

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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Response ID:

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- 1 Confirm that you have read and understand this privacy notice.
Yes
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Yes
- 5 First name
[REDACTED]
- 6 Last name
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- 7 Email
[REDACTED]

- 8 Phone
[REDACTED]
- 9 Who are you answering on behalf of?
Organisation
- 10 Organisation name
[REDACTED]
- 11 What best describes you or your organisation?
Other: "Logistics"
- 12 What sector do you represent?
Rail
Heavy road vehicles (trucks, buses etc.)
- 13 What state or territory do you live in?
[REDACTED]
- 14 Postcode
[REDACTED]
- 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?

Better roads and maintenance are important with the introduction of more battery electric trucks, with the heavier electric vehicles expected to impact roads, i.e an increase in wear and tear on the roads, resulting in greater maintenance requirements, which, if not carried out efficiently and effectively may lead to poorer or even potentially dangerous road conditions following extreme weather events, such as heavy rain, or extreme heat.

There may also be a requirement to develop a new building or construction standard to build back better when maintenance and repairs to roads are needed. This standard would take into consideration the changing climate and extreme weather events, and ensure the road networks are resilient to these events.

Our organisation supports the implementation of improved heavy vehicle efficiency standards and encourages a nationwide, harmonised standard coordinated by the federal government.

An implementation strategy for battery electric heavy vehicles needs to be established to address the challenges highlighted in this consultation, particularly relating to the establishment (including timing and location) of battery electric vehicle charging network(s) specifically designed/allocated for the charging of battery electric heavy vehicles.

If Australia seeks to rapidly increase the introduction of battery electric trucks, the mass limits for these zero emissions vehicles should be increased with urgency to enable quick transition and implementation of electric trucks.

Freight - Road

Electrification – Our organisation has implemented electric trucks since 2021. Our organisation's key priorities are centred around sustainability and innovation. As an early adopter of sustainable initiatives we made our sustainability pledge in 2007 and began electrifying the fleet three years ago. This ongoing commitment is part of our broader decarbonisation strategy, particularly focused on the heavy-duty range.

Facing multiple challenges to charge these vehicles has resulted in our organisation investing in this infrastructure across Australia.

We have built 5 Star Greenstar rating distribution centres that will provide the electricity need for our current and next generation coming electric fleet.

The electrification activities have had challenges, including:

- Lack of energy capacity on site to charge these trucks,
- DNSP restrictions in greenfield sites,
- Limitation of vehicle range to meet our customers operational requirements,
- Mass limits restrictions, and
- Lack of available public charging infrastructure to increase vehicle range.

The Department of Transport and Planning (DTP) has already commenced assessment of a suite of LZEHV vehicles including 2- and 3-axle rigids plus a semi-trailer. All LZEHV rigid truck and prime mover combinations are expected to be at least 1.0 tonne to 3.0 tonne heavier than the current diesel heavy vehicle equivalent.

By assessing new LZEHV combinations, DTP expects to identify priority structures that

need to be maintained or upgraded in the next decade to accommodate these vehicles. This timing is very important as these maintenance and upgrade priorities will directly impact the speed with which electrification can occur. These upgrades etc need to be completed before 2030 to better align with the Transportation and Infrastructure Net Zero Roadmap. The short term from now to 2030 should be focused on establishment of new infrastructure networks etc, to encourage and accelerate the uptake of zero emission vehicles, thus enabling rapid emissions reductions.

The electric vehicle charging network is essential to allow large, long-haul trucks to deliver to regional areas of Australia.

This is particularly important considering extreme weather events can impact the rail networks.

Freight - Rail

Our organisation, aligned with our commitment to reduce emissions to zero through the sustainability program, have implemented multiple projects that has seen the reduction in emissions by 50% since 2015.

This has been achieved through:

Transformation of the fleet to Euro 6,

Insertion of electric fleet since 2021,

Accelerated program to install solar PV and batteries at all our sites,

Increased utilisation to the rail network through our intermodal business, including the purchase of containers that

are adaptable to carry freight across different modes.

