AUSTRALIAN SUSTAINABLE BUILT ENVIRONMENT COUNCIL
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Barry Sterland, Commissioner
Martin Stokie, Commissioner
Productivity Commission

Submitted via 5pillars@pc.gov.au

Dear Commissioners Sterland and Stokie

# Investing in cheaper, cleaner energy and the net zero transformation: Interim report

The Australian Sustainable Built Environment Council (ASBEC) welcomes the opportunity to provide feedback on the Productivity Commission's Interim report, *Investing in cheaper, cleaner energy and the net zero transformation*. Achieving Australia's emissions targets productively requires nationally consistent, enduring policy frameworks that unlock private investment and deliver emissions reductions at scale.

ASBEC is a collaborative forum of peak bodies in the Australian built environment, focused on sustainable, productive, and resilient buildings, infrastructure, communities, and cities. Our membership[i] 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 buildings, cities, infrastructure and urban-scale policy to support our vision of a sustainable, liveable, productive, equitable and resilient built environment. Our organisational purpose strives for policy development in alignment with the UN Sustainable Development Goals and Paris commitments. Our work in this space includes a range of collaborative research and analysis to help inform policy development.

## 1. Reducing the cost of meeting emissions targets

A need for certainty to accelerate investment in built environment net zero pathways

We caution an over-reliance on governments ensuring "*incentives are neutral towards which technologies can achieve reductions*," especially when it relates to electrification of the built environment. ASBEC's research, *Unlocking the Pathway: Why electrification is the key to net zero buildings*[ii] confirms that electrification is the lowest cost, fastest emissions reduction pathway for Australia's built environment. Our research 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.

ASBEC's *Unlocking the Pathway* research highlights that the use of fossil gas in homes is not evenly spread across the country. Over 80% of fossil gas use, for both commercial and residential sectors, is centred in Victoria and NSW. Fossil gas presents business risks in future, in terms of both price volatility and climate impacts. Policies to encourage electrification should be developed and introduced as a priority now and then ramped up over time to support the net zero transition. This should include clear pathways to prompt change in the market.

Fuel switching from gas to direct electricity is more energy efficient and will ultimately result in lower consumer costs, better health and greater energy performance. In the absence of a national plan for

decarbonising fossil gas in Australia's buildings, individual jurisdictions are taking the lead in electrification policies. ACT and VIC governments are already rolling out electrification initiatives, and the NSW government is considering its own electrification policy.

Genuine government leadership can elevate the electrification agenda by sending a strong signal to the market. Mechanisms to do this include electrifying government assets, such as commercial offices and community housing, as well as embedding electrification in procurement standards and mandates. Other mechanisms include support for the NABERS renewable energy indicator, which in conjunction with its original energy star rating, allows the consumer to understand the presence of fossil gas in their building. Government leadership sets the agenda and creates markets in this important space – which has a side benefit of leading to job creation and skills development.

Along with being able to enjoy the full benefits of any solar PV installation, electrifying Australia's buildings is an opportunity where significant abatement is possible and the technologies to decarbonise and electrify the sector are already commercially available. ASBEC supports the Climate Change Authority's recommendation that federal and state governments develop strategies for the complete, efficient and equitable electrification of all buildings. The most urgent first step for governments to take is to place restrictions on gas connections to new homes or developments. As outlined in the *Every Building Counts*[iii] policy platform, every new building equipped with gas is one more building to retrofit at a significant cost in the future. Disallowing new gas connections through planning instruments is a way that state/territory governments can start to deliver a fossil-fuel free built environment for the future.

ASBEC notes that electrification of existing homes and commercial buildings will require changing out millions of gas appliances and replacing them with cleaner, healthier and vastly more efficient electric equipment. During the initial phases of the transformation, the upfront capital cost can impede take-up. Linking appliance upgrades with efficiency improvements like insulation and shading contributes to an optimised whole-of-energy system and a built environment compatible with a low carbon economy.

Focus on the significant productivity opportunity to integrate the energy demand and supply side

ASBEC would like to re-emphasise an important message that electrification of buildings needs to go hand-in-glove with building energy performance measures, such as thermal shell and energy efficiency. Energy efficiency measures are fundamental to reduce the demand for electricity and in turn reduce the new generation and transmission needed to decarbonise the electricity grid.

