

Transport and Infrastructure Net Zero Consultation Roadmap

Take the survey

Department of Climate Change, Energy, Environment and Water

Response received at:

August 6, 2024 at 4:51 PM GMT+10

Response ID:

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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
Austroads, AfPA and AustStab
- 4 Confirm that you have read and understand this declaration.
Yes
- 5 First name
John
- 6 Last name
Gordon
- 7 Email
[REDACTED]

- 8 Phone
[REDACTED]
- 9 Who are you answering on behalf of?
Organisation
- 10 Organisation name
Austroads
- 11 What best describes you or your organisation?
Government
- 12 What sector do you represent?
Infrastructure
Heavy road vehicles (trucks, buses etc.)
Active transport
Public transport
Light road vehicles (cars, utes etc.)
- 13 What state or territory do you live in?
Victoria
- 14 Postcode
3000
- 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.
Not answered

- 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.
Not answered
- 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.
See attached submission
- 22** 4. What should be included in a national policy framework for active and public transport and how should it be developed?
See attached submission
- 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?
See attached submission
- 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?
See attached submission
- 25** 6.2. How would these actions address the identified challenges and opportunities for emissions reduction in the movement of goods?
See attached submission

- 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.
See attached submission
- 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?
See attached submission
- 29 8.2 How would these actions address the identified challenges and opportunities to reduce light vehicle emissions?
See attached submission
- 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
See attached submission
- 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?

See attached submission

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

See attached submission

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?

See attached submission

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?

See attached submission

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

See attached submission

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.

See attached submission

- 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?

See attached submission

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

See attached submission

- 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?

See attached submission

- 56 24. How should the use of low carbon liquid fuels (LCLFs) be prioritised

across different transport modes over time to achieve maximum abatement?

See attached submission

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?

See attached submission

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?

See attached submission

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

See attached submission

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

See attached submission

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?

See attached submission

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

See attached submission

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

See attached submission

- 64 28.1 Is there anything missing? Are the sections appropriately integrated? Is the Roadmap appropriately ambitious?
See attached submission
- 65 29. Is there any further information or documentation that you wish to be considered with your submission?
See attached submission
- 66 Would you like to upload a document?
Yes
- 67 Have you removed any identifying information from your submission?
Yes
- 68 Upload a submission
Joint_Infrastructure_partners_submission_to_Net_Zero_Consultative_Roadmap_signed .ce04b253_
- 69 Upload a submission
Not answered
- 70 Upload supporting file
Not answered
- 71 Upload supporting file
Not answered



Austroads

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www.afpa.asn.au

Our reference: EC
Our contact: John Gordon

6 August 2024

By email: NetZero@infrastructure.gov.au

Joint Submission: Transport and Infrastructure Net Zero Consultation Roadmap

Thank you for the opportunity to comment on the Transport and Infrastructure Net Zero Consultation Roadmap.

This is a joint submission that responds to one key aspect of the Transport and Infrastructure Net Zero Consultation Roadmap, that of the enabling systems, including transport infrastructure as outlined in chapter 4 of the Consultation Roadmap.

This joint submission is from the Australian Flexible Pavement Association (AfPA), Pavement Recycling and Stabilisation Association (AustStab) and Austroads, the association of Australian and New Zealand roads and transport departments and the key industry associations involved in road construction and maintenance. The submission reflects the intention outlined in the Consultation Roadmap for solutions to be a collaboration between key stakeholders including government and industry.

Our organisations support the contents of this submission. However, as there are other matters that each organisation may wish to comment on in the Roadmap, each organisation may make a separate submission.

Decarbonisation of transport is dependent on the transport authorities and industries who plan, design, deliver and operate transport infrastructure across the country. Support for the industries which deliver our transport infrastructure is essential to allow the adoption and deployment of decarbonisation opportunities.

The signatories to this submission represent industry leaders that are critical delivering the future of Australia's transport infrastructure and systems, through:

- **Planning** – both short and long term, to support a shift to sustainable, low emissions ways of moving people and goods
- **Designing** – ensuring networks exemplify best practice in the allocation of contested spaces such as transport corridors for different user groups, modes, and times
- **Delivering** – utilising innovative and proven low carbon, circular materials technologies to build low carbon infrastructure
- **Operating** – operating networks to reduce emissions, focus investment on supporting infrastructure, and improve maintenance to extend the life of existing infrastructure.

