

Submission to the Joint Standing Committee on Net Zero Future Inquiry into the 2024 Annual Report of the Net Zero Commission

14th February 2025

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About the Justice and Equity Centre

The Justice and Equity Centre is a leading, independent law and policy centre. Established in 1982 as the Public Interest Advocacy Centre (PIAC), we work with people and communities who are marginalised and facing disadvantage.

The Centre tackles injustice and inequality through:

- legal advice and representation, specialising in test cases and strategic casework;
- research, analysis and policy development; and
- advocacy for systems change to deliver social justice.

Energy and Water Justice

Our Energy and Water Justice work improves regulation and policy so all people can access the sustainable, dependable and affordable energy and water they need. We ensure consumer protections improve equity and limit disadvantage and support communities to play a meaningful role in decision-making. We help to accelerate a transition away from fossil fuels that also improves outcomes for people. We work collaboratively with community and consumer groups across the country, and our work receives input from a community-based reference group whose members include:

- Affiliated Residential Park Residents Association NSW;
- Anglicare;
- Combined Pensioners and Superannuants Association of NSW;
- Energy and Water Ombudsman NSW;
- Ethnic Communities Council NSW;
- Financial Counsellors Association of NSW;
- NSW Council of Social Service;
- Physical Disability Council of NSW;
- St Vincent de Paul Society of NSW;
- Salvation Army;
- Tenants Union NSW; and
- The Sydney Alliance.

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Recommendations

Recommendation 1:

That the Commission and Committee should ensure that the data, evidence and research drawn on by the Commission in the annual report is up-to-date, robust, transparent and comes from an appropriate range of credible sources.

Recommendation 2

That the Commission must provide the NSW Government, Ministers and Departments with interim recommendations no later than 30 June 2025. This minimises unnecessary delay in action.

Recommendation 3

That the Commission must include a carbon budget analysis for NSW and for each sector in the annual review as part of its reporting. This provides crucial indication of the urgency of required action and identification of where the greatest potential impacts can be made to the overarching objective of meeting Paris commitment-based targets.

Recommendation 4.

That the Commission work with the JEC and other stakeholders to commence design of a robust (if not best) practice community engagement program, including drawing on engagement platforms already established by organisations working in community (such as EWON).

Recommendation 5

That the Commission include the following key actions for the energy and electricity sector in their interim recommendations:

- *Requiring the Government to make a plan for the forthcoming closure of Eraring, avoiding the reliability gap without extending the life of Eraring;*
- *Ensuring that all recommendations from the NSW Electricity Supply and Reliability Check-up have been acted on*
- *Strengthening the monitoring and enforcement mechanisms for local content targets;*
- *Accelerate implementation of the actions list in the NSW Consumer Energy Strategy, and build on initial grants and incentives*

Recommendation 6

That the Commission review the reports of the Renewable Energy Sector Board and the Electricity Infrastructure Jobs Advocates and track how the Government is performing against

recommendations made in those reports. Priority should be given for assessing where further measures are required to manage critical risks and issues.

Recommendation 7

That the Commission include the following key actions for the built environment sector in their interim recommendations:

- *Progressively implementing mandatory minimum energy efficiency standards for rental properties by 2026, with a committed pathway to ensure all homes are zero-emissions ready;*
- *Progressively implementing mandatory energy efficiency disclosure at point of sale and lease from 2027;*
- *Banning gas in new buildings from 2025, with a priority for new multi-unit dwellings;*
- *Mandating the replacement of end-of-life gas appliances with efficient and electric alternatives from 2025;*
- *Provide government assistance for low-income owner occupiers through a combination of subsidies and zero-interest loans to undertake home energy upgrades;*
- *Work with Gas and Electricity networks to plan and support the managed retreat of residential gas networks and the efficient electrification of households;*
- *Align and expand on existing Government and industry schemes (such as the ESS, PDRS and energy rebates) to support priority electrification and efficiency upgrades for low income and vulnerable groups.*

1. Introduction

The Justice and Equity Centre welcomes the opportunity to respond to the Joint Standing Committee on Net Zero Future's Inquiry into the *2024 Annual Report of the Net Zero Commission*.

