

NSW Net Zero Commission: Decarbonisation Pathways

CPD submission

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Introduction

We welcome the opportunity to provide insights and recommendations to the NSW Net Zero Commission's Call for Evidence to inform the NSW-specific decarbonisation pathways. The Centre for Policy Development (CPD) is an independent policy institute based in Sydney, Melbourne, Canberra and Jakarta and a key focus of ours is on ensuring an equitable and sustainable future as the global economy decarbonises. As part of this work, we have made other relevant submissions including on the Climate Change Authority's Evidence Platform.¹

This submission examines existing barriers and the types of policies needed to overcome them to improve the effectiveness of NSW's transition to net zero. The submission focuses on three areas:

1. The development approvals system
2. The need for financing mechanisms that support early-stage innovation
3. The need to ensure that communities and households most at-risk from high energy bills and industrial transformation are supported through the transition

Our recommendations are that the NSW Government should:

1. Streamline and strengthen support of renewable energy projects through the development approvals system by:
 - Expanding the use of CSSI declarations to meet the State's critical energy needs; and
 - Ensuring that new coordination authorities, such as the IDA and the DCA, are well resourced and extend to most, if not all, large-scale renewable energy projects
2. Reduce the number of RFIs by improving clarity of the SEARs process.
3. Ensure communities closely or directly impacted by projects have a proportionately greater voice in consultation and objections.
4. Increase the relative share of financial support for the pre-commercial stage of new industry development as compared to the commercial stage.
5. Use government purchasing to create demand signals for innovation in low-carbon industries.
6. Include social license conditions in eligibility criteria for ESEM contracts and work with other states to set nationally-consistent standards.
7. Support the development of a multi-governance model that includes state and local governments, developers and representatives from First Nations and civil society organisations to manage cumulative impacts in all regions hosting multiple renewable energy projects.
8. Introduce Minimum Energy Efficiency Rental Standards (MEERS) that are at least as ambitious as in Victoria, extend coverage of energy-saving policies to demand management and apartment owners, and track energy-saving policies over time to ensure they are effective in bringing about reform.
9. Measure impacts on households by socioeconomic status by tracking whether or not the following outcomes are being achieved:
 - The percentage of households experiencing energy hardship should not increase, and should ideally decrease, as the transition accelerates
 - The percentage point difference between cohorts of renters, low-socioeconomic households, and apartment owners, with those who own their own fully-detached houses should trend downwards over time
10. Track the following indicators as measures of intermediate outcomes for the transition towards a low-carbon economy:
 - The amount of funding for the development of clean technologies that is not simple commercial-grade debt, such as grants, equity, concessional loans, financial guarantees, and venture capital
 - The lead-times for planning approvals for various renewable energy projects
 - The numbers of apprentices and total workers employed in sectors necessary for establishing low-carbon industries

The development approvals system

Both the private and public sectors strongly support increasing the pace of the renewable energy transition in NSW, however the planning system is complex, high-cost and has long timeframes for approvals.² Compared to other jurisdictions, NSW has the slowest recorded approval timeframes for development and environmental approvals. From March 2025 to March 2026, New South Wales had the highest average lead time for battery and solar PV, and came shortly after Victoria for onshore wind.³ Development application fees in NSW are also well above average, and about 48 times greater than in Queensland.

There is ample opportunity to simplify procedures for renewable energy proponents to obtain development approvals in NSW. Most renewable energy projects currently go through the State Significant Development (SSD) pathway. An important policy measure would be to declare *more* renewable energy projects as Critical State Significant Infrastructure (CSSI) to alleviate congestion. Compared to the SSD pathway, the CSSI pathway has been associated with faster timeframes for approval, more streamlined assessment requirements, and reduced risk of legal challenges.⁴

NSW has taken recent steps to simplify approval pathways for renewable energy projects by strengthening institutional capacity through the Investment Delivery Authority (IDA) and Development Coordination Authority (DCA). If properly-resourced, these authorities have the potential to accelerate approval processes and improve coordination of interagency responses. However, developers have expressed concerns that these types of authorities may not be sufficiently resourced to deliver on their potential. Many developers in NSW note that the \$1 billion threshold for projects to access the IDA is too high.⁵ The current capacity of the IDA is limited to 30 projects a year, which may further limit its impact. A lower project threshold for the IDA to capture more development activity, alongside ensuring sufficient resourcing of both the IDA and DCA, is necessary to ensure the authorities can be successful.

