

# Transport and Infrastructure Net Zero Consultation Roadmap

## Take the survey

Department of Climate Change, Energy, Environment and Water

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- 3 Published name  
Regional Development Australia - South West
- 4 Confirm that you have read and understand this declaration.  
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9 Who are you answering on behalf of?

Organisation

10 Organisation name

Regional Development Australia - South West

11 What best describes you or your organisation?

Other: "Delivering regional development services for the Australian Government"

12 What sector do you represent?

Other: "Regional development"

13 What state or territory do you live in?

Western Australia

14 Postcode

6230

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.

Generally support the principles, although it would be useful to note broad engagement from all elected members to give the work both strength and longevity.

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

No

**19** 2.1 Please add details to your response.

Parts of this need to go further. For example, the discussion paper refers to avoid as personal travel. What about 'avoid' as freight task too? While we can't wind back basic economics, it is incongruous that we want a Future Made in Australia without discussing carbon kilometres and a Future Grown in Australia. It is common to see imported foods on supermarket shelves when we grow our own.

In respect of shift, it's easier to shift people from roads to ubiquitous public transport in cities. It is not so easy in regional Australia which features car-dependent communities.

**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.

Making cities car unfriendly (or at least unfriendly for fossil-fuelled cars) should make a difference in liveability as well as pollution.

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

Research European countries where cities have bans on vehicles that are not EVs. We have (for most of the year) decent weather that supports cycling. Our towns and cities have growing bike networks that could grow considerably more, particularly through the use of e-bikes to extend commuting range by saving time.

**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?

Commuter lanes dedicated to vehicles with multiple passengers (buses and light vehicles). We might also look at the problem backwards: Instead of thinking about how we get people moving along spokes to a central hub, we could look at decentralising city hubs. It is no longer necessary for big business (or government) to have all major offices and/or headquarters in the middle of cities.

- 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?
- Greater interoperability - especially at IMTs. The mix of railway gauges in WA is outdated. The Australian Government should not financially support any projects that do not use standard gauge rail.
- Australia could also look at European practices of 'trucks on trains' where trucks can drive onto flatbed carriages and then drive off at the other end of the journey. Crossing the Nullabor would be so much more efficient.
- The unnecessary movement of supermarket goods has already been mentioned. Every consumer good or consumable has a carbon-kilometre value. Appreciation for the seasonality of some foods would also help reduce the movement of produce.
- 25 6.2. How would these actions address the identified challenges and opportunities for emissions reduction in the movement of goods?
- Greater efficiency means less fuel use.
- Seasonal produce opens up domestic food bowl options.
- 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.
- Mostly agree. However, there is no consideration for end-of-life infrastructure/systems to deal with tonnes of old batteries in the future. The whole system must be considered, and that may include post-transport use of batteries to become household batteries. We will also need to look at standardising charge adaptors and strategies to install a LOT more EV charging points in regional Australia which features the most car-dependent communities and the highest levels of range anxiety concerns.
- 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?

From a regulatory viewpoint, why do we allow new service stations to be built when they do not feature any EV charge options? Four new service stations have recently been built within 10km of our office and none of them will charge an EV. This perpetuates the status quo and does not give motorists confidence to move forward.

About half the current new car fleet is purchased by government and business.

Government vehicles should be hybrid at the very least. Business can be encouraged to do more through incentives.

If that is the carrot, then taxing light vehicles is the stick. Regulators will need to close loops on when a "light" vehicle becomes a "heavy" vehicle. It is not suggested that consumers' freedom of choice is removed, but choosing to generate CO2 should come with financial consequences. Using income from big ICE vehicles to support EV pricing is an easy sell to the community.

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

Standardising chargers reduces range anxiety. For example, a local charging point was damaged for one particular connector but the adjacent station with a different connector was functional and therefore puts redundancy in the system.

Increasing fleet vehicles purchases has a dual benefit: 1 It adds more cheaper options to the used car market which opens the door to those who cannot afford a new EV; and, 2 fast-tracking the transition now means less ICE cars on the road in 10-15 years.

**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 BEVs represent a good strategy, Australia is a very long way from being ready for electric trucks, and their weight will damage roads as well as adding to road dangers (stopping distances). Australia lacks the infrastructure for light EVs and so heavy EVs would be expected to come after that.

Generating carbon to renew transport infrastructure to accommodate heavier vehicles appears like a vicious circle that should be avoided.

Given the lifetime of trucks and the distances they travel, there should be greater focus on fuel efficiencies which will generate significant payback scenarios.

- 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: Low carbon liquid fuels
  - 2: Hydrogen fuel cell
  - 3: Battery electric
- 33 10.1 Please add details to your response. Why did you rank them in that order?
- Utilise existing technologies (ICE) first to achieve immediate gains through LCLFs and take the opportunity to grow a domestic manufacturing market (biofuels and other options).
- Hydrogen cells offer an opportunity for return-to-base operations. For example, council depots or waste truck services which have set routes and always come back to base at the end of the day. Aligning green hydrogen generation with fuelling such operations is not an overall fix, but a useful piece in the jigsaw.
- 34 11. What role should low carbon liquid fuels play in the heavy vehicle decarbonisation?
- Immediacy of the returns beats other options and Australia could be a leader in this field.
- 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?
- Fund research and development. An additional approach could be to support return-to-base operations - run pilot programs and monitor outcomes.
- 36 13. Do you agree with the proposed net zero pathway for rail?
- Yes
- 37 13.1 Please add details to your response.
- Upgrading existing rolling stock should be added to the agenda, particularly regenerative braking.

