

Pathways Call for Evidence Submission

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**Input to the Net Zero Commission's *Call for Evidence*
on Decarbonisation Pathways for NSW, June-July 2026**

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14 August 2026

1. **Headline messages**

- There will always be trade-offs among the multiple policy objectives involved in pursuing an effective, equitable and publicly supported energy transition. Navigating these trade-offs requires identifying them explicitly and developing fair and robust decision-making processes to maximise synergies between them.
- The objective of promoting equity and social justice in the energy transition, including engaging communities appropriately, is sometimes framed as conflicting with the goal of rolling out new energy infrastructure as rapidly as possible. Yet increasing evidence shows that poor community engagement not only causes frustration and undermines public support; it can result in substantial delays and additional costs.
- Policy coherence analysis offers a valuable set of concepts and tools to help policymakers, practitioners and affected communities to identify synergies and trade-offs in current policy and practice, and to chart ways of maximising synergies and minimising conflicts.
- In this submission, we summarise how a policy coherence lens has produced insights to enhance the rollout of large-scale renewables in NSW and how these concepts and tools are being applied through a new research project on energy justice in the construction of new electricity transmission infrastructure in Australia. Both the tools used in this research and the resulting insights may be useful for pathway development.
- Our analysis underscores the importance of incorporating social and political dynamics into pathways modelling in addition to technological, economic and environmental dynamics.

2. **Introduction**

We present this submission as researchers with expertise in energy, environmental governance, and community engagement. Our comments are grounded in recent and ongoing empirical research on how Australia's energy transition is playing out in practice in New South Wales (NSW) and Victoria, with a particular focus on the socio-environmental impacts of electricity transmission, and questions of social licence, energy justice, and policy coherence.

We commend the Commission on its proactive approach to seeking stakeholder input on this first set of NSW-specific Decarbonisation Pathways and are grateful for the opportunity to contribute. Given the value of meaningful stakeholder input – both for developing robust approaches to decarbonisation and ensuring broad support for them – we hope there will be further opportunities for public and expert engagement on the draft pathways once developed.

Our submission targets the Electricity & Energy sector, in particular the key focus area of *'Equity in the electricity transition, including strengthening community engagement in infrastructure deployment and benefit-sharing'*. We focus on two of the questions in the Net Zero Commission's *Call for Evidence on Decarbonisation Pathways for NSW*:

Q1a. What policies or market mechanisms could accelerate emissions reductions in specific sectors or communities? What barriers or opportunities exist for their adoption, including any evidence from businesses, industry and/or comparable jurisdictions?

Q5. What are the opportunities and barriers to addressing socio-economic priorities for a just transition, including equitable outcomes for First Nations peoples and rural, regional and remote communities?

We note that Section 8 of the *NSW Climate Change (Net Zero Future) Act 2023* sets out the State's commitment to incorporate equity and social justice in all action to address climate change. This includes considering the impact of any climate action on rural, regional, and remote communities, consulting with affected communities and stakeholders, and supporting those who may be affected by the energy transition including Aboriginal communities. It will be important to reflect this commitment in the design of the pathways.

Our current research project '*Just Transmission: Advancing Coherence in Australia's Electricity Policy*' (2025-2028) is ongoing, including comparative field research in NSW and Victoria, and we would welcome the opportunity to share updated empirical findings and insights as the project progresses.

3. Synergies and tensions in the energy transition

The energy transition poses huge opportunities for Australia's environmental sustainability, wellbeing and prosperity as well as a range of challenges for policy and practice. A rapid shift to renewable energy and electrification is expected to lower energy bills and reduce the impacts of fossil fuel pollution on people's health (Pendlebury, 2025; Gasparotto & Da Boit Martinello, 2021). It also forms a crucial part of Australia's contribution to global action on climate change.

However, implementing the transition involves negotiating multiple policy objectives that span environmental, social and economic dimensions. In some cases, synergies across policy objectives in different domains will complement or reinforce each other, for example if generating renewable energy in regional areas creates local jobs, thus contributing to economic development, energy reliability, social equity and community wellbeing objectives simultaneously. In other cases, conflicts between objectives can undermine public trust, for example if renewable energy projects damage sensitive ecosystems or strain social cohesion.

Analysing trade-offs and synergies will be a vital element of the Commission's Decarbonisation Pathways initiative. The [overview](#) of the initiative notes: "Illustrating trade-offs and the impacts of different choices, pathways can assist the implementation of effective support on the ground for communities and businesses." Similarly, it states: "Pathways help identify how sectors interact with each other and ways to ensure decarbonisation across sectors is coordinated."

