AUSTRALIAN CONSERVATION FOUNDATION

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ACF Submission to the National Electric Vehicle Strategy Consultation paper October 2022

The Australian Conservation Foundation (ACF) welcomes the opportunity to comment on the National Electric Vehicle Strategy Consultation paper.

ACF is Australia's national environment organisation. We are over 700,000 people who speak out for the air we breathe, the water we drink, and the places and wildlife we love. We are proudly independent, non-partisan and funded by donations from our community.

ACF believes Australia and the world face an unprecedented climate and mass extinction crisis caused first and foremost by digging up and burning fossil fuels like coal, oil, and gas.

Through its reliance on fossil fuels, transport is a significant source of toxic air pollution, which contributes to an estimated 4,880 premature deaths each year– three times Australia's road toll (Walter 2019). The economic cost of the health impacts of transport-related air pollution is approximately $1.6 - $3.8 billion annually (BITRE 2005). As the Federal Government focuses on rebuilding Australia's economy and climate ambition, sustainable transport measures are a clear opportunity to create jobs, reduce costs for motorists, and reduce air and greenhouse gas pollution.

Sustainable transport opportunities include adopting fuel efficiency standards, setting electric vehicle targets, supporting the uptake of priority transport technologies, supporting local transport manufacturing jobs, as well as active and public transport, including micro-mobility (including ebikes, cargo bikes and scooters).

Introduction

Australia needs a national approach to reduce climate emissions in line with the science-based temperature goals that Australia committed to under the Paris Agreement. This means a national effort is required to help keep global warming below 1.5 degrees. Policy and planning for the Australian transport sector, including hard to reduce segments, needs to be holistic to contribute to our emission reduction goals, and to link to nature protection, social inclusion and health outcomes. That is, electric vehicles and transport, including e-mobility, micro-mobility, active transport and access all need to be considered.

Transport is one of Australia's largest and fastest growing sources of greenhouse gas emissions, representing almost 19% of annual emissions (See Figure 1). Transport emissions have increased by 5.4% (4.6 Mt CO2-e) in the last 12 months, reflecting the continuing recovery from the impacts of COVID restrictions on movement (DCEEW 2022). The vast majority – 81% – of transport emissions relate to road transport, particularly cars (ClimateWorks 2020).

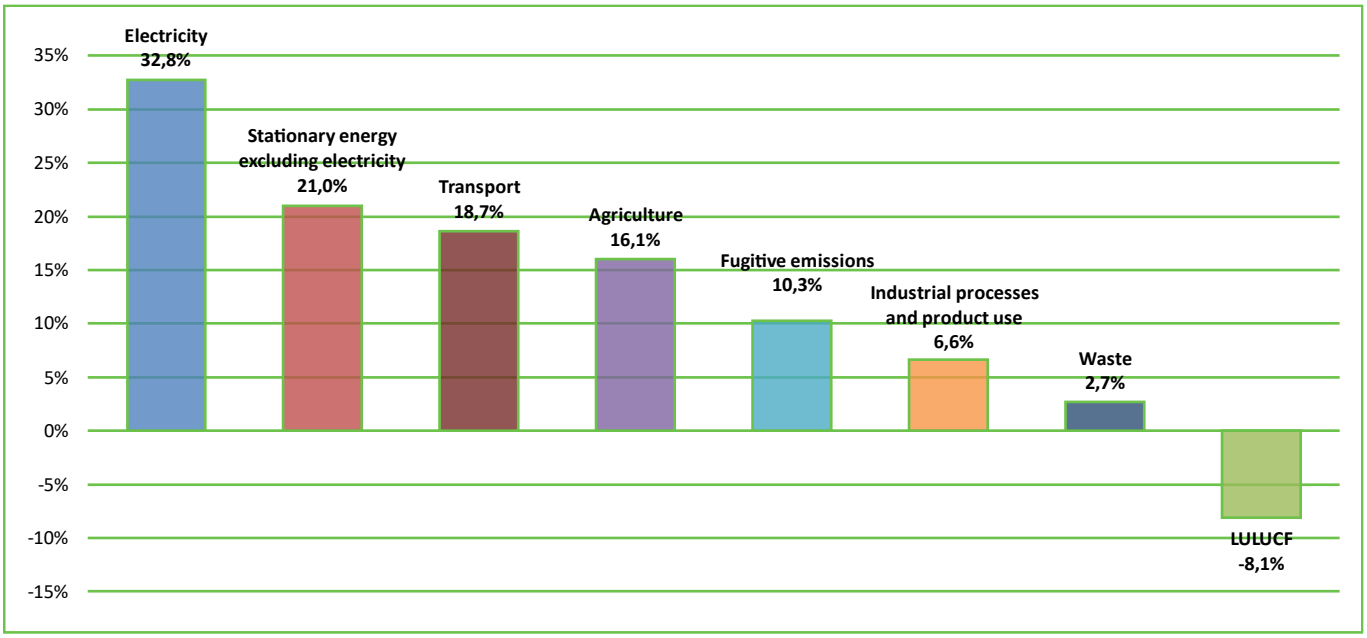

Figure 1: Share of total emissions, by sector, for the year to March 2022 (Source: DCEEW 2022)

Transitioning Australia's transport sector to a clean, reliable renewable energy-based system is a critical element of Australia's transition to net zero emissions and economy-wide action on climate change. All reforms made to the sector should strongly support Australia's clean energy transition and achievement of a zero-emission electricity grid as soon as possible.

The current federal government has made clear that energy reform must support decarbonisation. They have committed to an energy transition that will achieve at least 82% renewable energy by 2030 and have legislated climate targets of at least 43% emissions reduction by 2030 and net zero emissions by 2050.

Policy and planning for the Australian transport sector needs to contribute to our emission reduction goals, and link to nature protection, social inclusion and health outcomes.

Summary Position and Recommendations

ACF's four key priorities for the strategy:

1. increased availability and variety of electric vehicles;
2. introduction of mandatory fuel efficiency standards (FES) for all segments;

3. embedded equity principles that help allow low-income households access to electric vehicles; and
4. increased local manufacturing and supply chains.