Recommendation 1: Streamline and strengthen support of renewable energy projects through the development approvals system by:

- Expanding the use of CSSI declarations to meet the State's critical energy needs; and
- Ensuring that new coordination authorities, such as the IDA and the DCA, are well resourced and extend to most, if not all, large-scale renewable energy projects

Other factors also result in long lead times in NSW, such as the potential for multiple Requests for Information (RFIs) and onerous requirements around who in the community should be able to object to a new project. While it is necessary that assessors can seek extra information, the way RFIs are currently managed in NSW is a common cause of delays and uncertainty for proponents. The government often makes multiple sequential RFIs instead of gathering all additional information at the same time, and asks for data that developers have not collected because they were unaware it would be of interest for the assessment. The fact that assessors can “stop the clock” once they make an RFI reduces pressures on them to consider timeliness when making RFIs.

Recently, the NSW Government committed to do their best to limit RFIs to once per stage of the assessment process through the Renewable Energy Planning Framework. The government should now ensure that their processes are adequate to deliver on this commitment. Moreover, the NSW Government should help reduce RFIs by making the Secretary Environmental Assessment Requirements (SEARs) clearer and more prescriptive. This should include helping proponents to anticipate the types of studies required, such as the expected level of assessment and what can be addressed at the post-approval stage.⁶

Recommendation 2: Reduce the number of RFIs by improving clarity of the SEARs process.

Finally, there should be stricter requirements around when projects should be referred to the NSW Independent Planning Commission to avoid creating additional delays in the approval process. Currently, a project is referred if it receives as few as 50 objections within a 100km radius. Community engagement is important to ensure that projects develop in ways that genuinely benefit communities and that communities that are directly impacted by projects feel that their concerns are heard. However, current settings means that the definition of “community” is extremely broad and that people can object simply because they, for example, are opposed to renewable energy development. The NSW Government should limit objections to the local community by tightening the radius from 100km, or allowing the radius to vary based on factors such as population or whether a region is urban, peri-urban, regional, rural, and remote. It is important for the NSW Government to ensure communities that will be impacted the most by projects have a proportionately greater say.

Recommendation 3: Ensure communities closely or directly impacted by projects have a proportionately greater voice in consultation and objections.

Financing mechanisms that support early-stage innovation

To increase economic complexity and improve resilience to global shocks, governments across Australia must prioritise research and innovation in the development of new markets. In practice, this requires investments in both “pre-commercial” technology development as technology innovation occurs, and “commercial”

industry scale-up as technologies enter new marketplaces.

However, CPD analysis shows that government funding of industry development is generally skewed towards the later stages that are already comparatively well-financed by private capital markets.⁷ Investments in earlier-stage industry development, in technologies before they have been proven, are inherently riskier. However, government investments in this stage can play an important role in encouraging entrepreneurship, resulting in the emergence of new industries, and have the potential to yield substantial rewards if projects are able to scale.⁸

In NSW, the majority of government funding is available at later stages of innovation. For example, the Net Zero Manufacturing Initiative has \$100 million each available for grants that

support industrial facilities to manufacture low-carbon products and local manufacturing of renewable energy infrastructure, both at commercial scale. On the flip-side, there is only \$25 million available for Clean Technology Innovation Grants that focus more on helping businesses pilot and demonstrate lab-proven clean technologies to accelerate commercial readiness. Other initiatives that are more innovative in nature, such as the NSW Decarbonisation Innovation Hub, are less well capitalised, with the Hub expected to receive \$9 million over 15 years.

Recommendation 4: Increase the relative share of financial support for the pre-commercial stage of new industry development as compared to the commercial stage.

Importantly, supply-side push by governments to invest in innovation will ultimately be unsuccessful unless it is accompanied by concerted efforts to increase demand for new goods and services. This is a theme that appears in many government-led reviews in Australia, including the recent Strategic Review of R&D by the Commonwealth Government.⁹ Public procurement can play an important role in this

space, particularly as projects start to move from R&D to later stages of technological innovation.

