

# Transport and Infrastructure Net Zero Consultation Roadmap

## Take the survey

Department of Climate Change, Energy, Environment and Water

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1 Confirm that you have read and understand this privacy notice.

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

Public

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Tom Garrish

4 Confirm that you have read and understand this declaration.

Yes

5 First name

Tom

6 Last name

Garrish

7 Email

[REDACTED]

8 Phone



9 Who are you answering on behalf of?

Individual or individuals

10 Organisation name

Not answered

11 What best describes you or your organisation?

Not answered

12 What sector do you represent?

Not answered

13 What state or territory do you live in?

Victoria

14 Postcode

3435

15 What area best describes where you live?

Regional area

16 1. Do you support the proposed guiding principles?

Yes

17 1.1 Please add details to your response.

1. I agree with the guiding principles, with the following suggestions:

a. Consider including an explicit reference to the needs of people in regional areas who may be concerned that they will be impacted disproportionately by policies that, for example, incentivise EVs or propose per-km road user charging to replace fuel excise.

b. Perhaps the fifth – “Evidence-based” – could be modified to include explicit reference to drawing on the experience of what approaches have been effective in other

jurisdictions around Australia and globally – especially those with Federal and State governments working together.

**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.

Transport demand management is a critical area but needs to be balanced against addressing transport poverty, especially in regional areas.

**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.

The challenge will be in supporting those States and territories that have already developed ambitious policies in this area without duplicating effort.

**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?

Not answered

**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?

Support by governments for measures that reduce the demand for new things - eg, encouraging recycling, support for repairing broken goods rather than replacing them,

second-hand shopping, etc. (though might be slightly beyond the remit of this review!)

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

Reduced demand leads to reduced freight.

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.

I would suggest that bi-directional charging and V2G could and should become “widespread” in the 2030-2040 decade, not the decade after. The technology is ready; but regulatory change is needed to promote uptake and this can happen in the short-to-medium term.

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?

Ensure as broad a scope as possible for the NVES as zero and low emission vehicles (eg utes) become available in the local market.

Governments and industry must work together to introduce and promote V2G. This, with appropriate education campaigns, will significantly reduce total ownership costs of EVs and accelerate uptake, while improving grid stability at relatively low cost.

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

Not answered

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

While it's well recognised that the technology is developing quickly for both battery electric and hydrogen fuel-cell vehicles, it is quite likely that battery energy density will improve, and charging times will come down, over the next five years to the extent that even long-distance trucks can utilise it, using mandated rest breaks to allow top-up charging without increasing overall journey times.

**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: Low carbon liquid fuels

3: Hydrogen fuel cell

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

First – battery electric - the technology is already here and future improvements will only make it cheaper and viable over an increasing range of use cases and distances.

Second – LCLF – useful as an intermediate step before heavy vehicle battery electric technology evolves further; also significant potential local industry development benefits.

Third – hydrogen fuel cell – not yet viable economically and no refuelling networks. May make sense in the short-to-medium term for transport (buses and trucks) where transport use is an additional use for the hydrogen alongside a primary, industrial use.

**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?

It's a fast-changing technology landscape and governments will need to review and adjust policy settings more frequently than normal to ensure they are not "picking winners" and impeding the advancement of technologies that are considered sub-optimal.

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

Yes

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?

Commonwealth funding could support trials of different rail decarbonisation policies with results shared across jurisdictions.

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.

Not answered

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?

Not answered

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?

Not answered

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

The final plan needs to include targets set against a forecast "do nothing" baseline.

- 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?

Tracking of other jurisdictions similar plans and policies to understand what is working and allow revisions as quickly as possible.

- 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?

I suggest that the final plan needs to give greater attention to the the developing

interrelationship between the transport sector and the energy system, and therefore the need to develop solutions that incorporate actions that span both sectors. For example, vehicle-to-grid technology can reduce electricity costs for EV owners while providing grid stability to the electricity network, but this needs policy action in the energy space as well as transport.

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?

No

67 Have you removed any identifying information from your submission?

Not answered

68 Upload a submission

Not answered

69 Upload a submission

Not answered

70 Upload supporting file

Not answered

71 Upload supporting file

Not answered