

2025 consultation

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Submission to the NSW Net Zero Commission Consultation Paper

From the Australian Sustainable Built Environment Council (ASBEC) July 2025

The Australian Sustainable Built Environment Council (ASBEC) welcomes the opportunity to respond to the NSW Net Zero Commission's 2025 Consultation Paper. We commend the Commission's role in strengthening accountability, transparency and ambition in NSW's decarbonisation journey.

ASBEC is a collaborative national forum of peak bodies in the Australian built environment, focused on sustainable, productive, and resilient buildings, communities, and cities. Our [membership](#) consists of industry associations, professional bodies, academia, non-government organisations and government observers who are involved in the planning, design, delivery, and operation of our built environment. ASBEC has a longstanding focus on cities, infrastructure, and urban-scale policy to support a sustainable, liveable, and resilient built environment. We strongly believe that the built environment is key to ensuring communities are resilient to the health and wellbeing impacts of climate change.

ASBEC's current priorities include:

- Sustainable, decarbonised communities — An integrated, sustainable and climate resilient built environment (including natural, social and economic infrastructure).
- Effective regulation, codes and standards — Improving and enforcing energy efficiency and resilience requirements in national and state/territory regulations.
- Improving our existing building stock — Ensuring all Australians have healthy and comfortable homes, offices and buildings that support Australia's achievement of net zero.

This submission focuses on the energy and built environment sectors of the consultation paper, and draws on ASBEC's [February 2025 response](#) to the Commission's 2024 Annual Report and evidence presented by ASBEC Executive Director Alison Scotland at the NSW Parliamentary Inquiry into the Net Zero Commission in March 2025. A number of our member organisations are also providing detailed responses to this consultation.

1. Accelerating Decarbonisation in the Energy Sector

A decarbonised electricity system is fundamental to NSW's net zero future. Electrification of buildings, transport and industry—powered by clean electricity—is the most efficient pathway to achieving deep emissions reductions across the economy. NSW must deliver a coherent suite of reforms to support this transformation.

Key reforms and investments include:

- Clear, accountable decarbonisation pathways for electricity generation and use, supported by regulatory, market and policy signals that prioritise emissions reduction alongside reliability and affordability.
- Strong demand-side measures, including energy efficiency, demand response and electrification in buildings, to reduce peak demand and system costs.
- Robust inter-agency and cross-government coordination, particularly to align NSW efforts with federal reforms under the Capacity Investment Scheme and National Energy Transformation Partnership.
- Timely investment in transmission infrastructure, aligned with climate and planning goals and delivered through streamlined, transparent regulatory processes.

- Accelerated planning and delivery of Renewable Energy Zones (REZs), integrating land use planning, community engagement, transmission infrastructure and workforce strategy.

To support electrification across the economy, NSW will also need to address key regulatory, economic and behavioural barriers. This includes:

- Mandating all-electric standards for new buildings and major renovations, with a clear trajectory to phase out fossil gas connections.
- Phasing out new fossil gas network extensions, informed by the NSW Gas Decarbonisation Roadmap and in coordination with national gas transition planning.
- Scaling up the NSW Energy Security Safeguard and Sustainable Buildings SEPP, to drive high-performance buildings and technology-neutral emissions reduction.
- Targeted electrification incentives for households and businesses, especially in rental and low-income sectors, to support a just and inclusive transition.
- Leadership in national coordination forums, to ensure that electrification policy keeps pace with grid decarbonisation and customer adoption.

2. Driving Down Emissions in the Built Environment and its supply chain

The built environment presents one of the most immediate and cost-effective opportunities for emissions reduction. It also delivers co-benefits in health, affordability and resilience. Given that emissions from the built environment sector grew by 91 per cent from 2005 to 2022 and the largest source of direct emissions in this sector (53 per cent) is the use of onsite fossil fuels in homes and buildings in operation, ASBEC strongly recommends the NSW government accelerates its focus on electrifying buildings.

ASBEC's research, [Unlocking the Pathway: Why electrification is the key to net zero buildings](#) confirms that electrification is the lowest cost, fastest emissions reduction pathway for Australia's built environment. Our research (supported by [technical analysis](#) and [economic modelling](#)) found that electrifying the built environment could deliver \$49 billion in energy saving nationally between 2024 and 2050 compared to business as usual, and 199MT of avoided CO₂-e emissions.

Electrification of buildings needs to go hand in-glove with building energy performance measures, such as thermal shell and energy efficiency. As outlined in the Net Zero Commission 2024 Annual Report, although energy efficiency measures do not address the built environment sector's direct emissions, they are fundamental to reduce the demand for electricity and in turn reduce the new generation and transmission needed to decarbonise the electricity grid.

ASBEC suggests much greater energy savings can be realised in existing buildings through more ambitious government policies, such as mandating the disclosure of building energy performance ratings of homes at the point of sale or lease. ASBEC commends the NSW government's leadership in this space, as it carries out the disclosure trials across the residential sector. We strongly encourage the NSW government to mandates disclosure as soon as possible after the trials are resolved, providing confidence to other jurisdictions to do the same. Energy efficiency cuts household energy costs and makes homes healthier and more comfortable to live in, particularly in extreme weather events like heatwaves. It also offers low-cost emissions reductions and reduces stress on the electricity network in peak periods, which in turn reduces the need for costly network infrastructure upgrades.

