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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Yes

5 First name
Not answered

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9 Who are you answering on behalf of?

Not answered

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?

New South Wales

14 Postcode

2010

15 What area best describes where you live?

City

16 1. Do you support the proposed guiding principles?

Not answered

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?

Not answered

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?

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?

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?

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?

Not answered

27 7.1 Please add details to your response.

Not answered

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?

Not answered

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?

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?

Not answered

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?

Not answered

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

PIA Transport Infra Net Zero Roadmap Sub July 24 v1.pdf

69 Upload a submission

Not answered

70 Upload supporting file

Not answered

71 Upload supporting file

Not answered

19 July 2024

The Hon Catherine King MP Minister for Infrastructure, Transport, Reg. Development and Local Government
The Hon Chris Bowen MP Minister for Climate Change and Energy
Dept of Infrastructure, Transport, Regional Development, Communication and the Arts
Via roadmap email portal

Ministers King and Bowen,

TRANSPORT & INFRASTRUCTURE NET ZERO CONSULTATION ROADMAP – PIA SUBMISSION

PIA support the roadmap and a more proactive role for planning

The Planning Institute of Australia (PIA) strongly support a *Transport and Infrastructure Sector Net Zero Emissions Roadmap* and endorse the engagement approach in the consultation report (link).

PIA has prepared a position '*Achieving net zero emissions – an enabling role for planning*' (link) setting out how and when strategic planning and assessment can be effective in promoting action (across all industry sectors) to reduce emissions in steps towards net zero emissions by 2050.

PIA has prepared previous submissions (link) regarding setting, tracking and achieving Australia's emission reduction targets (link) including to the *Climate Change Authority Issues Paper* (May 2024).

PIA appreciate that the transport sector is on a trajectory to overtake energy and become the largest source of emissions beyond 2030. Cars/light vehicles continue to make up the majority of transport emissions.

PIA endorse the five guiding principles – leading with 'maximising emission reduction'. However, we recommend elevating a principle of 'avoiding emissions' (refer Q1 & Q2 and see 'avoid-shift-improve' p15-16) . This would promote demand management and consideration of a wider set of project alternatives including digital connectivity, land use planning, urban design, mode shift and accessibility solutions.

Regarding the Government's toolkit for decarbonisation, the sector roadmap should set out a stronger role of a National Urban Policy to establish criteria in favour of infrastructure projects that demonstrate the guiding principles in a spatial planning context – not just on a project by project basis. The roadmap notes (p24):

> *"The National Urban Policy will present a shared government vision for cities which are more productive, equitable, resilient, sustainable and liveable. Future active and public transport infrastructure planning may be guided by the National Urban Policy, noting the different roles and responsibilities of each level of government"*

The roadmap should influence a more proactive and spatial role for the National Urban Policy to ensure that infrastructure planning will be led by the NUP (and aligned strategies) - notwithstanding the roles of different tiers of Government.

Transport networks and systems need a planning context to avoid and reduce carbon emissions

PIA supports the premise of Chapter 2 'Rethinking our transport networks and systems' using a 'movement and place' planning philosophy to avoid unnecessary travel through better strategic planning and design for accessibility – and promoting active transport mobility. PIA support scaled up project development and appraisal of multiple active transport and place interventions – on the same footing as megaprojects. The Infrastructure Policy Statement should be interpreted broadly so that active transport and aggregated local place projects are identified and funded as 'nationally significant' projects.

Transport mode net zero pathways should adopt enabling actions across the sector

Regarding Q3-5, PIA support each of the leading elements of 'a net zero pathway for active and public transport'. They reflect PIA advocacy positions (link) planning for connected, accessible, walkable and bike friendly communities. PIA agree that genuinely 'mixed use' communities with associated jobs and amenities are critical. However, 'mixed use' zoning is not always the only means to achieve this outcome due to the dominance of housing demand in the property market. Retaining space zoned for urban services and employment is vital for cities to function as a whole. Dot 2 (p26) should refer to using all the tools of a strategic planning and urban design to achieve the stated outcomes.

Supporting a net zero pathway for freight should expand on the role for urban planning (Q6 p32-33) beyond corridor preservation - to setting the regional spatial framework for settlements / nodes recognising their different strategic roles. This requires integrated land use and transport planning to locate growth where it can be effectively connected and serviced.