As the electricity system transitions to one with high proportions of variable renewable generation, matching energy demand to energy supply becomes a critical component of operating the system at least cost to consumers and achieving a transition to zero emissions at least cost. Australia's National Energy Performance Strategy recognises that uptake of energy performance measures needs to be better integrated into energy market planning[iv]. Demand-side measures can substantially lower the costs associated with the energy system by reducing the need to overinvest in supply-side infrastructure to meet infrequent periods of high or mismatched demand for energy services. In doing so, they can ease supply chain challenges involved in rolling out new energy infrastructure, which are acute today and likely to remain important over the long term.

As Australia charts the best route to transition our energy system to net zero emissions, current policy frameworks have not yet realised the productivity potential of critical demand-side actions and opportunities (i.e. improving the energy efficiency of our buildings and infrastructure). While work has begun on developing a national consumer energy resources roadmap[v], there is still much to be done to harness the opportunities to unlock the demand side's power to decarbonise homes and communities as well as reduce bills and emissions and accelerate the clean energy transition[vi].

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 strongly recommends that all governments adopt the national framework for disclosure of home energy performance, and mandates disclosure as soon as possible. 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.

Strong support for developing national target-consistent carbon values

In 2023, Australia's Infrastructure and Transport Ministers' Meeting (ITMM) agreed to a nationally consistent set of carbon values for use in transport infrastructure project decision making. In 2024, ITMM provided in-principle support for the use of the nationally consistent set of carbon values in the assessment of business cases for transport infrastructure projects over $100 million. The values apply to submissions received by Infrastructure Australia for evaluation from Australian, state or territory governments.

ASBEC welcomes the leadership shown by ITMM in promoting a nationally consistent approach to decarbonising infrastructure – an effective mechanism addressed in draft recommendation 1.4 of the Interim Report. This collaborative focus is essential to address fragmentation across jurisdictions, streamline emissions standards, and align procurement, planning and investment frameworks. ASBEC's *Our Upfront Opportunity: Australia's policy roadmap to reduce upfront embodied carbon in the built environment*[vii] report highlights the potential to accelerate action through consistent infrastructure pipeline requirements and whole-of-life carbon assessments, which drive least-cost emissions reductions and better long-term value.

Government leadership has been instrumental in setting a strong foundation for adequately valuing the benefits of emissions reduction in projects. For example, the Commonwealth's Net Zero in Government Operations policy, Victoria's mandated upfront carbon reporting in major projects, and NSW's Decarbonising Infrastructure Delivery Policy provide clear, stable signals to industry. These efforts, captured in ASBEC and Infrastructure Net Zero's *A Solid Foundation: A common definition for net zero infrastructure and how to get there*[viii] report, demonstrate how clear definitions and consistent frameworks reduce risk, improve investment confidence, and cut the per-tonne cost of abatement.

To enhance cost-effectiveness, Australia must scale these leadership examples through national alignment of carbon values, emissions standards, definitions, and reporting across electricity, transport and industrial sectors. Fragmented policy settings create duplication, increase compliance costs, and inhibit private capital mobilisation. A shared national framework – with clear signals for embodied carbon, electrification, and clean energy procurement – enables economies of scale, fosters innovation, and supports effective decarbonisation across supply chains.

Broad-based, market-driven mechanisms must be complemented by enabling policies that integrate net zero into planning, procurement and infrastructure delivery. By aligning public and private investment decisions with long-term carbon goals, Australia can decarbonise faster and at lower cost. The Australian Government needs to prioritise national alignment of carbon values, emissions standards, definitions, and policy frameworks across infrastructure, transport and industry, in order to build on the leadership shown by the ITMM and jurisdictions already delivering best practice.

Securing a level playing field for Australian manufacturers of building and construction products

As part of ASBEC's research on embodied carbon[ix] (i.e. the built environment's scope 3 and the industrial sector's scope 1 and 2 emissions), we noted the need for policies that secure a level playing field for Australian manufacturers of building and construction products, underpinned by consistent and comparable emissions data in line with international standards; as well as policies to incentivise low carbon products made or re-made, in Australia.

Consistency and comparability are vitally important to achieving emissions reduction targets – that's why NABERS developed a consistent method for measuring, benchmarking and verifying embodied carbon[x]. Australian manufacturers are working hard to reduce their carbon footprints. Transparency of carbon impacts, which are declared on a credible and trusted basis (such as in EPDs), will allow suppliers of building and construction products to compete on a level playing field. Maintaining the integrity in measuring the

emissions of building and construction products depends on rigorous professional industry standards. Strengthening quality assurance, auditing processes, and accountability measures will safeguard consumer confidence and program credibility.

