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Department of Infrastructure, Transport, Regional
Development, Communications and the Arts
GPO Box 2154
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Australian New Vehicle Efficiency Standard Submission

To whom it may concern

Thank you for the opportunity to provide input to the *Australian New Vehicle Efficiency Standard* (NVES) and taking the time to consider our submission.

The Clean Energy Association of Newcastle and Surrounds (CLEANaS) strongly supports the implementation of an aggressive Australian New Vehicle Emission Standard (Option C: Fast start). Option C catches up with US and European emission targets, makes the Australian vehicle market highly appealing for low- and zero-emissions vehicles, maximises savings to the consumer, and accelerates and maximises the reduction of carbon emissions. An effective and strong NVES aligns with the vision and goals of CLEANaS.

However, due to the size and increasing nature of transport emissions in Australia, the NVES alone, whether through the government preferred Option B or Option C, will be insufficient to tackle this difficult problem. Additional policies and measures are necessary. These should include:

- Removal of Parallel Import Restrictions,
- Policies and measures to curb increased use of cars and kms travelled,
- Policies and measures to curb increased sale of larger cars, and
- Regulation to ban the import of HFC-charged automotive air conditioners.

CLEANaS is the Clean Energy Association of Newcastle and Surrounds, a not-for-profit association formed in 2012 by a group of locals passionate about clean energy.¹ CLEANaS is dedicated to driving the uptake of clean energy so that our region can transition from its current dependency on fossil fuels to a more competitive and sustainable local economy. We achieve this by working with our partners to demonstrate profitable community-led and community-owned clean energy projects; raise the profile of clean energy in the local economy through education and awareness raising; and by improving access to financing mechanisms and affordable technologies so that investment and activity grow. Our initiatives must deliver a win-win for local community investors, local enterprise and, of course, our environment.

¹ <http://www.cleanas.org.au/>

The government is responsible for the environment, the health and wellbeing of its citizens, and the financial security of the nation. As we see the impact of increased carbon emissions, we also find evidence of the deleterious impact on Australian native wildlife, the Australian people and the wealth of the nation. There is only 3 years left at present emission rates of the 2013-2050 emission budget to stay below 1.5°C with Australia having exceeded its carbon budget for 2050 by 2027. By 2055 Australia will experience economic losses on par with covid, getting worse every single year due to unchecked climate change.³

The IPCC stated that global emissions need to reach net zero by 2050 to be consistent to limiting warming to 1.5 °C.¹⁴ However, last year Australia's emissions increased by 0.8% (3.6 Mt CO₂-e), fueled primarily by a 7.8% (7.1 Mt Co₂-e) increase in transport emissions.¹⁴ In 2020 Australia emitted 1.1% of world greenhouse gas emissions. This made Australia the world's 16th biggest emitter of greenhouse gas pollution, despite having just 0.33% of world population.² On a per capita basis. Australian emissions are **the highest in the OECD** and among the highest in the world. The only countries with higher per capita emissions than Australia are smaller petro-states like Kuwait, Qatar and UAE and some Small Island Developing States.^{3 4 5}

Climate Change Impacts

The impacts of climate change on the environment are significant and severe. The present scientific consensus is that the earth's climate is warming due to human activity, and the negative impacts of increased greenhouse gas emissions are measurable globally and nationally.⁶

Australia's climate has warmed on average by 1.47 ± 0.24 °C since national records began in 1910, which has led to an increase in the frequency of extreme heat events.⁷ The Bureau of Meteorology and CSIRO reported that there has been an increase in extreme fire weather, and in the length of the fire season, across large parts of the country since the 1950s, as evidenced by the catastrophic bushfires in the summer of 2019/2020. They also noted

² World Population Review. (2023). *CO₂ Emissions by Country 2023*. Retrieved 23 November 2023, from <https://worldpopulationreview.com/country-rankings/co2-emissions-by-country>

³ Swann, T. (2019, July). *High Carbon from a Land Down Under: Quantifying CO₂ from Australia's fossil fuel mining and exports*. https://www.tai.org.au/sites/default/files/P667%20High%20Carbon%20from%20a%20Land%20Down%20Under%20%5BWEB%5D_0_0.pdf

⁴ Ritchie, H. (2019, October 4). Where in the world do people emit the most CO₂? Retrieved 18 February 2024, from <https://ourworldindata.org/per-capita-co2>

⁵ Statista. (2023). Per capita carbon dioxide emissions worldwide in 2022, by country. Retrieved 18 February 2024, from <https://www.statista.com/statistics/270508/co2-emissions-per-capita-by-country/>

⁶ NASA (n.d.) Scientific Consensus: Earth's Climate is Warming. <https://climate.nasa.gov/scientific-consensus/>

⁷ BOM (2022) State of the Climate 2022. <http://www.bom.gov.au/state-of-the-climate/2022/documents/2022-state-of-the-climate-web.pdf>

changes in rainfall, with decreases in the southeast and southwest of Australia as shown by the devastating drought in 2019. Oceans around Australia they stated are acidifying and have warmed by about 1°C since 1910 bringing longer and more frequent marine heatwaves. In the past 5 years there have been three major mass-bleaching events at the Great Barrier Reef resulting from these marine heatwaves, and resulting in the destruction of over half of the reef's corals.⁸ The Great Barrier Reef has an economic, social and iconic asset value estimated at \$56 billion, contributes around \$6.4 billion annually to the Australian economy and supports over 64,000 jobs.⁹ Sea levels are also rising around Australia, increasing the risk of coastal inundation and damage to infrastructure and communities.⁶