Chapter 4 of the Consultation Roadmap identifies that decarbonised transport infrastructure will be a key element in achieving the net zero target. It notes that there are several key inputs and enabling policies that are essential to transport achieving net zero and that building, operation and decommissioning of transport infrastructure produces emissions. These emissions mostly come from the production of construction materials, such as cement, asphalt, aluminium and steel.

As identified in the Consultation Roadmap, in order to decarbonise transport infrastructure, the main emissions reduction pathways will be through materials and design. Emissions reduction from infrastructure construction, operation and maintenance should be undertaken in a structured cohesive way. One proven effective way to coordinate action for road infrastructure construction, operation and maintenance is through the development and adoption of Austroads Guides.

The Consultation Roadmap proposes three categories of emissions from infrastructure (p69). Adopting a more detailed approach to address emissions over the infrastructure lifecycle can lead to emission reduction in a cohesive manner.

Austroads has experience in working with each of Australia's state roads and transport agencies, with local government and with industry stakeholders to develop Guides that are adopted by road authorities and used by industry. Therefore, it is proposed that Austroads should work with the industry associations to develop a guide or manual for emissions reduction. This manual or guide would focus on the key topics as outlined below:

- Preconstruction and design
- Construction
 - Construction Greenhouse gas assessment boundary
 - Alternative processes or materials
 - Construction emission sources and required data
 - *Site offices and plant*
 - *Plant and Equipment*
 - *Demolition and earthworks*
 - *Land clearing/land use change*
 - *Pavements*
 - Bitumen and asphalt
 - Concrete and cement
 - Granular and quarried materials (excluding asphalt and concrete)
 - Stabilisation of Earthworks
 - Road structures
 - Design and specifications
 - Materials and technologies
 - Engineering analysis
 - Sustainability practices
 - Stabilisation methods
 - Environmental assessment
 - Drainage
 - Road furniture
 - Metals
 - Timber
 - Plastics and paints
 - Road projects that include tunnels
- Operation
 - Electricity - Lights, signals
 - Liquid fuels - Cleaning and clearing
- Maintenance
 - Routine maintenance
 - Scheduled maintenance
 - Rehabilitation
 - Material recycling and reuse
- Decommissioning.

A cohesive guide or manual that addresses the key topics above, jointly developed by Austroads and industry can provide a unified framework and set of techniques for assessing greenhouse impact of infrastructure and applying techniques to reduce emissions.

In order to better support the implementation of proposed changes, authorities and local road managers need really well-defined procurement guidelines that direct the outcome and support improved reporting. It is our experience that often procurement is not specific, does not reference agreed national standards and often describes 'desired' or 'shoulds' (often due to risk management perceptions). Austroads and these signatories believe that addressing procurement will be an essential component to achieving tangible progress, and we could partner to prioritise and deliver on this.

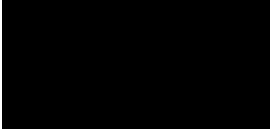
Authorities also need to have “wrap around support” to guide and support these major changes. This includes deliberate and intentional support to the full supply chain, from designers, consultants, manufacturers and suppliers, delivery agencies, contractors, and procuring authorities.

Addressing the key elements in delivery and maintenance practices to support the process for adoption of low carbon solutions requires identifying and overcoming barriers to adoption such as a lack of awareness and education, myths, status quo practices, and immature supply chains.

Austrroads is also well placed to lead the research needed to quantify the carbon abatement potential of various components of the transport infrastructure lifecycle and methodology listed above.

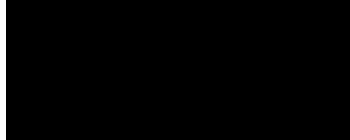
We believe that this collaborative approach can address the intention for solutions to be cohesive and workable collaborations between key stakeholders including government and industry.

Yours sincerely,



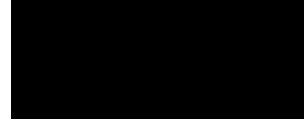
Geoff Allan
Chief Executive
Austrroads

Yours sincerely,



Tanja Conners
Chief Executive Officer
AustStab

Yours sincerely,



Tony Aloisio
Interim Chief Executive Officer
AfPA