All new developments with 5 Star GreenStar certifications

Full utilisation of rail network for freight transport is significant, and additional rail hubs are needed to allow for the additional load that rail is expected to take on.

Infrastructure improvements should include consistent gauge rail to enable full, efficient use of North South (along the east coast) and East West railway lines.

It is also important to note that the extreme weather events effecting Australia in the last 4 years have left the Australian rail network unpassable in areas and unable to be used. e.g. recent years have seen significant floods

Projections and planning for intermodal etc include forecasting on weather events

especially considering that these extreme weather events have occurred more frequently over the last number of years.

- 25 6.2. How would these actions address the identified challenges and opportunities for emissions reduction in the movement of goods?
These actions will help pave the way to accelerate the decarbonisation of the transport sector, and ensure resilience of relevant infrastructure
- 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?
Yes
- 31 9.1 Please add details to your response
the first steps, in the short term need to include the continuing investment and

implementation of charging and refuelling infrastructure for battery electric vehicles (BEV's) and Fuel cell electric vehicles (FCEV's) and increasing the development and use of low carbon liquid fuels (LCLF's).

Certifications and accounting frameworks for verifying emissions reductions from LCLF's are less significant as long as emission factors are calculated and accurate, as emissions from fuel usage can be determined / calculated using these emission factors.

In the medium term, expansion of charging and refuelling infrastructure, and efficiency gains will assist the speed with which vehicles will be able transition to electric and will therefore accelerate decarbonisation in the medium term.

Long term plans must include the on-going maintenance of the national charging and refuelling networks and infrastructure to ensure efficiencies remain to enable ongoing and widespread use of battery and FCEV's technologies.

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?

Electrification and development of low carbon liquid fuels should occur concurrently to allow businesses to adapt and plan for the short and medium terms and also to plan for longer term strategies, including investments/capex.

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

Transitional. To contribute to short to medium term emission reductions.

LCLF's may have an ongoing role in other areas in the long term, however for heavy vehicles, LCLF's play an important role as these fuels will allow smaller businesses that may not have funds readily available to purchase new zero emission vehicles to decarbonise and reduce emissions in the short and medium term.

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?

Investing in infrastructure and investing in more renewable energy (wind, solar, hydro) will ensure the electrical grid capacity can provide industrial areas' needs (i.e for current facilities and future fleet electrification).

Upgrading related infrastructure to allow for the greater load on and pull from the electricity grid, particularly in areas of high industrial development (industrial parks)

Simplifying the process and red tape associated with the connection of solar PV systems and transformers (connection to the grid and connection to a site).

Infrastructure such as electric truck fast charging stations for interstate freight corridors, LCLF's refuelling network, need to be established to enable battery electric long-haul trucks to travel into regional areas.

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

Yes

37 13.1 Please add details to your response.

2024 - 2030 - increase incentives to encourage greater uptake and use of rail for freight
And concurrently improve existing systems and networks to enable easier and more efficient movement between states.

Actions to upgrade rail network infrastructure to allow the sharp uptake of

Infrastructure upgrades must consider the impact of increased extreme weather events on the future rail network

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?

The focus should be on

(1) battery electric, as this technology already exists and can lead to emission reductions in the medium term.

(2) Hydrogen fuel cell technology plays an important role as an alternative for use particularly in regional areas (due to its greater range), however this is a long term solution as the technology is in its infancy.

(3) LCLF's for transition and short to medium term, but the focus should be on: 1. BE and Hydrogen. LCLF's will have a more significant application in road transport.

40 15. What role should low carbon liquid fuels play in rail decarbonisation?

LCLF's should play a transitory role in rail decarbonisation.

The replacement of standard fuels with LCLF's over the medium term will mean that emission reductions can continue to occur more quickly until full electrification or implementation of other zero emission technology becomes more readily available

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?

Upgrading and expansion of rail networks will be needed.