- 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?
- BEV is better suited to rail than road, and is in growing usage. Hydrogen is experimental but has the advantage of known stopping points where it is clear where refuelling infrastructure is required.
- 40 15. What role should low carbon liquid fuels play in rail decarbonisation?
- Perhaps focus LCLFs on heavy vehicles, although there is the potential for early returns.
- 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?
- Continued support for innovation.
- 42 16.1 How would these actions address the identified challenges and opportunities to reduce rail emissions?
- Approaches can be targeted.
- 43 17. Do you agree with the proposed net zero pathway for maritime?
- Yes
- 44 17.1 Please add details to your response.
- Domestic shipping contributes so little CO<sub>2</sub> that decarbonisation efforts and investment is best spent elsewhere.
- Given the difficulties with decarbonising shipping, the focus should be on reducing the need to ship goods around the world in the first instance.

- 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?  
Talk to industry.
- 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 quite.
- 48 19.1 Please add details to your response.  
There could be a greater emphasis on old fleets and efficiencies which don't just impact on fuel usage but noise. For example, old A320s make more noise and use more fuel than larger but new A330s.
- 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?  
Support for the SAF industry is welcomed. Genuine opportunity exists in this space.
- 51 21. Do you agree with the proposed net zero pathway for transport infrastructure?

Yes

52 21.1 Please add details to your response.

Generally good but it would be good see a bigger push on including 'waste' materials in roadbuilding. For example, RDASW was part of a group doing just that - and now we have the WA Office of Major Transport Infrastructure Delivery adopting those principles. A resulting gain has been the approval of inert sands (post minerals processing) being utilised as fill. Thousands of tonnes of material is available each year from mine manufacturing processes.

Australia could also use crushed glass as a capillary blanket and/or mixed with bitumen to produce reflective properties for night driving in unlit areas. Crumbed rubber can be used in bitumen and FOGO to aid the recovery of scarred landscapes where road projects have been delivered.

- 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? Roadbuilding can be very prescriptive. This stifles innovation and undermines progress. For example: Street lighting is prescribed so there are so many poles, so far apart, set at a certain angle etc. What if instead of prescribing the specifics of road infrastructure, we regulated the outcome. The outcome might be x amount of lumens for road safety which innovators will take as a benchmark and then maybe change the height of poles, materials used, the reach, the distance apart etc. Regulating an outcome opens the door to positive change.

- 54 22.1 How would these actions address the identified challenges and opportunities to reduce transport infrastructure emissions? The source of materials and practices used brings into play the bigger picture of decarbonisation. Innovation must be encouraged not seen as a risk.

- 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? This answer mostly concerns information which is noted in No25.

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

Target heavy vehicles and be prepared to support development. There will not be a sound business case in the R+D/development phase of new technology.

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?

Transport is a part of the whole picture and while it is useful to drill down to sectors, there needs to be a big picture approach to the whole issue.

RDASW is generally well informed, but communities are not. There needs to be a trusted information narrative that is jargon-free, removes all political rhetoric and provides the community with sufficient background to make informed choices.

Communities need to know:

- Where we are at now (energy production and mix)
- The loss of generation capacity through the closure of coal-fired power
- Shortfalls and timeframes
- Energy use across all sectors - and forecast use
- Energy mix choices going forward
- Options on reducing energy and cutting carbon emissions
- An honest appraisal of costs (personal financial impact) and benefits (a cleaner, quieter environment that will improve wellbeing)

Taking offshore wind as a working example - there is a section of the community for it, some very bitterly against. Some don't want turbines (on or offshore) and some don't want solar panels covering good agricultural land. Nuclear is either the saviour or enemy. No-one wants coal and everyone wants the lights to stay on.

Community information to date is woeful, and the only way to avoid energy becoming a political football is to provide everyone with the facts in a way that fully explains the situation and options.

We will never get everyone on board with emissions reduction with trial by social media. The conversation must be neutral and informative, but given lower levels of trust in information delivered politically, then another way must be found.

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?

Transport infrastructure: See No 21 which ties in waste and circular economy principles in respect of infrastructure. This reflects a theme of this feedback - decarbonisation goals and settings cannot be undertaken in isolation. They are all a part of a bigger picture approach.

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

Research and development (particularly in LCLFs) gives Australia an opportunity to lead and align with CSIRO forecasts (Our Future World) where resource depletion is an issue demanding a response and where knowledge is a commodity. Australia can develop the IP, protect resources with bio-fuels for example, and export product and know-how. Futurists also note the continued economic shift to SE Asia and the scale of the market in which Australia is perfectly positioned.

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

There needs to be some measure of decarbonisation which is the point of the whole exercise. However, we must be careful to continually look at total carbon output. To say we're down x% but actually produce more total carbon emissions because there are ever more people, is not resolving the problem. The facts must be delivered honestly.

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?

Measure public transport use.  
Monitor all the matters highlighted in the consultation document and share the data with the community.

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

Bi-partisan approaches should be encouraged as far as possible then the whole system stays on track regards of voter choice in future elections. Engage all parties in the review and depoliticise these important issues as far as possible.

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

Endeavour to engage very broadly and share the consultation outcomes beyond the usual suspects.

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

The Roadmap is ambitious but could go harder on those who choose to burn excess fuel by driving unnecessarily large vehicles. You don't need a V8 Landcruiser to drop off children at school. Australian cities are so far behind Europe where micro cars are the norm. The challenge is cultural.

We also have a cultural issue with roadbuilding as a panacea for congestion. The Downs-Thomson Paradox states that improvements in road networks do not result in less congestion and efficiencies, but merely take people off public transport and put them in cars. Expanding road links means we may now have a three-lane gridlock instead of two. The brutal approach is to encourage public transport use by not spending billions on new roads in cities but instead focusing on public transport.

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

No

**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