Transport and Infrastructure Net Zero Consultation Roadmap

Take the survey

Department of Climate Change, Energy, Environment and Water

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3 Published name
Australian Automobile Association

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Yes

5 First name
Craig

6 Last name
Newland

7 Email
[redacted]

8 Phone

[redacted]

9 Who are you answering on behalf of?

Organisation

10 Organisation name

Australian Automobile Association

11 What best describes you or your organisation?

Not for profit

12 What sector do you represent?

Light road vehicles (cars, utes etc.)
Active transport
Public transport
Infrastructure

13 What state or territory do you live in?

Australian Capital Territory

14 Postcode

2612

15 What area best describes where you live?

City

16 1. Do you support the proposed guiding principles?

Yes

17 1.1 Please add details to your response.

However, in addition to the principles already identified, the AAA believes that two additional
principles should also be included. That is, that actions to achieve net zero should be:

1. Technology agnostic
2. Least cost abatement

18 2. Do you support the use of the avoid-shift-improve framework as a tool to identify opportunities for abatement?

Yes

19 2.1 Please add details to your response.

The AAA also supports the avoid-shift-improve framework to identify opportunities for abatement,
however it is not clear whether other frameworks were considered which may also be suitable.

20 3. Do you agree the development of a national policy framework for active and public transport will support emissions reduction?

Not answered

21 3.1 Please add details to your response.

Not answered

22 4. What should be included in a national policy framework for active and public transport and how should it be developed?

Not answered

23 5. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to ensure the movement of people contributes to transport emissions reduction?

The AAA also welcomes the Australian Government taking a leadership role in working with state
and territory governments on nationally significant public transport infrastructure project, and in
planning and delivery of significant active transport projects.

The AAA also notes that state, territory and local governments have direct responsibility for

planning and delivering small scale active transport projects at the local level.

24 ## 6.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to ensure that the movement of goods contributes to transport emissions reduction?

Not answered

25 ## 6.2. How would these actions address the identified challenges and opportunities for emissions reduction in the movement of goods?

Not answered

26 ## 7. Do you agree with the proposed net zero pathway for light road vehicles?

Yes

27 ## 7.1 Please add details to your response.

Support for transition to EVs
The AAA and its member clubs are active supporters of the transition to EVs and a low emissions
future and have made significant investments in supporting their members in the transition.
The AAA publishes its quarterly Electric Vehicle Index (https://data.aaa.asn.au/ev-index/) bringing
together seven datasets to provide unbiased, credible and up-to-date data on EV options and
patterns of take-up. The AAA EV Index shows:
• how many EVs are being sold and which brands and types of vehicles are being purchased
• geographic distribution of EV registrations
• vehicle specifications
• international list prices of 26 representative EV models.
The AAA EV Index tracks important trend data from quarter to quarter and is designed to be a
resource for businesses, policymakers, motoring enthusiasts and anyone wanting more information about the transition of Australia's vehicle fleet

28 ## 8. The Australian Government is currently developing an Australian New Vehicle Efficiency Standard and has already begun to implement actions in the National Electric Vehicle Strategy.8.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce light vehicle emissions?

Road User Charging for EVs

The AAA has long advocated for distance-based road user charging (RUC) as a fairer and more
equitable way to fund land transport infrastructure.

The introduction of an NVES that aims to accelerate uptake of EV and low fuel consumption vehicles
intensifies the urgency of this reform, with the 2024-25 Federal Budget forecasting a $470 million
loss in fuel excise revenue over the forward estimates directly because of the NVES.

The AAA believes the High Court decision in Vanderstock & Anor v State of Victoria obliges the
Commonwealth to work (with states and territories) on a sustainable and equitable road user
charge for zero emission vehicles, as a first step toward broader motoring tax reform. The AAA
acknowledges that this issue is currently being considered by the Council on Federal Financial
Relations and a Taskforce has been established within the Commonwealth Treasury to provide
advice to the Council.

The AAA believes that the inequities in the current road tax system need to be addressed and
electric and other zero emission vehicles brought into the road tax system, initially at a discounted
rate to avoid disincentivising their uptake. The revenue raised from a road user charge on electric
and other zero emission vehicles could be used to help fund an improved EV recharging network

Recommendation – The Australian Government should urgently work with the states and territories to agree an approach to road user charging which brings electric and other zero
emission vehicles into the road user charging system, without disincentivising their take-up.

New Vehicle Efficiency Standard

The AAA supports a fuel efficiency standard as a means of incentivising latest technology vehicles into the market.

The AAA expects there will be both costs and benefits associated with any such standard. The degree to which a government balances a standard's ambition and achievability will determine net impact for consumers.

The Australian Government continues to promote a simplistic message that the NVES gives rise to neither trade-offs nor any associated costs for consumers. The AAA is not able to quantify or explain consumer impacts of the NVES as finalised, as the Government is unwilling to release any modelling or industry inputs used to design the standard.