The NSW Government should use its purchasing power to create opportunities for innovation in new low-carbon products and construction methods. CPD's report *Green goods* outlines two key ways in which governments can align public procurement with innovation for a net zero economy: (1) by setting requirements around using low-carbon goods that are not yet cost-competitive, and (2) by creating government programs for supporting research in novel, early-stage, technologies.

The NSW Government has already taken steps towards the former, through its NSW Decarbonising Infrastructure Delivery Policy to encourage green steel and low-emissions cement alternatives, and its Hydrogen Strategy. Future policy initiatives should focus on other low-carbon technologies that would support the "Net Zero & Energy Transition" mission in the NSW Industry Policy but still attract a cost premium, such as some forms of critical minerals and other green technologies.

On the latter, the NSW Government has the Circular Innovation Fund initiative to support research in new technologies and uses for recycled materials, and provide pathways to pilot these innovations in state government projects. The government also had a Small Business & Research Innovation (SBIR) Program, which enabled small businesses to creatively solve challenges faced by government departments, but it has since closed.

Reopening a similar SBIR initiative would enable government procurement to support early-stage innovation and small businesses across a broader range of industries than circular economy, and would be aligned with efforts seen internationally, such as the US Small Business Innovation Research program.¹⁰

Recommendation 5: Use government purchasing to create demand signals for innovation in low-carbon industries.

A just transition focused on households and communities

The NSW Government must play a key steering role for the transition to a low-carbon economy to produce fair and equitable outcomes for household consumers and regional communities hosting new technologies. The risk is that only some consumers – specifically those that can and are willing to actively participate in the energy market and buy other low-carbon technologies – will be able to achieve good outcomes, while other consumers and regional communities will be left worse off overall. Instead, the NSW Government must set incentives, rules and regulations that guide the transition to achieve more equitable outcomes.

Regional communities that host renewable energy and other low-carbon industries should be able to expect a positive future as their regions undergo industrial transformation. The NSW Government has demonstrated that it views benefit-sharing with communities as an important mechanism to ensure regional communities benefit from the transition. This focus is shown through the *NSW Benefit-Sharing Guideline* and the focus on social value through Long-Term Energy Services Agreements (LTESAs) and renewable energy zone (REZ) Access Rights. Setting standards for projects that build social license helps ensure positive outcomes for regional communities and can reduce a project's risk profile and the time taken to progress through the development process.¹¹ At the same time, access schemes are expected to provide substantial funds that (if implemented well) can provide important community benefits.

The NSW Government should continue this focus when it comes to designing its version of the NEM review's Electricity Services Entry Mechanism (ESEM) contracts. As part of the eligibility criteria for being able to participate in the Mechanism, developers should be assessed both on their capacity to engage meaningfully, share benefits with local and First Nations communities and provide good quality jobs for their employees. The government should enforce these commitments through project development agreements or a similar contractual framework.

To avoid a race to the bottom in terms of protecting communities, First Nations groups and workers, the NSW government should work to encourage other states to implement nationally-consistent standards in ESEM contracts and collaborate on their design. This alignment would align with the final report of the National Electricity Market wholesale market settings review: “where jurisdictions elect to implement pre-qualification criteria, alignment of criteria between jurisdictions would support streamlined ESEM administration and would minimise administrative costs across participating jurisdictions”.

Recommendation 6: Include social license conditions in eligibility criteria for ESEM contracts and work with other states to set nationally-consistent standards.

Frameworks to address cumulative impacts – e.g. housing shortages due to an (temporary) increase in population – that arise from renewable energy and other low-carbon projects are another essential component of ensuring a smooth transition for regional communities. Currently, planning frameworks for the roll-out of large-scale projects take a largely project-by-project approach where individual developers are responsible for managing the impacts of their projects. This means that cumulative impacts on communities are often inadequately addressed. Efforts by developers to address impacts often happen in siloes, even when they would benefit from broader coordination efforts that include other developers, state governments and local councils. At the same time, communities are being overwhelmed by consultation processes by multiple developers and want lasting solutions rather than inexpensive fixes to cumulative impact problems.

