degree of further warming increases the risk of escalating climate impacts. This would mean more families uprooted by fires and floods, more communities wilting under extreme heatwaves, more damage to iconic ecosystems like the Great Barrier Reef, and escalating risks to our collective safety and security (Climate Council, 2023a).

That is what's at stake as we seek to rapidly cut climate pollution this decade. Fortunately, while rapid and wide-scale action to cut emissions is more urgent than ever, it is also more possible than ever before - particularly in a high-emitting sector like transport. Car manufacturers now have access to a wide range of affordable and accessible technologies which allow them to genuinely and permanently cut their pollution.

This is a significant change from 2008 when the first zero emissions vehicle hit the roads in Australia (iMOVE Australia, 2024). Then, low and zero emissions vehicle technologies were genuinely in a nascent stage of development and accessibility was a challenge. Now, there are 500 different zero emission vehicle models on offer worldwide (IEA, 2023) and the share of new vehicle sales being all-electric has reached double digits in places like China and the European Union. The great gear shift to low and zero emission vehicles is well underway, however Australia is being left behind. For example, there are over 300 more Battery Electric Vehicle (BEV) models available in Europe than there are in Australia today (EVC, 2023; European Commission, 2023). Australians are being dumped with highly polluting and expensive vehicles that manufacturers can't sell elsewhere.

Australia needs an effective fuel efficiency standard so Australians can gain access to the efficient new cars manufacturers are already selling around the world - where over 85% of the market is already covered by such standards. This will bring cheaper costs and greater choice, while cutting harmful pollution for a safer and cleaner environment for all Australians to enjoy. Therefore we welcome and encourage the Federal Government's intention to unlock Australia's low and zero emission vehicle market as soon as possible.

Low and zero emission vehicles will help secure a cleaner, safer and more affordable future

Tackling transport emissions will help keep Australians safe from escalating climate harm. The cars we drive are responsible for around 13 per cent of Australia's greenhouse gas emissions and are the biggest contributor in the transport sector (DITRDCA, 2024). While emissions from other sectors have started a welcome and necessary decline, those from transport are still rising.

Our lack of fuel efficiency standards has meant Australia has become a dumping ground for polluting, expensive cars as the cleanest, cheapest versions are diverted to countries with strong standards in place. Australians are driving vehicles that spew out all sorts of harmful pollutants into the air, and paying too much for fuel; petrol is in the top three cost of living pressures for Australian households (Finder, 2023).

Passenger cars in Australia currently use, on average, 20% more fuel than passenger cars in the US (DITRDCA, 2024). This is costing Australians at the petrol pump, harming our health and fuelling dangerous climate change. Unlocking access to low and zero emissions vehicles for Australians is a practical step we can take *now* to cut transport emissions and fuel bills, and help prevent escalating climate harm.

Demand for new low and zero emission vehicles in Australia is rapidly rising, with electric vehicle sales doubling between 2022 and 2023 to hit 7.2% of all new car sales (ABC, 2024). However these figures are well behind other global markets like Norway (82.4%), the UK (16.5%), New Zealand (19%) and China (27%). Considering similarities between these markets and Australia, including vehicle needs for regional communities and right-hand drive markets, these countries' electric vehicle uptake figures are indicators of Australia's potential for a swift and successful fleet transition.

Importantly, not all electric vehicles are created equal. Battery electric vehicles (BEVs) are powered completely by their battery, making them the only fully electric vehicles on the market (Climate Council, 2022). They produce no tailpipe emissions and so can significantly improve urban air quality by replacing petrol and diesel cars that produce a range of toxic pollutants. There are also other types of EVs, such as Plug-In Hybrid Vehicles (PHEV) and Hybrid Electric Vehicles (HEV). These cars still rely in part on expensive, polluting petrol and diesel (Climate Council, 2022). This means these vehicles still release harmful greenhouse gases fuelling climate change, and dangerous air pollutants which are damaging our health. Annual average fuel and/or charging costs can also be up to 2.4 times higher for hybrids than for BEVs (Climate Council, 2023b).

BEVs are better for the environment, even while our grid is transitioning away from fossil fuels. At most, they contribute half the amount of climate pollution of diesel or gasoline cars across their lifespan (SwitchedOn, 2023). As renewable energy replaces fossil fuels, emissions related to the operation of BEVs could drop by as much as 86%. This is why Australia's transition to low and zero emission vehicles should be focused on supporting the uptake of BEVs as a priority.

