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# A national roadmap for improving the building quality of Australian housing stock


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## Acronyms and abbreviations used in this report

| | |
|---|---|
| **ABCB** | Australian Building Codes Board |
| **ABS** | Australian Bureau of Statistics |
| **ACOSS** | Australian Council of Social Service |
| **ACT** | Australian Capital Territory |
| **AHCD** | Australian Housing Conditions Dataset |
| **AHURI** | Australian Housing and Urban Research Institute Limited |
| **AIHW** | Australian Institute of Health and Welfare |
| **ANUHD** | Australian Network for Universal Housing Design |
| **APO** | Analysis and Policy Observatory |
| **BCR** | Benefit to Cost Ratio |
| **BESS** | Built Environment Sustainability Scorecard |
| **CASBE** | Council Alliance for a Sustainable Built Environment |
| **COAG** | Council of Australian Governments |
| **CSIRO** | Commonwealth Scientific and Industrial Research Organisation |
| **EPC** | Energy Performance Certificate |
| **EPT** | Energy Productivity Target |
| **ESD** | Ecologically Sustainable Development |
| **ESG** | Environmental, Social and Governance |
| **EU** | European Union |
| **GHHI** | Green and Healthy Homes Initiative |
| **HHI** | Healthy Housing Index |
| **HIA** | Housing Industry Association |
| **HILDA** | Household, Income and Labour Dynamics in Australia |
| **IEA** | International Energy Agency |
| **LHA** | Livable Housing Australia |
| **LHDS** | Livable Housing Design Standard |
| **NABERS** | National Australian Built Environment Rating System |
| **NatHERS** | Nationwide House Energy Rating Scheme |
| **NDUHD** | National Dialogue on Universal Housing Design |
| **NCC** | National Construction Code |
| **NEPP** | National Energy Productivity Plan |
| **NSW** | New South Wales |

| | |
|---|---|
| **NT** | Northern Territory |
| **NFP** | Not for profit |
| **NGO** | Non-government organisation |
| **NZ** | Aotearoa New Zealand |
| **PV** | Photovoltaic |
| **QLD** | Queensland |
| **REPS** | Retailer Energy Productivity Scheme |
| **RIS** | Regulation Impact Statement |
| **SA** | South Australia |
| **SDAPP** | Sustainable Design Assessment in the Planning Process |
| **TAS** | Tasmania |
| **UK** | United Kingdom |
| **US** | United States |
| **VIC** | Victoria |
| **WA** | Western Australia |
| **WHO** | World Health Organisation |

## Glossary

A list of definitions for terms commonly used by AHURI is available on the AHURI website ahuri.edu.au/glossary.

# Executive summary

## Key points

- Poor building quality, conditions and environmental performance is prevalent in Australia's housing stock. In a large, national survey in 2022, 70 per cent of households reported one or more major building problems.
- The ability to accurately measure and monitor the characteristics of the housing stock as a whole has never been greater. The current national data infrastructure is insufficient.
- Australian policy that deals with housing standards is fragmented across federal and state and territory governments, and portfolios. When compared to international benchmarks, it is weak and overly reliant on voluntary measures.
- A national strategy to improve housing standards should be developed. Short-term, considerable opportunities exist to enhance housing standards via mandatory disclosure of performance at point of sale or lease, minimum standards in the rental sector and stronger performance requirements for new houses.
- Policy action will have to balance lobbyist resistance. Lessons from two case studies show that change is possible but requires mobilisation of a strong narrative by advocates.

## Key findings

In recent years a light has been shone on the poor quality, condition, and environmental performance of Australia's housing stock. However, there is no comprehensive policy strategy to improve the housing stock so that it is fit for purpose: healthy, affordable to run, and energy efficient. To provide a national roadmap for the improvement of Australian housing conditions, this research brings together the best available data on the housing stock, reviews current policy settings, and investigates key factors in housing policy change.

Our data stocktake reveals that available data are largely piecemeal, and represent opportunistic collection of secondary data that is insufficient to the task of monitoring progress or guiding good policy. The Australian data on housing conditions is uneven, both in its focus and in the types of information collected. No one dataset stood out as ideal for providing information on the state of housing in Australia. Australia needs a coordinated data infrastructure that can enable consumers to make informed decisions, assist policy makers to develop responsive and targeted regulation, monitor improvements in the stock and set strategic direction, identify vulnerable populations, and empower advocacy.

Our review of the Australian policy landscape reveals a similar fragmentation and, in some cases, ineffectual regulation of housing standards, including environmental performance. International benchmarking identifies gaps in the Australian regulatory framework and draws attention to the voluntary nature of many of the tools aimed at improving housing conditions. Taken as a whole, current housing standards policy is insufficient to realise wholescale improvement of the housing stock, particularly to levels needed to support decarbonisation of the built environment.