Recommendation 1: *Update the objectives to include increasing EV supply, to promote active transport, to integrate EVs with broader transport and town planning including social, economic and environmental outcomes.*

Recommendation 2: *Develop a range of indicators that reflect the broader environmental, social, economic and governance outcomes of the strategy's goals and objectives that ensures we are both on track, and undertake periodic review to ensure improvement.*

Recommendation 3: *Work with the community sector to develop equity principles, incentives and mechanisms to target low-income and priority households and small business to access electric vehicles and micro-mobility options.*

Recommendation 4: *The ALP government commit to establish vehicle fuel efficiency standards.*

Recommendation 5: *The government commission updated expert advice from the Climate Change Authority (which recommended a clean car standard in 2014). This advice should include an appropriate emissions trajectory to be achieved through standards, and their contribution to achieving Australia's climate targets. From the Department of Climate Change, the Environment and Water or the Productivity Commission advice should be sought on achieving the best overall outcome for motorists including the comparative cost-benefit ratios of proposed standards.*

Recommendation 6: *At minimum, the fuel efficiency standards considered should be as strong as the preferred standard in 2017 (105 gCO_2/km) with a phase-in period and a set timeframe for further increasing the standard to align with the EU standard.*

Recommendation 7: *Scheduling a national ban on the sale of new internal combustion engine vehicles in Australia from 2030.*

Recommendation 8: *Set an electric vehicle (or zero emissions vehicle) sales target to help drive EV uptake. The recommended target is to achieve 100% of new car sales as EVs by 2030.*

Recommendation 9: *Set interim targets to be achieved on the pathway to 100% new cars sales – including for 10% of new car sales to be EVs by 2024/25. These targets will signal to the market and to manufacturers that Australia will be transitioning our vehicle fleet and prioritising purchase of new clean vehicles.*

Recommendation 10: *Setting targets to transition the Federal Government's vehicle fleet to electric—including setting a target to transition all government-owned and leased road vehicles to electric vehicles by 2030, with 75% of new Commonwealth fleet purchases and leases to be 'zero emissions' by 2025, and commit to a 100% EV government fleet by 2027 to support the creation of a local second-hand EV market.*

Recommendation 11: *Electrifying regional and freight rail, and powering these networks with renewable energy.*

Recommendation 12: *Provide direct and indirect support to local electric bus manufacturers including by setting a target to transition Australia's bus fleets.*

Recommendation 13: *Invest in public and active transport to improve consumer choice as well as access to education and employment opportunities.*

Recommendation 14: *Provide support for micro transport options, such as e-bikes and scooters.*

Recommendation 15: *Direct budget funding away from roads and private cars (such as fuel tax credits),* towards *more efficient transport options like rail, public transport, cycling and walking and freight rail.*

Recommendation 16: *Fast track and expand investment in public and active transport infrastructure, and electric vehicle charging infrastructure.*

Recommendation 17: *Assisting local governments to fund development of shovel-ready bike lanes and cycle ways.*

Consultation Questions

1. Do you agree with the objectives and do you think they will achieve our proposed goals? Are there other objectives we should consider?

Recommendation 1: Update the objectives to include increasing EV supply, to promote active transport, to integrate EVs with broader transport and town planning including social, economic and environmental outcomes

Electric vehicles should not be treated in isolation. The goals and objectives should be broadened to clearly state the strategy will integrate EVs with broader transport and town planning. The high-level goals of the strategy should reflect, integrate and enable broader social, economic and environmental outcomes from transport policy, including stating that access to EVs and e-mobility should be available to all Australian (and not just those with higher incomes).

Under the Avoid/Shift/Improve framework for example, there is a need to promote active transport and a shift to more efficient transport options, such as public transport and electrified freight rail. We recommend objectives that enable mode shift from personal vehicles to public and active transport, and that prioritise more affordable and healthier options such as micro-mobility (e.g., scooters, ebikes, and cargo bikes). These shifts will lead to healthier cities and regions and reduce the development and nature impacts of road building.

ACF supports the three broad objectives but recommends that encouraging rapid increase in supply of EVs be added to the list:

- Encourage rapid increase in supply of EVs.
- Encourage rapid increase in demand for EVs.
- Increase supply of affordable and accessible EVs to meet demand across all segments.
- Establish the systems and infrastructure to enable the rapid uptake of EVs.

To a large extent, existing demand is being curtailed by limited EV supply and poor selection. As such, it should be a priority to rapidly increase the supply of EVs and we recommend that it be included as a fourth objective.

We further recommend that equity considerations be integrated into the National EV Strategy and that measures be incorporated to ensure that EVs can be accessed by all households and businesses. The objectives therefore need to include an equity component, such as increasing access for low-income households, people with a disability, social housing, private renters and small business.

Noting the stated strategy goals of *reducing emissions* and *save Australians money on fuel*, it needs to be acknowledged that electric vehicle policy and support needs to prioritise battery electric vehicles (BEVs) over plug-in hybrid electric vehicles (PHEV). PHEVs still rely on fossil fuels and the objectives need to reflect this. PHEVs may reduce range anxiety, but technology and infrastructure development should focus on battery range and charging infrastructure to be able to completely phase out fossil fuel based transport.

We also note the strategy objectives include hydrogen refueling infrastructure as a barrier to EV uptake. Based on the current state of hydrogen fuel cell vs BEV technology, and their respective cost, global uptake, and infrastructure investment, ACF believes that hydrogen potentially has a limited role for heavy vehicles, but not light passenger vehicles. There are more efficient and economic alternatives in the lighter vehicle range. Relying on even green hydrogen when there are alternatives will make decarbonisation more difficult and expensive. Fuel Cell Electric Vehicles (FCEVs) are more complicated and expensive to maintain than BEVs, involve an extra energy conversion step, and miss the opportunity of using EVs to support the grid. As such, addressing barriers for hydrogen FCEVs for light vehicles should not a priority in the strategy.

2. What are the implications if other countries accelerate EV uptake faster than Australia?

A clear impact of other countries accelerating EV uptake faster than Australia is already evident in the small number of EV options available to Australia and reduced opportunities for decarbonisation of transport. While market share increased 65% in 2022, EVs only make up a small fraction of new car sales in Australia – approximately 3.39% (Electric Vehicle Council 2022) compared to around 85% in Norway (CleanTechnica 2022). At the same time sixteen countries are planning to phase out fossil-fueled vehicles, including scheduled bans on sales in the United Kingdom, France, China and India, and more than 30 major cities around the world have pledged to buy only zero-emissions buses from 2025, including London, Los Angeles, Auckland, Jakarta, and Moscow (ClimateWorks 2020).

