Transport and Infrastructure Net Zero Consultation Roadmap

Take the survey

Department of Climate Change, Energy, Environment and Water

Response received at:
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1 Confirm that you have read and understand this privacy notice.
Yes

2 Please indicate how and if you want your submission published.
Public

3 Published name
South East Councils Climate Change Alliance (SECCCA)

4 Confirm that you have read and understand this declaration.
Yes

5 First name
Georgia

6 Last name
Langmaid

7 Email
[redacted]

8 Phone

Not answered

9 Who are you answering on behalf of?

Organisation

10 Organisation name

South East Councils Climate Change Alliance

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
Energy
Infrastructure
Climate change/net zero

13 What state or territory do you live in?

Victoria

14 Postcode

3805

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.

In principle, SECCCA supports the five guiding principles and seeks to ensure that each

are considered and weighted equally as the roadmap's actions, priorities and opportunities are developed. SECCCA is pleased in particular to see the guiding principles of inclusive and equitable as well as evidence-based, as our members represent a diverse range of communities and demographic groups. Please see our attached submission for further details.

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.

No additional comments.

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

Yes

21 ## 3.1 Please add details to your response.

SECCCA encourages the Australian Government to ensure that the roadmap includes a dedicated focus and associated actions to support active and public transport, which is a priority for our members. Increased uptake of active and public transport has significant potential to improve the overall sustainability and cost-effectiveness of transport systems across Australia – and is too critical to be left to a piecemeal approach. Please see our attached submission for further details.

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

SECCCA would like to see the following included in a national policy framework for active and public transport: active transport corridors, and major activity hubs connected based on population and movement.

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?

On behalf of our members, SECCCA recommends that the roadmap includes a dedicated

focus and associated actions to support active and public transport.

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?

While electrification is a more straightforward path for light vehicles, SECCCA agrees that Australia's heavy vehicle, rail, maritime and aviation sectors will continue to rely on liquid fuels in the short and medium term. As such, low carbon liquid fuels (LCLFs) will be important in decarbonising these transport modes. Please see our attached submission for further details.

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

Please see our attached submission for further details.

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.

SECCCA agrees that light vehicles present the largest emissions saving potential for transport, and electrification is the clear technology to decarbonise light vehicles. The future of driving is electric, which our members have embraced for more than a decade through work such as the Electric Vehicle Trial in 2011, EcoDriver in 2014, and more recently the Electric Vehicle Charging Roadmap in 2022. Crucially, electrification of light vehicles must also be supported by active and public transport infrastructure. See our attached submission for further details.

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?

On behalf of our members, SECCCA recommends that the Australian Government undertake the following:

- Ensure that the roadmap includes a dedicated focus and associated actions to support active and public transport.
- Develop a robust sustainable transport policy framework to engage, encourage and incentivise suppliers to enter the Australian market.
- Provide consistent policy and standards to support industry investment, and provide charging where no commercial case is likely.
- Use procurement processes to set specifications and demand for vehicle types not yet available on the Australian market.
- Fast-track approval of infrastructure suitable for residential and business use of bi-directional charging to ensure safety and availability to market as soon as possible.
- Develop the required modelling for the transitional change in the transport sector to ensure the adequacy of supporting infrastructure.
- Include eco-driving skills training for drivers as part of the process of obtaining a new or renewed driver's license.

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

In collaboration with Greater South East Melbourne (GSEM), SECCCA commissioned a Roadmap to Net Zero Emissions released in July 2023. The report identifies sector by sector, the most important and cost-effective opportunities for achieving rapid and deep reductions in greenhouse gas emissions in the SECCCA region. Please see our attached submission for further details.

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

Yes

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.

1: Battery electric
2: Hydrogen fuel cell
3: Low carbon liquid fuels

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

SECCCA offers the following detail to support our ranking of proposed pathways for heavy road vehicles:

- Battery electric technology is available and ready now, which represents the largest pull of emission reduction potential for the transport sector.
- Hydrogen fuel cell technology requires more work to reduce costs and increase affordability.
- Low carbon liquid fuels offer an interim solution, but should not interrupt or slow down the transition to renewables.
- Focusing efforts on battery electric and hydrogen fuel cell technologies will enable the market to drive efficiencies in low carbon liquid fuels (i.e. SECCCA does not support incentives for low carbon liquid fuels).

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

SECCCA agrees that Australia's heavy vehicle sector will continue to rely on liquid fuels in the short and medium term. As such, low carbon liquid fuels (LCLFs) will be important in decarbonising these transport modes. Please see our attached submission for further details.