Detailed exploration of the political and governance context of housing standards regulation in Australia highlights a lack of national leadership, a strong lobbyist influence in maintaining the status quo, and key governance processes that have been historically opaque. Examination of two case studies—the Healthy Housing Standards in Aotearoa New Zealand and the Livable Housing Design Standard in Australia—demonstrates the power of: (a) convincing narratives of the actual or potential harms of weak housing standards regulation, (b) coalitions of advocacy, and (c) government accountability in realising action in housing policy.

## Policy development options

The chief policy recommendation arising from this research is that a **national strategy to improve housing standards** be developed. This strategy should set a long-term strategic vision, establish frameworks for action, and determine models of resourcing. Specifically, a national approach could enable the alignment of housing standards regulations with other headline policy commitments (such as decarbonisation of the built environment), greater consistency in housing standards across jurisdictions, and inter-governmental and departmental collaboration.

A national program of **mandatory disclosure of performance for residential buildings** should be established as a priority. The mandatory disclosure of performance (for instance, energy or environmental performance measured according to healthy housing standards) could enable improved market function in the provision of better consumer information, accountability and transparency in the performance standards of public and community housing, and the routine collection of data on performance standards across the entire housing stock. A mandatory disclosure scheme could also act as a mechanism for mandating minimum performance standards for existing buildings, increasing minimum performance standards over time, and act as a conduit for government retrofit or remediation programs targeting lower performing dwellings.

**Minimum housing standards for the rental sector** should be established as a priority. Minimum standards via the state and territories' residential tenancies acts could provide a safer, more energy efficient, and healthier environment for renters. With the private rental sector increasingly housing people for life, minimum standards are a key component in ensuring that rental tenure represents an equitable and reasonable alternative to homeownership.

Energy efficiency performance requirements and Livable Housing Design Standard for new houses in **the National Construction Code** (NCC) should continue to be prioritised and progressively enhanced to ensure that houses built today are fit-for-purpose now and under future conditions.

A **coordinated and nationally driven data infrastructure** should be established to shape policy responses to sub-standard housing and monitor progress into the future. National coordination could bring together existing data resources sourced from, for example, energy providers, the planning sector and the building sector. There is a clear role for government in coordinating this much required infrastructure, incentivising collaboration, and making it widely accessible to all.

As the scope of the NCC expands to address policy areas such as the Livable Housing Design Standard and net zero targets, **improvements should be made to the governance** of the NCC via the Australian Building Codes Board (ABCB). These improvements should include better engagement with the public, consumer representation on the ABCB, diversity in ABCB members, and updated Regulatory Impact Statement (RIS) methodologies that **ensure benefits are fully captured**.

Any new housing standards policy should prioritise **mandatory regulation over voluntary programs** in line with international best practice. Voluntary programs and commitments have been shown to be ineffective at improving the quality, condition and environmental performance of housing. Mandatory regulation could help to overcome long-term market failure, and compel a step-change in the overall safety, efficiency, and affordability of Australia's housing stock.

Stronger **compliance and enforcement** regimes should be established to ensure that housing standards requirements are met for all new houses and apartments. Building certification that is independent and comprehensive (i.e. reviews all aspects of construction requires including energy efficiency aspects as well as Livable Housing Design Standard requirements) could achieve improved construction quality, builder and developer accountability, and consumer confidence.

**Figure 1: Research recommendations**


Source: Authors

## The study

This research sought to provide a roadmap for the implementation of best-practice housing standards regulation in Australia to address problems associated with aged and ill-performing housing stock in both the owned and rented sectors. The research was guided by three research questions:

1. What is the condition and environmental performance of Australia's housing stock?
2. What are international best practice quality and performance standards, and how can they be implemented in Australia?
3. How can we realise best-practice quality and performance standards and tenancy legislation in Australia (who are the appropriate actors, and what are the mechanisms to influence their decisions)?

The research was undertaken in three components:

### Review and analysis of Australian housing data

A data stocktake was undertaken to collate and assess the available information on the quality, condition and environmental performance of housing in Australia. Available data were analysed to provide a baseline understanding of the current state of Australia's housing stock.

### Review of the Australian policy landscape and case study of international precedents

A review of current federal and state and territory policy related to housing standards was conducted. Existing policies were summarised and compared to the International Energy Agency's (IEA) framework for energy efficient buildings and construction. Three desktop case studies of useful precedent policy mechanisms from international counterparts – the United Kingdom (UK), the United States (US) and Aotearoa New Zealand – were undertaken.

### Interviews and case studies of the circumstances that affect change in housing policy

Semi-structured interviews were conducted with 19 stakeholders from government, non-government organisations, industry and academia. Together with two case studies of instances of housing policy change – one from Australia and one from Aotearoa New Zealand – the results of the interviews identified critical enabling and limiting factors in realising policy action.