As such, vehicle manufacturers do not currently see Australia as a strong market growth opportunity, mostly due to our absence of fuel efficiency standards (FES). This means that Australia will become, and to some extent already is, the dumping ground for inefficient vehicles. This could include PHEV's. If PHEVs are not excluded from the strategy's objectives, Australia risks becoming a PHEV dumping ground as other nations phase them out.

While discussed below, introducing FES will also reduce the adverse impact of fossil-fueled vehicles on the Australian economy, health of Australians and choice of electric vehicles.

Furthermore, the price of petrol is steeply increasing due to global factors including the war in Ukraine. Australia imports around 90% of our liquid fuels – and our dependence on imported fuels has become a matter of national

security. Being seen as a secondary market by manufacturers means Australia's transport sector will continue to rely carbon intensive and expensive fuels that are dangerously polluting.

It is accepted that while the upfront cost of electric vehicles is considerably higher than that of internal combustion engine (ICE) vehicles, ICE vehicles cost motorist considerably more over their lifetime. This means that Australian motorists will continue to pay more for road transport if they remain reliant on ICE vehicles.

There is also an equity component to this reliance, in that low-income households will continue to pay more of their income on fuel. An indirect impact is that those households often access electricity concessions, which would help them pay to charge EVs if they could access them.

3. What are suitable indicators to measure if we are on track to achieve our goals and objectives?

Recommendation 2: Develop a range of indicators that reflect the broader environmental, social, economic and governance outcomes of the strategy's goals and objectives that ensures we are both on track, and undertake periodic review to ensure improvement.

The strategy has clear goals and objectives. These should be framed in a way that is measurable, and meaningful in terms of environmental, social, economic and governance outcomes. As a starting point, some of these may include:

Strategy goals:

- Make EVs more affordable
  - New EVs under $60,000, $40,000 and second hand EVs $20,000 and $10,000
  - Increase the number of second-hand vehicles available in the Australian market
  - Secondhand vehicles in bands, e.g. up to $4,999; $5000 to $9,999; $10,000 to $15,000 etc.
  - Number of EVs per household income band (excluding low income, high capital households)
  - Vehicles accessible through low-income household rebates, or the No Interest Loans Scheme (NILS)
- Expand EV uptake and choice
  - Percentage of households and businesses with EVs
  - Average price paid by households or businesses
  - Number of options and models available
- Reduce emissions
  - Emissions – see paragraph below
  - Comparison to equivalent ICEV's
- Save Australians money on fuel
  - Average annual household or business expenditure on fuel
- Increase local manufacturing.
  - Number of local vehicles manufactured (all segments)
  - Local manufactured as a percentage of sales for all segments
  - Components manufactured

Strategy Objectives:

- Encourage rapid increase in demand for EVs.
  - EV sales as a percentage of new vehicles
  - Waiting times for new and second-hand import vehicles
- Increase supply of affordable and accessible EVs to meet demand across all segments
  - Similar to strategy goal around affordability, but banded segment.
  - Number of vehicles in social housing
- Establish the systems and infrastructure to enable the rapid uptake of EVs.
  - Number, type and geographic spread of charging stations, including distances in remote communities

A clear indicator is the emissions of greenhouse gases from transport as a contribution to Australia's National Greenhouse Gas Inventory, and the contribution to the national 43% emission reduction target. The transport sector is currently responsible for 19% of Australia's emissions. While ACF acknowledges transport will never make a fair contribution to the 43% target by 2030 due to the use of the current national ICE fleet, strong EVs based on a renewable energy powered grid will contribute emission reductions beyond 2030, potentially reducing the burden on other harder to abate sectors.

As an overall objective of transport policy needs to be a reduction of resource use, as well as mode shift and a reduction in km/travelled, targets need to be in percentage of vehicles purchased and not total number of vehicles, and EV vehicle kilometres travelled (VKT) as a proportion of total VKT. VKT will assist in understanding the mode change behaviours in households and business requiring freight services. Consideration should be given to indicators of micro-mobility.

The strategy should also enable local manufacturing. As such indicators around both vehicles and components manufactured in Australia should be considered.

ACF is also aware that some modelling around the real world emission of PHEVs is underestimating their emissions (Anthony Broese van Groenou, The Good Car Co., personal communication). Real life emissions of all classes of vehicles should be measured and reported.

4. Are there other measures by governments and industry that could increase affordability and accessibility of EVs to help drive demand?

Recommendation 3: Work with the community sector to develop equity principles, incentives and mechanisms to target low-income and priority households and small business to access electric vehicles and micro-mobility options.

Social equity demands that rebates and other incentives should be targeted to increase access to transport options for low-income Australians, and increased e-mobility for priority communities, such as accessing cargo bikes through the National Disability Incentive Scheme (NDIS), or EVs in remote communities.

Many of the mechanisms in place to make electric vehicles more accessible are poorly targeted, arguably assisting middle- and higher-income households to access EVs, many of whom may have the capital to access them already. To assist the transition to EVs, the Federal government should develop and introduce a Clean Car Upgrade program similar to New Zealand and California to help low- and middle-income families replace their old, expensive and polluting vehicles with EVs. This program allows low-income households to trade in older, and often less efficient, ICEVs. Unlike the NZ and Californian programs however, ACF suggests that only BEVs should be eligible. This would leave these families and households with cheaper vehicle running costs. Consideration could be made of utilizing government fleet vehicles being on-sold, or working with Good Shepherd Microfinance do develop a co-funded program through the No Interest Loans Scheme (NDIS) to effectively target households in need.

As a group, low-income households will find it harder to transition and are at risk of being left with polluting vehicles with higher running costs for longer, as they remain cheaper to purchase up front. As with any essential service, such households have ongoing needs as they remain or come and go into hardship. Consequently, any incentives for low-income households should be ongoing, and not just aimed at transitioning them to EVs. This may include access to subsidised repairs, vehicle modifications through the NDIS, access to charging infrastructure or extend to e-mobility devices.

To jump the hurdle of higher up-front capital, greater choice may also include access to leasing or car share options, including at the community, neighbourhood, family or social circle levels. This could for example be through developing a car share or social lease scheme through community service organisations. Indigenous land councils and Indigenous Housing providers could also offer a pathway for supporting remote communities accessing EVs and micro-mobility options. France has recently announced a leasing scheme for low-income households.[1] This scheme may remain out of reach of many households in hardship, but merits further consideration. Car share schemes offer an additional option of potentially making use of secondhand vehicles with shorter ranges as an option amongst a car share fleet (e.g. participants could be charged a lower rate for such vehicles needed for short trips).

