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Climate Council of Australia

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About the Climate Council

The Climate Council is Australia's own independent, evidence-based organisation on climate science, impacts and solutions.

We connect decision-makers, the public and the media to catalyse action at scale, elevate climate stories in the news and shape the conversation on climate consequences and action, at home and abroad.

We advocate for climate policies and solutions that can rapidly drive down emissions, based on the most up-to-date climate science and information.

We do this in partnership with our incredible community: thousands of generous, passionate supporters and donors, who have backed us every step of the way since they crowd-funded our beginning as a non-profit organisation in 2013.

To find out more about the Climate Council's work, visit <u>www.climatecouncil.org.au</u>.

Introduction

The Climate Council welcomes the opportunity to help shape the work and advice of the NSW Net Zero Commission as the state transitions to a net zero, climate-resilient future. As an independent, evidence-based organisation, we strongly support action that aligns with the latest science and maximises benefits for communities, the economy and environment.

In the first half of 2025 alone, communities across NSW have experienced heatwaves, a tropical cyclone, record-breaking flooding and most recently a 'cyclone bomb', compounding the effects of back-to-back extreme weather events in recent years. These kinds of disasters are no longer simply natural. Extreme rainfall events have become more frequent and intense, and communities are suffering the consequences again and again. Without urgent action to cut climate pollution, extreme weather conditions like these will intensify, leading to more disruption, dislocation, and loss of life. Not only will this devastate communities, it comes with a significant financial cost: the most recent State Budget shows expenditure on natural disasters has increased more than 1000 per cent in the six years since the 2019-20 bushfires compared to the six years prior (NSW Government 2025).

In June this year, the NSW Government announced that according to its updated projections, the state is just shy of its target of a 50 per cent cut in climate pollution by 2030, and the target of a 70 per cent reduction by 2035 is further out of grasp (Sharpe 2025). We commend the NSW Government's commitment to develop a new Net Zero Plan to ensure its targets are reached. However, even this will fall short of what is required: to avoid the worst impacts of climate change, Australia can and must cut climate pollution by 75 per cent on 2005 levels by 2030, and to net zero by 2035 (Climate Council 2024a).

As Australia's second largest polluter, accounting for one quarter of the country's emissions, NSW needs to step up its climate ambition and play its part in meeting globally agreed goals. Through the next Net Zero Plan the NSW Government, on the advice of the Net Zero Commission, must set a clear and ambitious direction for rapid cuts in climate pollution. NSW must end the extraction and burning of coal, oil and gas. It must power its homes, businesses and transport systems with clean technologies that we already know work, and share the benefits equitably across NSW's communities. The NSW Government must protect the state's forest carbon stores, and scale up investment to adapt and build resilience to the impacts of climate change across the state.

Importantly, the shift to a zero emissions economy can be done in ways that benefit the community by putting downward pressure on power bills, creating employment opportunities, empowering First Nations communities, increasing competitiveness and bringing many other economic and social benefits. Shifting to renewables and electrifying NSW homes, businesses and vehicles will protect NSW from the global energy price shocks that are again impacting communities.

For more information on many of our recommendations, see the <u>Climate Council's Seize</u> <u>the Decade Report</u>, which identifies practical actions that governments at all levels can take to reduce Australia's climate pollution by 75 per cent by 2030.

Summary of recommendations

- 1. Work to cut pollution further and faster this decade
 - Adopt the highest level of ambition to limit global warming to well below 2°C
- 2. Enable a rapid increase in large-scale renewables through meaningful community engagement
 - Enable community-led hosting of renewable energy infrastructure
 - Establish Community Energy Hubs in renewable energy zones
 - Address barriers to First Nations participation in the shift to renewables
- 3. Slash climate pollution and lower the cost of living with rooftop solar and batteries
 - Expand initiatives to install solar and batteries on NSW's public housing
 - Scale up innovative solutions for groups who can't install their own solar and storage
 - Support commercial and industrial facilities to install solar and batteries
 - Collaborate with other governments to require solar on all new homes across Australia
- 4. Accelerate the move to shared, active and electric transport
 - Accelerate implementation of key actions from the <u>Future Transport Strategy</u> to improve the state's public transport systems
 - Increase support for the rollout of vehicle-to-grid technology
- 5. Protect NSW's forest carbon stores
 - End native forest logging
 - Strengthen regulations and increase council resourcing to reduce clearing on private land
- 6. Scale up investment in low emissions agricultural practices
 - Refine, scale and incentivise uptake of agricultural feed additives and other low emissions agriculture solutions
- 7. Coordinate the development of clean energy and industries in key locations
 - Empower the Future Jobs and Investment Authority to establish Renewable Energy Industrial Precincts

8. Urgently address fugitive emissions from coal mining

- End the approval of new and expanded coal mines
- Require existing mines to cut their methane pollution as a condition of continued approval to operate
- Require all mining companies to comprehensively plan for methane mitigation beyond the end of operations

