Australian Institute of Architects

CLIMATE CHANGE AUTHORITY 2025 ISSUES PAPER

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Submission

NATIONAL

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Australian Institute of Architects

ABOUT THE INSTITUTE

The Australian Institute of Architects (Institute) is the peak body for the architectural profession in Australia. It is an independent, national member organisation with around 14,000 members across Australia and overseas.

The Institute exists to advance the interests of members, their professional standards and contemporary practice, and expand and advocate the value of architects and architecture to the sustainable growth of our communities, economy and culture.

The Institute actively works to maintain and improve the quality of our built environment by promoting better, responsible and environmental design.

PURPOSE

- This submission is made by the Australian Institute of Architects (the Institute) to provide input on the Climate Change Authorities 2025 Issues Paper to inform their 2025 Annual Progress Report to inform the Minister's 4th Annual Climate Change Statement to Parliament.
- At the time of this submission the National President is Adam Haddow
- The Chief Executive Officer is Cameron Bruhn

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The Australian Institute of Architects recognises the unceded sovereign lands and rights of Aboriginal and Torres Strait Islander peoples as the First Peoples of these lands and waters.

This recognition generates acknowledgement and respect for Aboriginal and Torres Strait Islander Countries, Cultures and Communities, and their ways of being, knowing and doing.

Caring for Country practices including architecture and place shaping have existed on this continent since time immemorial.

The Institute recognises a professional commitment to engage and act meaningfully through reciprocal partnership and relationships with Aboriginal and Torres Strait Islander peoples. Together we will support and develop the emergence of new possibilities for our shared future.

EXECUTIVE SUMMARY

The built environment generates ~25% of Australia's carbon emissions[i]. Current policy focuses heavily on energy generation, leaving embodied carbon, urban planning, and design-led climate adaptation under-addressed.

Recommendations: mandate embodied carbon caps in the National Construction Code[ii], adopt whole-of-life performance procurement, incentivise precinct-scale resilience, embed passive design, health equity, and affordability in housing, and fund interdisciplinary CPD for architects, planners, and engineers[iii].

The Australian Institute of Architects Architecture Industry Decarbonisation Plan 2025-2050 outlines a transitionary framework upon which it is anticipated the membership will cocreate interdisciplinary Continuing Professional Development (CPD) for architects and their affiliated design professional counterparts.

Renewable energy rollout requires spatially and culturally sensitive planning. Policies should mandate design review and Indigenous engagement, apply regenerative development for host communities, integrate precinct-scale electrification, and embed Government Architect Offices in Renewable Energy Zone (REZ)[iv] planning to ensure community-aligned, design-integrated infrastructure.

Safeguard Mechanism metrics should move beyond offsets to incentivise place-based mitigation. Expanding coverage to large construction/development corporations, prioritising co-benefit projects, disclosing embodied carbon, and assessing precinct-level emissions will improve outcomes.

Case studies demonstrate feasible pathways: Monash Woodside Building (operational net zero), Barangaroo South (56% embodied carbon reduction), Burwood Brickworks (whole-of-life zero carbon), and University of Melbourne Student Precinct (inclusive retrofit, 2050 zero carbon target)

Section 1: Supporting and enabling the transition to a net zero economy.

Q1. How well is the Australian Government supporting the transition to net zero?

The built environment contributes around a quarter of Australia's total greenhouse gas emissions, and while regulation of this sector has historically been limited, important progress has begun. The government's 2022 National Construction Code (NCC) uplift marked a clear step forward, improving minimum standards for energy efficiency and thermal performance. This demonstrates a willingness to raise the bar and sets a strong foundation for further action to ensure new buildings are net zero-ready.

However, the current framework does not yet include mandatory performance pathways for achieving net zero, nor does it address embodied carbon and whole-of-life emissions—areas that represent a substantial and growing share of the sector's climate impact. Strengthening regulation in these areas would ensure that the buildings we construct today are resilient, efficient, and aligned with Australia's long-term emissions reduction goals.