# 1. Introduction

- **The quality, condition and environmental performance of Australia's housing stock is not as good as once might have been assumed.**
- **Housing that is inefficient and in poor physical condition has direct negative health impacts for occupants, and is more expensive to run. As an entire stock, poor quality housing has important implications for the nation's ability to mitigate and adapt to climate change.**
- **The research aims to provide a policy roadmap toward establishing a fit-for-purpose, healthy, affordable and low carbon housing stock.**

For many decades the Australian housing stock was considered to be of relatively high-quality (Paris 1993). However, Australia now faces parallel challenges of an aged housing stock (Baker, Lester et al. 2016), rising construction and household costs (CoreLogic 2022), and governance structures that are ill-equipped to deliver harmonised housing improvements at scale (Doyon and Moore 2020b). This context is set against the encompassing need to both mitigate and adapt to climate change (Australian Government 2024), which has direct implications for housing standards.[1]

1 In this report, we use the term 'housing standards' to encompass a wide range of housing characteristics, including the overall quality and condition, the thermal performance of the building shell, and the energy efficiency of fixed appliances. Where the term refers to a specific policy instrument, 'Standards' is capitalised e.g. 'Healthy Housing Standards'.

This report outlines the current state of data and monitoring, policy, and political will in Australia. It outlines opportunities for improvement in each of these three domains to provide a national roadmap for improving the quality and condition of the housing stock:

- **Data and monitoring.** The first part of this research aimed to provide a national view of housing quality and conditions, by surveying and analysing the available Australian data. This work highlighted the inadequacy of data on housing conditions, environmental performance, and construction quality in Australia. Available data is largely piecemeal. For example, where there is breadth (such as Australian Bureau of Statistics' (ABS) Census of Population and Housing) there is rarely depth and, where there is detailed information, samples are generally restricted in their representativeness (such as Commonwealth Scientific and Industrial Research Organisation (CSIRO) Housing Data). However, the available data reveal that the existing housing stock has considerable problems of quality (approximately 70% of households reported major building problems in the Australian Housing Conditions Survey) and poor thermal performance (over 70% of existing homes with the CSIRO Housing Data achieve a housing energy rating of three stars or lower). The full review and analysis are reported in Chapter 2, which concludes with recommendations, including key considerations for the initiation and ongoing collection of comprehensive data on the quality and condition of the Australian housing stock.
- **Coordinated regulation.** The second component of research focussed on the set of policy instruments required to deliver improved housing conditions for both existing and new homes, and across all tenures. A review of policy at federal and state and territory levels was undertaken to map out the various pieces of regulation that can influence housing conditions. Additionally, three case studies were conducted to examine specific policy mechanisms in the United Kingdom (UK), the United States (US), and Aotearoa New Zealand (NZ). These case studies serve to illustrate potential approaches to regulating housing standards in Australia. The policy review found that, similar to the findings of Chapter 2, the regulation of housing standards in Australia is piecemeal and relatively weak when compared to international counterparts. Beyond the National Construction Code (NCC) and the Trajectory for Low Energy Buildings (and its addendum), there is a vacuum of national leadership. Considerable heterogeneity exists in the requirements of building standards across the different state and territory jurisdictions (such as via Residential Tenancies Acts or adoption of NCC updates). Compared with international benchmarking, the Australian regulatory framework relies heavily on voluntary participation (such as in energy assessment and disclosure schemes) where best practice frameworks suggest that mandatory requirements are more appropriate. The results of the policy review and international case studies are presented in Chapter 3.
- **Political will.** The final piece of work sought to examine political and governance factors associated with housing policy change to guide strategies for improving housing standards regulation in Australia. A series of interviews were undertaken with key stakeholders from government, non-government organisations, industry, and academia. The interviews centred on two key case studies: the Healthy Housing Standards in NZ and the governance of the NCC via the Australian Building Codes Board. In the illustration of these two cases, key enabling factors are identified. These also align with earlier research; that is, to realise change in housing policy it is critical:

1. To build a convincing narrative to tell a plausible story of a social problem
2. To build Build a coalition of support
3. For the coalition to ensure that institutional measures are implemented (Jacobs, Kemeny et al. 2003).

The results of these interviews and case studies are presented in Chapter 4, which concludes with recommendations specific to the Australian context.