The AAA remains concerned that the halving of NVES penalties could allow some OEMs to continue selling existing vehicles with little change and pass any associated costs of fines on to consumers (i.e. they believe consumers will tolerate these costs). The scenario which sees increased vehicle costs without emissions reduction or fleet improvement, is one of the scenarios the AAA highlighted as needing to be avoided.

Recommendations

1. The Australian Government should commit to regular reviews and adjustments to the NVES to ensure it remains effective in reducing emissions and increasing access to affordable low and zero emissions vehicles.
2. The Australian Government should also ensure that data on the NVES implementation is transparent, timely and publicly available to allow industry and other stakeholders to monitor its effectiveness in a timely manner

EV charging infrastructure

The AAA believes that the Commonwealth has a leadership role in:

- Strategic planning of a national network of charging infrastructure
- Planning and management of the Australian electricity grid to support EV charging infrastructure

If consumers do not feel confident in the resources, systems and infrastructure required

to support
transition to EVs – things like charging facilities, the stability of the electricity grid and the availability of skilled service and repair technicians - there is a real risk that this will slow the rate of
consumer uptake of EVs and also threaten the achievability of the targets in the new vehicle
efficiency standard.
Ultra-fast EV charging stations are being placed in regional town centres at sites such as retail
centres due to their existing higher electrical network capacity. In regional areas, highway roadside
service stations play a role in helping to manage driver fatigue by being well placed to meet needs
for rest, coffee/tea, food, and other amenities. However, these highway roadside service stations
were not established with sufficient electrical network capacity to support ultra-fast charging
infrastructure. Financial support for well-placed EV charging infrastructure on regional highways to
help with fatigue management should be a consideration in Federal funding support for regional
EV charging infrastructure.
Recommendations
1. The Australian Government should utilise an inter-governmental working group to develop a national plan for rolling out charging infrastructure and working with energy suppliers to manage network capacity; supporting a coordinated roll-out; and minimising network capacity issues.
2. Financial support for well-placed EV charging infrastructure on regional highways to help with fatigue management should be a consideration in federal funding support for regional EV charging infrastructure.
Whole of life emissions
The amount of CO2 abatement that can be achieved by the light vehicle fleet is determined by the
proportion of the transport task that can be shifted to zero and low emission vehicles and the
greenhouse gas emissions intensity of the energy source/s used. Further reductions in the emissions intensity of the electricity grid will deliver additional abatement from the existing and
future EV fleet.
To get the best environmental outcomes, consideration also needs to be given to “whole

of life”
vehicle emissions, taking account of the emissions produced throughout the life of the vehicle from
manufacturing, through operation and ultimately recycling and disposal. This should include fuel
production and/or electricity grid emission factors, particularly over the short to medium term
when vehicles continue to use fossil fuels and fossil-fuel based electricity.
Recommendation – The Australian Government should consider whole of life vehicle emissions when considering future abatement opportunities in the light vehicle sector.

29 ## 8.2 How would these actions address the identified challenges and opportunities to reduce light vehicle emissions?

If consumers do not feel confident in the resources, systems and infrastructure required to support
transition to EVs – things like charging facilities, the stability of the electricity grid and the availability of skilled service and repair technicians - there is a real risk that this will slow the rate of
consumer uptake of EVs and also threaten the achievability of the targets in the new vehicle
efficiency standard

The amount of CO2 abatement that can be achieved by the light vehicle fleet is determined by the
proportion of the transport task that can be shifted to zero and low emission vehicles and the
greenhouse gas emissions intensity of the energy source/s used. Further reductions in the emissions intensity of the electricity grid will deliver additional abatement from the existing and
future EV fleet.

30 ## 9. Do you agree with the proposed net zero pathway for heavy road vehicles?

Not answered

31 ## 9.1 Please add details to your response

Not answered

32 10. The proposed pathway for heavy road vehicles relies on a mix of battery electric, hydrogen fuel-cell and low carbon liquid fuels.Rank from 1 to 3, the order in which these should be prioritised for emissions reduction.

Not answered

33 10.1 Please add details to your response. Why did you rank them in that order?

Not answered

34 11. What role should low carbon liquid fuels play in the heavy vehicle decarbonisation?

Not answered

35 12. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce heavy vehicle emissions?

Not answered

36 13. Do you agree with the proposed net zero pathway for rail?

Not answered

37 13.1 Please add details to your response.

Not answered

38 14. The proposed pathway for rail relies on a mix of battery electric, hydrogen fuel-cell and low carbon liquid fuels.Rank from 1 to 3, the order in which these should be prioritised for emissions reduction.

Not answered

39 14.1 Please add details to your response. Why did you rank them in that order?

Not answered

40 15. What role should low carbon liquid fuels play in rail decarbonisation?

Not answered

41 16. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce rail emissions?

Not answered

42 16.1 How would these actions address the identified challenges and opportunities to reduce rail emissions?

Not answered

43 17. Do you agree with the proposed net zero pathway for maritime?

Not answered

44 17.1 Please add details to your response.