By supporting and accelerating a transition to low and zero emission vehicles, we can set Australia on the road to cleaner air, cheaper costs and less climate harm. This transition is taking place within the context of a rapidly warming climate that is destabilising our Aussie way of life. Other countries are already pulling ahead, no matter what Australia does, and we don't want to be left behind. The faster we reduce climate pollution from our cars, the better for all of us.

Low and zero emission vehicles will deliver real benefits for Australians

Transitioning Australia's car fleet to low and zero emission vehicles will:

- Slash the annual fuel bill for Australian drivers
- Cut the national air pollution death toll and save the health system billions
- Improve national security and provide Australians with a wider choice of modern, safe vehicles
- Drive down transport emissions and put Australia on a clear path to zero emissions in the transport sector.

Cutting the cost of living and unlocking job opportunities

Australian drivers have long commutes and are paying high prices for fuel, yet currently drive some of the least fuel efficient vehicles in comparable markets due to our lack of fuel efficiency standards. One of the immediate benefits of making cars more fuel efficient is that the average new car will consume less fuel to drive the same distance, lowering fuel bills and helping Australians tackle cost of living pressures.

The fuel savings add up quickly. Under the Government's proposed policy settings for its New Vehicle Efficiency Standard, Australians would collectively see around \$108 billion in fuel savings, and another \$5.5 billion in health savings (DITRDCA, 2024). Individually, Australians could be saving \$1,000 or more on their annual fuel bills before the end of this decade. Money saved will create more economic opportunities in our local communities by reducing the amount of money flowing offshore to fossil fuel giants. In this way, delivering these policy settings as a minimum starting point will keep more money here at home, supporting the community and local businesses, and providing important cost of living relief to Australian families. The financial benefits of low and zero emission vehicles will also be greatest for regional drivers due to longer average commutes, higher regional fuel prices and higher rates of car ownership.

Low and zero emission vehicles also bring with them a range of job opportunities for Australians. There are already around 1,000 apprentices (WIN News, 2024) from across the country on a waiting list to learn how to work with electric vehicles, with more to come as further courses open as our transition accelerates. The rollout of new vehicle charging infrastructure and opportunities in battery manufacturing and recycling will similarly open job opportunities for Australians in both our cities and our regions.

Healthy air, healthy people

Research from the University of Melbourne has shown that air pollution from cars, trucks and fossil-fuel powered buses kills 11,105 Australians every year and results in

12,210 cardiovascular hospitalisations, 6,840 respiratory hospitalisations and 66,000 asthma cases annually (Melbourne Climate Futures, 2023). By improving access to low and zero emission vehicles, Australia can lock in significant health benefits and lower the national healthcare spend through a reduction in harmful air pollution in our cities and towns. This can be achieved through the design and implementation of a fuel efficiency standard that is effective in cutting climate pollution this decade.

The better a vehicle's efficiency, the less CO₂ emissions it produces. If all cars sold in 2021 were 'best in class' for emissions, Australia's total 2021 emissions would have been 91% lower for passenger vehicles and small SUVs, and 47% lower for larger SUVs and utes (National Transport Commission, 2022). More efficient vehicles also pump out fewer other pollutants caused by the burning of petrol and diesel, such as nitrogen oxides (NOx); particulate matter (PM2.5 & PM10) - tiny particles ranging in size from 2.5 to 10 micrometres that can penetrate into the lungs and bloodstream causing a range of health problems; carbon monoxide (CO), sulphur oxides (SOx) and other volatile organic compounds (VOC) (Grattan Institute, 2021; Clean Vehicle Guide, 2023).

Electric vehicles contribute even less particulate matter than petrol or diesel cars, and have zero toxic tailpipe pollution (NOx, hydrocarbons and carbon monoxide) (European Public Health Alliance, 2021). Driving more efficient cars reduces the quantity of NOx and VOC released into the air which contribute to ground-level ozone pollution (such as smog). Ozone is most likely to reach unhealthy levels on hot sunny days and can lead to respiratory problems, especially in children and the elderly (Environment Protection Agency, 2023). Fewer emissions from our cars means fewer pollutants released into the air and better health for all Australians.

Boosting energy security

Improving the supply and range of low and zero emission vehicles through an effective NVES can help strengthen Australia's energy security by reducing our reliance on foreign oil and vulnerability to oil supply chain disruptions.

Australia consumed more than 57 billion litres of fuel in 2022 (Australian Petroleum Statistics, 2022). More than 90% of this was either imported from overseas or refined from imported crude oil (The Australia Institute, 2022). The transportation of oil and other petroleum products can be risky, with potential for spills, accidents, supply shocks and risks to international shipping lanes. By reducing the overall demand for oil and the need for transportation of petrol products, unlocking access to more low and zero emission vehicles can help to mitigate these risks and improve our national security.