Currently there are no agreed standards for building product manufacturers supplying the Australian construction industry to follow in relation to the creation, storage, management and exchange of product information. This makes it impossible for the industry to efficiently share reliable and trusted information about building products in a consistent way. Having reliable carbon emissions information (along with quality and performance information) requires transparent, trustworthy and verifiable information exchange across the construction products value chain. Some Australian organisations are collaborating to provide an industry framework on facilitating the sharing of accessible, verifiable, timely and harmonised information on construction product attributes in association with its physical movement along the construction supply chain[xi]. To realise true productivity gains, this framework needs to be adopted across Australia.

If the Australian Government makes any attempt to create a level playing field for imported construction products and materials (as described in draft recommendation 1.2 of the Interim Report), having reliable and third party verified process lifecycle assessments will be critical to establishing a level playing field of carbon measurement. The Australian Government should ensure strong, consistent standards of carbon measurement for all forms of supply, whether domestic or imports.

Given the extent to which genuine embodied carbon reductions depend on reliable measurement, Australia will need a robust and standardised verification process for embodied carbon data. Australia's built environment sector needs information on construction products that is consistent, comparable, and competitive. Trusted data and information exchange protocols need to be followed.

## 3. Addressing barriers to private investment in adaptation

Boosting the built environment's resilience through better energy performance

ASBEC supports the notion that, as climate risks intensify, boosting the built environment's resilience could lower the costs of disaster recovery and create a healthier, more productive population with better quality of life. Improving the resilience of Australia's housing stock is essential to reducing climate risk and supporting national productivity. ASBEC's *Tomorrows Homes*[xii] research emphasises that thermally efficient homes require less energy to heat and cool, enhance occupant health and comfort and are more resilient to climate and weather extremes.

Minimum standards play a critical role in delivering resilient, safe, and healthy housing for all Australians. Minimum standards provide the certainty, consistency and consumer confidence the market needs to scale up solutions that benefit all Australians. They are one of the most effective policy levers to drive widespread improvements across new and existing homes, particularly when embedded within the National Construction Code (NCC) and complementary state and territory regulation. Without strong and equitable minimum standards for both new builds and existing homes — including rental properties — Australia risks deepening social and economic inequities. Households unable to afford voluntary upgrades will be locked into poor-quality, high-cost, and climate-vulnerable homes. Minimum standards are essential to ensure these households are protected and included in the energy transition. Minimum standards can deliver multiple public benefits: reducing exposure to extreme heat and cold, cutting energy bills, improving health outcomes, and increasing disaster resilience. In the face of more frequent and intense climate risks, these benefits are critical to individual and community wellbeing.

As per the recommendation 1.2 in *Every Building Counts* ("*Set out a long-term strategy for climate resilient buildings that can adapt to acute shocks and long-term stresses from climate change*"), we support the Australian Government's development and release of a National Adaptation Plan. From a built environment perspective, the plan should encompass a range of measures that establish best practice technical requirements for building construction to ensure occupant safety and preserve buildings (where appropriate and least cost) in the face of a changing climate. Initially, a nationally agreed set of future climate scenario

data would be required to determine structural and resilience requirements in new buildings. This dataset should be used to underpin a comprehensive framework of scheduled updates to regulation, targeted retrofits and land-use planning requirements.

In existing homes, governments must support the progressive introduction of minimum energy and resilience standards — starting with low-cost measures and providing financial and technical support for low-income households and landlords. For new homes, these standards must ensure that buildings are future-ready, fully electric, climate-resilient and able to maintain habitable conditions in extreme weather events.

Resilience, building codes and urban policy

Crucially, regulatory reform must be coordinated across levels of government and aligned with broader policy initiatives, such as planning reforms, building electrification pathways, and the National Energy Performance Strategy. The NCC and related state frameworks should be leveraged to establish a consistent, equitable foundation for resilient housing.

ASBEC supported the 2024 decision by Australian and jurisdictional building ministers to add climate resilience as an objective of the Australian Building Codes Board[xiii]. There is a need to improve access to nationally consistent, forward-looking climate risk data in the first instance. NCC 2025 has integrated CSIRO's future climate files for use in assessing the design of commercial buildings. These files are derived from CSIRO's predictive weather data and can be used with building energy simulation software to test designs against anticipated future weather conditions, such as extreme heat. We have been strongly recommending that governments proceed with the implementation of the NCC 2025 to ensure that these important resilience gains are realised[xiv].