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?

On behalf of our members, SECCCA recommends that the Australian Government consider the following additional actions in collaboration with state, territory and local governments:

- Adopt a joint labelling and recognition system for freight vehicles
- Introduce Zero Emissions zones – excluding access to certain areas to non EVs
- Establish micro mobility freight hubs

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

Not answered

37 13.1 Please add details to your response.

At this time rail is not a key focus area for our members.

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.

1: Battery electric
2: Hydrogen fuel cell
3: Low carbon liquid fuels

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?

As noted previously, electrification is a more straightforward path for light vehicles, and SECCCA agrees that Australia's heavy vehicle, rail, maritime and aviation sectors will continue to rely on liquid fuels in the short and medium term. As such, low carbon liquid fuels (LCLFs) will be important in decarbonising these transport modes. In collaboration with Greater South East Melbourne (GSEM), SECCCA commissioned a Roadmap to Net Zero Emissions report which indicates that it is increasingly likely that green hydrogen could be generated in a manner that is cost-effective for large industrial consumers. This process is likely to involve production and consumption of hydrogen on the industrial site, to avoid the difficulties and costs associated with transporting hydrogen. Additionally, second or third generation biofuels, from algae for instance, have the potential to be emission free. However, these second or third generation biofuels are scientific rather than commercial prospects presently.

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?

No additional comments.

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

No additional comments.

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

Not answered

44 17.1 Please add details to your response.

At this time maritime is not a key focus area for our members. However, SECCCA notes that the Port of Hastings located on Western Port Bay within the Mornington Peninsula Shire Council is likely to become a port of increasing significance, including as a potential centre for development of windfarms. Healthy water ways and thriving communities are inextricably linked, necessitating balance between the planning and development of such significant infrastructure within areas of biodiverse fragility.

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?

No additional comments.

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.

Aviation emissions within the SECCCA region are associated with aircraft movements

from Moorabbin Airport in the City of Kingston. There is also a small private airport at Tooradin in the City of Casey, which hosts a sky-diving operation and flying school. The electrification of smaller passenger and recreational aircraft is already underway, and electric aircraft may be particularly suited to these operations, at this stage of their development. The elimination of emissions at Moorabbin Airport should be possible if opportunities to introduce electric aircraft or biofuels are introduced. However, federal and state governments and industry will need to develop a comprehensive action plan including regulatory settings and compensation / subsidies if the potential to reach zero emissions aviation is to be reached.

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?

No additional comments.

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

Not answered

52 21.1 Please add details to your response.

Transport infrastructure activities are significant contributors to emissions, with roads the primary share of transport infrastructure investment. Given the urgency with which climate change must be addressed at multiple levels of government, the need for transformational adaptation is clear and it is imperative to elevate climate change within planning decision-making that is commensurate with the threat it poses. Climate change considerations must be made explicit and informed by best available data and climate change science.

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?

On behalf of our members, SECCCA supports requiring planning scheme amendments inclusive of transport infrastructure, at all levels of government and at all levels of the planning framework, to include an assessment against relevant climate change considerations.

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

Without dedicated planning consideration and measurement, reducing transport infrastructure emissions will be highly unlikely.

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?

SECCCA agrees that electrification is the clear decarbonisation pathway for the transport sector, though this is inextricably linked with decarbonisation of the electricity grid. While electrification is a more straightforward path for light vehicles, SECCCA agrees that Australia's heavy vehicle, rail, maritime and aviation sectors will continue to rely on liquid fuels in the short and medium term. As such, low carbon liquid fuels (LCLFs) will be important in decarbonising these transport modes.

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

Refer to our attached submission for further details on key transport abatement energy solutions including:

- Heavy vehicle electrification
- Increased uptake of biofuels
- Green hydrogen applications

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?

SECCCA supports the Australian Government leading the federal, state and local governments' work in re-setting roles and responsibilities through establishing a multilevel governance approach to climate adaptation that includes active participation by local councils across Australia.

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?

SECCCA has a proven track record and 20-years of credibility in delivering complex and innovative projects that bring together multiple member councils in partnership and collaboration to magnify their collective emissions reductions impact for the benefit of communities in Southeast Melbourne. Examples of these project are provided within our attached submission and SECCCA would be happy to provide any further information.

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

Refer to the answers above and our attached submission.