## 1.1 Policy context and existing research

Housing issues have come to the fore of public discussion in recent years, prompting responses from all levels of government. Presently, a number of strategies are being developed at the national level in response to widespread problems of housing unaffordability, precariousness within the private rental sector, housing shortages within the socially rented sector, an aged and inefficient housing stock, and pressing need to decarbonise the built environment. At the time of writing, these include the Housing and Homelessness Plan,[2] the Trajectory [for low energy buildings] Update,[3] the Net Zero Plan[4] (including a specific sectoral plan for the built environment), and the National Climate Risk Assessment.[5]

Housing conditions and standards sit at the junction of many these policy problem areas but are most commonly framed in Australia from a perspective of decarbonisation and energy efficiency (particularly in reference to new houses), or minimum standards within residential tenancies legislations (particularly in reference to older stock within the private rental sector). For instance, since 2003, the Australian National Construction Code (NCC) has prescribed energy efficiency standards for newly built and substantially renovated homes. Most new Australian homes (82%) are designed to meet, rather than exceed, the minimum requirements set out in the NCC (Moore, Berry et al. 2019). However, those requirements are low by international standards (Horne and Hayles 2008). Houses built before 2003 are subject to almost no regulation in terms of minimum standards for quality, condition or environmental performance, with the exception of some reform across the states and territories to include some minor requirements within residential tenancies legislation. For example, Victoria (VIC) recently mandated the inclusion of efficient heating appliances and has committed to introducing insulation requirements.[6] To date, policy approaches to improving the condition, quality and environmental performance of the Australian housing stock remain piecemeal.[7] In addition, the dominant framing through an energy lens misses an opportunity to centre important co-benefits of stronger housing standards regulation: improvements to occupant health, reduced household expenditure, and greater consumer protections.

Despite the lack of action in the policy sphere—and at times, in response to—there have been significant efforts by both researchers and advocates within the non-government organisation (NGO) and not-for-profit (NFP) space to document the extent of the problem and put forward potential solutions. For instance, homes that are in poor condition tend to be energy inefficient, requiring more energy to heat (or cool) to an acceptable temperature and will therefore produce more greenhouse gas emissions (Power 2008). Most Australian homes were built before energy efficiency standards were even introduced (ACOSS and Brotherhood of St Laurence 2019), and it is estimated that by 2050, there will still be seven million Australian homes that remain untouched by the NCC energy efficiency standards (Commonwealth of Australia 2019). Rental properties, on average, have poorer energy efficiency than owner-occupied homes in Australia and internationally (Daniel, Moore et al. 2020; Krishnamurthy and Kristrom 2015). After leases have commenced these standards are usually enforced through complaints. However, tenants are often reluctant to complain given their vulnerability in the renter-landlord relationship (Tenants' Union of New South Wales 2019).

2 https://www.dss.gov.au/housing-support-programs-services-housing/developing-the-national-housing-and-homelessness-plan
3 https://www.dcceew.gov.au/energy/energy-efficiency/buildings/trajectory-low-energy-buildings
4 https://www.dcceew.gov.au/climate-change/emissions-reduction/net-zero
5 https://www.dcceew.gov.au/climate-change/policy/adaptation/ncra
6 https://www.consumer.vic.gov.au/library/publications/housing-and-accommodation/renting/minimum-rental-standards-for-heating--residential-tenancies-regulations-2021.docx
7 Specific policies will be explored in depth in the policy review presented in Chapter 3.

Households living in poor quality housing are impacted both financially and in health terms. For example, a recent report from the Australian Council of Social Service (ACOSS) documents the dire impact of rising energy prices, particularly for low-income households (ACOSS 2023). The report details a range of flow-on effects, including going without heating in winter, skipping meals and essential medications, and the exacerbation or inducement of health conditions. Both national and international evidence now very clearly documents the population health impacts of these impacts. For example, recent Australian research found that people experiencing energy poverty have increased odds of reporting depression and anxiety, and hypertension (Bentley, Daniel et al. 2023). Improving the environmental performance of homes is key to alleviating energy poverty (Boemi and Papadopoulos 2019) and has a profound impact on wellbeing, quality of life, financial stress, thermal comfort, social interactions and indoor space use (Grey, Schmieder-Gaite et al. 2017).

## 1.2 Research methods

The research sought to address three research questions:

1. What is the condition and environmental performance of the Australian housing stock?
2. What are international best practice quality and performance standards, and how can they be implemented in Australia?
3. How can we realise best practice quality and performance standards and tenancy legislation in Australia (who are the appropriate actors, and what are the mechanisms to influence their decisions)?

To address these questions the project comprised three interlinked and concurrent workstreams.

### 1.2.1 A survey and analysis of Australian housing data

This workstream brought together secondary datasets that contained information on Australian housing conditions and performance to give an overview of the current status of the housing stock. Datasets were identified through team members' prior expertise, consultation with academic experts outside of the team, and search engine results. Accessible datasets and their contents are summarised in Table 2. The housing related variables from each dataset were analysed and compared where possible. Results are presented in Chapter 2.