The need to manage trade-offs among multiple energy-related policy objectives is often characterised as balancing an "energy trilemma" of security, environmental sustainability and energy affordability (World Energy Council, 2024). However, focusing on these three goals alone risks underplaying *how* we go about pursuing these goals: fair processes are likewise crucial for securing fair outcomes and building public trust and support (Bingham et al., 2025; Devine-Wright & Sherry-Brennan, 2019; Rioux-Gobeil & Thomassin, 2024). Other important aspects of wellbeing that are affected by energy supply and demand – but not captured by the energy trilemma concept – include community cohesion, personal autonomy and people's attachment to place and landscapes (Rinkinen & Shove, 2019).

More flexible and nuanced ways of evaluating policy synergies and tensions are therefore required. Policy coherence is increasingly recognised as critical to contemporary governance and a valuable analytical lens for analysing trade-offs and synergies (OECD, 2019).

4. Policy coherence: what is it and how can it be measured?

Policy coherence (or incoherence) may arise at various stages of the policy process, from agenda-setting and policy formulation to implementation and policy review. This includes:

- a) *cross-sectoral (in)coherence*, between different policy objectives and associated institutions at one level of governance (e.g. between renewable energy expansion and local employment);
- b) *vertical (in)coherence* in the pursuit of a single objective by actors or institutions at different levels (e.g. where federal and state policies on energy overlap, clash or reinforce one another); and
- c) *temporal (in)coherence* (e.g. between short-term and long-term goals, material interests, and policy objectives).

Figure 1 shows how these interactions can play out across these three dimensions: spanning different policy domains, levels of government, and timeframes. Policy incoherence may be the result of a number of drivers, from institutional fragmentation, poor communication, and stretched resources to competing ideas and vested interests (Shawoo et al., 2023).

Figure 1. Dimensions of policy coherence and incoherence

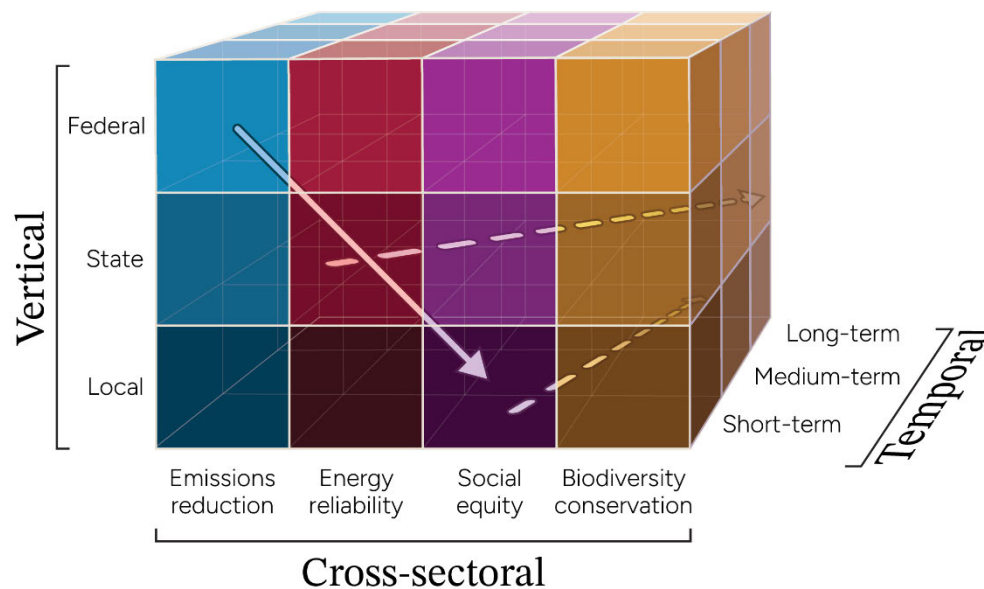


Figure designed by Nat Sketcher based on a concept by Wendy Conway-Lamb.

Arrows depict the impact of policy objective *x* (at the origin of the line) on policy objective *y* (at the destination). If the line is solid, advancing objective *x* positively affects the pursuit of objective *y* (coherence). If the line is dashed, advancing objective *x* adversely affects the pursuit of objective *y* (incoherence). For example, the solid line in the picture depicts emissions reduction at the federal level having a positive effect on social equity at the local level, while the lower dashed line shows the pursuit of social equity in the short term having a negative effect on biodiversity conservation in the long term. Arrows are for illustrative purposes only and may not reflect research findings.