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

The lack of comprehensive sector targets undermines the credibility not only of the Transport and Infrastructure Net Zero Roadmap, but also all national net zero sector plans. Failure to set sector targets now will be a significant missed opportunity that locks Australia's emissions trajectory into an unliveable future climate. We strongly encourage the Australian Government to take bold action and set targets alongside the success measures to ensure that the transport and infrastructure sector is on track to adequately contribute to Australia's overall decarbonisation progress.

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?

SECCCA has undertaken dozens of projects and research activities over our 20 year history on behalf our members. Examples of these projects, led by SECCCA members, are noted below and within our submission. Additionally, further information on SECCCA's projects can be found here: https://seccca.org.au/projects.

- Eco Driver – built the capacity of participating councils to reduce emissions and save money through more efficient, safer vehicle management.
- Zero Carbon Roadmap – identified the technology available and emission reduction opportunities for each identified sector, including transport.
- EV Charging Roadmap – provided guidance to local councils on key EV charging infrastructure placement.
- EV Trials – provided support for local councils to begin electrifying their fleets.
- Zero Carbon Homes - Worked with builder/developer industries to build net zero carbon homes. This included exploring the feasibility and benefits of bi-directional charging, i.e. designing homes to enable EV charging via the home system and likewise for residents to power their home by their vehicle.
- Advocating to the state and federal government on a range of issues. See further details on SECCCA's advocacy work here: https://seccca.org.au/advocacy

With plenty of existing technology available, Australia has the capability to make a significant and fast tracked transition from fossil fuels to a zero emissions transport sector. The technology and evidence that already exists is what is required to meet the targets. SECCCA encourages the Australian Government to provide further incentives and a clear roadmap to support local governments and their communities to transition in line with targets and limit global warming to 1.5C.

We are happy to provide further data and evidence beyond those examples cited here and in our attached submission, and welcome opportunities for further consultations and discussions.

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?

SECCCA encourages the Australian Government to ensure that the roadmap includes a dedicated focus and associated actions to support active and public transport, which is a priority for our members.

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

Across Australia – and globally – we are not on track to meet our commitments to

emissions reductions or climate adaptation. Now is the time for bold and courageous action. We strongly encourage the Australian Government to strive for greater levels of ambition through this roadmap by developing sector targets and associated actions underpinned by a sound scientific evidence base. The lack of comprehensive sector targets undermines the credibility not only of the Transport and Infrastructure Net Zero Roadmap, but also all national net zero sector plans.

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

Please see our submission attached.

66 Would you like to upload a document?

Yes

67 Have you removed any identifying information from your submission?

Yes

68 Upload a submission

SECCCA Submission Combined - Transport + Infrastructure FINAL.pdf

69 Upload a submission

Not answered

70 Upload supporting file

Not answered

71 Upload supporting file

Not answered

SECCCA
South East Councils
Climate Change Alliance

24 July 2024

Department of Infrastructure, Transport,
Regional Development, Communications and the Arts
GPO Box 594
CANBERRA ACT 2601

Via online submission: https://www.infrastructure.gov.au/

Dear Sir / Madam,

SECCCA Submission to the Transport and Infrastructure Net Zero Consultation Roadmap

On behalf of our members, South East Councils Climate Change Alliance (SECCCA) is pleased to provide this submission to the Australian Government's Transport and Infrastructure Net Zero Consultation Roadmap.

SECCCA represents eight member councils in Southeast Melbourne and was established in 2004 to ensure that our communities remain vibrant, prosperous and climate-safe. Notably, all our elected member councils have declared a climate emergency and seek urgent action in both reducing their own corporate emissions while also supporting the wider community to take action to reach net zero emissions.

SECCCA welcomes and supports the Australian Government's development of national net zero sector plans including Transport and Infrastructure, to ensure that Australia plays our part in the global challenge to reduce greenhouse gas emissions in line with the Paris Agreement.

However critically, across Australia – and globally – we are not on track to meet our commitments to emissions reductions or climate adaptation. At our core, SECCCA values acting with courage. We are steadfast in our commitment to act now to protect the health and wellbeing of our community and nature, being courageous today for a resilient tomorrow.

Now is the time for bold and courageous action. We strongly encourage the Australian Government to strive for greater levels of ambition through this roadmap by developing sector targets and associated actions underpinned by a sound scientific evidence base. The lack of comprehensive sector targets undermines the credibility not only of the Transport and Infrastructure Net Zero Roadmap, but also all national net zero sector plans. We cannot overstate, failure to set sector targets now will be a significant missed opportunity that locks Australia's emissions trajectory into an unliveable future climate.