Through our Energy and Water Consumer Advocacy Program (EWCAP), the JEC are an expert advocate for the interests of NSW households in equitable access to affordable and sustainable energy services. We also work to ensure the voice of NSW household consumers and communities are able to directly influence and shape the energy system transition to best meet their needs and reflect their preferences. As part of this work the JEC is represented on a range of relevant energy business and government agency advisory bodies, including the Renewable Energy Sector Board, the AEMC reliability panel, the AEMO ISP consumer Panel and Consumer Reference Group, and stakeholder references groups for the NSW Gas and Electricity distribution businesses and the Transgrid Advisory Committee.

The Net Zero Plan

NSW's Net Zero Plan and associated targets are foundations for the action NSW must take to meet our international climate obligations and limit warming to 1.5 C degrees. The JEC strongly support these targets and taking all necessary action to fulfil these commitments.

Ambitious action in the coming decade is the most critical to meet this challenge while ensuring energy is affordable, and NSW homes and communities are healthy and resilient. The next 5-10 years must see rapid investment in clean energy, prioritisation of energy efficiency, electrification of the energy system and economy, decarbonisation of industry and agriculture, and the rapid retreat of fossil fuels. An urgent priority is to halt new fossil fuel development¹ to maximise the time and scope to undertake these actions and meet the challenge of transitioning the NSW economy.

¹ International Energy Agency, 2021, [Net Zero by 2050: A Roadmap for the Global Energy Sector](#)

The Net Zero Commission Report

The JEC broadly supports the findings of the Commission in their inaugural report. We commend the Commission for providing a forthright introductory report that provides a solid foundation from which they can begin the important work they have been empowered to do. It is encouraging that the Commission has given clear indications of where challenges exist in achieving NSW's Net Zero plans and targets and has begun to detail how and where those challenges can be addressed. It is particularly encouraging that the Commission has been unequivocal that fossil fuel production and use in NSW must rapidly decline and cease if NSW is to meet our legislated Net Zero targets. These findings demonstrate that the Commission intends to fulfil the crucial role for which it was created and provide unflinching, evidence-based, independent expert advice to ensure NSW is on a clear path towards net zero.

The report was clear that we are not yet on track to achieve our net zero targets. While this assessment increases the size of the challenge, it should be taken as motivation to re-double efforts as soon as possible. There is no more important task for the NSW Government than to correct course, and delay will only further increase the size and cost of meeting our targets. We strongly encourage the NSW government to prioritise and accelerate the fast and fair net zero transition that is required for a prosperous and sustainable future for NSW.

Our submission draws on our experience and expertise in undertaking our role for NSW households. We provide the committee and the Net Zero Commission with resources on where solutions to the problems already exist, direction to existing work which should be drawn on, and provide recommendations on how to deliver the solutions NSW requires. Prior to that, we provide comment on the report and on the future priorities of the Commission.

2. Inquiry and Report Process

The JEC strongly supports the establishment of the Net Zero Commission and the role they will play in ensuring the people of NSW will have equitable access to affordable, sustainable energy services. As this inquiry is being held early in the establishment of the Commission and responding to the first annual report, the process and desired outcomes are somewhat uncertain. In this section, we provide comment on both the inquiry process, and the process of compiling and publishing the annual report.

2.1 Net Zero annual report process

The inaugural report was compiled and published in a relatively short timeframe while the Commission was still in the process of being established. We understand the process and output of this report, accordingly, are not indicative of what future reports will entail. The Net Zero annual report will be a powerful indicator of NSW's progress towards our Net Zero targets and should provide strong, detailed guidance to the NSW Government on where more action is required and what that action should be. We encourage the Commission to commence processes for the development of its subsequent report as soon as possible and transparently signal how that process will be undertaken and can be engaged with.

