2025 consultation

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| Submitter | New.E Hunter New Energy Cluster | | |
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This document is a submission to the Net Zero Commission's 2025 consultation. As part of the consultation process, the commission has committed to publishing the submissions it receives. Submissions do not represent the views of the commission.

2025 consultation questions

- 1. What can you tell us about your experience of the impacts of climate change and how can the commission seek to reflect and respond to this in its work?
- 2. What actions can the commission take to engage across the community to help drive the shifts needed for the net zero transition and for effective climate change mitigation and adaptation?

New.E (Cluster) commenced as NewH2 in 2021 as a Hydrogen Technology Cluster. NewH2 was an initiative seeded by National Energy Resources Australia (NERA) and The University of Newcastle (the University) to help establish a regional cluster within the nationwide hydrogen cluster network to foster a multibillion dollar, globally competitive hydrogen industry for Australia.

The Hunter region was chosen as the geographic base for NewH2, and it aimed to support the development of the hydrogen supply chain, reduce overlaps and identify gaps in the development, deployment and commercialisation of new hydrogen focused technologies.

The Cluster's remit has since broadened to consider all endeavours in the energy transformation, including its original hydrogen economy endeavours, and it has subsequently rebranded as New.E, Hunter New Energy.

New.E is supporting the new energy economy in NSW by facilitating connections and knowledge sharing throughout NSW and beyond.

New.E is driving a series of delivery programs across knowledge exchange, skills, innovation, supply chain access, the commercialisation of research and connection, projects and investments, national and international partnerships. New.E also aims to continue the delivery of the Hunter New Energy Symposium as an annual event for the region.

New.E is founded on a model of collaboration, information sharing across sectors, and a cohesive multi-helix framework that includes partnerships between industry, researchers, government and community. This framework supports a shared ambition to drive innovation, foster connection, accelerate technology to market and promote jobs growth in new energy value chains.

New.E has made a commitment to advancing new energy related technologies in the Hunter and works to align closely with energy precincts and hydrogen hubs in the region as they

establish and scale, plus align to regional, state and national roadmaps.

The Hunter Region has a capable, sophisticated and growing collection of clean energy and manufacturing focused companies some which already provide a variety of capabilities and services to the resources and energy, defence and other sectors.

The Commission can engage with New.E as a vehicle to accelerate connections and outreach to the Hunter Energy community, in particular to take advantage of the Knowledge Exchange Series and events hosted by New.E.

3. How should the commission best engage with First Nations people to learn about cultural knowledge and practices to support adaptation, and what information and evidence should it draw on to inform its understanding of these practices?

At New.E, we envision a future where the Hunter will be Australia's leading new energy hub and technology cluster, demonstrated by excellence in research, innovation, technology and education, production, use, export and employment participation across the new energy supply chains. Through strategic initiatives and partnerships, we are paving the way for regional and statewide economic growth, environmental sustainability, and energy security.

Capturing the knowledge and expertise of First Nations people is critical to support adaptation. New.E is supportive of any strategic initiative by the Commission to advance knowledge of First Nations people.

4. What additional mechanisms, support, or incentives can meaningfully empower and enhance First Nations people's involvement in climate mitigation, adaptation and environmental stewardship?

Key aims of New.E is to:

- provide the enabling environment for industry to participate in the emerging energy sector.
- provide the setting to showcase new technologies and opportunities.
- through our stakeholders, accelerate opportunities to connect and grow.
- assist with updates, knowledge exchange and funding opportunities related to the New Energy economy.
- to assist in strategy development, both locally and nationally.

New.E can be used as an additional lever to meaningfully connect and engage with First Nations people and organisations in the Hunter in climate mitigation, adaptation and environmental stewardship initiatives.

5. What additional information and evidence should the commission consider when assessing progress towards NSW's targets for reducing net

New.E mission is to spearhead innovation, foster collaboration, and drive economic development to accelerate the growth of the new energy industries within our local communities and across the state.