### 1.2.2 A review of the coverage and gaps of Australian housing standards regulation

An assessment of the coverage and gaps in current Australian standards and legislation was undertaken via a policy review. The review focussed on national and state and territory policy. Relevant policies were identified through searches of Analysis and Policy Observation (APO), government websites, the AHURI library, and academic databases using key words such as 'housing policy', 'property standards', 'thermal performance', 'energy efficiency', 'minimum standards', and 'residential tenancies'. Policies, including strategies, Acts, regulations, and incentive schemes were extracted, including (where the information was available) stated objectives, funding commitment, administering department, target population, substantive requirements of the policy, and any other notes (such as related documentation, updates, enforcement and compliance). The results of the policy review are presented in Chapter 3 and summarised in Table 3. To complement the review of the Australian context, three case studies of specific policy mechanisms from international contexts were undertaken using desktop research: Energy Performance Certificates (EPCs) in the UK, and Healthy Housing Standards in the US and NZ.

### 1.2.3 Interviews with key policy stakeholders

To understand how change in housing policy occurs, interviews were undertaken with 19 stakeholders from government, NGOs, industry and academia (summarised in Table 1). Ethics approval for the interviews was granted by the University of South Australia Human Research Ethics Committee on 13 June 2023 (Application ID 205606). Five interviews were undertaken in person, with the remainder conducted via Zoom or Teams. The interviews were semi-structured, with most focussed on a set of common questions that arose from the two earlier stages of research:

- Are there any untapped data sources that could be used to establish a baseline picture of housing conditions and performance in Australia?
- What are ways that we could track the condition and environmental performance of the Australian housing stock overtime (including existing housing)?
- What is happening that we don't know about? Where are policy makers looking for inspiration? Where is the innovation happening?
- What is the appetite for significant policy change?
- How do we overcome the disconnect between policy portfolios?
- How can we reward early movers (individuals or states and territories)?
- How can we overcome the push to maintain the status quo?

The researchers recorded notes, including verbatim responses, during and immediately after the interviews. The results of the interviews primarily contributed to two case studies in Chapter 4 that illustrate and explore instances of policy action and inaction.

**Table 1: Summary of interviewees, including their roles and expertise, and the focus of the interview**

| # | Interviewee | Role and expertise | Interview focus |
|---|---|---|---|
| 1 | Commissioner | A state commissioner for residential tenancies | General questions |
| 2 | ABCB CEO | ABCB CEO with oversight of the ABCB and expertise in NCC governance | ABCB operations + national strategy |
| 3 | Peak-body representative | Peak-body representative from the construction industry with experience in the NCC and member of the ABCB (interviewed with #4) | General questions + Livable Housing Design Standard |
| 4 | Peak-body representative | Peak-body representative from the construction industry with experience in the NCC (interviewed with #3) | General questions + Livable Housing Design Standard |
| 5 | Economic consultant | Economic consultant with international and national expertise on cost/benefit analysis of housing standards and certification | General questions |
| 6 | Director (policy) | Director (policy) of an independent consumer organisation with a focus on residential energy use | General questions |
| 7 | Policy maker | Policy maker from the Australian Government working within the residential energy efficiency space (interviewed with #8) | National strategy |
| 8 | Policy maker | Policy maker from the Australian Government working within the residential energy efficiency space (interviewed with #7) | National strategy |
| 9 | Peak-body representative | Representative from a professional peak-body organisation with expertise in the NCC and housing design | General questions |
| 10 | NGO advocacy representative | NGO advocacy representative with expertise on the NCC and Livable Housing Design Standard | General questions + Livable Housing Design Standard |
| 11 | Former NGO advocacy representative | Former NGO advocacy representative with expertise on the NCC and Livable Housing Design Standard | General questions + Livable Housing Design Standard |
| 12 | NGO advocacy representative | NGO advocacy representative with expertise on sustainable house design | General questions |
| 13 | NZ Labour Govt Minister | Minister responsible for legislating the Healthy Housing standard | Healthy Housing Standard |
| 14 | Industry expert | Industry expert with expertise on energy efficiency policy | General questions |
| 15 | Academic expert | Academic expert with expertise on housing stock and sustainable housing transitions | General questions |
| 16 | Academic expert | Academic expert with expertise on sustainable housing transitions and low-carbon built environment | General questions |
| 17 | Academic expert | Academic expert with expertise on housing policy and lobbying | Housing policy change, evidence-based policy + lobbying |
| 18 | Academic expert | NZ public health academic working in Housing and Health | Healthy Housing Standard |
| 19 | Academic expert | Emeritus Professor with expertise in the housing construction industry | General questions + housing policy change |

# 2. National housing conditions: the existing data landscape

- **The need to build better, monitor gaps, and improve efficiency has never been greater.**
- **Our review suggests a piecemeal, largely opportunistic, collection of secondary data that is insufficient to the task of monitoring progress or guiding good policy.**
- **Our stock of data resources is uneven, in both focus and what is measured.**
- **No one dataset is ideal in providing information on the state of housing in Australia.**

## 2.1 Existing research

Although Australia's housing quality problems are increasingly well documented in the literature (for example Andersen, Williamson et al. 2017; Baker, Lester et al. 2016; Barlow, Daniel et al. 2023), the quality of our housing stock tends to be poorly captured in reliable data, and is therefore probably under-reported. This section summarises the existing available data resources documenting Australian housing conditions and performance to provide a basis for the description and quantification of the problems associated with housing conditions.