ASBEC's Issues Paper, [Embodied carbon emissions in Australia's built environment](#) highlighted the issues that need to be addressed to successfully tackle embodied carbon and to achieve Australia's commitment to net zero carbon emissions by 2050. This paper recognised that the biggest opportunities for embodied carbon reduction occur when we maximise the use of existing assets. The paper recommends using a decarbonisation hierarchy to prioritise actions by considering emissions at every stage – and generally the greatest emissions reduction opportunities can be realised at planning stage.

We also commend the leadership of the NSW government in the creation and implementation of the NSW Decarbonising Infrastructure Delivery Policy. ASBEC's report, [*Our Upfront Opportunity: Australia's policy roadmap to reduce upfront embodied carbon in the built environment*](#) recognises that reducing embodied carbon requires a systemic approach across the built environment sector – from project decisions (e.g. adapt/reuse), to design improvements, to how we build, to investing in the decarbonisation of our supply chains. This report continues the great work already started by government and industry, mapping out a policy ecosystem that can support the consistent upfront embodied carbon measurement methodology developed by NABERS. At this stage, we would like to draw to the Net Zero Commission's attention that the upfront carbon measurement methodology outlined in the State Environmental Planning Policy (Sustainable Buildings) 2022 (SB SEPP) is not currently aligned with the NABERS methodology. However, we acknowledge that work is underway to ensure a consistent application of emission factors of construction materials across NSW Government agencies.

Improvements to upfront embodied carbon will contribute to a more circular economy. However, the circular economy is a much broader concept, and embodied carbon is just the beginning. We commend the NSW Government's leadership in this space and look forward to working with our government partners, members of ASBEC's Infrastructure Net Zero initiative and our own members to progress a roadmap of solutions across the built environment sector to support the consistent NABERS method of upfront embodied carbon measurement. We note that our recommendations also encourage the transition to fossil-fuel free transport and construction where possible, and we encourage the NSW government to consider this in the delivery of their built environment vision.

ASBEC recognises that there is great value in applying the learnings from similar policy implementation in other states and territories across the country. Infrastructure Net Zero, a coalition of leading government and industry bodies hosted by ASBEC, has released a report [*A Solid Foundation: A Common Definition for Net Zero Infrastructure and How to Get There*](#). This report outlines a range of state/territory infrastructure policies driving action in Australia, including the leadership of the NSW government.

NSW must act urgently to unlock the benefits that can be delivered through a comprehensive decarbonisation strategy for the Built Environment sector. Key actions to accelerate emissions reductions include:

- Setting emissions reduction trajectories for the built environment, including operational energy, embodied carbon and refrigerants, with transparent interim milestones.
- Introducing minimum energy performance standards for existing residential and commercial buildings, supported by mandatory energy disclosure and upgrade triggers at sale or lease.
- Reduce embodied emissions in construction and materials, as outlined in ASBEC's [*Our Upfront Opportunity*](#) (2025). This includes:
 - Prioritising a re-use, repurpose, or "retrofit-first" approach through brownfield development projects, infrastructure renewals, and major retrofits of existing structures. This includes reforming and aligning planning policies and development strategies.
 - Increasing and continuing investment in aligned national framework and tools to baseline, measure, benchmark, disclose, and reduce embodied carbon through a unified methodology and common database (i.e. via NABERS and TfNSW). These need to be consistent across commercial property, residential and infrastructure (noting that BASIX is not yet aligned with NABERS in emissions factor data).
 - Demonstrate leadership by updating government funding, tender and procurement requirements or processes to include embodied carbon minimum standards, and transition towards fossil-fuel free transport and construction processes.
- Embedding climate objectives into planning and procurement, including requiring minimum sustainability ratings (e.g. Green Star) in government-funded infrastructure and developments.
- Unlocking innovative finance mechanisms, such as concessional loans, green bonds, and value-capture strategies, to enable large-scale retrofit and electrification projects.

3. Strengthening the Role of the Commission

The work of the Net Zero Commission is fundamentally important to help guide the strategic direction of the NSW government to achieve net zero. It will help ensure that NSW's existing and new building stock is on a trajectory toward being climate resilient and net zero compatible by 2050. Active and engaged collaboration across NSW government and industry will continue to accelerate action, providing clear benchmarks for healthy and affordable homes, helping meet NSW's emissions reduction targets and ensuring equal opportunities for households and businesses. The Commission is well-placed to drive integrated, whole-of-government action on built environment emissions.

To maximise its impact, ASBEC recommends that the Commission:

- Undertake a dedicated review of the built environment sector, identifying emissions baselines, abatement opportunities, and systemic barriers across planning, regulation and market structures.
- Acknowledge that the built environment has the technology and the knowhow to decarbonise operational emissions faster than other sectors, therefore contributing to NSW's 2030 targets.
- Champion integration of emissions and climate resilience into planning frameworks, ensuring alignment across SEPPs, local strategic planning and infrastructure decision-making.
- Promote Modern Methods of Construction (MMC) and low-carbon prefabrication solutions by advocating for enabling regulatory reform, particularly through the current NSW MMC Taskforce and consultation.

NSW is at a pivotal moment in its net zero transition. Both the built environment and energy sectors are key enablers of economy-wide decarbonisation and present significant opportunities for near-term emissions reductions and long-term resilience. With strong political will, clear targets, coordinated implementation, and investment in enabling infrastructure and policy reform, NSW can lead the nation in demonstrating how to deliver net zero with integrity, equity and impact.

We welcome the opportunity to provide further detail on any of the points outlined above and look forward to a continued collaborative relationship with the Net Zero Commission and NSW government departments as work progresses. Please do not hesitate to contact me via alison.scotland@asbec.asn.au or on [REDACTED].

Yours sincerely



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