PIA support the direction of the sector roadmap regarding net zero pathways for different classes of vehicles (Q7-8 p38-40). Planning has a role managing travel demand, promoting active transport and facilitating the rapid expansion of the electric vehicle fleet via:

- EV charging – by planning for charging spaces and setting consistent parameters for the provision of EV charging facilities in different development types and settings.
- Road space management in support of lower emissions transport.
- Integrating land use and transport by focussing density where there is transport choice.
- Planning and design of walkability, bikes and facilities supporting low emissions transport
- Promoting last mile infrastructure on major transport projects.
- Adopting maximum rates of car parking in accessible precincts – to reduce car travel demand.
- Opportunities for differential road pricing.

Land use planning is relevant to rail freight, maritime and aviation in relation to long term spatial planning for land, facilities and connections. However, the slow uptake of low emissions fuels will mean continuing reliance on carbon offsets that will require regional land use planning and resource management interventions.

Transport infrastructure net zero pathways should address emissions across life cycle

PIA supports strategies for reducing whole of life emissions via net zero pathways for transport infrastructure and energy use (Chapter 4). This will rely on adopting a timeline for measures to reduce:

- Enabled emissions — from the use of infrastructure (eg cars on roads).
- Operating emissions — from energy use of the asset during operation (eg electricity at train stations).
- Embodied emissions — from construction activity and materials (eg in making concrete).

PIA agree that decarbonising infrastructure must be considered throughout all stages of the infrastructure lifecycle – the earlier the consideration, the greater the influence on whole of life emissions.

PIA understands integrated land use and transport infrastructure and services planning are vital for investing in the right infrastructure in the right place – and reducing or avoiding enabled emissions altogether from unnecessary infrastructure. PIA promote using spatial scenarios to plan investment pathways for more resilient settlement and supporting infrastructure. Individual projects should only be subjected to business case assessment if consistent with a broader strategy founded on reduced emission outcomes.

Cutting enabled and operating emissions are immediate priorities, however reducing embodied emissions will require the development of new and stronger systems. PIA agree that the following steps are critical elements of an embodied energy reduction pathway for infrastructure:

- Establishing new markets for lower embodied energy products to become competitive (eg concrete, cement, steel).
- Building governance architecture (eg codes, measurement standards and accountability through national leadership and coordination).
- Prioritising low or zero emissions procurement.
- Applied research to fill the knowledge and skills gap - to identify and use the right materials
- Addressing National standards on data collection, measurement and reporting of embodied emissions to enable comparison.
- Ensuring critical elements of the 'circular economy' are in place.

PIA supports Infrastructure Australia currently developing guidance to include embodied emissions within business cases.

Measuring sector success should focus on carbon tonnage reduction targets

The ultimate success measure would be tonnage and timing of carbon emissions reductions that meet the budgeted share for the transport and infrastructure sector. Presumably each sector would operate under an coherent overall target and timing to meet Paris goals. The apportionment of emissions reduction among sectors would need to continuously change to reflect the opportunities and capacity of each sector based on the factors listed in table 4 – including value for money and equity.

A critical success factor will be how decision making and investment in transport infrastructure aligns with action to meet targeted carbon emission reduction in the sector.

Next steps

PIA appreciates the explanation of issues and opportunities in the draft document – but regards the net zero pathways (Figures 9,11,14, 15,18 and 20 – see Attachment A) as the most significant contribution towards a roadmap. The next step should be an action plan for how (and when) different industry players should respond to fulfil the roadmap.

PIA has attempted to identify the role that the planning profession should play to enable carbon reduction actions in our report *Achieving net zero emissions – An enabling role for planning* (link). PIA's report used a 'theory of change' approach, asking: "if carbon reduction targets are to be met at steps along the way up to 2050 – what enabling actions would the planning profession have to take and when to reduce operational and

embodied carbon emissions in different sectors". The final transport and infrastructure roadmap should set out the enabling actions for each key player or institution.

Please do not hesitate to contact PIA for further information regarding our submission via [redacted]

Yours sincerely,

[redacted]

John Brockhoff
PIA National Policy Director

ATTACHMENT A: TIMELINE OF TRANSPORT DECARBONISATION TECHNOLOGY PATHWAYS