5. Over what timeframe should we be incentivising low emission vehicles as we transition to zero emission vehicles?

ACF considers that the strategy should only be incentivising zero emissions and battery electric vehicles, and that this should be across all segments. That is, low emissions vehicles such as PHEVs should not be incentivised. We need early emission reductions and to decarbonise the transport sector as soon as possible. ACF has a view that we should be aiming for 100% EV sales by 2030.

[1] https://www.carexpert.com.au/car-news/france-planning-145-per-month-ev-lease-for-low-income-households

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6. What information could help increase demand and is Government or industry best placed to inform Australians about EVs?

The strategy should include an education component promoting EVs of all segments, including heavy vehicles, buses, and cargo bikes for homes and businesses. As with many other essential services, such as energy, consideration should be made of who provides such education. The provider should be seen as being trustworthy by the target audience. This may be peak industry groups for business, or community sector organisations and environmental NGOs for the broader community. Much of the above information could also be provided through financial counselling organisations working directly with households in need, including those with translation services.

Consideration could also be made of following a principle of reducing advertising for ICE vehicles in any government co-funded programs.

There is an increasing range of cargo bikes, including those capable of carrying passengers, and even mobility aids such as wheelchairs. Cargo bikes could also be used for the final route of deliveries and short distance deliveries, reducing congestion and emissions, and improving health. Information on improvements to town planning to enhance e-mobility infrastructure to support local government, and the types, uses and providers of micromobility to support households and businesses should be provided.

7. Are vehicle fuel efficiency standards an effective mechanism to reduce passenger and light commercial fleet emissions?

Recommendation 4: *The ALP government commit to establish vehicle fuel efficiency standards.*

Recommendation 5: *The government commission updated expert advice from the Climate Change Authority (which recommended a clean car standard in 2014). This advice should include an appropriate emissions trajectory to be achieved through standards, and their contribution to achieving Australia's climate targets. From the Department of Climate Change, the Environment and Water or the Productivity Commission advice should be sought on achieving the best overall outcome for motorists including the comparative cost-benefit ratios of proposed standards.*

Recommendation 6: *At minimum, the fuel efficiency standards considered should be as strong as the preferred standard in 2017 (105 gCO_2/km) with a phase-in period and a set timeframe for further increasing the standard to align with the EU standard.*

Besides reduced greenhouse gas pollution, mandatory fuel efficiency standards offer a range of benefits including better health and air quality, clarity for manufacturers providing vehicles into the Australian market, reduced reliance on fuel imports and reduced running costs. Fuel efficiency standards, however, are set across the fleet of vehicles sold by a manufacturer and will only impact new vehicles (individual high emission vehicles can still be

sold if the average is met). Broader policy and mechanisms are required to reduce emission of existing fleet and to encourage mode shift to active transport and electric rail.

The necessary preparatory work has already been done to introduce fuel efficiency standards (called a vehicle emissions (CO2) standard) in 2017 in Australia, including a draft Regulatory Impact Statement (RIS) that resulted in a preferred standard. A parallel process was also conducted to set a higher noxious emission standard. In 2017, the Ministerial Forum on Vehicle Emissions Standards consulted on introducing a vehicle emissions standard for new passenger vehicles. The preferred standard that resulted was 105 gCO2/km to be reached by 2025. This would have been set as a fleet average, meaning it would not prevent the sale of more polluting vehicles, but they would have needed to be offset by zero or low emissions vehicles to stay within the average. The proposed standard was substantially weaker than the European Union's but was in line with what was being proposed in North America.

The government's own modelling at the time showed that an average motorist purchasing an average performing passenger vehicle in 2025, could save $519 per year in fuel costs based on the proposed fuel efficiency standard. The increase in the cost of petrol since 2017 would undoubtedly make this annual saving even higher if implemented today. The Queensland Government (2022b) has estimated that a lower-end zero-emission car costs as little as $3 per 100km to operate, compared to $14.25 for a four-cylinder internal combustion engine. In addition, the Electric Vehicle Council has estimated that service and repair costs are 70% cheaper per kilometer compared to traditional cars.

Despite this body of work to progress a fuel efficiency standard, the effort was shelved by the previous federal government. As a result, the average emissions intensity of new passenger vehicles purchased in Australia is around 41% higher than for Europe. The National Transport Commission (2022) found that in 2021 of all new passenger cars sold in Australia around 45% had an emissions intensity of 160 g/km or less, compared with Europe where almost 90% of cars sold did. The average emissions intensity for new passenger vehicles in Australia was higher than 160 gCO2/km, compared with 115 gCO2/km in European countries, 28 gCO2/km in Norway to 146 gCO2/km in Cyprus (National Transport Commission 2022).

Multiple studies have found that vehicle fuel efficiency offers one of the lowest cost emissions reduction opportunities in Australia. The International Energy Agency, for example, has found that globally light vehicle emissions standards are proven to reduce large amounts of emissions at low cost. CSIRO modelling found that vehicle standards offer significant, low-cost emission reductions with fuel savings likely to provide a private payback in just a few years. The finding in the Department of Infrastructure's draft Regulatory Impact Statement (RIS) - noted above - supported these findings.

Climate change is a genuine crisis that requires rapid emissions reduction and transport, at around 19% of Australia's emissions, is a key sector in need of immediate action. But there are further reasons to increase fuel efficiency and to phase out petrol and diesel vehicles. The price of petrol is steeply increasing due to global factors including the war in Ukraine. Australia imports around 90% of our liquid fuels – and our dependence on imported fuels has become a matter of national security. It is hard to deny that shifting Australia to more fuel-efficient vehicles – and as rapidly as possible to zero emissions vehicles – should be a national priority.

Setting fuel efficiency standards is a key policy needed to increase the uptake of Electric Vehicles and help transition Australia to zero emissions transport.

Interim industry-led code

In 2020, the **Federal Chamber of Automotive Industries (FCAI)** announced an 'industry-led' code to reduce vehicle emissions and to help bring more hybrid, plug-in hybrid, and EVs to Australia. The code called for manufacturers to reduce passenger vehicle emissions by 4.0% per annum, and reduce SUV and light–commercial (e.g. utes) emissions by 3.0% per annum across their fleets for the next decade. It has been reported that more than 40 automotive brands in Australia supported the initiative. The goal is for carmakers to have passenger vehicle fleet emissions below 100g/km of CO_2 by 2030, and light-commercial fleet emissions below 145g/km.