9. Increase transparency and accountability for NSW's contribution to global climate pollution

• Require the Scope 3 emissions from coal facilities to be included in emissions reporting

10. Electrify NSW homes and businesses

- All-electric new homes and commercial buildings
- Mandate electric replacements when gas appliances reach their end-of-life
- Set energy performance standards for existing residential properties, including rentals
- Introduce mandatory disclosure of home energy performance

11. Increase investment in adaptation and resilience

• Increase investment in climate change adaptation and disaster resilience

12. Ensure decision-making adequately takes into account climate risks

- Provide guidance to decision-makers on applying effective policy interventions for different levels of climate risk exposure and their impacts
- Apply a science-aligned approach to climate change adaptation and resilience decision-making and planning

Accelerating emissions reductions

1. Work to cut pollution further and faster this decade

Adopt the highest level of ambition to limit global warming to well below 2°C

The science is clear: to do our part in limiting global warming to well below 2°C, Australia must cut climate pollution by 75 per cent below 2005 levels by 2030, and reach net zero by 2035. Every fraction of a degree of avoided warming matters, and will be measured in lives and livelihoods saved, fewer families forced from their homes, and a safer future for our children. Critically, the longer we delay cuts to climate pollution, the harder these targets are to achieve. 2050 is far too late as a target date for achieving net zero in NSW.

The Commission and NSW Government must recognise the urgency of the climate crisis and take commensurate action to address this, ensuring NSW plays its part in meeting globally agreed goals. NSW's targets and plans must reflect the highest possible level of ambition, working to cut pollution further and faster this decade, while bringing forward the net zero date.

Electricity and energy

Coal makes up nearly 60 per cent of NSW's electricity generation, more than any other state (DCCEEW 2024). NSW's four coal-fired power stations are old and unreliable, and are the primary driver of power outage risk. In 2023-24, two thirds of all power outage risk conditions in the National Electricity Market (NEM) occurred in NSW (Baringa 2024). The NSW Government states that under current planning approvals, all four of its coal-fired generators will close by 2040. However, it acknowledges that given the growing risk of failure, the closures may come sooner than this (NSW EnergyCo 2025). The Australian Energy Market Operator expects that all of Australia's coal-fired power stations will close by 2038 at the latest (AEMO 2024).

The NSW Government must rapidly bring on new renewable generation and storage this decade to ensure its communities can access reliable, clean power past the end of coal. NSW has already more than doubled its renewable generation in the last five years, now making up 35 per cent of the state's power (<u>Open Electricity 2025</u>). However, it still has a long way to go. As the Commission notes, NSW is only one quarter of the way to its renewable target: to reach 12 GW of renewable generation capacity by 2030, almost 9 GW still needs to be commissioned.

We welcome NSW's work to establish renewable energy zones (REZ), including the Central-West Orana REZ which is leading the way not only for the state, but for the rest of the country to follow. However, as the Climate Council noted in our 2024 <u>Race to the Top Report</u>, the rollout of renewable energy projects and firming infrastructure in NSW remains far too slow. Industry analysis indicates it can take two to three times longer to secure approval for new renewable energy projects in NSW than other states and territories. This can add four to seven years to project delivery, and up to 25 times more costs for developers compared to equivalent projects in other states (<u>Nexa Advisory 2024</u>). These slow and expensive approvals processes contributed to the NSW Government's decision to extend the life of the polluting Eraring coal-fired power

station from 2025 to 2027, demonstrating the importance of addressing planning challenges to unlock the state's clean energy project pipeline, create new jobs, help lower power bills and close polluting generators.

The <u>Renewable Energy Planning Framework</u> released in November 2024 is an important step in fast-tracking the renewables rollout, but more can be done to provide business, industry and communities certainty in the transition. In addition, as the Commission notes, community opposition to renewable energy projects has grown in recent years, creating additional barriers. To grow social licence for renewable projects and build on the <u>NSW Benefit Sharing Guideline</u> released late last year, we recommend that the NSW Government adopts new processes and programs to empower communities, including First Nations communities, and ensure their voices are heard. Increasing consumer-owned solar and batteries is also an opportunity to grow the state's renewable generation and storage capacity, without the challenges associated with large-scale projects.

2. Enable a rapid increase in large-scale renewables through meaningful community engagement

Enable community-led hosting of renewable energy infrastructure

Sixty per cent of people in NSW are supportive of renewable projects in their region or local area (<u>Porter Novelli 2024</u>). Making the most of this existing support by giving communities the opportunity to bid to host renewable energy projects and have more say upfront in what sorts of infrastructure they'd like to see will help build social licence, while also helping proponents choose locations that work for everyone.