Not answered

45 18. The Australian Government is engaging in consultation as part of the development of the Maritime Emissions Reduction National Action Plan and those consultations will also inform the final Roadmap and Action Plan. 18.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce maritime emissions?

Not answered

46 18.2 How would these actions address the identified challenges and opportunities to reduce maritime emissions?

Not answered

47 19. Do you agree with the proposed net zero pathway for aviation?

Not answered

48 19.1 Please add details to your response.

Not answered

49 20. The Australian Government has already engaged in consultation on aviation decarbonisation through the development of the Aviation White Paper and those consultations will also inform final Roadmap and Action Plan.

Not answered

50 20.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce aviation emissions?

Not answered

51 21. Do you agree with the proposed net zero pathway for transport infrastructure?

Yes

52 21.1 Please add details to your response.

The AAA supports the approach towards low-carbon infrastructure outlined in the Consultation
Roadmap, and notes that the long-term nature of infrastructure means that this will be a critical
determinant of long-term emissions reduction.
The AAA also notes the need for infrastructure design to account for projected effects of climate
change and climate change adaptation, including natural disasters, changed travel patterns and
different vehicle types.
The AAA looks forward to commenting on this issue further when the draft Action Plan is released
for input.

53 22. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to

reduce transport infrastructure emissions and ensure that transport infrastructure is ready for and enables low-emission transport modes?

The AAA also notes the need for infrastructure design to account for projected effects of climate
change and climate change adaptation, including natural disasters, changed travel patterns and
different vehicle types

54 22.1 How would these actions address the identified challenges and opportunities to reduce transport infrastructure emissions?

Not answered

55 23. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to ensure the energy mix is ready to support transport emissions reduction?

Not answered

56 24. How should the use of low carbon liquid fuels (LCLFs) be prioritised across different transport modes over time to achieve maximum abatement?

Not answered

57 25. What are the best ways for the Australian Government to work collaboratively with industry, business, governments and communities to implement the proposed pathways?

Not answered

58 25.1 What are good domestic or international examples of partnership and collaboration on transport and transport infrastructure emissions reduction that could inform the final Roadmap and Action Plan?

Not answered

59 ## 25.2 What opportunities can Government leverage to show leadership in Australia and internationally?

The AAA recommends that the Australian Government:
1. establishes the AAA RWT Program as an ongoing, independent real world testing program where new models released into the Australian market are tested on Australian roads in Australian driving conditions and the results made public for consumer information.
2. develops a new advertising guideline for the portrayal and display of vehicle information. The new guideline would ensure that statements about fuel consumption and emissions made by vehicle brands, either at the point-of-sale or in general advertising, would need to reference any independent RWT results that are available for that make and model of car.
3. incorporates consideration of real-world driving test results into the Commonwealth Fleet Vehicle Selection Policy.
4. works with international counterparts, for example through the OECD International Transport Forum, to share the outcomes from the real-world testing program to build international recognition of the program and the important role it will play in a net zero transport network into the future

60 ## 26. What measures and metrics should be used to evaluate the final Transport and Infrastructure Net Zero Roadmap and Action Plan?

2. Evaluation metrics need to:
• Consider the whole light vehicle fleet and not only focus on emissions reduction in new cars.
• Include measures in real world conditions, not only laboratory results.
• Take account of total emissions, rather than only emissions per kilometre per vehicle.
• Report by transport mode and include consideration of mode targets.

61 ## 26.1 What other data and evidence could governments use and how could this offer further insights on the pace, scale and location of transport emissions reduction pathways?

Not answered

62 ## 27. Do you have any feedback on the proposed review process?

Not answered

63 28. Do you have any further feedback on the Consultation Roadmap and proposed pathways?

Not answered

64 28.1 Is there anything missing? Are the sections appropriately integrated? Is the Roadmap appropriately ambitious?

Not answered

65 29. Is there any further information or documentation that you wish to be considered with your submission?

Not answered

66 Would you like to upload a document?

Yes

67 Have you removed any identifying information from your submission?

Yes

68 Upload a submission

AAA - Net Zero submission.pdf

69 Upload a submission

Not answered

70 Upload supporting file

Not answered

71 Upload supporting file

Not answered

Australian Automobile Association

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MEMBER OF FIA

The Director
Transport and Infrastructure Net Zero Consultation Roadmap Team

25 June 2024

Dear Sir/Madam

The Australian Automobile Association (AAA) welcomes the opportunity to provide a submission on the Australian Government's *Transport and Infrastructure Net Zero Consultation Roadmap*.

The AAA is the peak organisation for Australia's motoring clubs and their 9.3 million members. The AAA's constituent clubs are the NRMA, RACV, RACQ, RAA, RAC, RACT and the AANT. The AAA regularly commissions research and develops in-depth analysis of issues affecting transport systems, including affordability, road safety, and vehicle emissions.

The fuels and technologies driving the global car fleet are changing rapidly and they have the potential to offer Australians greater vehicle choices, cleaner air, improved fuel security, and cheaper household bills.

The AAA and its members want Australians in the best possible position to adopt these new technologies and choose the transport technology options that best suit their lifestyle, household budget, and commuting needs.