Further clarity is needed with regards to potential impacts on using existing rail networks for battery locomotives – i.e heavier locomotives, may lead to changed maintenance regimes and schedules.

Fuel efficiency standards for new locomotives, with on-going requirements for reduced emissions must be implemented to ensure emissions continue to reduce in the short to medium term until LCLF's and other low carbon fuel alternatives and technologies become readily available.

A unified, Australia wide approach to rail is necessary to avoid issues around state

boundaries, including responsibilities for maintenance, upkeep and upgrade.

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

These actions will mean rail emissions will improve and achieve the aim of emissions reductions.

How the rail network will be upgraded and what priority will be placed in certain high use corridors will give confidence to existing and potential rail users and allow users to develop plans to increase rail usage as appropriate to business needs.

Clarity on this will also allow organisations to better plan for required capital expenditure and impact.

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.

Investments for renewable energy should be allocated in line with Australian carbon reduction targets.

Similarly, for the transport industry to decarbonise the sector, larger amounts of renewable electricity will be required in distribution centres therefore private sector specific investments should be guided by a national strategy.

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? Allocation of the needed capacities in distribution centres will increase battery electric truck utilisation, for example, whilst the network is being built for this type of technology.

Industry transformation on this type of technology needs to provide enough lead time

and regulatory certainty to have a meaningful transition. This will enable the consultative approach and testing of the new technology.

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

Industry transformation on this type of technology needs to provide enough lead time and regulatory certainty to have a meaningful transition. This will enable the consultative approach and testing of the new technology.

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?

Incentives have a role to play in accelerating the uptake of low emission vehicles and the decarbonisation of the transport sector.

Incentivise the purchase of lower emission vehicles and ensure that emission standards for new vehicles continues to improve.

To allow fair and equitable transition to fuel efficient and zero emission heavy vehicles, incentives need to be considered to allow smaller businesses and operators to remain competitive. For example, for purchase of new, efficient vehicles whilst the LCLF policies, supply and production in Australia are developed and implemented.

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

LCLF's should be prioritised across the road transport sector as a short to medium term step in the decarbonisation journey, to enable the rapid decrease in emissions from vehicles without having a significant impact on businesses operating existing fleets.

As large, heavy vehicles have a significant impact on emissions and are currently more challenging to transition to electric equivalents, this part of the transport sector should be prioritised for the use of LCLF's.

This (LCLF's use) can occur whilst fast charging electric vehicle charging networks are established, standard battery charging networks are expanded, and battery electric vehicles become more readily available. This will enable the transition of smaller light and commercial fossil fuelled vehicles to transition quickly to electric, ensuring the continuous reduction in emissions from the transport sector.

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?

Government should take the lead in investment in renewables and encourage private investment in renewables.

Consulting with and providing incentives to communities impacted by large scale renewable projects, can provide economic certainty, particularly for small farming communities, that may be impacted by either renewable projects (i.e. land acquisition) and/or climate change (e.g. extreme weather, such as droughts or floods).

Consultation with and between larger corporations/organisations needs to be encouraged to expedite the transition to renewables for transport, through the development of reliable, practical refuelling networks.

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?

Agree with the measures listed in Table 4. Potential success measures to explore. Regular, on-going feedback will allow progress to be tracked and measures or actions modified as needed.

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?

Sustainability information disclosed through Climate-related financial disclosure obligations will provide another data source for emissions and investments (relating to decarbonisation) from entities not obligated to report emissions through NERS. Safeguard Mechanism will also provide significant information on progress, pace and scale of transport emission reduction and reduction pathways.

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

Periodic review is essential. Comprehensive and in-depth reviews should be undertaken initially every two to three years as this would be the time of greatest change, and to ensure that progress is on-going, and any challenges captured and counter-measured before any negative impact slows the momentum of implementation and decarbonisation.

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?

The Roadmap must be aligned with and assist with achievement of the Paris Agreement, particularly when considering the short term and medium term goals and their impact on organisations achieving their short, medium and long term emission reduction targets.

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