Economic risks

Deloitte Access Economics noted that some of the most significant risks to Australia's economic growth trajectory are from the physical risks associated with a changing climate and the unplanned economic transition risk from the world's response to this changing climate.¹⁰

Their analysis showed that the Australian industries hardest hit by the Covid 19 pandemic would also be the most vulnerable to the effects of a warming world and climate change. Australia's agriculture, construction, manufacturing, tourism related industries and mining sectors all featured consistently in the top industries exposed to the risks of covid, climate change and the unplanned economic transition as the world responds. Deloitte Access Economics estimated that by 2055 Australia will experience economic losses on par with Covid 19.¹⁰

The government is responsible for the environment, the health and wellbeing of its citizens, and the financial security of the nation. As we see the impact of increased carbon emissions, we also find evidence of the deleterious impact on Australian native wildlife, the Australian people and the wealth of the nation.

Net Zero Emissions by 2050

The IPCC stated that global emissions need to reach net zero by 2050 to be consistent to limiting warming to 1.5 °C.¹⁴ Modelling has shown that moving towards a net zero emissions economy would unlock financial prospects in sectors including manufacturing and

⁸ Readfearn, G. (2020, April 7). Great Barrier Reef's third mass bleaching in five years the most widespread yet.

<https://www.theguardian.com/environment/2020/apr/07/great-barrier-reefs-third-mass-bleaching-in-five-years-the-most-widespread-ever>

⁹ Deloitte Access Economics (2017, June 23). *At what price? The economic, social and icon value of the Great Barrier Reef.* <https://www.barrierreef.org/the-reef/the-value>

¹⁰ Deloitte Access Economics (2020, November) A new choice: Australia's climate for growth. <https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-dae-new-choice-climate-growth-051120.pdf?nc=1>

renewables triggering a \$63 billion investment boom.¹¹ Deloitte Access Economics estimates such a new growth recovery could grow Australia's economy by \$680 billion (present value terms) and increase GDP by 2.6% in 2070 – adding over 250,000 jobs to the Australian economy by 2070.¹⁰

The Australian Government has now committed to developing a 2050 Net Zero plan and 2035 emission reduction targets consistent with Australia's international and domestic commitments.¹²

Emission goals

To address the issue of dangerous climate change, Australia, along with 196 other parties, is a signatory to the Paris Agreement, which entered into force on 4 November 2016. The Paris Agreement aims to strengthen the global response to the threat of climate change, by:

*Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change.*¹³

Australia has a target to achieve net zero emissions by 2050. Furthermore, in 2022, The Australian Government increased the ambition of its 2030 target in 2022, committing in legislation to reduce greenhouse gas emissions 43% below 2005 levels by 2030¹⁴.

Australia's current emissions and trends

Australia's emissions for the year to June 2023 have declined by 24.5% since 2005 primarily due to the "continuing shift in the generation of electricity from coal towards renewable fuel sources". At the current rate of decline, emissions will have reduced by approximately 38% by 2030 missing the legislated target by approximately 5%.¹⁵

¹¹ Cox, L. (2020, Oct 12). *Net zero emissions target for Australia could launch \$63bn investment boom.*

<https://www.theguardian.com/australia-news/2020/oct/12/net-zero-emissions-target-for-australia-could-launch-63bn-investment-boom>

¹² Department of Climate Change, Energy, the Environment and Water (DCCEEW). (2023). *Net Zero, Australian Government Department of Climate Change, Energy, the Environment and Water.*

<https://www.dcceew.gov.au/climate-change/emissions-reduction/net-zero>

¹³ IPCC (2018). *Global Warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, Intergovernmental Panel on Climate Change.*

<https://www.ipcc.ch/sr15/>

¹⁴ Australian Government. (2022). *Australia's Nationally Determined Contribution: Communication 2022.* UNFCCC Nationally Determined Contributions Registry. Retrieved 24 March 2023, from <https://unfccc.int/sites/default/files/NDC/2022-06/Australias%20NDC%20June%202022%20Update%20%283%29.pdf>

Australia's emissions for the year to June 2023 were approximately 465.2 Mt CO₂-e, which is an increase of 0.8% (3.6 Mt CO₂-e). This was fueled primarily by a 7.8% (7.1 Mt Co₂-e) increase in transport emissions.¹⁵

The transport sector is the third highest emission sector after electricity and stationary energy with 21.1% of Australia's emissions. In the year to June 2023, transport accounted for 21.1% of Australia's national GHG inventory which represents 98.0 Mt CO₂-e¹⁵. Road transport is close to 85% of those emissions¹⁶. Cars and Light commercial vehicles (LCVs) alone contribute over 60% of Australia's transport emissions and around 13% of Australia's total greenhouse gas emissions.

Whereas emissions from the electricity sector continue to go down as renewable energy uptake continues, emissions from the transport sector are trending upwards. Transport emissions have increased 19.5% (16.0 Mt CO₂-e) since June 2005, despite recent volatility due to the impacts of the COVID pandemic. Over the year to June 2023 GHG emissions increased by 7.8% (7.1 Mt CO₂-e) in actual terms, compared with the previous year.¹⁵ Similarly, transport emissions from cars and LCVs grew by 5.6% in the same period, with a long term trend of an estimated 1% growth in emissions each year.¹⁶

Australia needs real and rapid reductions in CO₂ emissions from the transport sector. The Australian government is at risk of not achieving its legislated target to reduce greenhouse gas emissions 43% below 2005 levels by 2030 due to the continued increase in emissions in the transport sector. Urgent action is required to address this issue.

