

# Transport and Infrastructure Net Zero Consultation Roadmap

## Take the survey

Department of Climate Change, Energy, Environment and Water

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Response received at:

July 26, 2024 at 1:34 PM GMT+10

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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  
Shellharbour City Council
- 4 Confirm that you have read and understand this declaration.  
Yes
- 5 First name  
Not answered
- 6 Last name  
Not answered
- 7 Email  
Not answered

- 8 Phone  
Not answered
- 9 Who are you answering on behalf of?  
Organisation
- 10 Organisation name  
Shellharbour City Council
- 11 What best describes you or your organisation?  
Government
- 12 What sector do you represent?  
Not answered
- 13 What state or territory do you live in?  
New South Wales
- 14 Postcode  
2529
- 15 What area best describes where you live?  
Regional area
- 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  
SCC Submission on the Transport and Infrastructure Net Zero Consultation Roadmap.pdf
- 69 Upload a submission  
Not answered
- 70 Upload supporting file  
Not answered
- 71 Upload supporting file  
Not answered

**To:** Department of Climate Change, Energy, the Environment and Water

**From:** Geoff Hoynes - Executive Manager, Strategic Planning and Environment, Shellharbour City Council

**Date:** 24 July 2024

### **Submission on the Transport and Infrastructure Net Zero Consultation Roadmap**

#### **Summary**

This submission is regarding the Department of Climate Change, Energy, the Environment and Water's (DCCEEW) Transport and Infrastructure Net Zero Consultation Roadmap.

Shellharbour City Council are pleased to support the Net Zero Roadmap stakeholder engagement process with the below submission.

This submission has been prepared by Council staff and does not necessarily reflect the views of the elected body.

In reviewing the Transport and Infrastructure Net Zero Consultation Roadmap, Council offers the following feedback and recommendations:

#### **Local Context**

Shellharbour City Council fully supports the Transport and Infrastructure Net Zero Consultation Roadmap and the Australian Government's goal of achieving net zero emissions by 2050. These commitments align with Council's current strategies and policies to building resilience across Shellharbour LGA for current and future generations in the face of changing climate.

In 2022 Shellharbour City Council adopted its *Climate and Sustainability Policy*, and its *Zero Emissions Shellharbour Strategy 2022-2050* which outline Council's commitments of achieving net zero carbon emissions for our community by 2025. This includes the support for sustainable travel by reducing reliance on private vehicle use and the provision of more walking, cycling, public transport and ride share facilities and zero emissions transport.

In 2024 Council adopted its *Active Transport Strategy*, which further supports Council's zero emissions commitment through the proposed infrastructure upgrades and initiatives which would encourage more active transport and contribute to national emissions reductions targets.

Additionally, this roadmap aligns with Council's *Local Strategic Planning Statement* vision that by 2042, Shellharbour City is a leader in sustainability. Our local infrastructure, assets and environment are adaptive and resilient in a changing climate, and our community is supported by renewable energy sources. This roadmap also aligns with Objective 15, *Plan for a Net Zero region by 2050*, in the Illawarra Shoalhaven Regional Plan 2041.

### **Framework and Methodology**

The Roadmap's guiding principles collectively establish a strong, balanced framework for guiding Australia's transition to a net zero transport sector. The Roadmap aligns with Council's net zero 2050 community emissions target and our vision for a sustainable City.

The principles encompass the critical dimensions of environmental sustainability, economic rationality, social inclusivity, and scientific integrity, making them well-suited to meet the complex challenges of decarbonising the transport sector in a holistic and sustainable manner.

Council supports the use of the avoid-shift-improve (ASI) framework as a tool to identify opportunities for abatement. The ASI framework provides a comprehensive and proven approach to reducing emissions and improving the sustainability of the transport sector. Important factors to consider within this framework include how strategic land use planning can be integrated to reduce the need for long commutes whilst also supporting local businesses and encouraging behavioural shifts to more sustainable methods of travel. Investing in electrified public transport and developing safe, extensive, connected cycling and pedestrian networks are essential to this effort.

The guiding principles and ASI framework will play an integral role in achieving the government's strategic transport objectives for a net zero nation by 2050.

### **Movement of People & Goods**

Council supports the creation of a national policy framework for active and public transport to bolster emissions reductions and streamline collaborative efforts across governmental levels. The net zero transport roadmap framework aims to integrate land-use planning with high-density and mixed-use developments to minimise travel distances and encourage shifts to more sustainable transport modes. Key components for effectivity identified in the strategy include utilising digital technologies to reduce the need for physical travel, implementing Intelligent Transport Systems (ITS) for optimising transport networks, and promoting efficient travel behaviours. The adoption of Connected and Automated Vehicles (CAVs) and support for the sharing economy, such as ride-sharing and car-sharing, will enhance vehicle efficiency and alter travel behaviours when integrated with robust public and active transport options.

Shellharbour and the greater Illawarra region would benefit significantly from a comprehensive expansion and modernisation of the public transport networks, investment and funding in secure and accessible cycling and walking paths, and enhancement of intermodal connectivity, which are critical aspects of a net zero transport strategy. Governmental reforms to urban planning, land use and zoning will be a crucial aspect for the sustainable design and development of the city.

Efficiently reducing transport emissions related to goods movement requires a collaborative approach to shift modal share from road to rail where applicable and improve the efficiency of goods transfer between transport modes. Strategic investments in intermodal facilities, advanced technologies, and urban planning that accommodates freight routes will be crucial to achieving net zero transport emissions by 2050.