Data

We are concerned that the Commission drew on data that ended in 2022 for this report. Given the pace of change and the role of the report as a contemporary assessment and guide, we consider this lag to be a material risk to the validity of the analysis and potential advice given by the Commission. Given the urgency in which we must act, a two-year gap between data and reporting is not sufficient. We recommend that the Government ensure the Commission has up-to-date data and modelling in advance of the Commission compiling their annual report.

While the NSW Government data will be crucial to the validity of the annual reports, the Commission should draw on data and research from a range of sources. Robust research on the challenges and solutions to achieving Net Zero has been published by universities, industry bodies and advocacy organisations. These resources, where robust, must be utilised. The data and research drawn upon by the Commission should be transparent, credible and where possible publicly accessible.

Recommendation 1:

That the Commission and Committee should ensure that the data, evidence and research drawn on by the Commission in the annual report is up-to-date, robust, transparent and comes from an appropriate range of credible sources.

Report Recommendations

The time and infancy constraints on the 2024 annual report resulted in the Commission not providing recommendations to the NSW Government. The JEC understands why this has occurred in this instance. However, given the urgency with which we must act and the current likelihood of missing 2030 and 2035 targets, we do not support waiting until the 2025 annual report for the Commission to provide recommendations to the NSW Government. We recommend the Commission provide interim 'no regrets' recommendations to the NSW Government no later than 30 June 2025. These interim recommendations could be formed out of the 2025 Forward Work-plan consultation process the Commission has indicated will commence in March 2025. Recommendations should be targeted at the NSW Government and the range of Ministers and Departments required to enact policies changes. We contend, given the depth and breadth of action that must be taken, there should be recommendations for every NSW Department, not only the energy minister.

We recommend the Commission's annual report should include reporting on the remaining carbon budget of NSW (associated with meeting our emissions reduction commitments) in total and in each sector. This is a crucial data monitoring point to be read in conjunction with progress on cuts to emissions.

Recommendation 2

That the Commission must provide the NSW Government, Ministers and Departments with interim recommendations no later than 30 June 2025. This minimises unnecessary delay in action.

Recommendation 3

That the Commission must include a carbon budget analysis for NSW and for each sector in the annual review as part of its reporting. This provides crucial indication of the urgency of required action and identification of where the greatest potential impacts can be made to the overarching objective of meeting Paris commitment-based targets.

Community Engagement

The Commission has identified an interest in conducting their own community engagement across NSW. As an organisation that is tasked with ensuring the voices of NSW consumers and communities are able to directly influence and shape the energy system transition to best meet their needs and promote their interests, we support the Commission in ensuring it draws on a wide scope of perspectives, including meaningfully eliciting input directly from people and communities.

If the Commission proceeds with a community engagement program, we recommend the Commission:

- Be clear about the outcomes they want from community engagement and design their engagement process accordingly. It is critical that engagement has a clear and meaningful purpose which is communicated to the community. The community must be provided with a commitment as to what will be done with their input and have a tangible means of seeing how it was used. Engagement without a clear purpose, and which has no meaningful or transparent impact on the work of the Commission will be counter-productive and work against the crucial process of building community trust of the work of the Commission;
- Consult expert stakeholder and community organisations like the JEC to draw on their experience, understand best practice and how to undertake effective engagement avoiding common mistakes in community engagement on energy and climate issues;
- Be aware of ongoing issues with 'engagement fatigue' in communities hosting Renewable Energy Zones and adapt processes and approaches accordingly. This must include considering what is engaged on and how, and ensuring the purpose and value of this engagement is clear to the community; and
- Link in with other organisations, including the Energy and Water Ombudsman, who are already planning energy transition community engagement programs in 2025. This can help implement engagement more quickly, while avoiding unnecessary wasted time and resources in building communications and planning platforms for engagement.

Recommendation 4.