Nationally consistent embodied carbon targets and reporting frameworks are not yet in place, despite detailed guidance from the Green Building Council of Australia (GBCA) and the Australian Sustainable Built Environment Council (ASBEC). Establishing these mechanisms would build on the government's positive steps to date by providing certainty, driving innovation, and unlocking low-carbon investment at scale.

Architectural and built environment advocacy groups—including the Royal Australian Institute of Architects, ASBEC, and GBCA—have all welcomed recent progress and continue to call for a national roadmap to decarbonise the built environment. Such a roadmap would consolidate early government action into a coordinated trajectory for both operational and embodied carbon, aligning with the Architecture Industry Decarbonisation Plan and supporting industry to transition with clarity.

Importantly, design professionals are ready to deliver on this agenda but require a more structured support framework. While initiatives exist, there is currently no national skills uplift strategy for architects, planners, or certifiers. Developing one would ensure that professionals have the tools and training needed to implement stronger regulations effectively, helping government translate ambition into practical outcomes for a net zero future.

Q2. What changes could the Government make to improve effectiveness of policies or address gaps?

Delivering emissions reductions

Operational and embodied carbon caps should be embedded in planning and building regulation, aligned with the architecture profession's call for a zero-carbon construction industry by 2030. Programs such as NABERS and Green Star should be expanded to all building typologies, including residential and public infrastructure. Mandatory disclosure of building energy performance at point-of-sale and lease would drive market transparency and accelerate uptake of net-zero-ready buildings.

Supporting sectoral and workforce transitions

A dedicated Built Environment Transition Authority—or a national architecture-led decarbonisation body—should be established to coordinate sectoral pathways. Interdisciplinary continuing professional development in carbon literacy must also be embedded across the architecture, engineering, and construction workforce to equip practitioners with the skills to deliver rapid, equitable transition.

Socio-economic priorities and equity

Housing policy should promote design equity by embedding access to natural ventilation, sunlight, and passive thermal performance. These measures, as highlighted in Homes for Queenslanders, ensure health, comfort, and resilience are accessible to all communities.

Overcoming the 'green premium'

Government should-cost models must evaluate full lifecycle carbon and cost, ensuring procurement reflects whole-of-life value as outlined in Procurement Essentials. Complementary financial measures—including targeted tax incentives and green loans—should reduce upfront barriers to net-zero-ready retrofits.

Export industries and supply chains

Support for Australian manufacturers of low-carbon materials such as mass timber and geopolymer concrete is critical. Public procurement and codes should drive demand while architecture-led precinct designs can demonstrate how zero-carbon trade hubs strengthen Australia's competitive advantage.

Data, approvals, governance

An Australian Built Environment Carbon Database—led by architects and quantity surveyors—would provide the evidence base for regulatory reform. Planning systems should be reformed to align development approvals with national decarbonisation pathways and Australia's Nationally Determined Contributions..

Community support for renewable infrastructure

Government Architects and Indigenous designers should co-lead culturally responsive design of renewable energy zones. Place-based design review and community benefit schemes must be co-designed with Traditional Owners to strengthen trust and accelerate delivery.

Advancing adaptation priorities

All building assessments should mandate climate and disaster resilience metrics, with a focus on vulnerable regions. Adaptation planning should embed First Nations knowledge, supported by the architecture and landscape architecture professions, to ensure locally grounded and culturally informed solutions.

Section 2: Deploying renewable energy infrastructure.

Q3. What are the main challenges to deploying renewable infrastructure?

The establishment of Renewable Energy Zones (REZs) is a significant step toward achieving Australia's energy transition, and there is strong opportunity to strengthen their delivery through integrated design governance. By embedding nationally consistent frameworks for design review, performance, and place-based outcomes, large-scale energy infrastructure can be better aligned with community needs and environmental values, reducing conflict and building long-term social licence. Existing architecture- and design-led approaches—such as the Australian Institute of Landscape Architects' *Living Infrastructure* framework and the Green Building Council of Australia's *Nature Positive Roadmap*—provide practical tools that could complement government policy and ensure energy projects contribute positively to both local communities and the natural environment.