Without shared information and tools, planners, developers and communities cannot make informed decisions. Stronger integration between planning systems and infrastructure investment – particularly for essential services and transport – would further support climate-resilient housing.

Australia has the opportunity to embed resilience-enabling principles in its own systems. Australia's National Urban Policy[xv] emphasises that, "*Delivering resilient urban places will enhance Australia's ability to resist, absorb, accommodate, recover, transform and thrive in a timely, effective manner in response to shocks and stresses.*" Realising this vision will require coordination across all levels of government, clear signals to industry, and planning systems that consistently prioritise long-term climate resilience. ASBEC encourages the Australian Government to continue implementing the goals of the National Urban Policy throughout jurisdictions by:

- developing strategies to enhance urban resilience, including disaster risk reduction, climate adaptation and the use of nature-based solutions
- fostering local and regional self-sufficiency in water, energy and other essential resources
- mitigating the impact of climate and natural hazards
- retaining or improving insurability of infrastructure and housing.

Success of the National Urban Policy depends on effective implementation – the Australian Government is uniquely positioned to incentivise, coordinate and facilitate better urban resilience outcomes across governments and with industry. While state, territory and local governments are primarily responsible for planning and delivery of cities and towns, a national policy can define a strong and clear role for the Australian Government and establish a vision for Australia's cities and towns, as well as meaningful and ambitious targets for equity, liveability, sustainability, resilience, emissions reduction, economic prosperity, and better governance.

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ASBEC would like to note that workforce skills and capability are fundamental to the delivery of the net zero transformation. Therefore, we encourage the Productivity Commission to consider ASBEC's response to the Interim Report, *Building a skilled and adaptable workforce*. Accelerating investment in skills and training for our existing and new workforce is integral to our clean energy and net zero transformation, and a new report

released by Infrastructure Australia and ASBEC in partnership with a range of government and industry bodies notes that further work is required to help the construction industry tackle workforce skills shortages that are holding Australia back when it comes to decarbonising infrastructure projects. We encourage the Productivity Commission to review the *Delivering Net Zero Infrastructure: Workforce Report*[xvi] as part of this net zero pillar.

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 Productivity Commission as work progresses. Please do not hesitate to contact me via [redacted] or on [redacted] if you have any questions.

Yours sincerely

[redacted]

Alison Scotland
**Chief Executive Officer**

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[i] https://www.asbec.asn.au/membership/current_members/
[ii] https://www.asbec.asn.au/research-items/unlocking-the-pathway-why-electrification-is-the-key-to-net-zero-buildings
[iii] https://everybuildingcounts.com.au/
[iv] https://www.dcceew.gov.au/energy/strategies-and-frameworks/national-energy-performance-strategy
[v] https://www.energy.gov.au/sites/default/files/2024-07/national-consumer-energy-resources-roadmap.pdf
[vi] https://www.eec.org.au/policy-advocacy/projects/nem-governance-reform-july-2025
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[viii] https://www.asbec.asn.au/research-items/a-solid-foundation-a-common-definition-for-net-zero-infrastructure-and-how-to-get-there/
[ix] https://www.asbec.asn.au/research-items/our-upfront-opportunity-australias-policy-roadmap-to-reduce-upfront-embodied-carbon-in-the-built-environment/
[x] https://www.nabers.gov.au/ratings/our-ratings/nabers-embodied-carbon
[xi] Traceability and Digitalisation of Building Product Information 2024 https://industrycoalition.wixsite.com/building-products-co/about-6
[xii] https://www.asbec.asn.au/research-items/tomorrows-homes-a-policy-framework-to-transition-to-sustainable-homes-for-all-australians/
[xiii] Building Ministers' Meeting: Communiqué June 2024
https://webarchive.nla.gov.au/awa/20240913075549/https://www.industry.gov.au/news/building-ministers-meeting-communique-june-2024
[xiv] https://www.asbec.asn.au/wordpress/wp-content/uploads/2025/08/MEDIA-RELEASE-Industry-and-consumer-coalition-backs-stronger-construction-code-to-drive-sustainability-and-productivity_27-Aug-2025.pdf
[xv] https://www.infrastructure.gov.au/department/media/publications/national-urban-policy
[xvi] https://www.asbec.asn.au/research-items/delivering-net-zero-infrastructure-workforce-report/