That the Commission work with the JEC and other stakeholders to commence design of a robust (if not best practice) community engagement program, including drawing on engagement platforms already established by organisations working in community (such as EWON).

2.2 Role of the committee

As this is the first inquiry of its kind, the role of the Committee and the desired outcomes of the Inquiry are as yet unclear. The JEC recommend further clarity on the role of the Committee, whether the Committee will be including recommendations in their report, and to who those recommendations will be directed.

Given the Commission is intended to be, and should be, independent, we consider appropriate roles for the Committee could include:

- Acting as a respondent on behalf of the NSW Parliament to the Net Zero reports, accepting the findings, supporting the recommendations and identifying likely next steps;
- Acting as a respondent on behalf of the NSW Parliament to the Net Zero reports, commenting on the work of the Commission and providing feedback on the usefulness of the report and recommendations for Government action. Importantly the context of comment and advice must be the Governments Net Zero targets and the obligation to meet climate commitments;
- Ensuring the recommendations provided in the Net Zero annual report reach the appropriate Ministers and Departments. This should include ensuring decision-makers are held to account, and that any gaps in the adequacy of responses are highlighted; and
- Championing ambition in the Parliament and promoting and supporting any necessary legislative change.

Crucially, the Committee must not become a platform to question the validity of Australia's climate commitments or to undermine the existing ambition of the NSW Governments targets.

3. Electricity and energy sector

The JEC agrees with the Commission's findings that while we are currently not on track to achieve our targets, "many of the foundational elements for NSW to commence the transition towards net zero are in place²."

In examining the energy and electricity sector, the Commission's findings³ demonstrate the integral importance of the Electricity Infrastructure Roadmap (the Roadmap), Renewable Energy Zones (REZs) and the Consumer Energy Strategy to the sustainability and prosperity of NSW's economy and community now and into the future. They also highlight the importance of ongoing work to ensure the energy transition is fast and fair, and that policies and actions are refined to provide benefits to all NSW households.

The people of NSW support the transition to renewable energy. A survey conducted in 2024 found that 70% of people living in REZs support clean energy projects on farmland in their local community and 73% of those with a connection to farming support clean energy projects on local

² NSW Net Zero Commission, 2024, [2024 Annual Report](#), p.9

³ Ibid. pp.17-23

farmland⁴. Another survey of NSW consumers demonstrated that NSW households and businesses are willing to pay more for energy that provides benefits to NSW communities, industries and workers⁵. There should be no question as to the need for the transition, or the broad community support for taking the action required.

As with any upgrade and improvement of essential infrastructure, there have been challenges in the early phases of the Roadmap. The task for all stakeholders over the next 5-10 years will be to build on the foundation it provides, continue to evolve it, work together to address issues that arise, accelerate the work and to ensure benefits to all NSW consumers, communities, workers and industries are optimised. The NSW Government 's ongoing priority must be to enable and oversee a fast and fair transition, that earns and maintains social licence both from the regional communities who host generation and transmission infrastructure and from the wider NSW community who will fund and benefit from it.

There are some key recommendations the Commission could already make for the Electricity and Energy Sector that would move NSW considerably closer to achieving our Net Zero Targets these include:

- Requiring the Government to make a plan for the forthcoming closure of Eraring, avoiding the reliability gap without extending the life of Eraring;
- Ensuring that all recommendations from the NSW Electricity Supply and Reliability Check-up⁶ have been acted on
- Strengthening the monitoring and enforcement mechanisms for local content targets;
- Accelerate implementation of the actions list in the NSW Consumer Energy Strategy, and build on initial grants and incentives

Recommendation 5

That the Commission include the following key actions for the energy and electricity sector in their interim recommendations:

- *Requiring the Government to make a plan for the forthcoming closure of Eraring, avoiding the reliability gap without extending the life of Eraring;*
- *Ensuring that all recommendations from the NSW Electricity Supply and Reliability Check-up have been acted on*
- *Strengthening the monitoring and enforcement mechanisms for local content targets;*
- *Accelerate implementation of the actions list in the NSW Consumer Energy Strategy, and build on initial grants and incentives*