Australia is particularly vulnerable to petroleum supply chain shocks. We are vulnerable because only two local refineries remain and they produced less than 15 billion litres of fuel in 2023, far below total demand. Domestic storage is limited too: as of November 2023 Australia has only enough reserves to meet 21 days of diesel use and 23 days of petrol use on average (Australian Petroleum Statistics, 2023).

Reducing the amount of fuel Australian cars use by delivering an effective NVES will see us take more control of our energy security and improve Australia's resilience to price shocks and supply disruptions.

Improving vehicle safety

Electric vehicles have some of the latest safety technologies, so transitioning to these vehicles will make Australia's fleet safer overall.

The newest models sold overseas feature up to date safety technology like autonomous emergency braking, advanced driver assistance systems, lane departure warning systems, adaptive cruise control, following distance warning, adaptive headlights, fatigue warning and blind spot monitoring as standard (FCAI, 2019; PD Insurance, 2021). All of these features can help reduce accidents on Australia's roads and continue driving down our national road toll.

Strong fuel efficiency standards will get Australians on the road to savings

To support and accelerate the electrification of Australia's fleet, we need to increase the availability and range of affordable new vehicles that are cheaper and cleaner to run. Fuel efficiency standards can help achieve this by creating the right incentives for manufacturers to send far more low and zero emissions cars, vans and utes to Australia.

Fuel efficiency standards aim to limit the greenhouse gas emissions Australia's fleet of new cars release. They do this by creating a maximum annual average level of carbon emissions across a manufacturer's overall new car sales. Over time, the maximum amount of CO₂ that can be emitted is reduced, meaning car makers must offer more low and zero emissions new vehicles to avoid penalties. Because cars often stay on the road for 10-20 years, it's important that we get a fuel efficiency standard into place quickly, so we can all start experiencing the benefits as soon as possible.

Strong fuel efficiency standards are already in place in a range of markets similar to Australia's, including the USA, United Kingdom, New Zealand, Japan and Europe. Fuel

efficiency standards are the essential mechanism to address Australia's limited supply of low and zero emission vehicles compared with these peer countries.

The United States has had fuel efficiency standards since the 1970s, progressively tightening them over time. Drivers there have access to a wide range of lower and zero emissions vehicles, including choices which are popular in Australia like utes and four wheel drives. The United Kingdom and New Zealand also currently have strong fuel efficiency standards. Both of these countries are right-hand drive markets just like Australia. This means manufacturers are already producing and selling plenty of lower and zero emission vehicles in other markets like ours.

Car manufacturers already have to supply plenty of lower and zero emission vehicles to these car markets to meet their fuel efficiency standards and avoid penalties. A fuel efficiency standard will move Australia up the queue for the best new cars, vans and utes by matching these other major markets. Australians deserve to have the same access to clean and cheap new cars, vans and utes that other people are already enjoying overseas.

The New Vehicle Efficiency Standard should be delivered as soon as possible

This is the critical decade for climate action (Climate Council, 2023a). At the same time, Australians are facing high cost of living pressures and looking for rapid relief. A fuel efficiency standard that delivers genuine and necessary emission reductions this decade is a two-for-one solution to these challenges. The Federal Government has committed to introduce fuel efficiency standards for Australia, and recently put forward the preferred settings of its New Vehicle Efficiency Standard (NVES).

The Climate Council supports the key features proposed for Australia's NVES (DITRDCA, 2024) as minimum starting points for unlocking Australia's low and zero emissions vehicle market as soon as possible. In summary, the features from these options we support and strongly recommend be included in the final scheme design legislated by the Parliament include:

- An average annual emissions ceiling trajectory which seeks to deliver significant improvements in average fleet efficiency and reductions in pollution this decade - catching up to the USA as a minimum before the end of this decade;
- A simple and transparent approach to crediting which does not make use of 'super credits', 'off cycle credits' or other manufacturer flexibility arrangements which can distort and undermine the scheme's outcomes;
- Appropriate categorisation of vehicle types into the two proposed categories, ensuring all passenger vehicles including SUVs are treated as such;

- Inclusion of penalties at a sufficiently strong rate to encourage positive compliance;
- Commencement at the earliest possible opportunity, being 1 January 2025.

Designing and implementing an effective fuel efficiency standard for Australia's light vehicle fleet is an essential step to drive down climate pollution, while also cutting the cost of living for Australians, delivering cleaner air for better health, boosting national energy security, and improving vehicle safety. Australians have much to gain from the Government's proposed reform - no matter what type of new car they choose to buy.