While this is a positive step forward, there is no penalty if manufacturers do not meet the standard, and it is a low target compared to the ambition of other countries, especially the EU, which previously placed a fleet emissions target of 95g/km on the industry with a 2021 deadline.

The industry code was a useful undertaking in the absence of federal policy but is not a substitution for national standards set in legislation.

8. Would vehicle fuel efficiency standards incentivise global manufacturers to send EVs and lower emission vehicles to Australia?

Bringing more EVs into Australia is an urgent priority and setting fuel efficiency standards is the most effective way to increase supply as manufacturers prioritise EV supply to countries where there are strong standards (ClimateWorks Centre 2022). Australia is one of only a handful of OECD countries without vehicle fuel efficiency standards (FES). More than 80% of global automotive markets have vehicle emissions (fuel efficiency) standards in place, including India, Japan, the EU, Canada, Brazil, Mexico and South Korea. There is a need to improve vehicle efficiency by adopting mandatory fuel efficiency standards and stronger noxious emissions standards for vehicles (and introducing electric vehicle targets).

FES will encourage car manufacturers to supply fuel-efficient and electric vehicles to Australia, improving consumer choice and making it easier and cheaper to access popular electric vehicle models. Vehicle manufacturers preference countries with standards – they manufacture to meet standards, and countries without them get a smaller range of models. In Australia that has meant limited choice, especially in the most affordable categories. There are about 45 options (and 95 variants) of light vehicles (cars, vans and utes) available in Australia (EVC 2022), compared to 400 worldwide, and just five of those are under $60,000 (Boston Consulting Group 2022).

9. In addition to vehicle fuel efficiency standards for passenger and light commercial vehicles, would vehicle fuel efficiency standards be an appropriate mechanism to increase the supply of heavy vehicle classes to Australia?

Heavy vehicles, including buses and articulated and rigid trucks, account for 22% or road transport emissions, while light passenger vehicles contribute 45% (DISER 2021), demonstrating the need to decarbonise all transport segments. Heavy vehicle users such as Woolworths, Linfox and AGL are calling for fuel efficiency standards to be legislated McIllroy 2022). Internationally, other countries have fuel efficiency standards for heavy vehicles, such as EU, Canada, USA and Japan, and the European Commission have presented a legislative proposal to set the first ever CO2 emission standards for heavy-duty vehicles in the EU (Climate Analytics 2020). It is therefore likely that without fuel efficiency standards for heavy vehicles, manufactures are less likely to participate in the Australian market, and consequently Australia will fall behind and become a dumping ground for less efficient heavy vehicles.

10. What design features should the Government consider in more detail for vehicle fuel efficiency standards, including level of ambition, who they should apply to, commencement date, penalties and enforcement?

11. What policies and/or industry actions could complement vehicle fuel efficiency standards to help increase supply of EVs to Australia and electrify the Australian fleet?

Set strong EV targets and measures to increase uptake of EVs

Recommendation 7: *Scheduling a national ban on the sale of new internal combustion engine vehicles in Australia 2030.*

Recommendation 8: *Set an electric vehicle (or zero emissions vehicle) sales target to help drive EV uptake. The recommended target is to achieve 100% of new car sales as EVs by 2030.*

Recommendation 9: *Set interim targets to be achieved on the pathway to 100% new cars sales – including for 10% of new car sales to be EVs by 2024/25. These targets will signal to the market and to manufacturers that Australia will be transitioning our vehicle fleet and prioritising purchase of new clean vehicles.*

Recommendation 10: *Setting targets to transition the Federal Government's vehicle fleet to electric—including setting a target to transition all government-owned and leased road vehicles to electric vehicles by 2030, with 75% of new Commonwealth fleet purchases and leases to be 'zero emissions' by 2025, and commit to a 100% EV government fleet by 2027 to support the creation of a local second-hand EV market.*

A key action for the federal government would be to set strong EV targets to contribute to the 43% emission target, support electrification and achieve net zero by 2050 (and preferably earlier - ACF believes Australia should strive

to reach net zero emissions by 2035 to do our fair share to limit global warming). Countries are increasingly setting targets to shift completely away from fossil-fueled vehicles to electric and zero-emission vehicles. For example, sixteen countries are planning to phase out fossil-fueled vehicles, including scheduled bans on sales in the United Kingdom, France, China and India (ClimateWorks 2020).

The federal government has committed to an EV target of 75% of new leases and purchases in the Commonwealth fleet by 2025, which ACF supports. We would add that the government should take "fleets first" approach to encourage greater electric vehicle uptake, reduce costs and improve availability through bulk fleet purchasing and commit to a 100% EV government fleet by 2027 to support the creation of a local second-hand EV market.

An electric vehicle (or zero emissions vehicle) sales target should be set to help drive EV uptake. The recommended target is to achieve 100% of new car sales as EVs by 2030. Interim targets should also be set – for example for 10% of new car sales to be EVs by 2024/25. These targets will signal to the market and to manufacturers that Australia will be transitioning our vehicle fleet and will be prioritising purchase of new clean vehicles. Targets on their own are not enough, a ban on the sales of internal combustion engines is also needed, which is supported by the International Energy Agency's view that such a ban is a critical commitment for having a credible net zero policy.

The Australian Capital Territory (ACT) for example, recently announced plans to end sales of new petrol and diesel vehicles by 2035 as part of a wide-reaching electric vehicle strategy (ACT Government 2022). By 2030, the ACT is aiming for 80-90 per cent of new vehicle sales to consist of zero-emissions vehicles (ZEVs), or battery-electric and hydrogen fuel-cell electric vehicles. The ACT is also advocating for vehicle emissions standards on a federal level, as well as reform of vehicle-related taxes like fuel excise tax write-offs, import tariffs, and the Luxury Car Tax (LCT). Queensland has also outlined a goal to have 200,000 zero emission vehicles in the state by 2027.

Although electric car sales have tripled in Australia since 2020, to 26,356 YTD to September year, and electric cars now make up 3.39 per cent of all vehicles sold nationally (EVC 2022), that is still a tiny share of the market and is far outstripped by sales in other countries. Australia needs clear policy support, including fuel efficiency standards, further measures to help reduce upfront costs, and a well-coordinated national EV charging network.