Across all the available data sets, it is surprising how little we know. Australia's data resources are incomplete in both focus and what is measured. Many data resources only provide insight into the housing conditions of a specific population (such as First Nations people or social housing tenants) or geographic location. The criteria that is measured is also piecemeal. For example, data resources focus on one criteria only, such as energy use or quality and overcrowding, or new housing stock.

The ABS has the broadest coverage, with the Census of Population and Housing aiming to capture every Australian home. However, the Census provides little depth of information, with sparse detail on housing conditions. Studies with much smaller sample sizes tend to contain more detailed information.

Like the Census, all data resources make trade-offs between coverage and detail. The Australian Housing Conditions Dataset (AHCD) is a relatively large representative dataset (22,500 households) and includes home age, construction detail and dwelling quality. The CSIRO's Nationwide House Energy Rating Scheme (NatHERS) dataset includes construction details. However, it is primarily focussed on new homes that have obtained NatHERS certificates, omitting the majority of existing homes. Other data resources have similarly narrow foci.

In this chapter we have surveyed the data landscape broadly, including available datasets that provide some systematic or robust detail about current Australian housing conditions. No one dataset is ideal in providing information on the state of housing in Australia. Across all the available datasets, we can piece together a picture of current Australian housing conditions, yet there are significant gaps. This research provides a stocktake assessment of available recent datasets and their coverage, and is presented in detail in Appendix 1. This *State of the Nation Housing Data Stocktake Baseline Resource* surveys available datasets, and summarises each in terms of which housing conditions or performance characteristics are captured, alongside sample size, locational detail, and population of focus. Table 2 below briefly illustrates the landscape of data availability. It also highlights the data gaps in the field. In the following sections, we focus on some of these key housing condition characteristics, and draw a national view based on the most reliable dataset identified.

**Table 2: Summary of the housing condition data landscape**

| | Australian Housing Conditions Data Infrastructure | The Winter Home Temperature dataset | Census of Population and Housing | ABS Aboriginal Housing Statistics | ABS Energy Account | AIHW Housing Data Resource | National Social Housing Survey | Household Income and Labour Dynamics in Australia | CSIRO NatHERS | Victorian Residential Efficiency Scorecard |
|---|---|---|---|---|---|---|---|---|---|---|
| Stock numbers | | | ■ | ■ | | ■ | | | ■ | |
| Dwelling type | ■ | ■ | ■ | ■ | | | | | ■ | |
| Construction | ■ | ■ | | | | | | | ■ | |
| Age | ■ | ■ | | | | | | | | ■ |
| Dwelling quality | ■ | ■ | | ■ | | | | ■ | | |
| Bedrooms | ■ | ■ | ■ | ■ | | ■ | ■ | | | |
| Size | | | | ■ | | | ■ | | ■ | ■ |
| Security | ■ | | | | | | ■ | | | |
| Heating | ■ | ■ | | | | | | | | ■ |
| Thermal comfort | ■ | ■ | | | | | ■ | ■ | | |
| Temperature | | ■ | | | | | | | | |
| Humidity | | ■ | | | | | | | | |
| Mould | ■ | ■ | | | | | | | | |
| Natural light | ■ | | | | | | | | | |
| Ventilation | | | | | | | | | | |
| Tenure | ■ | | ■ | ■ | | ■ | | ■ | | |
| Affordability | ■ | | ■ | ■ | | ■ | | | | |
| Energy Usage | | | | | ■ | | | | | |
| Energy affordability | ■ | ■ | | | | | | ■ | | |
| Energy efficiency | | | | | | | ■ | | ■ | ■ |
| By state | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| By greater capital city | ■ | ■ | ■ | ■ | | ■ | | | | |
| Data download | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | |
| Geospatial data | ■ | ■ | ■ | | | | ■ | | | |