While all dimensions are relevant for pathways analysis, the temporal dimension may be particularly important for pathway development, as different synergies and trade-offs may arise depending on the timing of different policy interventions. A well-known risk of inaction on climate change is that failure to incur mitigation costs now will result in higher costs in future, whether in terms of the impacts of climate change, the costs of grid instability or lost economic opportunities to harness the energy transition (Sanderson & O'Neill, 2020; Simshauser & Gilmore, 2022). Relatedly, meaningful community engagement requires an upfront cost (and associated trade-offs with other expenditure options) and is sometimes seen as an impediment to a swift energy transition. However, it is better seen as a valuable investment in socially equitable development and building support for the transition, as community backlash could otherwise delay or derail the transition (Cotton et al., 2025; Edwards et al., 2025; Ratan & Vega-Araújo, 2026).

5. Research findings: policy coherence in Renewable Energy Zones

A study by Pickering and Chalaye (2023) assessed policy coherence in the rollout of large-scale renewable energy in NSW, in terms of both the content of relevant policies and their implementation. Policy objectives were analysed at both State and Federal levels. Overall, the *content* of most objectives was largely mutually reinforcing. A key area of mutual reinforcement was found to be the potential for inclusive community engagement processes on renewable energy to reduce socioeconomic inequalities, e.g. through well-targeted benefit-sharing programs that support First Nations groups and people on low incomes. The most significant type of policy incoherence we identified was conflict between policies to expand fossil fuel extraction on the one hand and State/Federal greenhouse gas emissions reduction targets on the other. This aligns with a finding made by the Net Zero Commission that “Continued extensions or expansions to coal mining in NSW are not consistent with the emissions reduction targets in the Climate Change Act or the Paris Agreement temperature goals it gives effect to” (Net Zero Commission, 2025:iv). The Commission has subsequently identified data centres as an additional significant and growing pressure on the ability of NSW to meet its climate commitments (Net Zero Commission, 2026).

Analysis of policy coherence in the early *implementation* of large-scale renewable energy infrastructure in Renewable Energy Zones (REZs) in NSW, with a focus on the Central-West Orana REZ, was published in the journal *Energy Research and Social Science* (Pickering & Chalaye, 2025). This study examined the capacity of REZs to ensure coherence between (a) the State’s plans for a rapid rollout of renewable energy in rural areas and (b) the need for fair and equitable engagement with affected communities and an equitable distribution of benefits and impacts. While the main period of the case study was 2021 to 2023, we incorporated subsequent developments where possible, and a number of the issues we identified during early implementation are likely to remain relevant.¹ In practice, we found a mixed picture in terms of REZs’ ability to secure more coherent outcomes:

- **Higher information and coordination demands:** the larger number of proposed projects in a REZ (compared to the pre-existing decentralised approach) increases both the amount

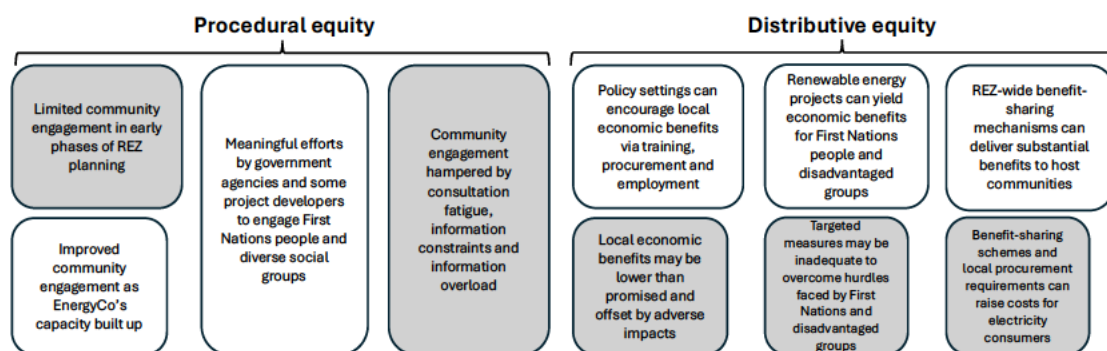
¹ Some of these issues have been corroborated in subsequent reports, including the NSW Legislative Council’s recent report on the impacts of REZs on rural and regional communities (NSW Legislative Council, 2026).

of information that affected communities need to process and act upon, and the extent of institutional capacity needed to ensure meaningful and coordinated community engagement;

- **Capacity of coordinating bodies:** the NSW Government’s commitment to the REZ approach has been underpinned by additional investment in coordinating institutions (e.g. via a dramatically expanded role for the Energy Corporation of NSW, or EnergyCo) and stronger equity guidelines (e.g. for engagement with First Nations people on REZ projects), but its ability to evaluate and identify cumulative impacts of multiple projects has not been matched by a capacity to manage those impacts in a coordinated way;
- **Institutional complexity** resulting from overlaying the REZ model upon existing institutions can inadvertently pose obstacles to procedural equity by rendering the system harder to navigate;
- **Intensification of benefits and impacts** in REZs opens up new opportunities (e.g. for REZ-wide benefit-sharing mechanisms that can yield more impactful investments) but also increases risks of inequitable distribution (e.g. disproportionate impacts or boom/bust dynamics in some localities where many projects converge over a short timeframe).