Public awareness campaigns, educational initiatives, and incentives to encourage the use of active and public transport are essential for fostering wider acceptance and uptake of electrified and active transport.

Shellharbour Council has already begun to implement strategies that will aid the community in the transition and uptake of active transport and electric vehicles. However, regional connections are needed to ensure the efficacy of a cohesive zero emission transport strategy across New South Wales and the nation.

### **Specific Transport Sectors, Infrastructure and Energy Use**

The Roadmap outlines a comprehensive approach to achieving zero emissions across all facets of the transport sector by addressing light and heavy road vehicles, rail, aviation and maritime operations through strategies such as electrification, hydrogen fuel cells, and low carbon liquid fuels (LCLF). For light vehicles, efforts are already focused on increasing fuel efficiency and expanding electric vehicle (EV) adoption, evident with the recent development of the Australian Government's National Electric Vehicle Strategy (NEV) and New Vehicle Efficiency Standards (NVES). However, the transition for long-haul freight, maritime, aviation, and complex rail operations is likely to be slower without significant governmental support due to challenges with battery weight, charging infrastructure, and fuel source feasibility.

Shellharbour's regional airport services the domestic travel needs of the region and as such, research and investment in this area to effectively electrify is welcomed. Councils such as Shellharbour which have regional airport operations will require state and federal governmental guidance and resources to upgrade facilities, workforce expansion and compliance with LCLF handling and storage.

For transport infrastructure, the roadmap emphasises the use of sustainable materials like green steel, concrete, and asphalt, as well as adopting circular economy principles. Retrofitting existing infrastructure to improve energy efficiency is a key strategy, with a stringent emphasis on the need to account for the embodied emissions from infrastructure development.

In terms of energy use, the roadmap highlights the need to enhance the electrical grid's capacity and reliability, expand renewable energy sources, and develop infrastructure for low carbon liquid fuels, especially for aviation and maritime sectors. Public-private partnerships and community engagement are crucial for implementing these strategies effectively, facilitating investment and innovation to ensure a smooth transition to a sustainable energy landscape for transport. The roadmap should include a detailed plan to address grid constraints in high impact areas and the adequate roll-out of EV infrastructure to regional and remote areas to ensure a stable network that can meet the demands of an electrified transport sector.

### **Recommendation**

To effectively support the transition to net zero emissions in the transport sector, the following recommendations are proposed for inclusion in the Transport and Infrastructure Net Zero Roadmap and Action Plan:

1. **Accelerate Light Vehicle Electrification:**
  - Continue to support the expansion of electric vehicle (EV) adoption through incentives and infrastructure development.
  - Implement and enforce the New Electric Vehicle (NEV) strategy and the New Vehicle Efficiency Standards (NVES) to improve fuel efficiency and promote cleaner vehicles.
2. **Support Heavy Vehicle and Freight Transition:**
  - Invest in research and development for hydrogen fuel cells and low carbon liquid fuels (LCLF) to address the challenges of battery weight, charging infrastructure and feasible fuel resourcing.
  - Provide incentives for the adoption of energy-efficient technologies in long-haul freight and heavy vehicles.
3. **Enhance Transport Infrastructure Sustainability:**
  - Utilise low-carbon input materials and adopt circular economy principles in all infrastructure projects.
  - Retrofit existing infrastructure to improve energy efficiency and reduce emissions, adhering to stringent standards on embodied emissions.
4. **Strengthen Energy Use and Supply:**
  - Enhance the capacity and reliability of the electrical grid to support the increasing demand from electric vehicles.
  - Expand renewable energy sources and develop robust infrastructure for low carbon liquid fuels, particularly for sectors like aviation and maritime where electrification is challenging.
5. **Promote Collaboration and Community Engagement:**
  - Foster public-private partnerships to facilitate investment, innovation, and practical deployment and workforce development in low carbon and zero emissions technologies.
  - Engage communities, industry stakeholders, and all levels of government in the development and implementation of strategies to ensure a coordinated and effective transition to a sustainable transport sector.
6. **Provide clear governance and policy**
  - Develop and integrate regulatory and legislative guidance for personal and private operation of advanced vehicle technology.

Consideration of these recommendations in the final Transport and Infrastructure Net Zero Roadmap can lead to substantial emissions reductions, achieving national and global climate goals in an equitable and sustainable manner.

Council highlights the importance of a balanced framework that incorporates environmental sustainability, economic rationality, social inclusivity, and scientific integrity, advocating for the adoption of the avoid-shift-improve framework and investments in electrified public transport and active transport networks to foster economic growth and social equity.

Furthermore, there is a need for strong regional connections and adequate support from the Australian Government, including grants, subsidies, training, and public awareness initiatives, to help local councils integrate electrified and active transport into planning and operations. A national policy framework for active and public transport, along with integrated land-use planning and digital technologies, is essential for reducing emissions in the movement of

people and goods. Addressing sector-specific challenges, such as the electrification of light vehicles, investment in hydrogen fuel cells for heavy vehicles, enhancing transport infrastructure sustainability, and expanding renewable energy sources, are crucial steps. Collaboration across all government levels and stakeholder engagement are vital for a coordinated transition to a sustainable, low-emission transport system that meets climate goals and improves the quality of life for all Australians.

The Shellharbour City Council welcomes the opportunity to discuss this submission further.



Michael Tuffy  
Executive Manager, Strategic Planning and Environment (Acting)