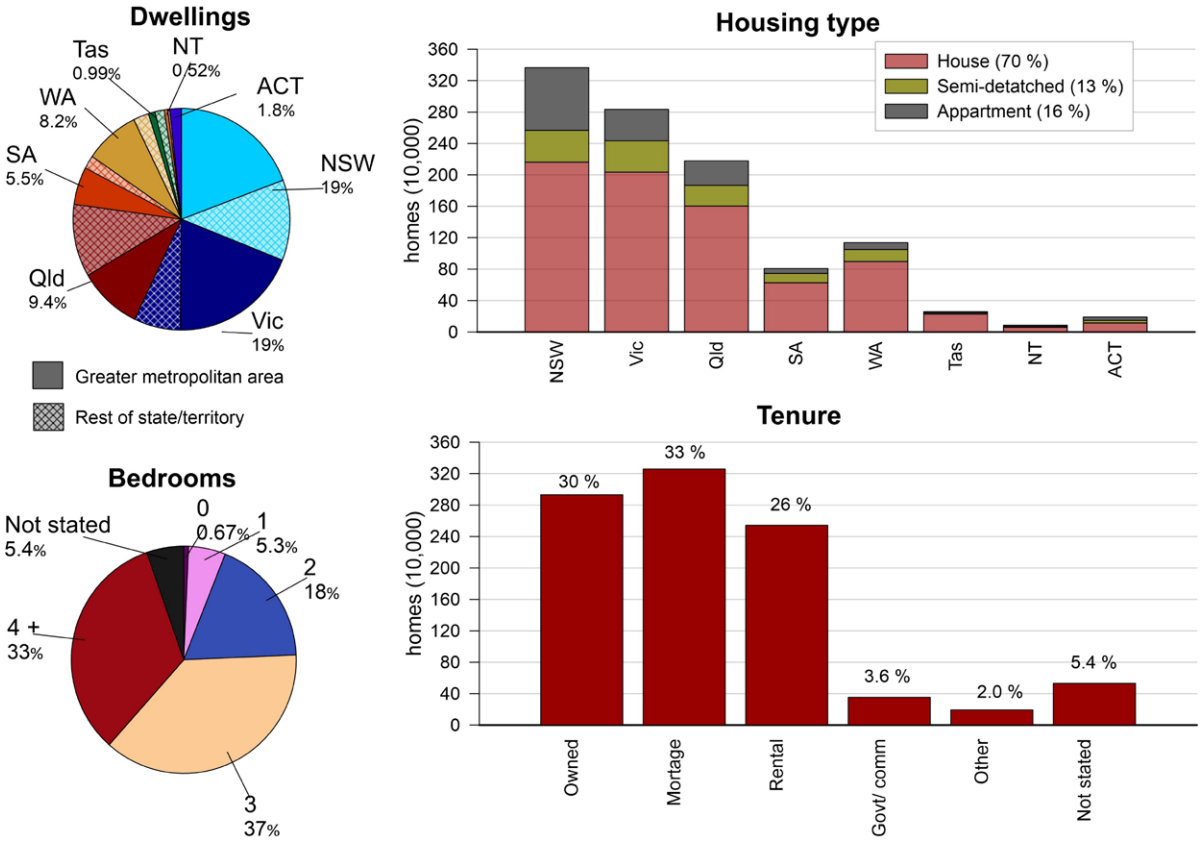
Source: Author's own summary (see ABS 2021a, 2021b, 2021c; Australian Government Australian Institute of Health and Welfare 2024a, 2024b; Australian Government Department of Climate Change 2024; Baker, Daniel et al. 2023; Baker, Morey et al. 2023; Barlow, Daniel et al. 2023; CSIRO 2024; Department of Social Services and Melbourne Institute of Applied Economic and Social Research, 2023)

## 2.2 An overview of dwellings from the Census

The Census of Population and Housing includes all Australian homes,[8] and provides a good data overview across number of dwellings, bedrooms and tenure. Figure 2 summarises this data. Unsurprisingly, most homes were located within New South Wales (NSW) and Victoria, and within metropolitan regions. Whilst the proportion of apartments is increasing, most Australians lived in detached homes. The majority of Australian homes were mortgaged (33%) or owned (30%), with rentals comprising 30 per cent of the housing market.

Figure 2 also shows state or territory and tenure detail where available. It shows that detached homes comprised over 60 per cent of housing stock in each state. NSW (24%) and the ACT (22%) had the greatest proportion of apartments. The majority (73%) of freestanding homes were owned or mortgaged, whereas most apartments (59%) were rented. For semi-detached homes, owned or mortgaged homes (44%) were approximately equal to rented homes (45%). The Northern Territory (NT) had a higher proportion (48%) of rented homes compared to all other states and territories; the national average rental proportion is 31 per cent, and the next highest state been Queensland at 33 per cent. Likewise, the NT had the lowest rate of home ownership (16%) compared to the national average of 31 per cent, which is generally reflected across all other states and territories at 27 percent in the Australian Capital Territory (ACT) and 33 per cent in South Australia (SA).

**Figure 2: A snapshot of Australia's housing in 2021**




Source: ABS data (2021a)

8 Noting the ABS discussion on estimated undercount in *2021 Census overcount and undercount*, ABS Website, accessed 8 March 2024.

## 2.3 An overview of housing conditions from the AHCD

The AHCD provides reliable insights into overall housing conditions. A summary is provided in Figure 3. Whilst the dataset is not a whole of population resource (it represents 22,500 households), it is the most representative in our review. It is important to note that because the 2022 AHCD was designed to provide additional evidence on housing conditions in the rental sector, it over sampled homes that are rented. In the raw data, two-thirds of the homes represented are rental accommodation, with only one-third being owned or mortgaged.