Transitioning to zero emission vehicles is vital for Australia's clean future, but shared and active transport are the cleanest and cheapest ways to get around

To slash fuel bills, drive down emissions from the transport sector, clean up our air and safeguard our communities from worsening climate change, low and zero emission vehicles are an important piece of the puzzle. Particularly to help address diverse mobility needs in Australian communities.

Crucially though, this path to cleaner transport does not simply involve a direct replacement of every fossil fuel-powered vehicle on the road with an electric or more efficient version. Doing so would perpetuate our car-centric transport system and many of the problems it causes - including congestion, harmful pollution in the air we breathe, and road accidents (Climate Council, 2023c). Instead we need to rethink, redesign and properly invest in the solutions we have available to enable a shift away from road transport dependency. Cleaner, more efficient modes such as electrified shared and active transport, shipping and rail are readily available solutions to enable this transformation.

Facilitating rapid mode shift across our transport system will also address the rising congestion issues that are plaguing major towns and cities across Australia. For example, the Royal Automobile Club of Queensland (RACQ) found that 262 roads spanning across the state's coast constantly encountered gridlock in peak hour, with motorists driving as little as 24 kilometres per hour in peak traffic periods (News.com, 2023). With over 80% of Australians using a private vehicle to get to work, this is unsurprising (BITRE, 2021). Drastically reducing road congestion will positively impact Australians' wellbeing, improve how we use land, and boost productivity for a thriving economy.

Modelling by the Climate Council has shown that personal transport can make an important contribution to cutting climate pollution rapidly this decade, if we embrace

mode shift (Climate Council, 2023c). Forthcoming analysis undertaken as part of Climate Council's Next Wave project indicates that to see the transport sector play a part in reaching this level of emissions-reduction economy-wide, by 2030 we would need to shift a total of 30% of private vehicle kilometres to shared and active transport. This will mean shifting existing kilometres travelled by private car to shared and active transport at the rate of around 2% per year, and seeing expected future growth in passenger travel fully taken up by these modes (Climate Council, forthcoming).

Currently, the average Australian household has two petrol cars in the garage - this could look like one car being swapped to an electric vehicle, while the other is substituted out for a mix of active and shared electrified transport options. This can be achieved by significant investment in electrified shared transport and well-connected infrastructure for active modes like walking, cycling and rolling.

Many Australians are currently reliant on cars because our shared and active transport infrastructure is often inadequate, which increases the cost of getting around. We can improve this by increasing our investment in public and active transport from the average 2% of transport budgets most states and territories currently allocate. Investment across public transport, active transport and roads should reflect the levels of use we want to see across each transport mode. For this reason, the Climate Council recommends 50% of transport budgets be dedicated to shared transport and 20% to active transport, in line with international best practice (Climate Council, 2023c).

There is no doubt that this is a significant shift, but unlocking Australians' ability to choose public and active transport options will mean safer streets, cleaner, healthier air and less pollution - particularly in our cities - with tremendous public health benefits. Fundamentally, it will mean protecting Australians from the increasing impacts of harmful climate change and create a safer, more connected future for generations to come.

A transport-wide decarbonisation roadmap and action plan is currently being developed by the Federal Government. It is important this supports and enables more people in Australia to take more trips, more often, using active and shared modes of transport - they are the cheapest and cleanest ways of getting around.

Conclusion

This is the critical decade for climate action, and Australians are urgently looking for cost of living relief. Supporting the transition towards lower and zero emission vehicles is a key way the Government can address these challenges head on. The priority approach to doing so is implementing the New Vehicle Efficiency Standard in its proposed form, as soon as possible.

As noted, Australia is starting well behind our international counterparts in legislating a fuel efficiency standard. This is costing Australians thousands in unnecessary fuel bills, harming our health and environment, and restricting consumer choice. For this reason, designing and implementing an effective fuel efficiency standard for Australia's light vehicle fleet is essential. Every day we do not have a fuel efficiency standard in place that matches international counterparts, Australians are missing out on fuel savings, cleaner air and greater consumer choice.

The Climate Council supports the introduction of a New Vehicle Efficiency Standard reflecting the Federal Government's proposed policy settings, as a necessary starting point to deliver genuine benefits to Australians and our climate. We urge the Federal Parliament to move swiftly to now legislate and deliver this important reform. We also encourage the Committee to consider other policies and incentives that can accelerate Australia's transition to cleaner, cheaper to run cars alongside more Australians taking more trips via active and shared transport. The National Transport Decarbonisation Roadmap and Action Plan is the perfect opportunity to do so and recommendations from this committee will be influential in shaping the direction of this key national strategy.

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