⁴ Farmers for Climate Action, 2024, [The quiet majority: Australians in renewable energy zones support the energy shift.](#)

⁵ NSW Renewable Energy Sector Board, 2022, [NSW Renewable Energy Sector Board's Plan](#), p.6

⁶ Marsden Jacob Associates, 2023, [NSW Electricity Supply and Reliability Check-up](#)

3.1 Challenges affecting building infrastructure and transmission

Decarbonisation of NSW's energy sector also represents a massive opportunity to build domestic capacity, resilience, prosperity and employment during a period of substantial ongoing global economic disruption. However, building the required workforce, training pathways and supply chains is a clear challenge.

Through mechanisms including the eligibility criteria for LTESAs, the RESB and the NSW Electricity Infrastructure Jobs Advocate, the NSW Government has built strong foundations from which NSW industries and workers can contribute to and benefit from the Roadmap and REZs. However, as with other aspects of the Roadmap, there have been challenges in implementation and there are opportunities for improvements would see these benefits better realised.

We recommend the Committee and the Commission review the RESB Board reports⁷, the reports of the Jobs Advocate⁸ and NSW Government responses⁹ to better understand the opportunities and challenges for NSW industries and workers in the energy transition, and to track how the Government is performing against recommendations made by the RESB and the Jobs Advocate. There are further opportunities to build on this work, particularly through identifying areas where products and services critical to action on decarbonisation (such as heat-pumps and heat-pump hot water systems) which already have a domestic capacity, are supported to efficiently expand and develop.

Recommendation 6

That the Commission review the reports of the Renewable Energy Sector Board and the Electricity Infrastructure Jobs Advocates and track how the Government is performing against recommendations made in those reports. Priority should be given for assessing where further measures are required to manage critical risks and issues.

3.2 Securing community support

The people of NSW support the transition to renewable energy. A survey conducted in 2024 found that 70% of people living in REZs support clean energy projects on farmland in their local community and 73% of those with a connection to farming support clean energy projects on local farmland¹⁰. Another survey of NSW consumers demonstrated that NSW households and businesses are willing to pay more for energy that provides benefits to NSW communities, industries and workers¹¹.

However, ongoing issues with social licence for the energy transition demonstrate that genuine community engagement and robust decision-making, meaningfully shaped by communities, is crucial to the ongoing success and acceleration of the Roadmap. This cannot be regarded merely

⁷ NSW DCCEEW, 2025, [Entities Delivering the Roadmap: Renewable Energy Sector Board](#).

⁸ NSW DCCEEW, 2025, [Entities Delivering the Roadmap: Electricity Infrastructure Jobs Advocate](#)

⁹ See: NSW OECC, 2022, [Response to the Renewable Energy Sector Board's advice to the NSW Government to build the capacity and capability of the NSW renewable energy sector](#) and NSW Premier's Department, 2024, [NSW Government Response to Recommendations: Electricity Infrastructure Jobs Advocate's Second Report](#)

¹⁰ Farmers for Climate Action, 2024, [The quiet majority: Australians in renewable energy zones support the energy shift](#).

¹¹ NSW Renewable Energy Sector Board, 2022, [NSW Renewable Energy Sector Board's Plan](#), p.6

as a process to ‘pay off’ communities. Tangible community benefits will be required to support social license, but they must be considered at the initiation of planning processes, and be grounded in robust, early engagement with the community to support their specific circumstances and needs. Experience has shown that engaging with communities too late risks catastrophic loss of support, even when substantial financial benefits are offered to mitigate community concerns and objections.

