Actuaries Institute.

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Productivity Commission
By online survey form at: Investing in cheaper, cleaner energy and the net zero transformation

Investing in cheaper, cleaner energy and the net zero transformation

The Actuaries Institute ('the Institute') welcomes the opportunity to make a submission on this consultation. The Institute is the peak professional body for actuaries in Australia. Our members work in a wide range of fields including insurance, superannuation and retirement incomes, enterprise risk management, data analytics, climate change impacts and government services. The Institute has a longstanding commitment to contribute to public policy discussions where our members have relevant expertise.

The comments made in this submission are guided by the Institute's 'Public Policy Principles' (available at Public policy approach - Actuaries Institute) that any policy measures or changes should promote public wellbeing, consider potential impacts on equity, be evidenced-based, and support effectively regulated systems.

Comments are also consistent with the Institute's Climate Change Public Policy Statement that, in summary, advocates for an ambitious, orderly, just net zero transition, with co-ordinated, timely investment in adaptation, nature and resilience.

What are the barriers and enablers impacting decisions by owner-occupiers, landlords and developers about how housing is built and updated over time so that it is resilient to the effects of climate change?

There are significant barriers that impact both the resilient construction of new housing, and the adaptation of existing properties.

With around 11 million dwellings in Australia at present, and the current rate of new builds of approximately 170,000 p.a. (1 - 2% p.a. net growth to existing stock, based on ABS data), this means widespread adaptation requires a focus on both new and existing homes.

Firstly, for new housing, greater Local, State and Commonwealth government alignment is required, where possible to harmonise land use and building codes. Whilst local nuance will be essential, to reflect community and geographic risks, constraints and needs, there is a role for the Commonwealth Government to create a framework for land use planning and building codes so that they are fit for purpose, over the lifespan of properties and communities, and reflect the risks associated with potential future climate change scenarios.

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Some such developments are in progress, for example through the inclusion of climate resilience as a specific objective of the National Construction Code. However, the Code has not yet been enhanced, there is little current alignment with land use rules, and these do not reflect climate exposures and the future potential impacts under plausible scenarios. Building codes should reflect the specific cyclone, flood and bushfire-resilient standards needed for high-risk areas, and the future potential impacts of climate change.

Secondly, for existing homeowners in high-risk areas, many lack the information, resources and funds to increase resilience, certainly at the scale required to protect communities and suburbs.

We also note that in general, because home insurance premiums are based on risk at an individual property level, many homeowners in high-risk areas experience home insurance affordability stress. This can impact the level of financial protection they have to recover from adverse events, and can have wider community and social impacts. Research conducted by the Actuaries Institute (in Home Insurance Affordability and Home Loans at Risk) estimates that as at 31 March 2024, 15% of Australian households experience home insurance affordability stress, defined as where premiums exceed four weeks of gross household income. In high-risk areas, the cyclone regions of northern Australia and the Northern Rivers region of New South Wales, half of the households experience home insurance affordability stress. While no information is available on whether these affordability-stressed households purchase insurance, or purchase adequate levels of cover, they are at risk of being either uninsured or under-insured.

In summary, key barriers include:

- Lack of access to readily available, credible, trustworthy data on risks to their properties, and how these might evolve over time.
- Home insurance premiums reflect current risks, not those that may emerge going forward. As a result, these provide limited price signals to homeowners on how exposures and premiums might change over time. Accordingly, home insurance affordability, which is already a challenge in high-risk areas, may become more pronounced over time.
- Lack of readily available, credible, trustworthy guidance on cost-effective adaptation measures.
- Lack of support and finance (including, where appropriate, concessional finance) to access those measures, and a lack of confidence that home insurance would become affordable after such measures.
- Finally, adaptation in the home may prove to be ineffective if supporting infrastructure and services are not similarly protected. For example, there may be little point protecting a single home, if the suburb, schools and services are not similarly protected from flooding.

Key enablers to increase household resilience include:

- Land use planning and building codes for new properties that are largely consistent across all layers of government, whilst reflecting local nuance and the potential impacts of climate change over the lifespan of communities and properties.
- Where being repaired, or renovated, building standards should have an explicit focus on "*building back better*" to ensure that opportunities for adaptation are not missed.
- Access to national credible, trustworthy data on risks to individual properties, and how these might evolve over time. This needs to reflect the uncertainty and be carefully communicated to avoid property values being unduly impaired.
- Access to readily available, credible, trustworthy guidance on cost-effective adaptation measures tailored for each home, that can empower homeowners to act.

- Access to practical support and financial mechanisms for homeowners. For example, local or state governments could provide a "*one-stop shop*", where homeowners can assess property level risk, obtain recommended solutions, be connected with suppliers and installers, and if necessary, concessional finance. Whilst some data along these lines does exist, there is no widely accepted source, little public awareness of such data, and no broad acceptance of their use across all stakeholders.
- Aggregators, such as local government, state or regulatory bodies, have an opportunity to co-ordinate activities across communities, builders, suppliers and other stakeholders, attract finance, capture economies of scale, and drive change at the scale required.
- High levels of community engagement are required, to educate and seek broad public support, as well as input from relevant stakeholders, such as developers and builders.
- Developing financial instruments that can crowd-in private sector capital. The Institute has strongly recommended that the Australian Sustainable Finance Institute includes climate resilience and adaptation into the technical screening criteria of the sustainable finance taxonomy (see our submission). This would provide institutional investors with the opportunity to issue financial instruments specifically designed for adaptation. There also is a role for government co-investment to support projects and to potentially de-risk elements of these for private investors.
- Finally, although costly, in the most significantly impacted communities government action may be required to support property buy-backs and managed retreat/relocation.