Q4. What can the Government do to address these challenges?

Renewable Energy Zones (REZs) offer a significant opportunity to demonstrate design excellence and community benefit. Embedding design review and place impact assessments for major infrastructure will help ensure projects are well integrated with local landscapes and communities. Pilot initiatives that combine renewable energy with affordable housing, cultural tourism, or landscape regeneration, supported by precinct-scale zero-carbon frameworks such as those applied at Fishermans Bend and Burwood Brickworks, can showcase how REZs deliver not only clean energy but also broader social, cultural, and environmental value.

Section 3: The Safeguard Mechanism.

Q3. How effective is the Safeguard Mechanism in driving onsite emissions reductions?

The Safeguard Mechanism has taken important steps in addressing emissions from industrial facilities, and there is now an opportunity to expand its scope to include construction-related emissions from major property developers and contractors. Greater recognition of design-led strategies—such as passive design and the adaptive reuse of existing buildings—would help deliver emissions reductions at scale while also improving liveability and resilience. Similarly, expanding the Australian Carbon Credit Unit (ACCU) framework to include architecture- and design-led co-benefit projects, such as urban greening and heritage adaptive reuse, would incentivise high-value initiatives that align with both national decarbonisation goals and broader social and environmental outcomes.

Q6. What changes could improve the Mechanism's performance?

Expanding the Safeguard Mechanism to include large contractors and building material producers offers an opportunity to address emissions across the built environment. Recognising design-led carbon abatement—such as structural reuse, low-carbon materials, and circular design—can deliver immediate emissions reductions while generating evidence to support stronger, more robust policy in the future. Lessons from the UK's adaptive reuse initiatives and Australia's Green Building Council demonstrate how design-led approaches reduce embodied carbon and enhance sustainability. Strengthening offset rules to prioritise local, design-integrated carbon removal projects would further align emissions reductions with social, environmental, and community outcomes.

Q7. What additional incentives could help drive on-site reductions?

Mandating project carbon budgets for large-scale public buildings and developments would ensure emissions are managed from the earliest design stages. Incentives such as tax concessions or bonus floor area ratios for projects achieving Living Building Challenge, Passivhaus, or equivalent standards would encourage high-performance, low-carbon outcomes. Establishing a Carbon Design Accelerator program could further support architects in delivering exemplary projects, fostering innovation and demonstrating the benefits of design-led emissions reduction strategies.

Q8. How can reporting on the Safeguard Mechanism be improved?

Requiring full life-cycle carbon disclosure for larger buildings, would establish a clear basis for managing emissions. Integrating Green Star and NABERS reporting with Safeguard compliance can streamline best-practice adoption, while publicly accessible precinct- and city-level emissions dashboards would provide transparency and generate the data needed to support stronger, design-led policy in the future...

Q9. How could the Authority improve its approach to assessing Safeguard performance?

Tracking built environment metrics, including scope 3 emissions, and collaborating with GBCA, ASBEC, and RAIA on architecture-led indicators would ensure design strategies are recognised. Evaluating urban design's role in emissions reduction—through heat mitigation, public transport integration, and adaptive reuse—demonstrates the sector's tangible contribution to climate outcomes..

Informed by the Architecture Industry Decarbonisation Plan 2025-2050

REFERENCES

[i] Buildings produce 25% of Australia's emissions. What will it take to make them 'green' – and who'll pay? | ArchitectureAu

[ii] skills for net zero: new national workforce game plan to decarbonise infrastructure projects | Infrastructure Australia

[iii] Building with Nature | Green Building Council of Australia

[iv] Renewable Energy Zones | Australian Energy Regulator (AER)