We recommend the Committee and the Commission review the following submissions, guidelines and strategies to inform future action on community support and social license:

- Commonwealth DCCEEW, 2024, [*The First Nations Clean Energy Strategy 2024-2030*](#)
- NSW DCCEEW, 2022, [*First Nations Guidelines: Increasing income and employment opportunities from electricity infrastructure projects*](#)
- The Justice and Equity Centre, 2025, [*Submission on the Impact of Renewable Energy Zones on rural and regional communities in NSW*](#)
- Public Interest Advocacy Centre, 2023, [*Submission to the AEIC Review of Community Engagement Practices*](#)
- Public Interest Advocacy Centre, 2023, [*Submission to the AEMC Enhancing Community Engagement in Transmission Building Draft Rule Determination.*](#)

3.3 Consumer energy resources

The JEC agrees with the Commission that Consumer energy resources (CER) (as defined in the Consumer Energy Strategy to include electrified fixtures, energy efficiency upgrades, advanced metering, and generation, storage and demand management assets) are critical to the energy system transition. NSW’s climate and emissions reduction commitments cannot be met without electrification, a step-change improvement to household efficiency, renewable energy resources and more dynamic sharing and management of supply and demand.

The role to be played by consumers, households and their generation and usage resources is crucial. Improving the efficiency of homes, electrifying them and making usage more efficient and flexible cannot be left contingent upon consumers individually ‘making the right choice’, because:

- systemic outcomes, including the emissions targets and objectives for energy affordability, are too important to be contingent on the aggregated choices (no matter how well informed) of millions of diverse, often vulnerable consumers, and
- most consumers do not have (and cannot consistently be given) the agency, information, or financial means, and are not in any meaningful position to independently act in a way that will best ensure consumer resources deliver themselves and (and the system as a whole) the desired outcomes and benefits.

Government must play its role to plan, require, enable, incentivise, and actively support the deployment of consumer energy resources and efficiency upgrades that will equitably deliver

outcomes for all consumers and the NSW community. This will necessarily involve determining where Government resources are best committed to meet a range of Government objectives. The JEC recommend a stronger focus on actively supporting improvements for renters, social housing, low-income households, and those in regional and remote communities.

Greater attention must be paid to measures which make demand more flexible, not just ensure demand is more efficient. Having implemented strong foundations for more flexible demand management and response through the ESS and PDRS, the NSW Government has relied on national reforms, such as the expansion of the wholesale demand response mechanism, to proceed. While national consistency is laudable, the Commission should consider opportunities to recommend faster and stronger independent action from the NSW Government. Consideration should be given to measures to promote more effective utilisation of demand response.

We recommend the Committee, and the Commission review the following submissions to inform future action on CER:

- Public Interest Advocacy Centre, 2024, [Submission to NSW DCCEEW Household Energy Strategy Consultation Paper](#).
- The Justice and Equity Centre, 2024, [Submission to NSW DCCEEW on Opportunities for a Renewable Fuel Industry in NSW Discussion Paper](#)
- The Public Interest Advocacy Centre, South Australia Council of Social Service and Tenants' Unions of NSW, 2024, [Submission to Commonwealth DCCEEW Electricity and Energy Sector Decarbonisation Plan Discussion Paper](#)

Through the Consumer Energy Strategy, the NSW Government has set out a robust framework, and the Commission should focus on recommendations which help the Government prioritise actions for emissions reduction, support the development of concrete targets and commitments, and increase the scale and impact of established programs set out in the strategy.

4. Built environment sector

The JEC broadly supports the findings of the Commission in the Built Environment Sector chapter of the report.

NSW's Net Zero Plan and targets (particularly emissions budgets) cannot be met affordably, and certainly cannot be met in time, without decommissioning residential gas networks, improving household energy performance and fast-tracking renewable household electrification. No credible transition and emissions reduction strategy can exist without a significant contribution from improved energy performance and electrification of our housing stock.