Current state targets (ClimateWorks Centre 2022):

- ACT is nation-leading at 80-90% by 2030 and 100% by 2035
- QLD - 50% of new passenger vehicle sales to be zero emission by 2030, moving to 100% by 2036 (Queensland Government 2022a)
- VIC - EV sales targets: 50 per cent new light vehicle sales by 2030.
- TAS - Tasmania's Liberal government has pledged to transition its car fleet to 100 per cent electric vehicles by 2030 (Department of State Growth)
- WA - 50 per cent by 2030
- NSW - intention to increase EV sales to 52% by 2030–31 and help NSW achieve net-zero emissions by 2050

12. Do we need different measures to ensure all segments of the road transport sector are able to reduce emissions and, if so, what government and industry measures might well support the uptake of electric bikes, micro-mobility and motorbikes?

Recommendation 11: Electrifying regional and freight rail, and powering these networks with renewable energy.

While all segments need to contribute to the decarbonisation of transport if we are to get to net zero carbon, ACF acknowledges that decarbonisation of heavy vehicles is likely to be more difficult than other transport sectors, ACF supports a target 30% of new truck and bus sales being EVs by 2030. ACF supports the business community's calls to support manufacturing through an industry development plan reaching into the regions and suburbs. Such a plan would also consider priority segments and financing mechanisms to support business access to EVs of all segments.

Other measures would include a significant increase in charging infrastructure. ACF supports the Electric Vehicle Councils recommendation of multi-bay charging stations every 70 kilometres along arterial roads, and 5 kilometres in urban areas, with consideration for providing access to electric cars, buses, trucks and other EVs.

Rail is currently a missed opportunity for the electrification and decarbonisation of the transport sector. It was not acknowledged in the strategy consultation document, nor Labors Powering Australia plan. While rail makes a relatively small contribution to Australia's transport emissions (6%, ISCA, ClimateWorks and ASBEC (2020)), electrified rail is a key element of the transition to electric transport and is a more efficient way to transport goods. However only around 7% of Australia's 41,500-kilometre rail network is electrified (National Transport Commission 2016). Governments have a key role to play in electrifying rail, as the owners and managers of Australia's passenger and freight rail network. As with other forms of public transport, passenger rail can reduce the need for vehicle ownership. The rail and rolling stock industry employs thousands of workers in Australia, including being a significant source of employment in rural and regional Australia (Commonwealth of Australia 2017). The expansion of passenger and rail freight offers a clear opportunity for training and employment, and more efficient long-distance passenger and freight transport.

13. How could we best increase the number of affordable second hand EVs?

All members of society should be able to access EVs (and other Consumer Energy Resources (CER), including e-bikes). Affordable means different things to different households and businesses, should include vehicles less than $10,000 to be accessible to low-income households and small business.

While there are some rebates and subsidies available for EVs, ACF is concerned they are poorly targeted in that they are been taken up by higher income households, and that they are often for new vehicles and not secondhand vehicles (including for private, commercial and industry). Rebates could be means tested, but access should be automated so that less up-front capital is needed, and not reliant on consumers being both aware of the opportunity and needing to fully understand complicated application processes. That is, we should learn from the

energy sector's experience, where many low-income households and concession holders are unaware of their rights, or unable to engage in the process, and miss out on concessions and rebates they are in fact eligible for. Any process to increase EV affordability should not require significant consumer engagement, which acts as a barrier.

Increasing government and corporate fleets that are then on-sold in a secondhand market is a much stronger and effective mechanism, rather than reducing border restrictions. Federal Labors' Powering Australia plan acknowledges the role they can play through kick starting a secondhand EV market from government fleet after sales. Consideration could be made of ownership to less than the normal 3 years for some lower end vehicles before being put to market. Other options could be considered, such as reduced prices for social housing providers, bulk buys for car shares, or making them available to NILS providers. Similar concessions could be made to small business for commercial models, such as utes and vans.

Consideration should also be made of subsidised charging infrastructure, especially in social housing. This should also be extended to electric cargo bikes and cargo bike share schemes. This would also require planning for safe cycling infrastructure, including locking, storage and access, including to mount gutters and access bike racks in public spaces. Cargo bike owners have reported being fined or threatened to have their bike confiscated for not using provided cycling facilities in government buildings and universities, even though they couldn't physically access the racks, or enter under building cycling facilities.

Many second-hand vehicles that may be purchased by low-income households are likely to have short ranges. Consideration could also be made of incentives for battery upgrades as part of the purchase, similar to rebates for home batteries, which would also create a market for battery manufacturing for upgrades.

Consideration should also be given to the No Interest Loans Scheme (NILS). Currently NILS vehicle loads are limited to $2000 to $5000. This should be reviewed to consider the life-cycle costs, perhaps even extending the 48-month financing period.

14. Should the Government consider ways to increase the supply of second hand EVs independently imported to the Australian market? Could the safety and consumer risks of this approach be mitigated?

The success and popularity of business models such as the Good Car Company is testament to a strong need for increased supply of second-hand vehicles. Households and business, however, are waiting for a second-hand vehicle with a longer battery range and to become more affordable.

ACF supports the introduction of legislation by the Federal Government to provide a discount through the fringe benefits tax exemption for zero and low emissions vehicles that are under the luxury car threshold. This should only apply to BEVs, and not PHEVs, as they still require fossil fuels and slow down the rate of de-carbonisation. This could also be extended to support second had vehicle imports via the inclusion of earlier manufacturing dates of vehicles included in the fringe benefits tax. Consideration would of course need to be made of vehicles safety standards, and ensuring that there are mechanisms for consumer protections such as recall notices reaching the

purchaser. Inclusion of second-hand vehicles through the FBT would broaden the availability to small business, not just higher income households.

In terms of safety and consumer protections, the Good Car Co. have suggested the safety and emissions standards of both Japan and the UK are better than Australia so we would therefore not be sacrificing quality. There are also mechanisms that could be put in place and regulated (if not already), such as road worthiness and technical diagnostics.