Our enclosed submission on behalf of our members, together with answers to the consultation survey questions, focuses on key roadmap areas including: success measures, guiding principles, light vehicles, transport energy use, and partnerships. Our submission includes tangible examples of on-ground

delivery that SECCCA and our members are undertaking to accelerate climate action for Southeast Melbourne.

Local governments play a critical role in driving climate adaptation, mitigation policy and action, as well as managing high value assets and services on behalf of communities. We encourage the Australian Government to continue engaging with councils directly as we collectively work toward a net zero emissions future for Australia.

SECCCA welcomes the opportunity to participate in further consultations and discussions on the Transport and Infrastructure Net Zero Roadmap, together with participating in the crucial next step of action and implementation planning.

Sincerely,

Helen Steel
Chief Executive Officer

On behalf of SECCCA member councils:

- Bass Coast Shire Council
- Bayside City Council
- Cardinia Shire Council
- City of Casey
- Greater Dandenong City Council
- City of Kingston
- Mornington Peninsula Shire Council
- City of Port Phillip

SECCCA
South East Councils
Climate Change Alliance

SECCCA Submission to the Transport and Infrastructure Net Zero Consultation Roadmap

1. Introduction

On behalf of our members, South East Councils Climate Change Alliance (SECCCA) is pleased to provide this submission to the Australian Government's Transport and Infrastructure Net Zero Consultation Roadmap.

SECCCA welcomes and supports the Australian Government's development of national net zero sector plans including Transport and Infrastructure, to ensure that Australia plays our part in the global challenge to reduce greenhouse gas emissions in line with the Paris Agreement.

However critically, across Australia – and globally – we are not on track to meet our commitments to emissions reductions or climate adaptation.

Now is the time for bold and courageous action. We strongly encourage the Australian Government to strive for greater levels of ambition through this roadmap by developing sector targets and associated actions underpinned by a sound scientific evidence base. The lack of comprehensive sector targets undermines the credibility not only of the Transport and Infrastructure Net Zero Roadmap, but also all national net zero sector plans. We cannot overstate, failure to set sector targets now will be a significant missed opportunity that locks Australia's emissions trajectory into an unliveable future climate.

Our submission on behalf of our members focuses on roadmap areas including:

- success measures
- guiding principles
- light vehicles
- transport energy use
- partnerships

See also SECCCA's responses to the consultation survey questions.

Transport is fundamental to the SECCCA region, which represents some of the fastest growing areas in Australia. It is the vital link to our economic and social prosperity, connecting people to industry and the community. SECCCA supports a smooth transition to electrified renewables and a transition away from gas as a clear mechanism to meet the Paris targets. We work to achieve this in the SECCCA region by prioritising investment in zero emissions and active transport, as demonstrated throughout our submission.

About SECCCA

SECCCA represents eight member councils in Southeast Melbourne and was established in 2004 to ensure that our communities remain vibrant, prosperous and climate-safe. We have a proven track record and 20-years of credibility in delivering complex and innovative projects that have benefited our communities.

Our member councils include:

- Bass Coast Shire Council
- Bayside City Council
- Cardinia Shire Council
- City of Casey
- Greater Dandenong City Council
- City of Kingston
- Mornington Peninsula Shire Council
- City of Port Phillip

Notably, all our elected member councils have declared a climate emergency and seek urgent action in both reducing their own corporate emissions while also supporting the wider community to take action to reach net zero emissions.

Our **purpose** is:

To accelerate climate action for Southeast Melbourne

Our **vision** is:

A vibrant, prosperous and climate-safe Southeast Melbourne

Our **mission** is:

To activate a scaled response to emissions reduction and climate adaptation

SECCCA's **values** guide the behaviour of the Alliance, members and management team. Alongside our purpose, our values guide our decision-making and priorities setting.

- Committed to **community**
- Acting with **courage**
- Grounded in **evidence**
- Delivering through **collaboration**

2. Success Measures

Australia is currently not on track to meet its commitments to emissions reductions or climate adaptation, as reported by the Climate Change Authority in their 2023 Annual Progress Advice Report. Further, the International Energy Agency reports that transport globally is not on track to achieve zero emissions by 2050 (International Energy Agency Transport Tracking report – September 2022).

Development of national net zero sector plans including Transport and Infrastructure will go some way toward ensuring that Australia plays our part in the global challenge to reduce greenhouse gas emissions in line with the Paris Agreement.