The benefits from these actions are immense, and include:

- considerable and permanent household energy savings (and improved affordability);
- Government (and household) savings on health and emissions reductions;
- increased community resilience to extreme weather including heatwaves;
- a more efficient and resilient energy market, achieved through a flexible, demand-side response (with benefits to the cost of wholesale energy);

- growth in local manufacturing of critical products; and
- thousands of new, secure jobs distributed throughout the State.

By adopting an “efficiency-first principle” and prioritising upgrading NSW homes to be efficient and electric, the NSW government could significantly accelerate the transition. This would also reduce the transmission and generation capacity necessary to achieve our emissions reduction targets. Such a principle would in turn assist in managing the increasingly apparent risks and costs involved in utility-scale energy transition projects. Further, homes that are efficient and electric can support a faster and cheaper transformation of NSW’s energy system by enabling greater use of flexible loads to optimise and manage demand.

However, without ambitious, coordinated action to upgrade homes to be efficient and electric, NSW risks losing skilled workers and business to jurisdictions that are leading us in policy and practice¹².

There are some key recommendations the Commission could already make that would strengthen and build on existing Government policy move NSW considerably closer to achieving our Net Zero Targets these include:

- Progressively implementing mandatory energy efficiency disclosure at point of sale and lease from 2027;
- Progressively implementing mandatory minimum energy efficiency standards for rental properties by 2026, with a committed pathway to ensure all homes are zero-emissions ready;
- Banning gas in new buildings from 2025, with a priority for new multi-unit dwellings;
- Mandating the progressive replacement of end-of-life gas appliances with efficient and electric alternatives from 2025;
- Provide government assistance for low-income owner occupiers through a combination of subsidies and zero-interest loans to undertake home energy upgrades.
- Work with Gas and Electricity networks to plan and support the managed retreat of residential gas networks and the efficient electrification of households.
- Align and expand on existing Government and industry schemes (such as the ESS, PDRS and energy rebates) to support priority electrification and efficiency upgrades for low income and vulnerable groups.

Recommendation 7

That the Commission include the following key actions for the built environment sector in their interim recommendations:

¹² ANZ and Energy Efficiency Council, 2023, [Putting Energy Efficiency to Work: the Forgotten Fuel Series](#), p.9

- *Progressively implementing mandatory minimum energy efficiency standards for rental properties by 2026, with a committed pathway to ensure all homes are zero-emissions ready;*
- *Progressively implementing mandatory energy efficiency disclosure at point of sale and lease from 2027;*
- *Banning gas in new buildings from 2025, with a priority for new multi-unit dwellings;*
- *Mandating the replacement of end-of-life gas appliances with efficient and electric alternatives from 2025;*
- *Provide government assistance for low-income owner occupiers through a combination of subsidies and zero-interest loans to undertake home energy upgrades;*
- *Work with Gas and Electricity networks to plan and support the managed retreat of residential gas networks and the efficient electrification of households;*
- *Align and expand on existing Government and industry schemes (such as the ESS, PDRS and energy rebates) to support priority electrification and efficiency upgrades for low income and vulnerable groups.*

We recommend the Committee and the Commission review the following documents to inform future action on the residential building sector:

- The Justice and Equity Centre, 2025 (forthcoming in March), *The Efficient and Electric Homes Roadmap*;
- Climate Council, 2022, [Tents to Castles: Building Energy Efficient, Cost-Saving Aussie Homes](#)
- Climateworks Centre, 2023, [Climate-ready homes: Building the case for a renovation wave in Australia](#)
- Climateworks Centre, 2024, [Enabling Australia's Home Renovation Wave](#)
- Energy Consumers Australia and Renew, 2022, [Energy Efficient Housing Research](#)
- Energy Efficiency Council, 2023, [Clean Energy, Clean Demand](#)
- Energy Efficiency Council, 2023, [Putting Energy Efficiency to Work: The Forgotten Fuel Series](#)
- International Energy Agency, 2023, 'Energy efficiency and behaviour' in [Net Zero Roadmap: A Global Pathway to Keep 1.5 in Reach](#)
- Race for 2030, 2021, [Pathways to scale: Barriers to, opportunities from, and impacts of retrofitting one million+ homes](#)

5. Adaptation and resilience

More efficient and electric homes, with more flexible demand, and the implementation of stand-alone-power-systems and microgrids, are key contributors to improved household and community resilience in response to the impacts of climate change already being experienced. Australians living in inefficient homes with inefficient appliances are constantly faced with a decision of whether to live in unhealthy temperatures and save on their energy bills or maintain a healthy temperature in their home and receive high energy bills. This predicament is even more critical in many regional and remote NSW communities.