The NSW Government should establish a process to call for community-led submissions and proposals on where projects should be located. This could be done in collaboration with local governments, and could also involve business and community groups to identify commercial, industrial and large-scale community sites which are suitable for hosting rooftop solar at scale.

Establish Community Energy Hubs in renewable energy zones

Community Energy Hubs would help NSW to meet its renewable energy targets by addressing social licence challenges in ways that meet the needs of different communities. They would provide a trusted liaison for people living in and around REZs to seek information and advice, and could also act as a dedicated point of contact for renewable energy developers, helping to foster trust in communities for their projects through quality communication and engagement. They could help coordinate community input on large-scale projects proposed for their regions, and provide other support for communities to understand and improve their own energy use (RE-Alliance, Community Power Agency and Yes2Renewables 2025).

Address barriers to First Nations participation in the shift to renewables

The shift to renewable energy has the potential to create meaningful opportunities for economic participation, income generation and energy security for First Nations communities. Aboriginal land councils currently own and manage about 450 square km of land in NSW, with the capacity to host up to 11 GW of solar or 1.6 GW of onshore wind energy projects (more than double the initial capacity of the Central-West Orana REZ). If outstanding land claims are resolved that potential increases nearly twentyfold

(<u>Briggs et al. 2025</u>). Research has found that NSW's Aboriginal landholders are optimistic about the possibilities of renewable energy and can see the benefits of being involved. However, they currently have limited resources to engage strategically in the transition and the benefits to date have been limited (<u>Norman et al. 2023</u>).

With the right processes in place, Aboriginal values and aspirations can be embedded in renewable energy projects from inception (<u>Norman et al. 2023</u>). The Commission and NSW Government should be guided by First Nations communities, organisations and frameworks, including the First Nations Clean Energy Network's <u>Aboriginal and Torres</u> <u>Strait Islander Best Practice Principles for Clean Energy Projects</u>. All renewables projects impacting Aboriginal land must be underpinned by the fundamental principle of free, prior and informed consent (FPIC).

NSW's <u>First Nations Guidelines</u> for renewable energy projects and region-specific guidelines for each REZ are an important first step, but further investment is needed to build the capacity of First Nations communities to participate in and benefit from the shift to renewables. Work should not focus solely on large-scale renewables, but on small and mid-scale projects that can improve energy affordability, autonomy and security for remote communities.

Research recently published by <u>the University of NSW Sydney and University of</u> <u>Technology Sydney</u> makes four key recommendations to address the barriers to Indigenous-led clean energy opportunities on Aboriginal land:

- Build capacity: Establish dedicated government support teams and funding mechanisms to help Land Councils engage with renewable energy projects.
- Establish microgrids: Encourage partnerships between Land Councils and electricity networks to site infrastructure on Aboriginal land.
- Pilot projects: Launch demonstration projects for mid- and large-scale renewables in partnership with planning authorities and developers.
- Recognise Aboriginal rights: Expedite land claims, incentivize cooperation between Land Councils and Traditional Owners, and strengthen cultural heritage protections (Briggs et al. 2025).

3. Slash climate pollution and lower the cost of living with rooftop solar and batteries

Solar is already on 35 per cent of NSW's rooftops, and makes a significant contribution to NSW's grid. One third of NSW's renewable generation, or 12 per cent of total generation, comes from rooftop solar – compared to 10 per cent from large scale solar (<u>Open Electricity 2025</u>). We commend the NSW Government's work to unlock further rooftop solar and storage including the \$290 million <u>Consumer Energy Strategy</u> and target for one million households and small businesses to have access to a rooftop solar and battery system by 2035, rising to nearly 1.5 million by 2050.

The NSW Government can leverage its existing commitments to ensure renters, people in apartments and on low and fixed incomes can access the benefits of solar and storage. It can also do more to unlock the potential for commercial and industrial rooftop solar

Expand initiatives to install solar and batteries on NSW's public housing

Through the Consumer Energy Strategy, the NSW Government has committed to pilot the roll-out of solar and battery VPPs and full home electrification in select social housing properties. As soon as possible following the pilot's completion, the NSW Government should apply the learnings to an expanded program to install solar and storage on all suitable state-owned social housing properties.

<u>NSW's Sustainability Bond Programme</u> could be used to finance the upfront cost of this program. As solar and storage would reduce power bills for social housing tenants, there would be less need for ongoing energy rebates and the repayment of the bonds could be met through the savings. Climate Council analysis has found that rooftop solar on social housing could save the NSW Government and its social housing tenants a combined \$111 million on power bills and power bill concessions (<u>Climate Council</u> <u>2024c</u>).

Scale up innovative solutions for groups who can't install their own solar and storage

We commend the NSW Government's partnership with the Australian Government to deliver the \$30 million Solar for Apartment Residents program to deliver grants to contribute to the costs for multi-unit dwellings to install shared-rooftop solar. However, rooftop solar still remains out of reach for many community members, and additional innovative solutions are required.