The Australian mobility landscape of the future will be determined by a wide array of factors: global manufacturing trends; industrial advancements by car makers and the tech giants; shifting consumer demand; and/or regulatory changes by those countries still possessing a vehicle manufacturing base.

The AAA supports measures to reduce carbon emissions from the light vehicle fleet that are based on the following principles:

1. Greenhouse and other pollution abatement measures must deliver abatement at least cost to motorists and the broader Australian economy.
2. Policies should be underpinned by equity and flexibility: and they should not prescribe sector, purpose, or technology-specific outcomes.
3. Consideration should be given to whole-of-economy issues of both air quality and greenhouse gas emission reduction, and the measures introduced to deliver desired outcomes.
4. The choice of vehicle types offered to the Australian market should not be restricted.
5. The adoption of any foreign or international emissions standards must take into consideration the Australian new vehicle fleet and how and why it differs from those found in other markets.

Further, the AAA believes that any actions to achieve net zero across the light vehicle fleet must be supported by the continuation of the AAA's Real-World Testing Program. This will ensure that consumers, fleets and government agencies are able to make

informed decisions about which vehicle will put the least pressure on the environment, household budgets, and corporate sustainability obligations.

The AAA welcomes the leadership of the Australian Government in this area and looks forward to working closely with relevant agencies to progress the *Transport and Infrastructure Net Zero Final Roadmap and Action Plan.*

Should you wish to discuss any elements of the attached submission, please contact AAA Director – Policy and Research, Mr Craig Newland, at [redacted] or [redacted]

Yours sincerely,

[redacted]

Australian Automobile Association

AAA Submission:

Transport and Infrastructure Net Zero Consultation Roadmap

AAA Submission on Low-Carbon Liquid Fuels

Response to: A Future Made in Australia: Unlocking Australia's low carbon liquid fuel opportunity Consultation Paper

Department of Infrastructure, Transport, Regional Development, Communications and the Arts *Transport and Infrastructure Net Zero Consultation Roadmap*.

The AAA is the nation's peak motoring body, representing Australia's state-based motoring clubs and their 9.3 million members. The AAA is an apolitical and technology-neutral advocate for federal transport policy that improves safety, equity, and sustainability. The AAA regularly commissions research and develops in-depth analysis of issues affecting transport systems, including affordability, road safety and vehicle emissions.

The AAA is committed to ensuring Australia's light vehicle fleet meaningfully contributes to Australia's decarbonisation and that Australians are in the best possible position to choose the transport technology option/s that suit their lifestyle, household budget, and commuting needs.

In the Australian context, our challenge is to ensure we have national leadership to best manage our environmental challenges; to ensure motorists are given maximum choice and information; and to ensure funding models can sustainably pay for safer and less congested roads, and more public transport and active transport options. We also want to ensure owning and operating a car in our vast country with its unique driving conditions is affordable for all Australians.

Chapter 1 - Introduction

The AAA notes that this Consultation Roadmap is the first stage in the development of a final Roadmap and Action Plan and builds on work undertaken across Government agencies and advice from CSIRO and the Climate Change Authority.

Given the early stage of development and absence of specific actions in the consultation document, the AAA provides general responses to the relevant questions posed throughout the paper.

Have Your Say

1. Do you agree with the proposed guiding principles?

    1.1. Please add details to your response.

2. Do you support the use of the avoid-shift-improve framework as a tool to identify opportunities for abatement?

    2.1. Please add details to your response.

The AAA supports the guiding principles outlined in the Consultation Roadmap which would underpin the development of the final Roadmap and Action Plan:

1. Maximise emissions reduction
2. Value for money
3. Maximise economic opportunity
4. Inclusive and equitable
5. Evidence-based

However, in addition to the principles already identified, the AAA believes that two additional principles should also be included. That is, that actions to achieve net zero should be:

1. Technology agnostic
2. Least cost abatement

The AAA also supports the avoid-shift-improve framework to identify opportunities for abatement, however it is not clear whether other frameworks were considered which may also be suitable.

Recommendation - Two additional guiding principles should be included to ensure that proposed actions to achieve net zero are technology agnosticism and least cost abatement.

Chapter 2 – Rethinking transport networks and systems

Have Your Say

3. Do you agree the development of a national policy framework for active and public transport will support emissions reduction?

    3.1. Please add details to your response.

4. What should be included in a national policy framework for active and public transport and how should it be developed?

5. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to ensure the movement of people contributes to transport emissions reduction?

Active and public transport

The AAA agrees that active and public transport will be important elements of a future net zero transport network.

The Australian Government has a leadership role in working with state, territory and local governments to ensure urban planning approaches support safe and efficient movement of people throughout our towns and cities.

The AAA also welcomes the Australian Government taking a leadership role in working with state and territory governments on nationally significant public transport infrastructure project, and in planning and delivery of significant active transport projects.

The AAA also notes that state, territory and local governments have direct responsibility for planning and delivering small scale active transport projects at the local level.