ACF supports the proposal of the Australian Electric Vehicle Association (AEVA 2022) to update the Road Vehicle Standards Act 2018 (RVSA) and the subordinate Road Vehicle Standards Rules 2019. The Road Vehicle Standards Act 2018 (RVSA) and the used zero emission vehicles subordinate Road Vehicle Standards Rules 2019 currently restrict the trade and the importation of secondhand EVs, specifically clauses 129 and 129A. These clauses prevent the importation of vehicles that have been previously imported into Australia by the manufacturer, even when only very small numbers (say 100 or so) were ever imported. The clauses need to be amended to allow third parties to import previously larger numbers of EVs.

15. What actions can governments and industry take to strengthen our competitiveness and innovate across the full lifecycle of the EV value chain?

16. How can we expand our existing domestic heavy vehicle manufacturing and assembly capability?

Recommendation 12: *Provide direct and indirect support to local electric bus manufacturers including by setting a target to transition Australia's bus fleets.*

Transitioning Australia's heavy vehicle and bus fleets to electric represents an opportunity to reduce congestion, air and noise pollution in cities, provide affordable access to transport, support local manufacturing of electric heavy vehicles buses as well as reducing greenhouse gas emissions.

More than 30 major cities around the world have pledged to buy only zero-emissions buses from 2025, including London, Los Angeles, Auckland, Jakarta, and Moscow (ClimateWorks 2020). The New South Wales Government has set a strong target for electric buses, committing to transition its entire bus fleet of 8,000 vehicles to electric (The Driven 2020). Brisbane City Council is introducing a new fleet of 60 all-electric, high-capacity vehicles, and Hitachi is delivering the bus charging technology. In South Australia, Precision Buses is manufacturing electric buses for use on the state's public transport system and airport.

Australia's budding electric bus manufacturing industry will provide an opportunity not only for local manufacturing jobs, but to drive down the pollution from our current bus fleets. For example, Nexport, Australia's largest producer of zero emissions buses, is already expanding near Sydney due to high demand. While states (e.g., NSW) have supported electric bus manufacturing with their own targets to transition to electric, there is much

more that should be done to speed up the transition to clean buses while growing a new manufacturing opportunity.

With regards to heavy vehicles, outdated Australia Design Rules make it harder to import vehicle models readily available elsewhere (Electric Vehicle Council 2022). The ADR needs to be updated to increase vehicle width to at least 2.55m. Other policy actions to support the adoption of electric trucks include a 1 tonne mass concession or a sales mandate aligned with emission reduction targets.

17. Is it viable to extend Australian domestic manufacturing and assembly capability to other vehicle classes?

Policies and funding support is needed to help grow local battery, electric vehicle and rolling stock industries, investment and jobs. As noted in the consultation paper Accenture (2021) suggests there is an estimated 35,000 jobs and $7 billion in value can be from battery technology and industries across all sectors. Accenture (2021) also suggests that advances in re-use and recycling are creating the potential for a battery circular economy.

As the consultation paper suggests, most resources extracted in Australia are processed overseas, presenting an obvious opportunity for Australian manufacturing. CSIRO's (2019) Australian National Outlook identified the battery value chain as one of nine key growth opportunities for Australia, including mining and processing of raw materials into higher grade materials, such as lithium, nickel and zinc, and a battery recycling industry. Positive steps are already being taken towards a local battery manufacturing industry, for example the feasibility study for the proposed Townsville 18GWh lithium-ion battery manufacturing factory, the Australian Made Battery Plan, the National Battery Strategy, the Battery Manufacturing Precinct in Queensland, and the Powering Australia Industry Growth Centre.

It is recommended that the Federal government consider developing a national EV industry development plan that includes manufacturing and assembly for all segments. This should include funding to stimulate investment across the full EV value chain, critical mineral mining, processing & refining, and enable component and vehicle manufacturing, reuse and recycling. This would have the added benefit of leveraging the economic opportunity to create thousands of new jobs.

18. Are there other proposals that could help drive demand for EVs and provide a revenue source to help fund road infrastructure?

19. What more needs to be done nationally to ensure we deliver a nationally comprehensive framework for EVs?

The Strategy and any national and jurisdictional EV frameworks need to identify how it integrates and enables broader transport policies and outcomes and not plan for EVs in isolation. The high-level goals of the strategy should reflect, integrate and enable broader social, economic and environmental outcomes of transport policy, including stating that EVs and e-mobility should be accessible to all Australian (and not just those with higher incomes). To achieve these outcomes, any frameworks developed need to integrate town planning to promote less car dependant towns and cities.

ACF recommends the Federal government considers frameworks such as the Avoid/Shift/Improve framework, which prioritises active transport and shifts to more efficient transport options, such as public transport and electrified rail freight, without completely removing access to vehicle ownership and use as an option.

20. How can we best make sure all Australians get access to the opportunities and benefits from the transition?

The National Construction Code (NCC) has just been updated to require new homes and renovations to be built to a 7 Star Nationwide Home Energy Rating (NatHERS) standard. The NCC could be improved in its next review in 2025 to require 100% EV-Readiness for buildings of all classes. As these buildings will be in place for 40 to 70 years, this would prevent the need for retrofits and ease the transition to EVs.

Consideration should be made to install charging infrastructure, when appropriate in social housing and private rental properties and commercial rentals, potentially including minimum standards (acknowledging there may be a need for exceptions, such as safety or footpath access.

Complementary Positions

Public and Active transport

Recommendation 13: *Invest in public and active transport to improve consumer choice as well as access to education and employment opportunities.*

Recommendation 14: *Provide support for micro transport options, such as e-bikes and scooters.*

Recommendation 15: *Direct budget funding away from roads and private cars (such as fuel tax credits), towards more efficient transport options like rail, public transport, cycling and walking and freight rail.*

Recommendation 16: *Fast track and expand investment in public and active transport infrastructure, and electric vehicle charging infrastructure.*

Recommendation 17: *Assisting local governments to fund development of shovel-ready bike lanes and cycle ways.*

Electric vehicles on their own are not the answer to climate change, the environmental and health impacts of transport, and or to improve economic efficiency and development. Tyres from cars and trucks for example, produce more particulate pollution than exhausts (Emissions Analytics 2020). Reliance on road transport causes

congestion. Not everyone has adequate access to public or active transport, can afford or wants to own a car, and new road infrastructure can cut through natural areas. Both public transport and commercial rail options are still required.

Lack of access to public and active transport limits consumer choices - as well as limiting access to education and employment opportunities - by restricting the ability to travel. This is particularly the case for people living on the urban fringe; those experiencing financial distress; people with a disability; youth and older Australians.