For example, the <u>Haystacks Solar Garden</u> in the Riverina, supported through the <u>Regional Community Energy Fund</u>, is saving its solar gardeners – people renting, living in an apartment or with an unsuitable roof for solar – an estimated \$505 every year off their power bills. The NSW Government should deliver another round of funding for projects like Haystacks that enable people who can't install their own solar and storage to access the benefits, for example through solar gardens, solar banks and community-owned batteries. Importantly, any program should be designed to support projects that are owned by local councils, community organisations, schools or other public services, to help ensure communities meaningfully benefit.

Unlock the potential of commercial and industrial solar and storage

Commercial and industrial solar and batteries are larger in scale than residential systems, presenting a key opportunity to accelerate NSW's shift to a reliable, renewable power system. Commercial and industrial buildings in NSW hold an estimated 7 GW of rooftop solar potential (<u>Nexa Advisory 2024</u>). However, solar and storage are disproportionately installed on household rooftops.

The NSW Government should take action to unlock the potential of commercial and industrial solar and storage. For example, this could be achieved through reforms to the Peak Demand Reduction Scheme to incentivise commercial and industrial solar and battery installations and participation in VPPs.

Changes to the National Construction Code (NCC) to require rooftop solar on all new commercial buildings were proposed to come into effect in 2025, however their progress has been delayed. The NSW Government must support the proposed reforms and should also advocate for the NCC to require new commercial buildings to be battery-ready, at a minimum.

Collaborate with other governments to require solar on all new homes across Australia

The NSW Government has a target under the National Housing Accord to deliver 377,000 new well-located homes across the state by 2029. Nationally, 1.2 million homes are to be built over the next four years. As part of this work there is a significant opportunity to bring the benefits of solar to more people by ensuring panels are added as a standard feature to all new and substantially rebuilt properties. The NSW Government should advocate to other states and territories and the Federal Government for the NCC to require all suitable new and substantially rebuilt homes to have rooftop solar, as is being proposed for commercial buildings.

Transport

Despite a number of programs in place to reduce transport emissions, transport is set to become NSW's largest source of climate pollution by 2030 (<u>NSW DCCEEW 2025</u>). The NSW Government has an enormous transport infrastructure pipeline: "the largest Australia has ever seen" (<u>Transport for NSW 2025</u>). While large infrastructure projects are important, they are expensive and often take many years. NSW needs to take cars off the road now, using cost-effective solutions that can be implemented immediately.

4. Accelerate the move to shared, active and electric transport

Mode shift is the most efficient way to reduce transport pollution, while also improving traffic congestion, air quality, road safety and the cost of living. Everyday in Sydney, more than two million of the car trips taken are less than two kilometres (<u>Climate</u> <u>Council 2023</u>). With better, more reliable services and infrastructure, many of these car trips could be replaced with shared or active transport. There are also emerging opportunities the NSW Government should harness to maximise the benefits of electric vehicles (EVs) for both the community and the grid.

Accelerate the implementation of key actions from the <u>Future Transport Strategy</u> to improve the state's public transport systems

NSW's <u>Future Transport Strategy</u> includes important actions to improve the state's transport systems, working towards the Government's vision for 30-minute cities, Fast Rail, stronger freight connections, advanced technology, electric vehicles (EVs), regional transport and net zero transport. Actions in the strategy that should be prioritised include:

- improve public transport access to centres, major health precincts, tertiary education precincts, and significant cultural or leisure destinations
- improve the use and efficiency of roads through road space allocation
- continue to develop, invest in, and deploy operational technologies to improve the transport system
- partner with councils, Local Aboriginal Land Councils and other NSW Government agencies to support 15-minute neighbourhoods that give priority to walking, cycling and micromobility, place making and last mile freight access
- plan and deliver Strategic Cycleway Corridors for each of the state's six major

cities and prioritise walking and cycling first and last mile options.

In May 2025 the NSW Government announced a review into the maintenance and reliability of the Sydney Trains network (<u>Graham 2025</u>). Following the conclusion of the review the NSW Government should urgently address the recommendations to improve Sydney's train system and give passengers the confidence to use it.

Increase support for the rollout of vehicle-to-grid technology

Vehicle-to-grid (V2G) charging is a transformational opportunity to cut climate pollution from the transport sector and increase the state's energy storage, while saving households thousands of dollars on petrol and electricity costs. As of last week, two of NSW's three distribution network service providers – Ausgrid and Essential Energy – now offer V2G on their networks. As a first step, the NSW Government can work with Endeavour Energy to ensure people in Sydney's Greater West, the Blue Mountains, the Southern Highlands, Illawarra and the South Coast of NSW can access this exciting opportunity.