Deliver steep reductions early

Early and deep emission reductions are essential in meeting the agreed temperature goal of *holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels*.¹³ Moving fast on emission reduction in sectors where technologies are advanced (such as electricity generation and transport) allows more time to deal with sectors that are harder to decarbonise whilst still meeting the ultimate temperature goal. This needs to be considered with policies and measures to reduce Transport emissions.⁵¹

¹⁵ Department of Climate Change, Energy, the Environment and Water (DCCEEW). (2023). Quarterly Update of Australia's National Greenhouse Gas Inventory: June 2023, *Australian Government Department of Climate Change, Energy, the Environment and Water*. Retrieved 18 February 2024 from

<https://www.dcceew.gov.au/climate-change/publications/national-greenhouse-gas-inventory-quarterly-update-june-2023>

¹⁶ Bureau of Infrastructure and Transport Research Economics (BITRE), 2023, Yearbook 2023: Australian Infrastructure and Transport Statistics, Statistical Report, BITRE, Canberra ACT. Retrieved 18 February 2024, from

<https://www.bitre.gov.au/publications/2023/australian-infrastructure-and-transport-statistics-yearbook-2023>

Australian car emissions intensity

Australian cars produce up to 40% more carbon dioxide than their European counterparts due to high polluting and inefficient fleet¹⁷. In 2021, CO₂ emissions of Australian passenger vehicles were found to be 53% and LCV's 32% higher than the average for other major markets (China, Japan, US and EU).⁵⁰

The Carbon Dioxide Emissions Intensity for New Australian Light Vehicles Report for 2021 showed Australia falling further behind other countries. Of all new passenger cars sold in Australia that year, 45% had an emissions intensity of 160 g/km or less, compared with 90% of all new cars sold in Europe¹⁸. The National Transport Commission noted that if all cars sold in 2021 were 'best in class' for emissions, Australia's total 2021 emissions for new vehicles would have reduced by 91% for passenger vehicles and small SUVs and 47% larger SUVs and utes.¹⁸

Analysis of Options for NVES policy settings

NVES Objective and principles

The Government's key objective of the NVES is to reduce CO₂ emissions from new cars to support the achievement of the Government's legislated 2030 emissions reduction targets.¹⁹ An NVES is a cost-effective way to facilitate the transition of the Australian vehicle fleet to low- and zero-emissions, to promote higher energy efficiency, lower fuel consumption and running costs, and to reduce the dependence on fossil fuels.⁵⁰

The NVES Impact Analysis provided 3 possible policy options, Option A - slow start, Option B - fast but flexible and Option C - fast start, with Option B the documented preferred option. In the impact analysis, a number of principles were proposed to assist, together with a cost-benefit analysis, in analysing the merits of these proposed options. These design principles are: Effective, Equitable, Simple and Transparent, Credible and Robust, and Enabling. Although these are sometimes referred to as objectives in the impact analysis

¹⁷ Climate Council. (2022a). *Everything you need to know about how Australia can boost Electric Vehicle supply*. Retrieved 25 March 2023, from <https://www.climatecouncil.org.au/how-Australia-can-boost-electric-vehicle-supply/>

¹⁸ National Transport Commission. (2021). *Carbon Dioxide Emissions Intensity for New Australian Light Vehicles 2021*. Retrieved 03 April 2023, from <https://www.ntc.gov.au/sites/default/files/assets/files/Carbon%20Dioxide%20Emissions%20Intensity%20for%20New%20Australian%20Light%20Vehicles%202021.pdf>

¹⁹ Department of Infrastructure, Transport, Regional Development, Communications and the Arts. (2024, February). *Cleaner, Cheaper to Run Cars: The Australian New Vehicle Efficiency Standard: Consultation Impact Analysis*. <https://www.infrastructure.gov.au/department/media/publications/cleaner-cheaper-run-cars-australian-new-vehicle-efficiency-standard-consultation-impact-analysis>

which is confusing. It is unclear what the relative ranking/weight of the principles are and whether any are mandatory, only that they are “adequately addressed”. In comparing options the principles of Equitable and Enabling appear conflated.

Based on current transport emissions for Cars and LCVs and the rate that transport emissions are increasing, the proportion of emissions abated from the NVES by 2030 for each option would be: Option A: 0.2%, Option B: 5.3%, and Option C: 6.9%.¹⁵ Therefore, additional policies and measures will need to be taken to ensure the Government’s legislated 2030 emissions reduction targets are met for the Transport sector.

Option A does not achieve Government’s key objective

As noted in the impact analysis and above, Option A generates negligible abatement and does not support achievement of the Government’s legislated 2030 emissions reduction targets. As Option A - slow start does not achieve the Government’s key objective of the NVES to reduce CO2 emissions from new cars to support the achievement of the Government’s legislated 2030 emissions reduction targets it should be discarded.

Comparing Option B and Option C financial benefits

The financial benefits of Option B - fast but flexible and Option C - fast start appear comparable with Option C having a greater net benefit but slightly lower benefits cost ratio to 2050. It would have been preferable to also have the figures to 2030 in line with the Government’s legislated targets. The figures provided in the report have to be taken on face value as there is insufficient information to determine how they are calculated.