However, without the identification and inclusion of sector targets and associated actions underpinned by a sound scientific evidence base, the Transport and Infrastructure Net Zero Roadmap will miss a significant opportunity and set Australia's emissions trajectory into an unliveable future climate.

SECCCA notes that the final suite of success measures and metrics will be determined after feedback on the consultation roadmap, with consideration of the range of actions, priorities and opportunities in full.

We strongly encourage the Australian Government to take bold action and set targets alongside the success measures to ensure that the transport and infrastructure sector is on track to adequately contribute to Australia's overall decarbonisation progress.

SECCCA's work is grounded in evidence. We seek knowledge and insights to inform rational evidence-based decision-making so we can offer better paths for councils and communities. Drawing on our history and 20-year track record in delivering complex and innovative projects, we affirm the need for clear science-backed, evidence-based targets with corresponding real-world success measures in order to drive and assess impact.

Recommendations to the Australian Government

1. Identify and include sector targets and associated actions underpinned by a sound scientific evidence base within the Transport and Infrastructure Net Zero Roadmap, to ensure that the transport and infrastructure sector adequately contributes to Australia's overall decarbonisation progress. Per the Greater South East Melbourne and South East Councils Climate Change Alliance – Roadmap to Net Zero Emissions Final Report (refer to page 79, Figure 4.4 Transport Sector targets).

2. Implement a sector wide mandatory disclosure of carbon emissions (threshold to be determined) and utilise the Sustainable Development Goals as a standard tool to measure impact.

3. Guiding Principles

SECCCA notes that five guiding principles will be used to direct the development of the final Transport and Infrastructure Net Zero Roadmap and Action Plan:

- Maximise emissions reduction
- Value for money
- Maximise economic opportunity
- Inclusive and equitable
- Evidence-based

In principle, SECCCA supports the five guiding principles and seeks to ensure that each are considered and weighted equally as the roadmap's actions, priorities and opportunities are developed.

SECCCA is pleased particularly to see the guiding principles of inclusive and equitable as well as evidence-based. Our members represent a diverse range of communities and demographic groups. For example, 61% of the City of Greater Dandenong's residents were born overseas, and Greater Dandenong welcomes around 2,700 newly arrived people each year (see City of Greater Dandenong Statistics and Data). At present, technologies such as EVs are priced at the luxury end of the market and are inaccessible to vast swathes of Australians. SECCCA seeks to ensure equity of access in the transition to Australia's net zero future, so that all Australians can benefit from decarbonisation, and no populations or segments of Australian society are left behind in the net zero transition.

As noted in section 2 above, SECCCA values evidence-based decision-making as a key component to offering the best net zero paths forward for our member councils and communities. Additionally, in line with the principle of evidence-based decision-making, SECCCA notes that the principle of maximising emissions reduction would be served by the development of roadmap targets.

SECCCA notes that in addition to these principles, the Australian Government will consider a number of related elements to produce a comprehensive and clearly defined final Transport and Infrastructure Net Zero Roadmap and Action Plan. SECCCA recommends inclusion of an additional element: adopting "technology now". All available tools, resources and technology must be used now to achieve net zero targets and reduce warming to 1.5C. Fit for purpose technology exists. However, cost barriers frequently prevent the adoption of proven technology solutions.

SECCCA strongly encourages the Australian Government to adopt, incentivise and utilise multiple policy levers to encourage greater uptake of technology that works now. For example:

- EV regulations are needed to encourage uptake and reduce costs.
- Electrifying buses should be developed as a target.
- Active transport must be prioritised and funding provided to local governments to enhance active transport.

Recommendations to the Australian Government

3. Ensure that each guiding principle is considered and weighted equally as the roadmap's actions, priorities and opportunities are developed.

4. Include adopting "technology now" as a related element to the guiding principles, to ensure greater uptake of available solutions sooner, so Australian can achieve our emission targets and limit warming to 1.5C.

4. Road – Light Vehicles

SECCCA notes the roadmap's citation that light vehicle emissions account for almost 60% of all transport emissions, which is just over 12% of Australia's total emissions. SECCCA agrees that light vehicles present the largest emissions saving potential for transport, and electrification is the clear technology to decarbonise light vehicles. The future of driving is electric, which our members have embraced for more than a decade through work such as the Electric Vehicle Trial in 2011, EcoDriver in 2014, and more recently the *Electric Vehicle Charging Roadmap* in 2022 (see case study on page 9). Crucially, electrification of light vehicles must also be supported by active and public transport infrastructure. Avoiding unnecessary travel should be the first priority of the roadmap.