We note that through the <u>Consumer Energy Strategy</u>, the NSW Government has committed to investigate incentives and other support for EV owners to install and use smart or bidirectional chargers. We encourage the NSW Government to consider financial incentives for households to install V2G chargers, and to support this with clear and consistent guidance for business, industry and the community. For example, in South Australia, SA Power Networks has <u>launched a website</u> explaining what keen EV buyers need to do to hook their car into the grid.

Agriculture and land

5. Protect NSW's forest carbon stores

800,000 ha of NSW's native forest is available for logging by the Forestry Corporation of NSW (FCNSW). Thousands of hectares of this land is logged every year, releasing millions of tonnes of carbon into the atmosphere and impacting cultural and biodiversity values, including the habitat of at least 150 species considered at risk of extinction (Ward et al 2024). With Western Australia and Victoria ending their native forest logging operations in 2024, NSW is lagging behind the rest of Australia.

End native forest logging

Analysis by Frontier Economics has found that ending native forestry in the Eden and Southern Regional Forest Agreement (RFA) regions could cut climate pollution by nearly one million tonnes every year (<u>Frontier Economics 2021</u>). This is equivalent to the annual Scope 1 emissions from the Tahmour coal mine – one of NSW's largest polluters (<u>CER 2025</u>).

The NSW Independent Pricing and Regulatory Tribunal (IPART) last year found that FCNSW's native forestry operations have been operating at a loss for at least a decade. (IPART 2024). FCNSW's hardwood forests division, made up of mostly native forests, recorded a result of minus \$29 million in the 2023-24 financial year alone – double its loss of \$15 million in 2023 (FCNSW 2024).

The NSW Government must end the economically and environmentally unsustainable practice of native forest logging as soon as possible. The expiry of all 20 of FCNSW's wood supply agreements between 2026 and 2030 (with 85 per cent expiring in 2028) (IPART 2024) presents an ideal opportunity to phase out native forest harvesting.

Strengthen regulations and increase council resourcing to reduce clearing on private land

On top of commercial native forest logging, significant amounts of illegal land clearing have been found to be occurring in NSW. Australian Conservation Foundation (ACF) research has identified 62 cases of illegal land clearing across NSW in the past five years, the majority of which occurred on agricultural properties (ACF 2025). The NSW Government must strengthen its regulation of land clearing and ensure its councils are resourced to enforce the regulations. Work should focus on conserving old growth forests, remnant forests and forests with a high biodiversity and carbon storage value.

6. Scale up investment in low emissions agricultural practices

We welcome the NSW Government's membership in the <u>Zero Net Emissions</u> <u>Agriculture CRC (ZNE-Ag CRC)</u> to accelerate research and development of low emissions agriculture solutions, and its \$105 million <u>Primary Industries Productivity</u> <u>and Abatement Program</u>. We note the NSW Government is due to release its Emissions Reduction Roadmap for NSW Land and Primary Industries later in 2025. As part of this the NSW Government should:

Refine, scale and incentivise uptake of agricultural feed additives and other low emissions agriculture solutions

As more than 75 per cent of NSW's agriculture emissions come from livestock, efforts should focus on developing and rolling out affordable distribution methods for methane-inhibiting feed supplements for both grazing and feedlot operations. However, as these additives are still being developed, action is also needed to roll out solutions that can cut emissions now. For example, the NSW Government can implement initiatives to support farmers to manage manure emissions via covered anaerobic ponds, replace conventional nitrogen fertilisers with coated slow-release versions all reduce emissions, selective breeding of lower methane cows and incorporating legumes into pastures.

Industry and waste

NSW is home to nearly 30,000 manufacturers – more than any other state (<u>Investment</u> <u>NSW 2025</u>). Many of these are small and medium-sized businesses: just three of the state's manufacturing businesses are covered by the Safeguard Mechanism and associated funding streams (<u>Clean Energy Regulator 2025</u>). We recommend one key priority for the NSW Government to build on existing work at the national and state level to support its manufacturers to cut costs, slash climate pollution and stay competitive in both local and global markets, where consumers are increasingly seeking environmentally sustainable products.

7. Coordinate the development of renewable energy and green industries in key locations

The Illawarra and Hunter regions of NSW host major energy, port and transport infrastructure, have deep skills bases in mining and manufacturing, significant offshore wind generation potential and strong demand for low emissions manufacturing. Work is already underway to make the most of the skills and resources in these regions, including the development of renewable energy zones, the <u>Port of</u> <u>Newcastle Clean Energy Precinct</u> and <u>hydrogen hubs</u>. This work will deliver abundant cheaper renewable power, helping make existing industrial businesses more profitable and competitive, while also attracting new businesses that create more local jobs.

More effectively coordinating renewable energy generation with green industry development through Renewable Energy Industrial Precincts (REIPs) would allow industries to pool access to affordable, renewable energy and other high quality infrastructure, allowing them to more efficiently decarbonise. REIPs should be developed as a collaboration between government, industry and renewable energy providers, to match energy suppliers with new energy customers in key strategic industries and unlock private investment at both ends.