It is important to remember the complementary health benefits from replacing high-emission cars that are often also highly-polluting cars with low-emissions low-polluting cars. The current transport sector is brimming with highly-polluting cars that are increasing transport emissions and contributing to poor air quality. University of Melbourne research has found that air pollution from cars, trucks and buses can cause up to 11,100 deaths each year.⁵³

Other potential benefits that may change the overall financial benefits of these two options are included further below.

Availability of affordable new vehicles will increase not decrease

In assessing options versus stated design principles, under the principle “Enabling: vehicles with the best emissions and safety technology to be available to Australians”, the impact analysis stated that under Option C there would be “*Potential reduced access to affordable new vehicles, partially offset by greater availability of relatively affordable low and zero emissions vehicles.*” There is little to support the assertion of reduced access to affordable new vehicles.

Choice of vehicles will increase with an NVES

Implementing an effective NVES will increase the diversity / choice of vehicles available in Australia. An NVES will create an incentive to bring more efficient and electric models to market.²⁰ Car manufacturers in managing their fleet emissions, will literally need to provide greater choice to the market rather than less.²¹ IEA noted that stringent NVES's have promoted EV adoption in most leading EV markets and "should be adopted by all countries seeking to hasten the transition to electromobility."²²

Prices of cars will not increase

Modelling indicates the NVES will increase the cost of ICE vehicles by a marginal 0.3% per annum due to the adoption of the latest technology. This is no evidence that this has actually led to real-world increases in end user prices for ICE vehicles in other countries. Furthermore, modelling indicated the NVES would lead to a decrease EV prices by 2.8% per annum.²³

Implementation of changes for manufacturers should be straightforward

Australia has been clear about its intention to introduce an NVES for a number of years, so no big surprises. Both Option B and Option C allow manufacturers 2 years grace period before stringent limits are imposed.

Car manufacturers have implemented processes and procedures to manage Vehicle Efficiency Standards across more than 85% of their global markets including the European Union, USA, Canada, Brazil, China, South Korea, Mexico, and right-hand drive markets of India, Japan, United Kingdom and New Zealand.²⁴ Australia is a very late comer to this field and existing processes and procedures can be readily adapted by manufacturers to the Australian market.

Furthermore, using known fuel-saving strategies, manufacturers can make existing vehicle models comply with emissions standards while saving consumers money and dramatically

²⁰ Quicke, A. (2022, Aug). *Fuelling efficiency*. The Australian Institute. <https://australiainstitute.org.au/wp-content/uploads/2022/08/P1269-Fuel-Efficiency-Standards-WEB.pdf>

²¹ Basford Canales, S. (2024, Feb 21). *More efficient cars could almost halve Australians' yearly petrol costs, new analysis shows*. <https://www.theguardian.com/australia-news/2024/feb/21/more-efficient-cars-could-almost-halve-australians-yearly-petrol-costs-new-analysis-shows>

²² IEA. (2022). *Global EV Outlook*. Retrieved 18 February 2024, from <https://www.iea.org/reports/global-ev-outlook-2022>

²³ Mandala. (2023, June). *Raising standards, cutting costs: How an effective new vehicle efficiency standard can reduce vehicle emissions and save consumers money*. <https://electricvehiclecouncil.com.au/wp-content/uploads/2023/07/Raising-standards-cutting-costs.pdf>

²⁴ Naidoo, V. (2023, Nov 12). *What would fuel efficiency standards mean for Australia?* <https://www.drive.com.au/caradvice/australia-fuel-efficiency-standards-explained/>

reducing fuel consumption. Research indicates that for ICE vehicles an NVES can be addressed based upon improving existing ICE vehicle models.²⁵

Why comparing to US standards is not a good thing

The US standard (of which the NVES is compared) does not appear stringent enough. Fuel efficiency gains have stagnated over the last 9 years, with only an approximate 1.2% average improvement in fuel efficiency per annum. At this rate the US will miss their 2026 standards target.²⁶ Following US targets may set Australia up for failure.

The European Union, UK and New Zealand have stricter standards than the US. Stronger targets will deliver greater financial benefits and greater greenhouse gas emissions abatement. Australian policymakers should adopt standards that align with leading markets and with world's best practice and adopt a standard in line with the strongest standard, the European Standard. Option B – fast but flexible falls short of what is being done in Europe.⁵⁰ Option C - fast start is the globally competitive case that catches up with the European Standard in 2029 and should be adopted.

Penalty rates should be consistent with other countries

Penalties are levied against suppliers who fail to meet the CO2 target. These should be consistent with other major countries. Penalties need to be sufficient to impact the profitability of the supplier. Too small and manufacturers will ignore the fines and not make the necessary changes to reduce emissions. Given that per capita incomes between the EU and Australia are similar, there seems no reason to adopt a lower penalty rate in Australia than in the EU. Penalties may also need revision to maintain their deterrence value relative to the trading price of credits. Option C penalty rate is closest to EU and UK standards.^{27 28 29}

²⁵ Cooke, D. (2019, Sep 5). *Today's Vehicles, Tomorrow: How Automakers Can Meet Strong 2025 Efficiency Standards*. <https://blog.ucsusa.org/dave-cooke/automakers-2025-efficiency-standards/>

²⁶ Calma, J. (2023, Dec 22). *American automakers are losing the race to make more fuel-efficient vehicles*. <https://www.theverge.com/2023/12/21/24010938/car-suv-truck-fuel-efficiency-emissions-epa-trends-report>