For many disadvantaged households, the decision is not even available to them as they do not have the means or agency to maintain a healthy household environment. Climate change means we will continue to see more extreme temperatures and humidity¹³, and Australian households need to be able to weather those events in their homes. Homes with better thermal efficiency are more resilient against extreme temperatures, including during power outages.

Households with electrified loads present more options for more resilient energy services. Both through scope for more onsite assets to 'ride through' interruptions that may affect the network, and the employment of community microgrids and stand-alone-power systems which have benefits in lowering network costs, as well as improving resilience. Electrified households may also be more amenable to support and restoration of service through portable energy solutions (such as solar, batteries and generators) and scope to draw on bi-directional charging from EVs and other consumer resources.

However, with electrification and an increased focus on resilience, it will be critical to ensure that consideration of resilience is appropriately framed and targeted to ensure against a narrow (and inefficient) focus on hardened network infrastructure. It is crucial to frame resilience as a question of community resilience supported by access to resilient energy services/supply (rather than resilient network infrastructure).

We recommend the Commission refer to our detailed observations and concerns regarding the treatment of resilience in electricity networks in the following submissions:

- The Justice and Equity Centre, 2024, [Including distribution network resilience in the National Electricity rules](#)
- The Justice and Equity Centre, 2024 [Value of Network Resilience Issues Paper](#)

6. Further Resources

Australian Council of Social Service (2024) [Funding and Financing Energy Performance and Climate-Resilient Retrofits for Low-income Housing](#)

Australian Sustainable Built Environment Council (2022) [Unlocking the pathway: Why electrification is the key to net zero buildings](#)

¹³ Sweltering Cities and Renew, 2024, [Future Climate Impacts on Home Energy Standards](#)

Climate Council (2023) [Smarter Energy Use: How to Cut Energy Bills & Climate Harm](#)

Climate Council (2022) [Switch and Save: How Gas is Costing Households](#)

Climateworks Centre (2023) [Climate-ready homes: Building the case for a renovation wave in Australia](#)

Energy Consumers Australia (2023) [Stepping Up: A Smoother Pathway to Decarbonising Homes](#)

First Nations Clean Energy Network (2024) [FNCEN Submission in response to the First Nations Clean Energy Strategy Consultation Paper](#)

Healthy Homes for Renters (2022) [Community Sector Blueprint: a National Framework for Minimum Energy Efficiency Rental Requirements](#)

IEEFA (2024) [Fast, efficient, flexible electrification can cut energy bills and support the shift to renewables](#)

IEEFA (2022) [Cheaper, faster decarbonisation: What State governments can do to support distributed energy resources](#)

Monash Climate Change Communication Research Hub (2023) [Switching On: Benefits of Household Electrification in Australia](#)

Renew (2021) [Households Better Off: Lowering energy bills with the 2022 National Construction Code](#)

Renew (2022) [Limiting energy bills by getting off gas](#)

Rewiring Australia (2021) [Castles & Cars: Savings in the Suburbs through Electrifying Everything](#)

Sweltering Cities & Renew (2024) [Future-proofing Australia's homes](#)

Electrification and health

Australian Council of Social Service (2024) [ACOSS Summer Heat Survey 2024](#)

Asthma Australia (2022) [Homes, Health and Asthma in Australia](#)

Climate Council (2021) [Kicking the Gas Habit: How Gas is Harming our Health](#)

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