Empower the Future Jobs and Investment Authority to establish Renewables Energy Industrial Precincts

The Future Jobs and Investment Authority was established in June 2025 to guide the future economic development of NSW's four coal mining regions – the Hunter, Central West, Illawarra, and North West – from coal production towards other economic opportunities and employment. Formally establishing REIPs in the Hunter and Illawarra is strongly aligned with, and would enable efficient, coordinated delivery of, the Authority's objectives to:

- facilitate strategic planning and targeted site activation to enable new and emerging employment-generating industries
- drive investment attraction activities to support the development of new industries
- develop initiatives to ensure workers are provided with the necessary assistance and opportunities to secure a stable future
- guarantee genuine engagement with local communities to ensure their voices are heard and allow for effective consultation, collaboration and partnerships across all levels of government and with key stakeholders.

Resources

The NSW Government's continued approval of coal mine expansions goes against what we have known for years: new or expanded coal mines are incompatible with limiting global warming to 1.5°C (IEA 2021). It is undermining the state's efforts to reduce climate pollution, putting the achievement of its targets at significant risk and increasing the burden on other sectors. Since it was elected in 2023, the Minns Government has approved six coal mine expansions, four of which have been approved even after the Commission warned that NSW was not on track to meet any of its legislated targets. These six coal mines will collectively be responsible for an estimated six million tonnes of Scope 1 climate pollution (Lock the Gate 2025a). The methane from these mines will trap 85 times more heat than the equivalent amount of carbon dioxide, and 28 times as much over a 100-year period – turbocharging global warming (Climate Council 2024). On top of this, the coal from these facilities will produce approximately 340 million tonnes of Scope 3 emissions – more than three times NSW's total annual domestic emissions (Lock the Gate 2025a). There are 18 further projects currently being assessed by the NSW Department of Planning, Housing and Infrastructure (DPHI) (Lock the Gate 2025b). If approved, these projects would add millions of tonnes to NSW's domestic emissions, and billions of Scope 3 emissions.

We acknowledge the work underway in NSW to address fugitive emissions, including the NSW Guide for Large Emitters, the NSW High Emitting Industries Fund, development of a Greenhouse Gas Mitigation Guide for the Coal Mining sector and commitment to review the Strategic Statement on Coal Exploration and Mining in NSW (NSW DCCEEW 2025). Despite this work, the NSW Government's own analysis shows that fugitive emissions are increasing, and will continue to increase in the coming years. Under current policies, the state's fugitive emissions are expected to increase by nearly 50 per cent over just five years: from 10.6 Mt in 2022 to peak at 15.06 Mt in 2027. By 2030, fugitive emissions from coal mining are still expected to be as high as 13.2 Mt (NSW DCCEEW 2025). Further, these projections are likely to significantly underestimate the fugitive emissions from NSW's coal mines. There is a large body of evidence indicating that methane emissions from open-cut coal mines (which make up 80 per cent of NSW's coal extraction) are significantly higher than the amount reported by coal companies. For example, a recent study led by the United Nations Environment Programme found that climate pollution from the Hail Creek Coal Mine in Queensland was up to eight times higher than reported (UNSW 2025).

NSW Parliament's Joint Standing Committee on Net Zero Future found that there is considerable uncertainty regarding whether the state's emissions targets can be achieved given the sizeable pipeline of new coal expansions currently being assessed by the NSW DPHI (<u>Joint Standing Committee on Net Zero Future 2025</u>). The NSW Productivity and Equality Commission has also identified that changes in coal mining policy are needed to meet the state's emissions targets, and that a decision is needed as soon as possible about the future of coal mining in the state (<u>NSW Productivity and</u> <u>Equality Commission 2024</u>).

Phasing out coal extraction is the only way to permanently deal with this problem. With just 15 per cent of NSW's coal being used for domestic power generation, and all the state's coal-fired power generation set to close over the next 15 years at most, coal extraction in the state can and must be phased out as soon as possible.

While NSW works towards the phase-out of coal mining, stronger action must be taken to implement technologies and practices to slash fugitive emissions from existing coal mines. Methane abatement in the fossil fuel industry is one of the most pragmatic and lowest cost options to reduce climate pollution (IEA 2024).

8. Urgently address fugitive emissions from coal mining

End the approval of new and expanded coal mines

The NSW Government has committed to seek advice from the Commission in developing the next Net Zero Plan, including in relation to the resources sector (<u>NSW</u> <u>Government 2025</u>). The Commission must provide detailed advice to the Government in relation to the impact of coal expansions on NSW's emissions targets, and on a plan to phase down coal extraction. This should include placing a permanent and immediate moratorium on approvals for new and expanded coal projects.