²⁷ European Commission. (n.d.). CO₂ emission performance standards for cars and vans. https://climate.ec.europa.eu/eu-action/transport/road-transport-reducing-co2-emissions-vehicles/co2-emission-performance-standards-cars-and-vans_en

²⁸ Engineers Australia. (2023, May 31). *Fuel Efficiency Standard submission*. <https://www.engineersaustralia.org.au/publications/fuel-efficiency-standard-submission>

²⁹ Vehicle Certification Agency. (2022). *New UK Car and Van CO2 Regulations: Guidance for manufacturers on the legislation governing CO2 emissions from new cars and vans sold in the UK*. [https://www.vehicle-certification-agency.gov.uk/download-publication/3899/New-Car-and-Van-CO2-Regulations-Guidance-2022/#:~:text=3.2%20The%20latest%20Regulation%2C%20\(EU,for%20cars%20and%20vans%20respectively](https://www.vehicle-certification-agency.gov.uk/download-publication/3899/New-Car-and-Van-CO2-Regulations-Guidance-2022/#:~:text=3.2%20The%20latest%20Regulation%2C%20(EU,for%20cars%20and%20vans%20respectively)

WLTP testing adopted

The official Australian test protocol New European Driving Cycle (NEDC) is outdated and increasingly underestimates on-road emissions. It provides an unrealistic and skewed picture, undermining effective emission reduction. Previous checking has revealed emissions averaged around 25% and up to 40% higher than claimed.^{28 50} Australian passenger vehicles emissions were found to be underestimated by 46% and LCV's by 29% for 2021. Where NEDC continues to be used, these increasing gaps diminishes the effectiveness of an NVES and other measures to reduce transport emissions. Due to this widening gap between NEDC and real-world emissions, the European Union replaced the NEDC test procedure with the Worldwide Harmonized Light-vehicles Test Procedure (WLTP) in 2017.⁵⁰

Real-world testing is critical. It's vital to measure real-world fuel efficiency and emissions of new vehicles through WLTP and to make this information public to ensure standards are achieving their goals. The standards should also include on-board fuel consumption monitoring to monitor the real-world fuel efficiency and emissions of new vehicles. To be credible with Australian distributors and consumers, the NVES must replace Australia's obsolete emissions testing scheme with real-world testing of emissions utilising WLTP as global best practice as soon as possible.⁴⁹ Monitoring and real-world testing is critical to ensure NVES standards are being met and on track.⁵⁰

Why Option C over government preferred Option B

CLEANaS supports Option C over the government preferred Option B. Option B is very similar to Option C, obtaining a high benefit, and strong positive benefits cost ratio. However, benefits to consumers are 19% higher for Option C. The exclusion of technology credits in Options B and C provides transparency, reduces complexity and avoidance of potential dilution of the NVES. Option B also looks to achieve a large abatement supporting the Government's legislated 2030 emissions reduction targets.

The continued increase in Transport emissions, of which Cars and LCVs form a significant proportion, pose a significant impediment to the achievement of Australia's commitments under the Paris Agreement and legislated 2030 emissions reduction targets. The NVES alone (either Option B or Option C) will not address this increase in emissions and additional policies and measures will be required. Recent research indicates that to keep up with the pace of technological advancement and decarbonization in other major markets and developed countries, Australian policymakers should consider adopting a stringent, mandatory NVES alongside additional policies.⁵⁰

With a more ambitious headline CO2 target, Option C delivers steep reductions in emissions early and has over 30% additional emission abatement than Option B by 2030. Reducing emissions early allows more time to deal with sectors that are harder to decarbonise, whilst still meeting Australia's commitments.

Due to transport emissions going in the wrong direction and diluting the gains made in other sectors, where possible emissions reduction abatement from transport policies such as the NVES should happen early and be maximised to ensure any chance of achieving Australia's commitments under the Paris Agreement and Australia's legislated 2030 emissions reduction targets. Therefore Option C is the appropriate choice.

Addressing documented risks of Option C

Vehicle manufacturers will be able to readily adapt existing processes and procedures to the Australian market already used to manage Vehicle Efficiency Standards in the majority of their world markets to "adapt the technology offerings and vehicle supply to Australian consumers" (see above).

The impact analysis found that the consumers in rural, regional and remote areas would benefit more financially from the NVES than those in major cities.

The justification of weaker standards by evoking the purported needs of certain groups and populations such as farmers and people in regional areas needs to stop. Farmers should not be stereotyped as they are often keen to be involved in the transition to low emission vehicles and EVs^{30 31 32 33}. Jake Whitehead, the head of policy at the Electric Vehicle Council stated that farmers don't want to pay more for fuel, be dependent on foreign oil, or cause more pollution, and noted that where there are specific issues that make it difficult for some groups to capture benefits of an NVES, the issues should be addressed up front and not use these groups as a shield to push for weaker standards.⁴⁷

Other NVES Benefits / Savings

Fuel Security

Liquid fuel security is a serious economic and national security issue for Australia. Australia is currently reliant on imports for around 91% for fuel consumption of which 73% are

³⁰ Somerville, P. & Hollingworth, K. (2022). *Electric vehicles help farmers drive savings and lower carbon footprint*.

<https://www.abc.net.au/news/rural/2022-06-05/electric-vehicles-side-by-side-farm-inputs-environment/101121922>

³¹ Credintino, J. (2023). *Australian farmers show electric cars can work in the middle of nowhere*.