In collaboration with Greater South East Melbourne (GSEM), SECCCA commissioned a Roadmap to Net Zero Emissions report released in July 2023. The report identifies sector by sector, the most important and cost-effective opportunities for achieving rapid and deep reductions in greenhouse gas emissions in the SECCCA region.

Key active transport and light vehicle considerations are outlined below.

4.1 Active and public transport

Over the last decade, there has been a drop in the number of kilometres travelled annually by passengers in cars on a per capita basis. Moving from cars to public transport is a shift to a more energy and emissions efficient form of transport. When some journeys are taken by bike or on foot, the motorised transport task drops – and the associated emissions are eliminated.

SECCCA encourages the Australian Government to ensure that the roadmap includes a dedicated focus and associated actions to support active and public transport, which is a priority for our members. Our members have developed council transport plans which include actions to increase active transport. By way of example, the vast majority of the population in Cardinia Shire Council does not work in Cardinia.

We acknowledge that state and territory governments primarily manage and fund public transport networks, together with developing walking and cycling strategies, investing in active transport infrastructure, and developing active transport mode share targets with local governments. Increased uptake of active and public transport has significant potential to improve the overall sustainability and cost-effectiveness of transport systems across Australia – and is too critical to be left to a piecemeal

approach. Active transport deserves a dedicated focus within the roadmap. Active transport must also link to urban planning strategies to ensure outcomes achievement in this roadmap, particularly for new communities, so that our cities do not rely on light vehicles as the primary means of moving people and goods.

4.2 Zero emissions vehicles

Our research through the *Roadmap to Net Zero Emissions* report shows that nationally the total passenger transport task is rising as population increases, apart from the dip caused by COVID-19 impacts on travel. However, motorised passenger travel is increasing more slowly than population growth, as the annual amount of travel by motorised vehicle per person has been falling slightly. This has occurred as people avoid or shorten some motorised trips by means such as public transport use, greater use of walking and cycling, and use of high quality and inexpensive information communications technology options for communication rather than travelling to work and meeting places.

While electric / petrol hybrid technologies have been available for around 20 years in Australia, in Victoria EV sales are still very limited, trailing places like Norway and California, which have various government measures in place to speed the adoption of EVs. We note that at present, EVs are currently marketed in Australia at the more premium end of the market and largely not available in the lower priced vehicle classes, though such vehicles are numerous in both India and China for example. Australia stands in contrast to countries such as Norway, where EVs accounted for 79.3% of new light vehicle sales in 2022 (see for example: "Norway celebrates another record-breaking year for electric vehicles").

The GSEM and SECCCA *Roadmap to Net Zero Emissions* notes issues hindering uptake of EVs in Australia:

- Insufficient supply of EVs
- Upfront cost premium of EVs
- Driving range
- Availability of EVs for every transport task
- Recharging infrastructure
    - The roadmap does not distinguish between home charging versus public / free versus commercial recharging options which relates to EV affordability and equity of access.
    - The roadmap notes that charging infrastructure investment will be needed in the medium-term (2030-2040). However, this timeline is too delayed to support the rate of EV uptake required. The roadmap notes that 812 DC Fast and Ultrafast public charging sites were available for Australians to charge their electric vehicles at the end 2023. But in the same time period over 2022-23, 158.3 billion passenger kilometres were travelled by car. The current EV charging infrastructure is nowhere near sufficient to support this level of passenger travel.
    - The roadmap notes that future innovation in bidirectional charging will allow EVs to both receive and discharge energy, and enable more EV models to contribute electricity to power homes and the grid in the future, anticipated to be widespread by 2040-2050. Again, this timeline is too delayed and hindered more by legislative hurdles than technological capability.

Governments in Australia must join global efforts to push the international vehicle industry to phase out manufacture of internal combustion engine vehicles (ICEVs) in favour of EVs. At present, even if there was a collective decision among vehicle buyers in the region to shift to EVs, there would not be enough EVs available to meet transport demand.

Additionally, governments and vehicle buyers in Australia must introduce policies that ensure global production of EVs is diverted to the Australian market. At present, vehicles in Australia are on the road for an average of 15 years – and some operate for over 40 years. It follows that zero emissions in 2050 will only be reached if new ICEVs cease being available for sale by 2035. Even then it is likely that some buyback or scrapping measures, or the banning of liquid fossil fuel sales, will be needed to remove ICEVs from the road by 2050.