Require existing coal mines to cut their methane pollution as a condition of continued approval to operate

A number of NSW's coal mines have a significantly higher emissions intensity than other mines. This includes the Appin colliery and the Tahmoor coal mine, which the NSW Government extended in May this year – both underground mines with readily available technologies to cut pollution. Opportunities include improved sealing of boreholes and pipelines, using drainage to remove pollution, and ventilation air methane (VAM) thermal oxidizers. VAM thermal oxidation is already being used at mines around the world but has had limited uptake in Australia.

At a minimum, NSW's largest polluting mines must be required to reduce their methane emissions at least down to the industry average. These mines should not be permitted to use offsets or credits to reduce their reported emissions.

Require all mining companies to comprehensively plan for methane mitigation beyond the end of operations

It is not only active mines that need attention. In the future, pollution from closed or abandoned mines is expected to increase faster than from active mines (<u>Kholod et al.</u> 2020). Options for preventing methane leaks from inactive coal mines include sealing and putting drainage systems in place to capture emerging gas.

All coal mining companies should be required to comprehensively plan for emissions control beyond the end of operations. This includes ensuring all environmental approvals are obtained, all community consultation has occurred, all necessary water and other licences have been acquired and sufficient funds are set aside from today. These requirements could be included in the Greenhouse Gas Mitigation Guide for the Coal Mining sector that is currently being developed.

9. Increase transparency and accountability for NSW's contribution to global climate pollution

The contribution of NSW coal to global climate pollution can no longer be ignored. NSW exports 85 per cent of its coal (<u>NSW Government 2022</u>), meaning the impact of the state's coal mining operations is far greater than what is recognised in NSW's emissions inventory. The expansions in the pipeline for approval would have Scope 3 emissions of nearly two billion tonnes – almost 50 times greater than the Scope 1 emissions that will be reflected in NSW's emissions inventory (<u>Lock the Gate 2025</u>).

Require the Scope 3 emissions from coal facilities to be included in emissions reporting

Where NSW coal is burned makes no difference to our atmosphere: it's all heating our planet and driving climate pollution. Burning coal fuels the climate crisis, worsening bushfires, floods and heatwaves that devastate our communities. The NSW Government and Commission must acknowledge the impacts of NSW coal that is burned overseas and include the Scope 3 emissions from NSW coal facilities in their reporting.

Built environment

Getting gas out of NSW homes and businesses will save the community significant amounts of money, cut climate pollution, assist with energy security and boost public health. The Climate Council's Switch and Save report found that NSW households could save around \$924 every year by going fully electric. Despite the wide-ranging benefits, the number of consumers connected to fossil gas NSW continues to grow, and is now more than 1.6 million. More than 27,000 new consumers were connected to the gas network in 2022-23 (NSW DCCEEW 2024).

Victoria and the ACT have already embraced all-electric new builds, helping lower household energy costs and get dangerous, polluting gas out of people's homes. Local governments across NSW are also leading the way despite a lack of coordinated statewide action. Just a few weeks ago, <u>City of Sydney announced</u> that from 1 January 2026, new residential developments will have to use electric cooktops, ovens and space heating. New larger commercial buildings and hotels will also be required to be all electric from 1 January 2027. The City of Parramatta, Lane Cove Council, City of Newcastle and Waverley Council also have mandatory building electrification policies. The <u>Electrify 2515 pilot in Illawarra</u> has successfully converted 60 homes in the region to electric, with a further 540 to benefit from the project over the next year. NSW residents have shown they are keen to upgrade their homes to more efficient systems: in 2023, NSW broke Australian records for heat pump hot water system sales, with a 335 per cent increase in sales in one year (<u>IEEFA 2024</u>).

10. Electrify NSW homes and businesses

Stronger leadership and coordination is needed at a state level to make electric, efficient buildings – both new and existing – the standard state-wide. We look forward to contributing to the development of the <u>NSW Gas Decarbonisation Roadmap</u>, due to be released for public consultation in 2025. NSW should follow Victoria and the ACT's lead and implement strong electrification requirements, including:

All-electric new homes and commercial buildings

Ensure all new homes, including apartments, and general commercial buildings in NSW are all-electric, commencing 1 January 2027. We recognise that for some commercial and industrial users there may not be feasible electric or bottled gas alternatives to some gas uses. These buildings should still be required to be electric-ready to ensure that as technologies develop or building occupancies change, it is as quick and easy as possible to make the switch.

Mandate electric replacements when gas appliances reach their end-of-life

Introduce regulations to ensure all gas appliances, including hot water, space heating and cooktops, are replaced with more efficient electric alternatives when they reach their end-of-life. IEEFA's modelling shows that if all new appliances purchased in NSW were electric from 2026, residential gas consumption would gradually phase down to near-zero by 2050 (IEEFA 2024).