<https://www.carexpert.com.au/car-news/australian-farmers-show-electric-cars-can-work-in-the-middle-of-nowhere>

³² Farmers for Climate Action. (2023, February 23). *Electric Vehicles on Farms - 23 Feb 2023*. [Video]. Youtube. https://www.youtube.com/watch?v=jrWCO_fhL7s

³³ Quattromani, G. (2022, Oct 27). *I Made The Switch To An Electric, Battery Powered Dirt Bike: Here's How It Went*. <https://menshealth.com.au/surron-storm-bee-f-electric-motor-bike-review/>

transport fuels including 54% for road transport. Australia's transport fuels are highly vulnerable to international prices and supply chains as shown by the Ukraine War and instability in the middle east.³⁴

Furthermore, Australia is currently in breach of the IEA stockholding obligation to maintain emergency fuel reserves equivalent to at least 90 days of net oil imports with only 68 days of liquid fuel in reserve. Dependency on imported liquid fuel and lack of reserves makes Australia ill-prepared to deal with a disruption to supply, particularly with the heightened geopolitical risks the nation currently faces.³⁴

Improving fuel efficiency and diversifying Australia's energy mix would increase energy security by reducing overall demand for imported oil and decreasing the potential impact of oil supply chain disruptions.³⁴

Under Options B and C, the demand for imported oil would decrease each year as the Australian car fleet was progressively replaced by fuel efficient ICE vehicles, hybrids and EV's with demand dropping faster with Option C than Option B. With 25% of the passenger fleet EV's, 8% of total imports would not be needed (oil displacement impact), with 50%, that would increase to 16%.³⁴

Trade Imbalance

In FY 2021-2022, Australia's top import was Refined Petroleum, with \$39.8 Billion expended that year. Together with imports of \$8.3 Billion in Crude Petroleum, oil imports contribute significantly to Australia's trade balance each year.³⁵

Coal and Natural Gas exports (\$113.8 Billion and \$70.6 Billion respectively for FY 2021-2022) are collectively the top export for Australia.³⁵ As demand for fossil fuels decreases overseas as the reliance on fossil fuels diminishes, Australia's trade balance is expected to worsen impacting on Australia's current account balance with Australia's current account deficit expected to grow. Without a drop in imported oil over this period the effect on the trade balance and current account deficit would be exacerbated. As noted above, under Options B and C, the demand for imported oil would decrease each year as the Australian car fleet was progressively replaced by fuel efficient ICE vehicles, hybrids and EV's with demand dropping faster with Option C than Option B, buffering the effects of a potential trade deficit and current account deficit as the world decreases its reliance on fossil fuels.

³⁴ Carter, L. Quicke, A. & Armistead, A. (2022, April). *Over a barrel - Addressing Australia's Liquid Fuel Security*. The Australia Institute. <https://australiainstitute.org.au/report/over-a-barrel/>

³⁵ Department of Foreign Affairs and Trade. (2023). Australia's trade in goods and services 2021-22. <https://www.dfat.gov.au/trade/trade-and-investment-data-information-and-publications/trade-statistics/trade-in-goods-and-services/australias-trade-goods-and-services-2021-22>

What the NVES does not cover

The NVES addresses a cap on emissions intensity but there is no cap on actual emissions. The effectiveness of this policy in reducing emissions are diminished by:

- Manufacturers selling more cars,
- Manufacturers selling larger cars, and
- People driving more kilometres in cars.³⁶

Curb increased use of cars

The total kms driven each year in Australia increases by approximately 2%¹⁶. This directly leads to increased transport emissions that have outpaced improvements in fuel efficiency. The benefits of the NVES will be degraded by this increased use of road transport. More efficient demand management can reduce transport emissions by changing the way people are moved, and reducing the need for movement while maintaining living standards.³⁷ These changes improve the emissions intensity of travel or reduce transport demand. Passenger mode shift - changing passengers from higher to lower emissions modes, e.g. from road to public transport, walking, cycling and rail lead to reduced emissions. Urban and transport planning can help reduce travel requirements and encourage mode shift to active and public transport; for example, by locating employment and schools close to communities that need them, or creating urban environments that encourage walking rather than driving.³⁷

Research has identified numerous measures and policy instruments that have reduced car use in European cities that should be applicable in Australian cities where 85% of Australians live. These include: Congestion Charges, Parking & Traffic Control, Limited Traffic Zones, Workplace Parking Charges, and Mobility Services for Commuters.^{38 39}

“We don’t need to see more cars on the road, but better planning to get Australians out of their cars as the primary means of travel”. Doctors for the Environment Australia’s Executive Director and GP, Dr Kate Wylie stated that:

Active transport such as walking, cycling, or public transport are needed and will save time, money and lives. A shift away from private car use will give more rapid and deeper

³⁶ Joshi, K. (2024, Feb 17). *Big cars are dead weight dragging down climate policy.*

<https://ketanjoshi.co/2024/02/17/car-companies-are-wrecking-climate-efforts-to-make-money/>

³⁷ Climate Change Authority. (2023, Jun 29). Opportunities to reduce light vehicle emissions in Australia.