Modelling should be developed to understand the transition to EVs, its interaction with the grid and implications on the demand for electricity. An 'adoption pathway' should be developed to identify the trigger points in upgrading infrastructure that enables the transport sector's net zero transition and achievement of targets. For example, if a target is set for 10% EV increase per year over 10 years, but in year three there is a boost of 30%, can the electricity grid and infrastructure accommodate this increase? Modelling is required to ensure the additional energy demand of the transport sector transition can be accommodated.

Additionally, bi-directional charging must be supported to allow homes to charge EVs and likewise, power homes by their vehicle. This technology shift will significantly enable homes with one or two EVs to use them to power their homes, negating the need and cost for portable batteries in the event of blackouts as well as large, fixed batteries on homes as a backup power supply. This technology shift will also help address both transport emissions and household emissions.

Recommendations to the Australian Government

5. Ensure that the roadmap includes a dedicated focus and associated actions to support active and public transport.

6. Develop a robust sustainable transport policy framework to engage, encourage and incentivise suppliers to enter the Australian market.

7. Provide consistent policy and standards to support industry investment, and provide charging where no commercial case is likely.

8. Use procurement processes to set specifications and demand for vehicle types not yet available on the Australian market.

9. Fast-track approval of infrastructure suitable for residential and business use of bi-directional charging to ensure safety and availability to market as soon as possible.

10. Develop the required modelling for the transitional change in the transport sector to ensure the adequacy of supporting infrastructure.

11. Include eco-driving skills training for drivers as part of the process of obtaining a new or renewed driver's license.

Case Study: Electric Vehicle Charging Roadmap

Recently SECCCA developed an *Electric Vehicle Charging Roadmap*, policy guidance and a snapshot of future trends to help lower transport emissions.

Community sentiment on EVs is evolving rapidly, and some member councils are receiving requests from residents for public EV charging.

Additionally, EV charging equipment suppliers are approaching councils seeking to install chargers on public land, with clearer policy guidance required to consistently manage these requests.

Our members are seeking a stronger understanding of where future charging infrastructure should be placed, using a data-led approach. A clear, robust plan for publicly available charging infrastructure can also provide a strong foundation for SECCCA members to apply for funding to instal chargers in their LGAs.

In response this project delivered:

- EV Charging Roadmap to identify optimal locations for publicly available charging; and address key issues for consideration in the development of an implementation plan, delivered in 2030, for each LGA, to create a regional network.
- Discussion paper and policy template to address relevant planning and statutory requirements; ownership models; and permits and approvals considerations for leasing public and private land (including on-street parking bays).
- Future scan of emerging market trends and the implications of these trends for SECCCA members and the roadmap.

City of Casey, Cardinia Shire Council, Frankston City Council, City of Kingston and Mornington Peninsula Shire Council are the key focus areas of this roadmap.

5. Transport Energy Use

SECCCA acknowledges that the transport system in Australia is currently heavily reliant on direct combustion of fossil fuels, and notes the roadmap's citation of transport making up 75% of Australia's total liquid fuel demand.

SECCCA agrees that electrification is the clear decarbonisation pathway for the transport sector, though this is inextricably linked with decarbonisation of the electricity grid.

While electrification is a more straightforward path for light vehicles, SECCCA agrees that Australia's heavy vehicle, rail, maritime and aviation sectors will continue to rely on liquid fuels in the short and medium term. As such, low carbon liquid fuels (LCLFs) will be important in decarbonising these transport modes.

Key transport abatement energy solutions are outlined below.

Heavy vehicle electrification

Many local councils across the state are interested in investigating the opportunities for EV / hydrogen heavy duty trucks in council or council contractors' fleets. Our research through the GSEM and SECCCA *Roadmap to Net Zero Emissions* indicates that freight transport is lagging passenger transport in the transition to net zero due to the lower availability of zero emissions vans and trucks. However, this is changing with the release of electric vans. Heavy trucks remain challenging to source, though Tesla and Volvo have released electric heavy trucks in the US and Europe, and Volvo will be constructing both medium and heavy electric trucks at their Brisbane facility in the near future. The challenge, for both government and industry, is to provide the policies and infrastructure needed to supply zero emissions trucks for freight tasks at total ownership cost parity to diesel trucks.