Road User Charging for EVs

The AAA has long advocated for distance-based road user charging (RUC) as a fairer and more equitable way to fund land transport infrastructure.

The introduction of an NVES that aims to accelerate uptake of EV and low fuel consumption vehicles intensifies the urgency of this reform, with the 2024-25 Federal Budget forecasting a $470 million loss in fuel excise revenue over the forward estimates directly because of the NVES.

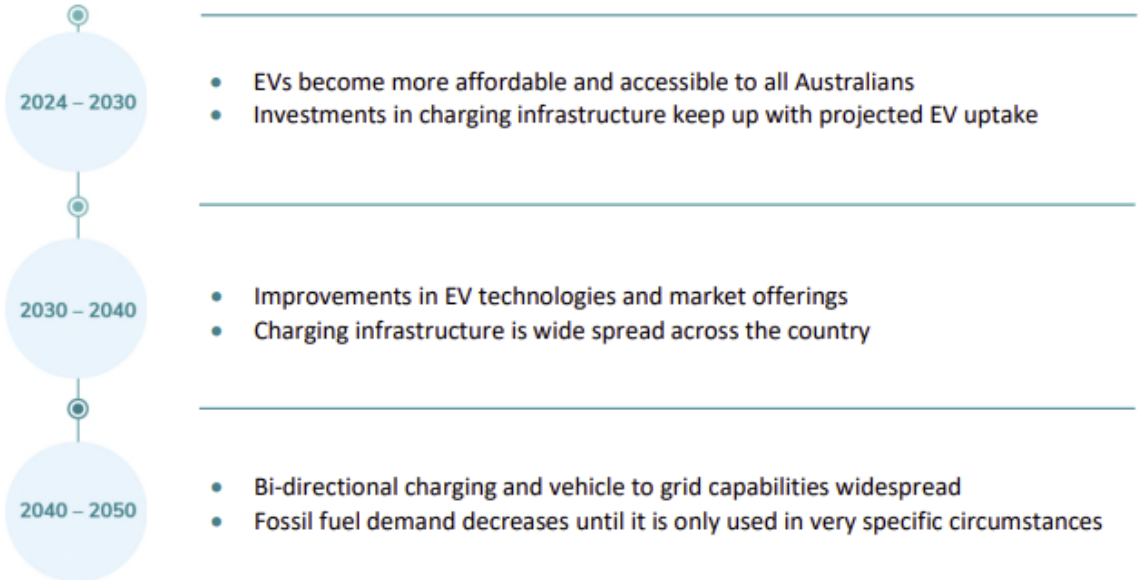
The AAA believes the High Court decision in *Vanderstock & Anor v State of Victoria* obliges the Commonwealth to work (with states and territories) on a sustainable and equitable road user charge for zero emission vehicles, as a first step toward broader motoring tax reform. The AAA acknowledges that this issue is currently being considered by the Council on Federal Financial Relations and a Taskforce has been established within the Commonwealth Treasury to provide advice to the Council.

The AAA believes that the inequities in the current road tax system need to be addressed and electric and other zero emission vehicles brought into the road tax system, initially at a discounted rate to avoid disincentivising their uptake. The revenue raised from a road user charge on electric and other zero emission vehicles could be used to help fund an improved EV recharging network

Recommendation – The Australian Government should urgently work with the states and territories to agree an approach to road user charging which brings electric and other zero emission vehicles into the road user charging system, without disincentivising their take-up.

Chapter 3 – Net zero pathways for each transport mode

Figure 9: A net zero pathway for light vehicles



Have Your Say

7. Do you agree with the proposed net zero pathway for light road vehicles?

7.1. Please add details to your response.

8. The Australian Government is currently developing an Australian New Vehicle Efficiency Standard and has already begun to implement actions in the National Electric Vehicle Strategy.

8.1 What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce light vehicle emissions?

8.2. How would these actions address the identified challenges and opportunities to reduce light vehicle emissions?

The AAA supports the net zero pathway for light vehicles outlined in the Consultation Roadmap.

Support for transition to EVs

The AAA and its member clubs are active supporters of the transition to EVs and a low emissions future and have made significant investments in supporting their members in the transition.

The AAA publishes its quarterly Electric Vehicle Index (https://data.aaa.asn.au/ev-index/) bringing together seven datasets to provide unbiased, credible and up-to-date data on EV options and patterns of take-up. The AAA EV Index shows:

- how many EVs are being sold and which brands and types of vehicles are being purchased
- geographic distribution of EV registrations
- vehicle specifications
- international list prices of 26 representative EV models.

The AAA EV Index tracks important trend data from quarter to quarter and is designed to be a resource for businesses, policymakers, motoring enthusiasts and anyone wanting more information about the transition of Australia's vehicle fleet.