Regional coordination and increased central planning is necessary to properly manage cumulative impacts in regions hosting multiple renewable energy projects. The NSW Government, through EnergyCo, is developing regional steering committees in renewable

energy zones to collectively identify cumulative impacts and develop solutions to mitigate them. The steering committees include local councils in a REZ and state government entities. Our ongoing research examines the ideal design of a policy framework for managing cumulative impacts from renewable energy projects at a regional level. We have heard that the regional steering committees are a generally useful mechanism, with some limitations including:

- The steering committees do not extend beyond REZ regions. Other regions, such as the Goulburn Mulwaree Council area, also have multiple renewable energy projects in their development pipelines.¹²
- Relatedly, there is no legal remit for any state government organisation to be doing this type of work across an entire state. It is not explicitly part of the legislation for EnergyCo, nor of any other planning body in NSW.
- There is no guarantee that there will be funding available for the solutions designed by the steering committees.
- There are no legal requirements on developers to engage with discussions of the steering committees or to help fund its proposed solutions. There is no requirement in the planning system, nor in, for example, REZ Access Schemes.

Recommendation 7: Support the development of a multi-governance model that includes state and local governments, developers and representatives from First Nations and civil society organisations to manage cumulative impacts in all regions hosting multiple renewable energy projects.

Much government funding to date to support household-level decarbonisation across Australia, including in NSW, has been for those who find it relatively easy to make changes to their homes, for example, because they own their fully-detached houses, live in houses rather than

strata-managed buildings, and have sufficient access to funds to cover the upfront costs. Research by Energy Consumer Australia found that over half of Australian households face at least one structural barrier to access, for example, because they rent their homes.¹³ As a result, access to new energy technologies is not equitably distributed across households.

To address this imbalance, the NSW Government should target policies for uptake of energy-efficient technologies and home retrofits to those households currently facing barriers to access. Some government policies across Australia have focused on improving the equitable uptake of rooftop solar. For example, the NSW Government has the Solar for Apartment Residents program, while the Victorian Government offers a solar panel (PV) rebate to households earning under an income cap (currently \$150,000). However, policies that incentivise an increase in access to rooftop solar (and batteries) means that some households will inevitably be left out, for example because their roofs are south-facing so receive little direct sunlight or because the policy is insufficient to encourage some landlords to install the technology.

Alternatively, improvements in access to energy efficiency and demand management would also help lower energy bills and increase comfort at home, and are more broadly accessible. The NSW Government has the NSW Home Energy Saver Program, through which households on low- to moderate- incomes can access grants and zero-interest loans to make energy-efficient improvements to their homes.

The government is also taking positive steps towards introducing Minimum Energy Efficiency Rental Standards (MEERS) for rented homes. Versions of MEERS have already been introduced in the ACT and Victoria, with Victoria taking a relatively more comprehensive approach that includes features such as ceiling insulation, draught proofing, low-flow shower-heads and cooling systems.

It remains to be seen how ambitious the standards will be in NSW, and what uptake rates will look like for the Home Energy Saver Program.

Recommendation 8: Introduce Minimum Energy Efficiency Rental Standards (MEERS) that are at least as ambitious as in Victoria, extend coverage of energy-saving policies to demand management and apartment owners, and track energy-saving policies over time to ensure they are effective in bringing about reform.

It will also be vital to track progress in each of the areas outlined above. There are a range of outcomes beyond emissions reductions that should be considered in determining the success of NSW's decarbonisation journey. Of critical importance are: (1) a focus on the impacts of the transition on the socioeconomic status of households and (2) tracking the intermediate signs of progress towards decarbonisation.

Ensuring a focus on equity

The impacts of the transition will vary across households, with low-socioeconomic households likely to become comparatively even less well off unless governments take steps to actively manage the transition and monitor effects over time on household energy bills and access to new low-emissions technologies by different types of households. Compared to more wealthy households, low-socioeconomic households are less likely to be able to access new energy-efficient, electric upgrades to their homes or understand complex pricing structures for energy.

The NSW Government should view social equity as one of the critical enablers of the transition, and track related indicators over time. This would be aligned with efforts by the Climate Change Authority who list "social equity and acceptance" as a critical enabler in their Evidence Platform, specifically: *is Australia's climate response promoting fair outcomes and strengthening public support?*

An important indicator for the impacts of the transition on social equity is the percentage of households that experience energy hardship over time.