Green hydrogen applications

While still a developing alternative fuel source, our research shows a number of applications for green hydrogen (produced from renewable electricity):

- Low and zero carbon hydrogen production increasingly can be used as an energy carrier in the production for LCLFs.
- Hydrogen may have strong uptake in heavy vehicle segments. Under current battery technologies, the payloads for electric trucks are compromised by the heavy batteries needed to provide long-haul ranges of over 600 km.
- Hydrogen derived fuels will have increased use in the maritime sector.
- It is increasingly likely that green hydrogen could be generated in a manner that is cost-effective for large industrial consumers. This process is likely to involve production and consumption of hydrogen on the industrial site, to avoid the difficulties and costs associated with transporting hydrogen.

SECCCA notes that there is a substantial research effort underway in Australia and elsewhere focused on reducing the production cost of green hydrogen (and other forms of hydrogen that are not carbon neutral). Additionally there are sound prospects that future green hydrogen production costs could fall below the cost of natural gas over time. (For example, see article "Integrated wind and solar still cheapest, and green hydrogen costs falling fast: CSIRO") However, since green hydrogen is produced from renewable electricity, its price will always be higher than that of renewable electricity to cover the other production costs and margins. The commercial acceptability and competitiveness of piped hydrogen as a fuel is also uncertain – as it is not currently a marketed product – and this presents significant risks.

As part of our forward strategic plan, SECCCA has identified the need to undertake a project to investigate EV / hydrogen heavy duty trucks. This proposed project will focus on the opportunities for electrifying heavy duty vehicles in council fleets, or council contractors' fleets, to reduce operational emissions and achieve net zero emissions for council. Thus, reducing barriers for transitioning heavy duty vehicles, both in ownership / leasing and in procurement requirements within contracts.

Uptake of biofuels

There may be viable applications for biogases or biofuels, which typically occur near to the feedstock source (to limit transport costs) in industries such as food and beverage production, waste processing and agriculture / horticulture. Biofuel vehicles, where liquid biofuel powers a traditional internal combustion engine, have the potential to be emissions free. However, first generation fuels only have niche applications where a specific, relatively small fleet has access to a biofuel source that would otherwise be wasted. First generation biofuels generally use feedstocks such as oilseeds, cereal crops and tallow. They cannot be produced in sufficient quantities to greatly lower overall transport emissions without having negative consequences such as driving up the cost of food and increasing the destruction of natural landscapes and biodiversity. Second or third generation fuels, from algae for instance, have potential, but these are scientific rather than commercial prospects presently.

Recommendations to the Australian Government

12. Invest in green hydrogen as a fuel for the heavy transport sector and support further investment as needed to commercialise these products to market.

13. Develop an infrastructure roadmap for hydrogen refuelling for long distance freight.

6. Partnerships

SECCCA affirms the roadmap positioning, that collective action is needed to reduce transport emissions, and this requires collaborative work across all levels of government, together with communities and industry.

Local governments play a critical role in driving climate adaptation, mitigation policy and action, as well as managing high value assets and services on behalf of communities. The local government sector in Victoria brings a wealth of experience and knowledge to climate change response, having spent decades driving adaptation, mitigation policies and programs for the benefit of local communities. However, councils are too often seen as only a vehicle for implementing policies set by state and federal governments, often fragmented and without adequate support and resourcing.

A multilevel governance approach that includes local, state, and federal governments – as outlined in the *Many Hands Make Light Work* report – would see more cohesive, unified work between governments with less duplication. This approach would help build a more resilient governance ecosystem by ensuring that councils have a seat at the decision-making table, and empowering all spheres of government to fulfil their climate resilience and emissions reduction goals through effective coordination and resourcing.

The Victorian Greenhouse Alliances are also an established vehicle for coordination and collaboration at the regional level, assisting their member councils with internal capacity building, cross-council projects and research, and engagement with other levels of government and other sectors.

We encourage the Australian Government to continue engaging directly with councils as we collectively work toward a net zero emissions future for Australia. This engagement should extend beyond bodies such as the Australian Local Government Association, directly to organisations like SECCCA who have on the ground knowledge and insights. The model SECCCA uses in our approach is collective impact, serving as a trusted backbone organisation to help guide these discussions. We welcome further opportunities for strategic partnerships with the federal and state governments on adaptation policy co-creation and implementation for climate resilience.

Recommendation to the Australian Government

14. Lead the federal, state and local governments' work in re-setting roles and responsibilities through establishing a multilevel governance approach to climate adaptation that includes active participation by local councils across Australia.

7. Next Steps

SECCCA welcomes the opportunity to participate in further consultations and discussions on the Transport and Infrastructure Net Zero Consultation Roadmap, together with participating in the crucial next step of action and implementation planning.