The AAA's member clubs are investing in Australia's transition to a cleaner energy future through a range of initiatives including:

- Equity ownership in in Chargefox, now Australia's largest charging network, and JET Charge, Australia's leading supplier of charging equipment.
- Installation of commercial EV charging infrastructure, integrating solar, batteries and solar car parks.
- EV charging through a network of public EV charging stations.
- Solar panels and batteries (residential and commercial).
- Home retail energy offers, including renewable energy options.
- Collaboration with state governments to deploy EV chargers, including establishing Australia's most extensive regional charging network.
- Commissioning research and publications to encourage state and federal policies to support the EV transition.
- Hosting EV Drive Days that offer opportunities for the public to test drive the newest electric vehicle models and gain valuable information to make informed purchasing decisions.

- Offering resources and tools to compare costs, research models, and make informed decisions for consumers considering buying an EV.
- Providing roadside assistance to EV owners.
- Increasing the number of EVs in fleets owned by clubs including club and rental car fleets.
- Working towards net-zero and circular operations in club businesses.
- Member Education, exhibition of EVs at club events.
- Pursuing funding options to develop an electric/biofuel ute platform. This vehicle will support decarbonisation for regional and remote transport while retaining the utility of the utes that are the workhorse vehicle of regional and remote communities.

New Vehicle Efficiency Standard

The AAA supports a fuel efficiency standard as a means of incentivising latest technology vehicles into the market.

The AAA expects there will be both costs and benefits associated with any such standard. The degree to which a government balances a standard's ambition and achievability will determine net impact for consumers.

The Australian Government continues to promote a simplistic message that the NVES gives rise to neither trade-offs nor any associated costs for consumers. The AAA is not able to quantify or explain consumer impacts of the NVES as finalised, as the Government is unwilling to release any modelling or industry inputs used to design the standard.

The AAA remains concerned that the halving of NVES penalties could allow some OEMs to continue selling existing vehicles with little change and pass any associated costs of fines on to consumers (i.e. they believe consumers will tolerate these costs). The scenario which sees increased vehicle costs without emissions reduction or fleet improvement, is one of the scenarios the AAA highlighted as needing to be avoided.

Recommendations

1. **The Australian Government should commit to regular reviews and adjustments to the NVES to ensure it remains effective in reducing emissions and increasing access to affordable low and zero emissions vehicles.**
2. **The Australian Government should also ensure that data on the NVES implementation is transparent, timely and publicly available to allow industry and other stakeholders to monitor its effectiveness in a timely manner.**

EV charging infrastructure

The AAA believes that the Commonwealth has a leadership role in:

- Strategic planning of a national network of charging infrastructure
- Planning and management of the Australian electricity grid to support EV charging infrastructure

If consumers do not feel confident in the resources, systems and infrastructure required to support transition to EVs – things like charging facilities, the stability of the electricity grid and the availability of skilled service and repair technicians - there is a real risk that this will slow the rate of consumer uptake of EVs and also threaten the achievability of the targets in the new vehicle efficiency standard.

Ultra-fast EV charging stations are being placed in regional town centres at sites such as retail centres due to their existing higher electrical network capacity. In regional areas, highway roadside service stations play a role in helping to manage driver fatigue by being well placed to meet needs for rest, coffee/tea, food, and other amenities. However, these highway roadside service stations were not established with sufficient electrical network capacity to support ultra-fast charging infrastructure. Financial support for well-placed EV charging infrastructure on regional highways to help with fatigue management should be a consideration in Federal funding support for regional EV charging infrastructure.

Recommendations

1. **The Australian Government should utilise an inter-governmental working group to develop a national plan for rolling out charging infrastructure and working with energy suppliers to manage network capacity; supporting a coordinated roll-out; and minimising network capacity issues.**
2. **Financial support for well-placed EV charging infrastructure on regional highways to help with fatigue management should be a consideration in federal funding support for regional EV charging infrastructure.**

Whole of life emissions

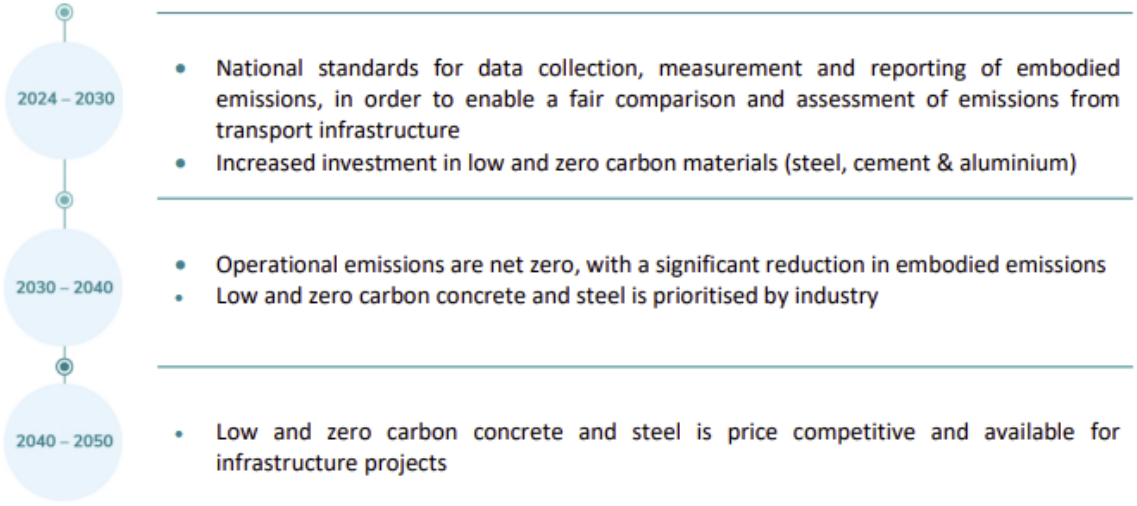
The amount of CO2 abatement that can be achieved by the light vehicle fleet is determined by the proportion of the transport task that can be shifted to zero and low emission vehicles and the greenhouse gas emissions intensity of the energy source/s used. Further reductions in the emissions intensity of the electricity grid will deliver additional abatement from the existing and future EV fleet.