Set energy performance standards for existing residential properties, including rentals

We welcome the NSW Government's commitment through the Consumer Energy Strategy to investigate introducing minimum energy efficiency performance standards for rental housing, and recommend this be progressed as a priority. This could commence with all homes sold or rented being required to achieve a 3-star NatHERS minimum energy rating, with progressive improvements to bring all homes up to a future-proof 'net zero existing buildings' standard by 2030. A net zero buildings standard could address a range of cost saving upgrades that cut climate pollution, including electrifying homes and installing batteries and solar panels. The standard should be aligned with the <u>Community Sector Blueprint: a National Framework for</u> <u>Minimum Energy Efficiency Rental Requirements.</u>

Introduce mandatory disclosure of home energy performance

We note that the NSW Government is working to introduce voluntary disclosure of home energy performance ratings at the point of sale or lease in 2025, beginning with trials. The policy will be reviewed to inform when to transition to a mandatory disclosure scheme. Introducing a mandatory disclosure scheme on the sale and lease of all homes, both new and existing, should go hand and hand with the introduction of energy performance standards.

Adapting to a changing climate

Climate pollution has driven an increase in the frequency and intensity of extreme weather disasters in NSW that are impacting lives, property, the environment, and economy. Since the 2019-20 Black Summer bushfires, government expenditure on disasters in NSW has increased by more than 1000 per cent, compared to the six years prior (<u>NSW Government 2025</u>). While addressing the fundamental cause of worsening disaster risks by rapidly driving down levels of climate pollution from the extraction and burning of fossil fuels, it is also essential that NSW adapts to what is already happening, and what we know is coming.

The Climate Council recognises the scale and ambition of the adaptation efforts the NSW Government is currently undertaking, including through the <u>NSW State Disaster</u> <u>Mitigation Plan</u>. We make the following recommendations to strengthen NSW's work to adapt and build resilience across the state.

11. Increase investment in adaptation and resilience

Increase investment in climate change adaptation and disaster resilience

The <u>2021-2022 NSW Intergenerational Report</u> estimated that the total economic costs from extreme weather disasters per year is likely to average between \$15.8 to \$17.2 billion per year by 2060–61. Put simply, the economic costs of disasters are growing and will get much worse in future. As the Commission has noted previously "every dollar invested in climate change adaptation and disaster risk reduction saves between \$2 and \$10 in recovery" (<u>NSW Net Zero Commission 2024</u>). While the investments the NSW government has already made in climate change adaptation and disaster resilience are promising, the scale of the climate fuelled disasters communities across NSW now face means that greater levels of investment will be needed.

12. Ensure decision-making adequately takes into account climate risks

Provide guidance to decision-makers on applying effective policy interventions for different levels of climate risk exposure and their impacts

The NSW State Disaster Mitigation Plan includes an action for the state government to develop a policy for large-scale multihazard managed relocation, which will include mechanisms to identify criteria for areas where risks are not tolerable. This is vital work, and likely to be the first of its kind in Australia. Importantly, it will provide decision-makers with criteria to determine where relocation may be the best disaster mitigation response.

To better embed climate change adaptation and resilience initiatives across government, the NSW Government should provide an expanded set of criteria for assessing climate risks and effective policy interventions. Housing relocation is a policy intervention that would apply at a very high risk threshold, but there are many homes, businesses and communities across the state that will face lower, though still damaging and disruptive disaster risks in future years and will need support from the NSW Government to prepare for disaster impacts. The NSW Government could expand the scope of the current work on a statewide relocation policy to provide guidance to decision makers on climate risk thresholds and corresponding policy interventions for different levels of risk, spanning multiple hazards.

Apply a science-aligned approach to climate change adaptation and resilience decision-making and planning

The national flood guidance recommendations that inform the design and construction of infrastructure projects across the nation assume that extreme rainfall will increase by 5 per cent for each degree of warming due to climate pollution. However, <u>recent research</u> has shown that there is likely to be 7-28 per cent more rain for hourly or shorter duration extreme events, and between 2-15 per cent more rain for daily or longer extreme events for each degree of warming. In practice this means that today's newly built infrastructure may not be resilient to the extreme rainfall events that hit Australians in future. Climate adaptation and resilience measures – particularly those focused on the delivery of infrastructure – must be developed to

account for a scientifically defensible worst case scenario. The alternative in which infrastructure is built to more optimistic climate scenarios may mean that communities and households across the state are exposed to unnecessary risks in future.

Conclusion

NSW has the opportunity to lead Australia in climate action and demonstrate that a net zero economy is not only achievable, but beneficial. By implementing ambitious policies across energy, transport, industry, agriculture and land, urgently addressing methane from coal extraction and increasing resilience to the impacts of climate change, the NSW Government can build a safer future for its communities.

We commend the NSW Net Zero Commission for its work in providing independent, evidence-based advice to ensure NSW is on a path to net zero. We look forward to ongoing engagement as NSW works toward a safer, healthier, and more sustainable future.