While the Australian Government has developed a National Energy Equity Framework, the Framework does not provide indicators for measuring energy hardship over time but rather examines the drivers and extent of hardship. Other assessments of energy hardship in Australia draw on indicators used elsewhere, primarily in the UK and EU, that typically consider either the percentage of household income spent on energy or subjective measures around whether household members feel they are able to adequately heat their homes. A 2025 report by Energy Consumers Australia examines the following indicators: share of household income spent on energy bills, perceived difficulty paying bills and experiencing financial stress, and reported behaviours such as reducing heating and cooling to save money.¹⁴

The NSW Government should select one or more of these types of indicators and track them over time using data from Energy Consumers Australia's Consumer Energy Report Card or the Household, Income and Labour Dynamics in Australia (HILDA) Survey.

Alongside tracking energy hardship over time on aggregate in Australia, there is also a need to examine the experiences of households that face different types of barriers to participating in the energy transition. Access to energy technologies

should be tracked over time, using such sources as the Energy Consumer Australia's Consumer Energy Report Card, or the ABS Survey of Income and Housing (although the latter is only conducted every five years so there would be a lag in data availability).

Recommendation 9: Measure impacts on households by socioeconomic status by tracking whether or not the following outcomes are being achieved:

- The percentage of households experiencing energy hardship should not increase, and should ideally decrease, as the transition accelerates
- The percentage point difference between cohorts of renters, low-socioeconomic households, and apartment owners, with those who own their own fully-detached houses should trend downwards over time

Tracking both intermediate and final outcomes

Progress towards decarbonisation will take many years. It will therefore be important to identify intermediate outcomes such as whether sufficient financial resources are available for low-carbon technologies and processes and whether progress is being made towards streamlining planning approvals, increasing the energy workforce pipeline, and clearing supply chain constraints.

Many emissions reduction technologies have not yet matured to the point of being easily able to attract private capital. Until then, public funding is necessary to ensure technologies can progress through the innovation cycle, from early-stage R&D to piloting of new ideas, scale-up, and mass adoption. Expanding the amount of funding for early-stage innovation will be essential for developing new industries that can ensure the prosperity of communities across NSW. This will require an increase in the provision of innovative forms of finance such as grants, concessional loans, financial guarantees and venture capital to fund high-risk, high-reward projects that are not yet attracting private finance.

Intermediate outcomes are also needed to track momentum in streamlining planning approvals and increasing the energy workforce. Indicators for the former could include tracking average lead-times for renewable energy projects over time. There is no current Australian dataset that contains all of the relevant information. A recent analysis combined information from the NEM generation information database published by AEMO, the Australian Securities Investment Corporation registry, and the NEMweb 5-min

interval Supervisory Control and Data Acquisition (SCADA) database, and could serve as a starting point.¹⁵

Indicators for increasing the energy workforce should include measures of the numbers of workers employed in the electricity sector, and the percentage of work on renewable energy projects performed by apprentices. For both of these, there are some previously-established benchmarks for what could constitute an “optimal” benchmark/target. The Integrated System Plan tracks numbers of workers needed to deliver each of its scenarios, while the Australian Skills Guarantee states that at least 10% of all labour hours in major building, construction and ICT projects should be completed by apprentices, trainees, and cadets.

Recommendation 10: Track the following indicators as measures of intermediate outcomes for the transition towards a low-carbon economy:

- The amount of funding for the development of clean technologies that is not simple commercial-grade debt, such as grants, equity, concessional loans, financial guarantees, and venture capital
- The lead-times for planning approvals for various renewable energy projects
- The numbers of apprentices and total workers employed in sectors necessary for establishing low-carbon industries

Endnotes

¹ [‘Submission on the Climate Change Authority’s Evidence Platform’](#), CPD, 2026.

² [‘NSW planning approvals for clean energy projects’](#), Herbert Smith Freehills Kramer, 2025.

³ [‘Delivering major clean energy projects in NSW 2026 update’](#), Clean Energy Investor Group, 2026.

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