To get the best environmental outcomes, consideration also needs to be given to “whole of life” vehicle emissions, taking account of the emissions produced throughout the life of the vehicle from manufacturing, through operation and ultimately recycling and disposal. This should include fuel production and/or electricity grid emission factors, particularly over the short to medium term when vehicles continue to use fossil fuels and fossil-fuel based electricity.

Recommendation – The Australian Government should consider whole of life vehicle emissions when considering future abatement opportunities in the light vehicle sector.

Chapter 4 – Supporting transport's net zero pathways

Figure 20: A net zero pathway for transport infrastructure



Have Your Say

21. Do you agree with the proposed net zero pathway for transport infrastructure?

    21.1. Please add details to your response.

22. What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to reduce transport infrastructure emissions and ensure that transport infrastructure is ready for and enables low-emission transport modes?

    22.1. How would these actions address the identified challenges and opportunities to reduce transport infrastructure emissions?

Low carbon infrastructure

The AAA supports the approach towards low-carbon infrastructure outlined in the Consultation Roadmap, and notes that the long-term nature of infrastructure means that this will be a critical determinant of long-term emissions reduction.

The AAA also notes the need for infrastructure design to account for projected effects of climate change and climate change adaptation, including natural disasters, changed travel patterns and different vehicle types.

The AAA looks forward to commenting on this issue further when the draft Action Plan is released for input.

In the short-term to 2030, Australia will need local policy settings to develop the supply and use of LCLFs in Australia. As an important first step for LCLFs, the government is developing a renewable diesel fuel quality standard. An Australian fuel quality standard will reduce barriers for suppliers and provide a market signal. The standard will ensure consistent fuel quality so that users can have confidence to replace mineral diesel with a low carbon substitute. We also need to develop a system based on those used internationally to certify and accurately measure LCLF lifecycle emissions.

A comprehensive set of policies complementing one another will be needed to promote the production of LCLFs now, to achieve a sustainable industry in the longer term. LCLF policy needs to consider broader energy, environmental and economic implications as the industry will integrate with the existing fuel infrastructure and will need to operate within the liquid fuel market. Policies need to be synchronised with fuel transition plans of the existing market and the government's fuel security actions.

In the medium term to 2040, LCLFs should be produced from non-food competing and synthetic carbon feedstocks. Low and zero carbon hydrogen production would be used as an energy carrier in the production for LCLFs. Hydrogen derived fuels will have increased use in the maritime sector.

In the long term to 2050, all LCLFs should be produced using directly captured carbon and 100% renewable electricity. Third or fourth generation biofuels as well as synthetic LCLFs would be reserved for transport modes that have no electrification alternative. As zero carbon hydrogen is used as an energy carrier in the production of synthetic LCLFs, the synthetic LCLF value chain is zero carbon.

Have Your Say

23. The Australian Government invited views on aspects of the energy transformation that represent the most material challenges and opportunities for the electricity and energy sector. Submissions closed on Friday 12 April 2024 (AEDT). This feedback will be used to inform the development of the Electricity and Energy Sector Plan and Net Zero Plan.

The Australian Government will be undertaking targeted consultation to identify options for production incentives to support the establishment of a made in Australia low carbon liquid fuel industry, including through the release of a low carbon liquid fuels consultation paper.

Feedback heard through this process will also inform development of the final Transport and Infrastructure Net Zero Roadmap and Action Plan.

What additional actions by governments, communities, industry and other stakeholders need to be taken now and in the future to ensure the energy mix is ready to support transport emissions reduction?

24. How should the use of low carbon liquid fuels be prioritised across different transport modes over time to achieve maximum abatement?

Low Carbon Fuels

As a technology agnostic organisation, the AAA advocates for low carbon fuels as part of a suite of policies to reduce CO2 emissions from light vehicles and to reduce Australia's reliance on imported oil and fuel. The use of alternative fuels in existing ICE vehicles has the potential to reduce CO2 emissions from the existing fleet. However, the commercial viability of such fuels is unclear, and the AAA does not have a detailed advocacy position beyond support for such fuels.