<https://www.climatechangeauthority.gov.au/reviews/light-vehicle-emissions-standards-australia/opportunities-reduce-light-vehicle-emissions>

³⁸ Musso, A., & Dalla Chiara, B. (2017). Case studies on transport policy. *Case Studies on Transport Policy*, 5(2), 389–391. <https://doi.org/10.1016/j.cstp.2017.04.001>

³⁹ Kuss, P., & Nicholas, K. A. (2022). A dozen effective interventions to reduce car use in European cities: Lessons learned from a meta-analysis and transition management. *Case Studies on Transport Policy*, 10(3), 1494–1513. <https://doi.org/10.1016/j.cstp.2022.02.001>

*reductions in transport pollution while improving physical health, make our cities better places to be, and reduce congestion.*⁴⁰

Curb increased sale of larger cars

There is a continued long-term shift towards Sport Utility Vehicles (SUVs) in major automotive markets across most of the world. Between 2010 and 2019, sales-weighted average new light-duty vehicles became 6.2% heavier, 20% more powerful and had a 7% larger footprint, with a key cause of this trend being a shift from cars (sedans) to SUVs and light trucks. SUVs' global share of new light-duty vehicle sales rose from 20% in 2010 to 44% in 2019. Even in markets with high SUV sales, such as the United States, SUVs continue to claim a larger share of the market. Australia is little different to the US and Europe with SUV purchases growing at over 7% per annum. In 2023, 55.8% of all car sales were SUVs.⁴¹ This has underpinned increases in larger, heavier, and more powerful vehicles, which has led to increased oil consumption, direct CO₂ emissions and vehicle weight, size and power. On average, SUVs consume around 20% more oil than an average medium-size car. The combustion-related CO₂ emissions of SUVs increased by nearly 70 million tonnes in 2022. In Europe, the net effect of heavier, more powerful vehicles and of small increases in hybrid electric vehicle and electric vehicle sales shares was a 5.4% increase in fuel consumption between 2017 and 2019. Without the shift towards SUVs, energy use per km for combustion engine vehicles could have fallen at an average annual rate that is 30% higher than it did from 2010 to 2022.^{42 43}

In Australia, the number of light commercial vehicles (category mostly representing utes) continues to increase at a rate of around 5% each year.¹⁶ In 2023, 22.5% of all car sales were utes. This is despite there being more than 1.5 times as many utes as technical and trade workers.⁴¹

As seen in Europe and the US, vehicle efficiency standards alone are insufficient to address the erosion of reduction of CO₂ emissions gained through vehicle efficiency standards by the adoption of larger vehicles such as SUV's.

⁴⁰ Doctors for the Environment Australia. (2024, February 7). Doctors: New Vehicle Efficiency Standard will save lives on our roads.

<https://dea.org.au/doctors-new-vehicle-efficiency-standard-will-save-lives-on-our-roads/>

⁴¹ Thrower, J. (2024, Jan 12). *SUVs and utes are no longer just work vehicles, but tax-subsidised behemoths.*

<https://australiainstitute.org.au/post/suvs-and-utes-are-no-longer-just-work-vehicles-but-tax-subsidised-behemoths/>

⁴² Cazzola, P., Paoli, L. and Teter, J. (2023, November). *Trends in the global vehicle fleet 2023: Managing the SUV shift and the EV transition.* Global Fuel Economy Initiative. IEA.

<https://www.globalfueleconomy.org/data-and-research/publications/trends-in-the-global-vehicle-fleet-2023>

⁴³ IEA (2021), Global Fuel Economy Initiative 2021, IEA, Paris

<https://www.iea.org/reports/global-fuel-economy-initiative-2021> , Licence: CC BY 4.0

The “breakpoints” in the NVES policy Options B and C work to address manufacturers simply increasing the weight of the vehicle to allow for higher emissions per km, and Option C further limits this ability through a reduced slope of the fleet limit curve (less increased emissions per km allowed for each kg of increased weight than Option B). However, further disincentives are needed to reduce emissions. The Climate Council recommends curtailing tax policies that incentivise the purchase of larger, heavier, high emission vehicles such as the Fringe Benefits Tax exemption and the recently ended Instant Asset Write-Off.⁴⁴ Furthermore, IEA Global Fuel Economy Initiative details numerous policy options and recommendations, including adapting existing policy and regulatory instruments to help address this issue.⁴³

Remove Parallel Import Restrictions

Australia’s parallel import restrictions is a hangover from when Australia had a domestic car industry and bans the parallel imports of second-hand vehicles. Allan Fels found that New Zealand consumers pay an average of 41% less for second-hand electric and hybrid vehicles – \$9,025 on average – because that country does not ban parallel imports of second-hand vehicles like Australia does. Tariffs and restrictions on the import of electric vehicles are no longer sensible since the exit of car manufacturers from Australia in the preceding decade. Unless this changes, restrictions on imports create unnecessarily high prices for consumers resulting in lower uptake of EVs resulting in continued high transport emissions for Australia. The regulations in the Road Vehicle Safety Act 2018 which block parallel imports of electric vehicles should be immediately lifted.^{45 46}

Regulate to ban import of HFC-charged automotive air conditioners

NVES impact analysis Option B and Option C do not allow for air conditioning credits together with other technology credits including super credits and off-cycle credits. This is a good thing as it provides simplicity and transparency to the policy and does not cater to the needs of individual car makers. Any dilution of the NVES through the inclusion of these bonus credits risks further delaying the supply of more low and zero emission vehicles to

⁴⁴ Climate Council. (2023, May 30). Submission to: Fuel efficiency standard consultation. <https://www.climatecouncil.org.au/resources/submission-to-fuel-efficiency-standard-consultation/>