| greenhouse gas emissions? | New.E can be engaged as a lever for outreach to ensure that all information is captured to assess progress toward NSW targets. | | | |
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| 6. The speed of deployment of electricity generation and infrastructure is a key risk to emissions | Fast-tracking deployment requires a coordinated approach. New.E provides the collaborative and enabling environment for industry to participate in the emerging energy sector. It achieves this through the following priority areas: | | | |
| reduction targets. What more could be done to fast-track deployment? | KNOWLEDGE - Continue facilitating knowledge sharing and collaboration to advance new energy and hydrogen technologies, develop best practices, and address industry challenges. | | | |
| | SKILL & FUTURE WORKFORCE - Support investment and initiatives in skills development and workforce training to ensure a skilled workforce capable of driving innovation and growth in the new energy sector within the Hunter region and NSW. | | | |
| | RESEARCH & INNOVATION - Supporting research initiatives and foster innovation to drive technological advancements and commercialisation in the new energy and hydrogen industries within the Hunter region and NSW. | | | |
| | PROJECTS & INVESTMENT - Identify and support projects and investments that promote the development of new energy supply chains, infrastructure, and technologies within the Hunter region and NSW. | | | |
| | OUTREACH & ALLIANCES - Strengthening outreach efforts and alliances to expand our network, engage with key stakeholders, promote and advocate for our region for the new energy and hydrogen industry at local, state, and national levels within the Hunter region and NSW. | | | |
| | KEY EVENTS & TRADE MISSIONS - Actively participate in world dialogue and summits, trade missions, national and international forums to showcase our expertise, explore collaboration opportunities, and promote the Hunter region and NSW as global leaders in new energy and hydrogen technologies. | | | |
| 7. Are the measures now in place sufficient to ensure community engagement and benefit sharing from the build out of infrastructure for the energy transition? | - | | | |
| 8. Are First Nations communities adequately engaged and included in | | | | |

| sharing the benefits of the transition? What more could be done, and by whom? | |
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| 9. What are likely to prove the most effective approaches to accelerate rapid decarbonisation across freight and passenger transport? | |
| 10. What specific actions or policies could increase uptake of emissions reduction strategies in agriculture, both in the short and long term? | |
| 11. Given the uncertainties in land-sector net emissions, how should NSW incorporate this sector into the states climate policy and emissions profile? | |
| 12. What specific actions could increase carbon storage and resilience of the existing carbon stock in the land sector and meaningfully enhance the application of First Nations people's knowledge and practices? | |
| 13. What policies or programs at a sectoral level could complement the Safeguard Mechanism to support the accelerated decarbonisation of heavy industry in NSW? | New.E is providing the NSW platform for participation in the new energy economy, developing the necessary mechanisms, relationships and collaborative culture to support local and national new energy technology opportunities. Funding for New.E to continue and expand programs and activities across the priority areas is a key way to support the accelerated decarbonisation of heavy industry in NSW. |
| 14. What measures could accelerate industrial heat electrification in NSW, where technology is viable? | As above. New.E is a key platform to facilitate connections for partnerships, pilot and testing, and sharing of successes and case studies, all important levers to accelerate technology deployment. |

| 15. What short to medium term measures could be prioritised to address the systemic challenges regarding waste generation and resource recovery? | As above |
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| 16. How could transparency of how coal mines meet their Safeguard Mechanism obligations be improved? | |
| 17. What measures would lead to coal mines prioritising on-site abatement over offsetting? | |
| 18. What measures should be considered beyond the Safeguard Mechanism to reduce emissions of the resources sector, particularly methane emissions, to meet NSW's emissions reduction targets? | |
| 19. What additional measures could accelerate electrification and increase energy efficiency of new and existing buildings? | |
| 20. How could social equity be better addressed in the transition to an electrified built environment? | |
| 21. What approaches could NSW consider to eliminate refrigerants with a GWP >10 from buildings? | |
| 22. What should be included in an emissions monitoring framework for NSW in the context of the transition to net zero, | |

| including any specific metrics and indicators? | |
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| 23. The adaptation objective is for NSW to be more resilient to a changing climate. The Act allows for regulations to further define the adaptation objective. What does a more resilient NSW look like to you? | |
| 24. What additional information and evidence should the commission consider when assessing progress towards the adaptation objective? | |
| 25. How can adaptation planning better use the NSW Government's climate change projections (NARCIIM)? | |
| 26. What other information or tools are needed to support decision-makers in NSW? | New.E is a cluster that assists industry and engaged members to: - Stay informed of opportunities through regular newsletters and updates Attend briefings, forums and events created through the New.E network Share expertise and capabilities to be connected to supply chains and large scale projects Engage regionally and nationally in emerging and relevant opportunities Support for the ongoing efforts of New.E is a key way for information and tools to be deployed. |
| 27. What initiatives should the commission consider in assessing NSW's preparation and responses to extreme heat and humidity events in NSW? | |
| Are there any other pieces of evidence or feedback you would like to add? | |