The NVES does not accelerate the need for alternative fuels, however the AAA believes that use of such fuels can deliver abatement that is then not required to be delivered by the NVES, or abatement in addition to the NVES.

The AAA notes that the Australian Government is separately consulting on low carbon fuels and will provide a separate submission on that consultation paper.

Chapter 5 – Achieving net zero together

Have Your Say

25. What are the best ways for the Australian Government to work collaboratively with industry, business, governments and communities to implement the proposed pathways?

25.1. What are good domestic or international examples of partnership and collaboration on transport and transport infrastructure emissions reduction that could inform the final Roadmap and Action Plan?

25.2. What opportunities can the government leverage to show leadership in Australia and internationally?

The AAA believes that the pathway to net zero must consider not just new cars and how they perform in laboratory testing, but also the performance of the existing fleet and new cars in the real world. The AAA looks forward to continuing to work in collaboration with Government and interested stakeholders to ensure that the information available to consumers guides decisions that support a net zero light vehicle fleet into the future.

Real World Testing

In 2023, the Australian Government allocated $14 million to fund the AAA's Real-World Testing (RWT) Program over four years. Testing at the program's Geelong facility began in August 2023. The program was launched by the Prime Minister in October 2023.

The AAA's Real-World Testing Program will test 200 vehicles (including cars, utes and vans) in real-world driving conditions over four years and quantify how each vehicle's fuel economy and emissions performance varies from the laboratory test results reported at point of sale. These tests take place with vehicles driving in real traffic on Australian urban and rural roads and a motorway.

The Real-World Testing Program is intended to:

a) provide improved information to consumers and policymakers on the fuel consumption and emissions of light vehicles sold in Australia, by testing vehicles in real world operating conditions;
b) provide additional data to governments to help evaluate the costs and benefits of new policy measures to reduce emissions from road vehicles; and
c) inform the development of international vehicle standards for measuring fuel/energy consumption and emissions in real world conditions.

The Program complements the New Vehicle Efficiency Standard and acts like an audit regime that actively discourages vehicle brands from selling cars in the Australian market that fail to deliver on-road performance as per the laboratory results and/or fail to meet consumer expectations.

The Program means Australian consumers and businesses can purchase vehicles with more relevant information at point of sale, and they can have greater confidence about whether vehicles will meet their respective budget and environmental requirements.

Recommendations

The AAA recommends that the Australian Government:

1. **establishes the AAA RWT Program as an ongoing, independent real world testing program where new models released into the Australian market are tested on Australian roads in Australian driving conditions and the results made public for consumer information.**
2. **develops a new advertising guideline for the portrayal and display of vehicle information. The new guideline would ensure that statements about fuel consumption and emissions made by vehicle brands, either at the point-of-sale or in general advertising, would need to reference any independent RWT results that are available for that make and model of car.**
3. **incorporates consideration of real-world driving test results into the Commonwealth Fleet Vehicle Selection Policy.**
4. **works with international counterparts, for example through the OECD International Transport Forum, to share the outcomes from the real-world testing program to build international recognition of the program and the important role it will play in a net zero transport network into the future.**

Monitoring and evaluation

Have Your Say

26. What measures and metrics should be used to evaluate the final Transport and Infrastructure Net Zero Roadmap and Action Plan?

    26.1. What other data and evidence could governments use and how could this offer further insights on the pace, scale and location of transport emissions reduction pathways?

27. Do you have any feedback on the proposed review process?

28. Do you have any further feedback on the Consultation Roadmap and proposed pathways?

    28.1. Is there anything missing? Are the sections appropriately integrated? Is the Roadmap appropriately ambitious?

29. Is there any further information or documentation that you wish to be considered with your submission?

Monitoring and evaluation will be critical to the success of the Final Roadmap and Action Plan, and important to building and maintaining stakeholder and consumer support for interventions that deliver on the net zero objective.

The AAA believes that the monitoring and evaluation in relation to light vehicles needs to be across the fleet – not only focused on new cars. Additionally, the evaluation metrics need to also consider the size of the fleet and overall vehicle kilometres travelled – simply reducing emissions per kilometre per vehicle may not be sufficient if there are more vehicles in the fleet and/or more kilometres travelled per vehicle.

Recommendations:

1. **Once the guiding principles and framework are agreed as the basis for the development of the final Roadmap and Action Plan, the AAA recommends that they also guide the development of an evaluation framework to measure the impact of actions endorsed by Government as part of the transition to net zero across the transport and infrastructure sector.**
2. **Evaluation metrics need to:**
   - **Consider the whole light vehicle fleet and not only focus on emissions reduction in new cars.**
   - **Include measures in real world conditions, not only laboratory results.**
   - **Take account of total emissions, rather than only emissions per kilometre per vehicle.**
   - **Report by transport mode and include consideration of mode targets.**
3. **The final action plan and evaluation framework should be publicly released, and outline specific measures of success, actions, timeframes, and responsible agency/ies, which link back to the *Transport and Infrastructure Net Zero Roadmap* as well as the broader Net Zero Plan's, goals and objectives.**