What information do people need to make decisions about where to live, how to build and how to upgrade their homes to appropriately factor in climate change?

For new properties, minimum standards for land use and building codes clearly have a significant role to play. Such standards should support planning approval processes and seek to protect properties over their lifespan.

Access to a property's current and potential future exposure to natural hazards would enable property developers, buyers and renters to make more informed decisions. This might reflect the property's exposure to cyclones, storms, floods, hail and bushfires, and any other material risks at that location.

However, such information needs to be carefully communicated to reflect the uncertainty and to avoid property values being unduly impaired. Care will be required to achieve and maintain public support, and where property values are impacted, homeowners may expect support in adapting. The concern expressed here should not be an excuse for inaction, as the longer-term positive impact on resilience will likely outweigh shorter-term concerns.

Providing such information up-front to potential buyers would help to inform and empower both buyers and sellers, driving market-based solutions. For example, an empowered seller may choose to invest in adaptation to reduce the property's exposure and improve its value.

Similarly, a local council may choose to invest in flood prevention, funding this from the community, whose property values benefit.

Wherever possible, information on risk should be presented alongside potential solutions to reduce the risk, and in a way that empowers homeowners and makes it easy for them to act. Cost effective solutions might include roof tie-downs and fasteners, storm shutters and reinforced glass, reinforced garage doors, raising electrical outlets and switchboards, flood barriers and door shields.

What are the most cost-effective retrofitting options for improving the resilience of Australia's existing housing stock? What are their costs and benefits?

It is important to recognise that there is no single cost-effective option for improving resilience.

Appropriate retrofitting options depend on many factors including the type of peril, the level of hazard risk today and in the future, and the standard of protection sought.

Furthermore, benefit-cost analysis by government needs to consider not just the cost of physical repairs or replacement of the property, but also the avoided social, economic and environmental costs that can be achieved through resilience measures. In some cases, there are trade-offs between these costs and benefits. For example, protecting a set of homes from flood using a flood wall may make other homes more at risk (as documented in the case of the Flemington Racecourse flood wall).

We recommend that the Commonwealth Government, in consultation with state governments, define a framework and assessment methodology for a benefit-cost analysis of housing resilience programs, including its scope and parameters. This framework could then be used at a local council level to develop specific assessments for each project. Several state governments have such frameworks, e.g. NSW developed the NSW Treasury Disaster Cost-Benefit Framework.

Finally, programs of retrofitting options should seek to maximise cost-effectiveness through economies of scale, including through pooled procurement, training and upskilling of the workforce.

What role might minimum standards play in ensuring the resilience of Australia's housing stock?

Again, for new properties, minimum standards for land use and building codes clearly have a significant role to play. Such standards should support planning approval processes and seek to protect properties over the lifespan of these assets.

Other minimum standards might relate to the need to "*build back better*" following natural disasters, or to retrofit existing homes, potentially during renovations of a certain scale.

Such standards might provide a basis for reduced risk-based pricing by insurers and banks, as well as providing peace of mind to homeowners. For example, the "*yellow sticker*" My Safe Florida Home initiative provided free wind mitigation inspections and grants for recommended improvements, potentially qualifying homeowners for insurance premium discounts.

However, as noted above, minimum standards have limited reach across the housing stock. Given minimum standards typically only cover new builds, rebuilds, or major renovations, other solutions are needed for existing homes.

In this regard, we note the work underway by the Resilient Building Council (RBC) in developing and rolling out to households, an objective, evidence-based, expert certified approach for them to understand and mitigate their risks. This includes a resilience rating scheme and an app. Homeowners who invest in resilience can have this resilience work recognised by lenders and insurers in their pricing.

The impacts of climate change are being factored into the regulation of where and how houses are built in different ways around Australia. What does leading practice look like? Where is there room for improvement? Are there lessons we can learn from other countries?

Leading practices might include:

- Having a national approach and co-ordinator of activities, to ensure that the right priorities are progressed, that there is a whole of system approach to adaptation, and the support needed to drive change at the scale required.
- Natural Hazards Research Australia operates as a centre of excellence for natural hazard research and resilience. There may be opportunities to expand their remit, and learn from similar centres in New Zealand, Japan, the UK and the US.
- Leading practice includes strong consultation with communities to educate and create buy-in for adaptation support. A good example is the work being progressed by the NSW Government following the Hawkesbury / Nepean flood risk assessment. Conversely, whilst the Florida Building Code adopted in 2002 was successful, builders and developers were vocal in their opposition, emphasising the need for strong early consultation with relevant stakeholders.
- As noted above, the RBC is doing good work to educate homeowners on the risks to their home and evidence-based, tailored actions that can be taken to adapt their home and improve its resilience. RBC also provides a connection to lenders and insurers being able to consider the work done. The RBC is also alert to the potential undue impacts on property values.
- Similarly, the Queensland Resilient Homes Fund provides funds for eligible homeowners who retrofit their homes with flood-resilient design features.
- In the UK, the Flood Re scheme promotes "*building back better*", allowing insurers to provide additional funding when repairing their home to increase flood resilience.

If you would like to discuss any aspect of this submission, please contact the Institute via (02) 9239 6100 or public_policy@actuaries.asn.au .

Yours sincerely

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