⁴⁵ Fels, A. (2024, Feb). *Inquiry into price gouging and unfair pricing practices*. Final Report. https://pricegouginginquiry.actu.org.au/wp-content/uploads/2024/02/InquiryIntoPriceGouging_Report_web.pdf

⁴⁶ Braue, D. (2024, Feb 15). *EVs in Australia cost \$9,025 more than they should - But regulatory changes are about to fix that*. <https://ia.acs.org.au/article/2024/evs-in-australia-cost--9-025-more-than-they-should.html>

Australia.⁴⁷ These technologies are generally already included and/or will soon be required for Australian vehicles.⁴⁸

However, Australian vehicles continue to be imported with air conditioners charged with the refrigerant HFC-134a. This is a greenhouse gas with a global warming potential of 1430 times that of CO₂. Although banned from original supply in Australia, it is not banned when imported via pre-charged automotive air conditioners. The import of HFC-charged automotive air conditioners should be banned directly through regulation.⁴⁹

Summary

An NVES provides an affordable method to support the shift of Australia's vehicle fleet toward low- and zero-emission vehicles. It aims to enhance energy efficiency, reduce fuel consumption, lower operational expenses, and decrease the reliance on fossil fuels.⁵⁰

The Clean Energy Association of Newcastle and Surrounds (CLEANaS) strongly supports the implementation of an aggressive Australian New Vehicle Emission Standard (NVES Option C:Fast start) that catches up with US and European emission targets, makes the Australian vehicle market highly appealing for low- and zero-emissions vehicles, maximises savings to the consumer, maximises the reduction in greenhouse gas emissions and delivers steep reductions in emissions early.⁵¹

Similar to Australia, transport emissions in the Hunter region represent over 21% of our region's emissions and around 6% of Australia's overall transport emissions. In 2021/2022, 99% of these emissions were from road transport.⁵² Road transport is currently filled with

⁴⁷ Bleakley, D. (2023). *EV Council says vehicle standard needs to catch up with rest of world before 2030*. The Driven.

<https://thedriven.io/2023/05/25/ev-council-says-vehicle-standards-needs-to-catch-up-with-rest-of-world-before-2030/>

⁴⁸ Whitehead, J. (2023). *Recommendations for an Australian New Vehicle Efficiency Standard*. Electric Vehicle Council.

<https://electricvehiclecouncil.com.au/reports/recommendations-for-anaustralian-new-vehicleefficiency-standard/>

⁴⁹ Pocock, D. (2023, May 31). *Response to: The Fuel Efficiency Standard – Cleaner, Cheaper to run Cars for Australia*. https://www.davidpocock.com.au/strong_fuel_efficiency_standards

⁵⁰ Smit, R., Khan, T. & Yang, Z. (2024, Feb). How Australian light-duty vehicle CO₂ emissions compare with the rest of the world. ICCT.

<https://theicct.org/publication/australian-ldv-co2-emissions-compare-to-the-rest-of-the-world-feb24/>

⁵¹ Climate Council. (2021, Aug 30). *Emission Reduction Targets: What you need to know*.

<https://www.climatecouncil.org.au/wp-content/uploads/2021/10/Explainer-Emissions-Reduction-Targets-October-2021.pdf>

⁵² Ironbark Sustainability and Beyond Zero Emissions. (2023). *2022 Snapshot emissions profile – Ironbark Sustainability and Beyond Zero Emissions*. Snapshot. Retrieved 24 February 2024, from <https://snapshotclimate.com.au/>

highly-polluting cars that are driving up transport emissions and contributing to poor air quality and deleterious health outcomes.⁵³

Consequently, the implementation of a strong NVES has the opportunity to provide significant benefits to the local community through reduced emissions, reduced dependence on fossil fuels, and significant health and financial benefits in the near future.

CLEANaS is dedicated to driving the uptake of clean energy in our region, reducing our dependence on fossil fuels to a more competitive and sustainable local economy. Clean energy initiatives must be a win-win for our local community and business, and of course the environment. An effective and strong NVES aligns with the vision and goals of CLEANaS.

The continued rise in transport emissions poses a significant challenge to Australia's commitments under the Paris Agreement and its legislated 2030 emissions reduction targets. The NVES, whether through Option B or Option C, is insufficient to tackle this emission surge. Additional policies and measures are necessary. These should include:

- Removal of Parallel Import Restrictions
- Regulate to ban the import of HFC-charged automotive air conditioners
- Policies and measures to curb increased use of cars and kms travelled
- Policies and measures to curb increased sale of larger cars

Option B and Option C are comparable in most respects. However, Option C offers over 19% additional benefits to consumers and over 30% more emission abatement compared to Option B by 2030. Given that transport emissions are moving in the wrong direction and offsetting gains in other sectors, it is crucial to maximise emissions reduction efforts through transport policies like the NVES. This approach is essential for Australia to fulfil its commitments under the Paris Agreement and meet its legislated 2030 emissions reduction targets. Therefore, Option C is the appropriate choice.

Thank you for considering our submission,

Sincerely,

Alec Roberts
CLEANaS Chair on behalf of CLEANaS

⁵³ Bicycle Network (2024, Feb 15). *Share your thoughts on Australia's new fuel efficiency standards.* <https://bicyclenetwork.com.au/newsroom/2024/02/15/share-your-thoughts-on-australias-new-fuel-efficiency-standards/>