Public and active transport are more efficient, lower or zero emissions travel alternatives compared to private cars (see Figure 1). Increasing the share of travel by public and active modes – by investing in infrastructure and services – provides a range of benefits beyond increasing consumer choices. Benefits include alleviating road congestion; improving transport and land use efficiency; reducing air, noise and greenhouse gas pollution; reducing road traffic injuries and deaths; reducing inactivity and stress.

Shifting public funding away from roads and towards more efficient transport options like rail, public transport, cycling and walking infrastructure and services improves consumer choice. This will encourage passengers to shift from private car trips to public transport, cycling and walking; and support the movement of freight by more efficient methods like rail. ACF does however, note the risk presented by electric scooters on shared pedestrian routes.

This requires a significant change from current practice. In 2018-19, governments spent $28.9 billion on road infrastructure, 70% more than on rail (BITRE 2020).

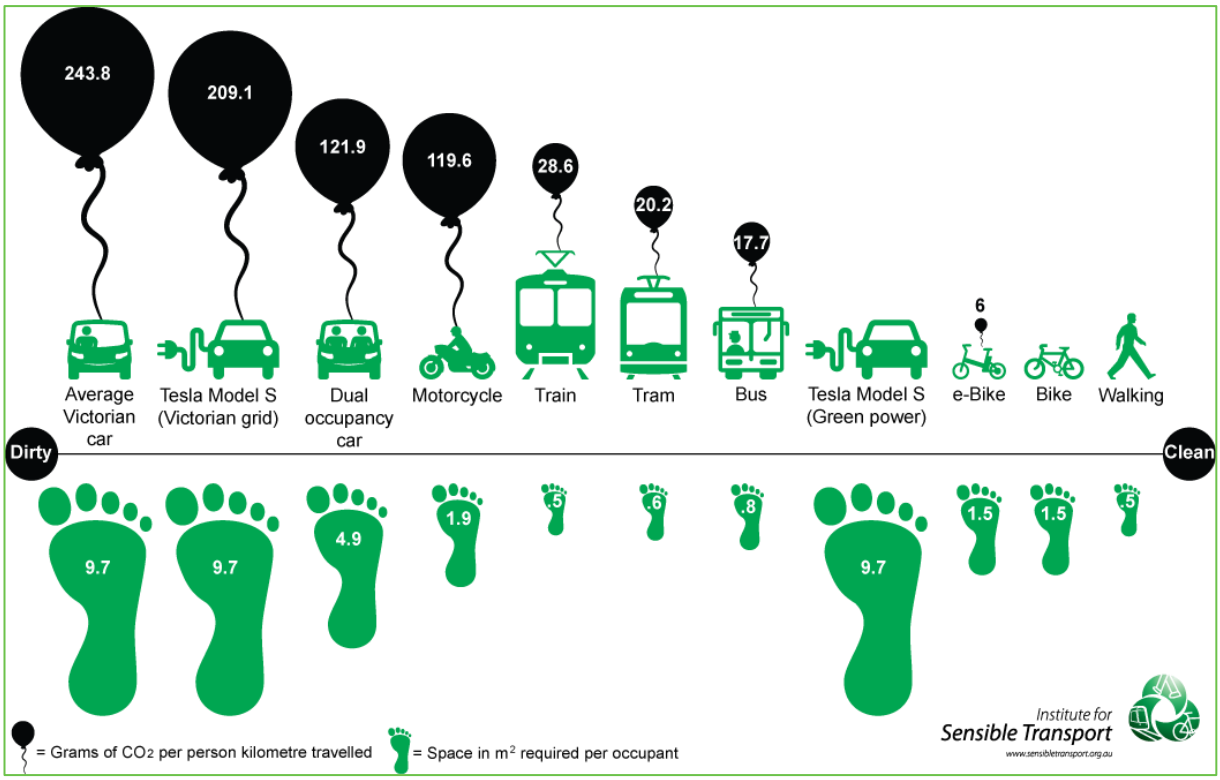

Figure 2:Emissions and land space by transport mode (Source: Institute for Sensible Transport 2021)

Infrastructure priorities, funding and decisions will play a key role in determining Australia's future emissions. For example, investment in public transport, cycling and pedestrian infrastructure can reduce emissions by supporting motorists to switch to lower emissions transport modes, and new electric charging infrastructure can support increased use of electric vehicles.

Infrastructure Australia and state infrastructure advisory bodies play a key role in providing independent advice to governments on infrastructure plans and priorities. As a first step, Infrastructure Australia would be well placed to advise the Federal Government on infrastructure needs and priorities for supporting the transition to net zero emissions.

Incorporating emissions reduction goals into transport and infrastructure policy, priorities and spending including requiring Infrastructure Australia to consider emissions reductions as part of its Infrastructure Audit, Plan and Priority List.

Developing policy guidelines and research and development support for emerging emissions reduction opportunities focused on renewable-powered or fueled aircraft and shipping.

The Federal Government can support the uptake of priority transport technologies by investing in infrastructure to encourage mode shift to public and active transport. This should include ending the Fuel Tax Credits scheme,

which subsidises the diesel use of multinational mining companies and will cost taxpayers $39.4 billion over the forward estimates, but was continued in the recent 2022-23 federal budget.

Supporting the uptake of emissions reduction technologies for the transport sector can deliver additional economic, health and social benefits. For example, the increased availability and use of public and active transport can create jobs, reduce traffic congestion in urban areas, improve public health and amenity and reduce greenhouse gas emissions.

Analysis of United States stimulus spending on infrastructure during the Global Financial Crisis found that investing in public transport created 70% more job-hours per dollar than spending on highways. Maintenance, rolling stock purchase, infrastructure and bus purchasing created the most jobs per dollar (Smart Growth America 2020).

As Australia's economy recovers from the economic and health impacts of the coronavirus, investments in public and active transport and electric vehicle charging infrastructure provides an opportunity to create 12,500 jobs over a three-year period (alphaBeta Australia and Climate Council 2020).

The Australian Council of Trade Unions (2020) has also recommended governments invest $30 billion of new public capital spending on a range of infrastructure projects, including transport. The ACTU has recommended minimum benchmarks for Australian-made content for funded projects, including 75% Australian content in primary metals and other manufactured inputs and 90% Australian content in engineering and design services.

ACF looks forward to the subsequent consultation of detailed design features.

Kind regards,

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