Together, these findings outline a range of opportunities and barriers for a just transition that the pathways initiative could take into account.

Figure 2. Policy coherence in early implementation of Renewable Energy Zones in New South Wales



Points of coherence have a white background while points of incoherence have a grey background.

6. Recommendations for policy and practice

Summarising these research findings, we present here a short set of recommendations for advancing policy coherence in coordinated efforts to roll out renewable energy at large scales. In our research they were formulated to be relevant to different jurisdictions, but for the purpose of the pathways initiative could be seen as a set of opportunities for achieving a just transition in New South Wales:

1. **Build cross-party support for equitable approaches** to the energy transition that can secure widespread public buy-in and future-proof reforms

2. **High-level ministerial and bureaucratic leadership** and effective inter-agency coordination to integrate equity for communities and other participants in the electricity system
3. Policies and practices that incentivise government agencies and project developers to **implement early, authentic, inclusive, adequately resourced, sustained and coordinated engagement** with First Nations groups and communities
4. **Project design and coordinated policy initiatives that** (a) **minimise adverse impacts**, with special attention to cumulative impacts produced by the energy transition; and (b) **maximise local economic benefits** (e.g. through training, employment, procurement or improving energy affordability), particularly for heavily impacted areas and for First Nations, young people and people on low incomes
5. Stronger **regulatory and financial incentives** for communities and First Nations groups to own and invest in renewable energy projects
6. **Inclusive design of region-wide and project-specific benefit-sharing schemes** that deliver meaningful, sustained benefits, particularly for residents heavily impacted by projects, First Nations people and disadvantaged groups
7. **Rigorous and timely monitoring, evaluation and learning** shared with affected communities which tracks cumulative impacts and benefits as well as synergies and trade-offs, and which holds governments and developers accountable for their performance against energy and equity objectives

7. Conclusion and outlook

Building on these research findings, a recently commenced research project funded by the Australian Research Council on [Just Transmission: Advancing Coherence in Australia's Electricity Policy](#) is investigating how electricity transmission law, policy and practices in Australia can advance a just and coherent energy transition. The project combines concepts and theories from the field of energy justice with a policy coherence lens to examine (a) how different aspects of energy justice can reinforce each other or work at cross purposes in practice; and (b) how energy justice can be achieved in ways that reinforce other policy objectives and vice versa. Examples of potential synergies across objectives in the transmission context include:

- Ensuring that community benefit schemes associated with transmission empower First Nations groups and low-income groups, and address pressing issues like housing affordability or access to health and care services;
- Securing improvements in energy affordability and security for communities living near transmission projects; and
- Designing transmission project timeframes in ways that provide adequate time for genuine and inclusive community engagement while minimising unnecessary delays in planning processes that could otherwise jeopardise energy reliability or progress on addressing climate change.

In a democratic society that reflects diverse community perspectives, no set of policy priorities will fully satisfy everyone's preferences, nor will all policy objectives be mutually reinforcing. Advancing policy coherence becomes even more challenging in a contested and polarised political environment. However, identifying trade-offs can help to pinpoint some of the issues that cause most contention (e.g. impacts of renewables on agricultural production). Conversely,

actively exploring synergies may highlight innovative ways to manage those issues (e.g. agrisolar/agrivoltaic initiatives where solar and agricultural production coexist: Taylor et al., 2023). Fair and inclusive processes of community engagement and public deliberation are vital for ensuring that synergies and trade-offs can be weighed up and navigated effectively (Wadawurrung Country et al., 2023).

In conclusion, modelling synergies and tensions across policy objectives is a vital element of constructing robust and plausible decarbonisation pathways. Different scenarios will give rise to different sets of synergies and tradeoffs, but unless these interactions are explored in a systematic and nuanced way, there is a risk that important barriers and opportunities for a just transition will be overlooked. More broadly, this analysis underscores the importance of incorporating social and political dynamics into modelling in addition to technological, economic and environmental dynamics (Moore et al., 2022; O'Neill et al., 2017).

Acknowledgments

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