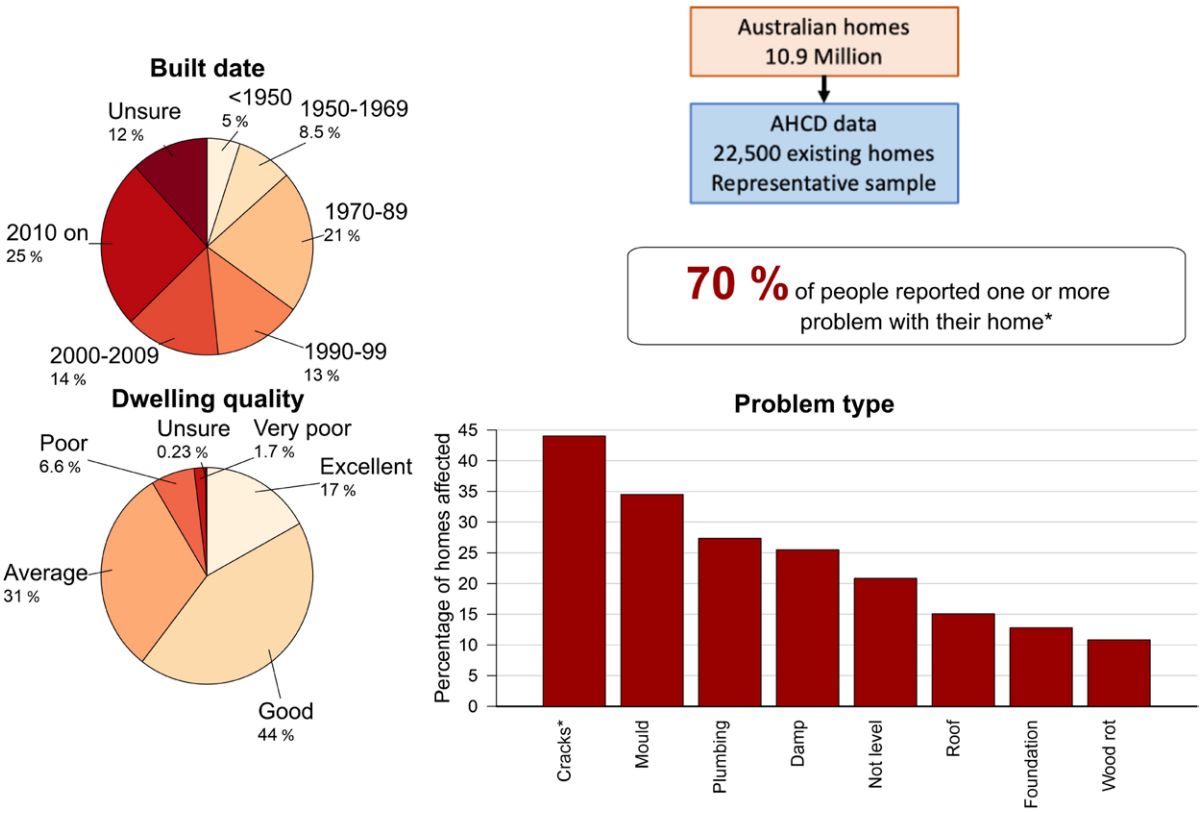
As Figure 3 shows, whilst more than half of homes were reported as being of good or excellent quality, 70 per cent of homes surveyed had some building quality problem. Cracks in the walls were the most common issue (44%), followed by mould (35%) and plumbing issues (27%).

The overall quality of the home was dependent on when it was built. Homes built after 1990 were most likely to be reported in 'good' condition (48% of homes built between 1990 and 1999 or after 2010; 51% built between 2000 and 2009). Older homes, built prior to 1990, were mostly reported to be in 'average' condition. Thirty-five per cent of new homes, built after 2010, were in 'excellent' condition, while 18 per cent built between 2000 and 2009 were reported to be in 'excellent' condition.

Homes considered to be in 'excellent' condition mainly reported no problems (62%); yet still experienced cracks in walls or floors (18%), mould (13%) and plumbing issues (11%). Comparatively, 98 per cent of homes in 'very poor' conditions reported specific problems, ranging from 50 per cent of 'very poor' condition homes with wood rot, up to 89 per cent with cracks in walls or floors.

Homes that were owned or mortgaged were more likely to be in better condition than rental dwellings, but only marginally so. The same applies to the presence of problems, with rentals having a slightly higher occurrence of any given problem. Mould is an exception, being substantially more prevalent (11% more) in rental dwellings, than in owned and mortgaged properties.

Figure 3: Housing conditions from the Australian Housing Conditions Survey



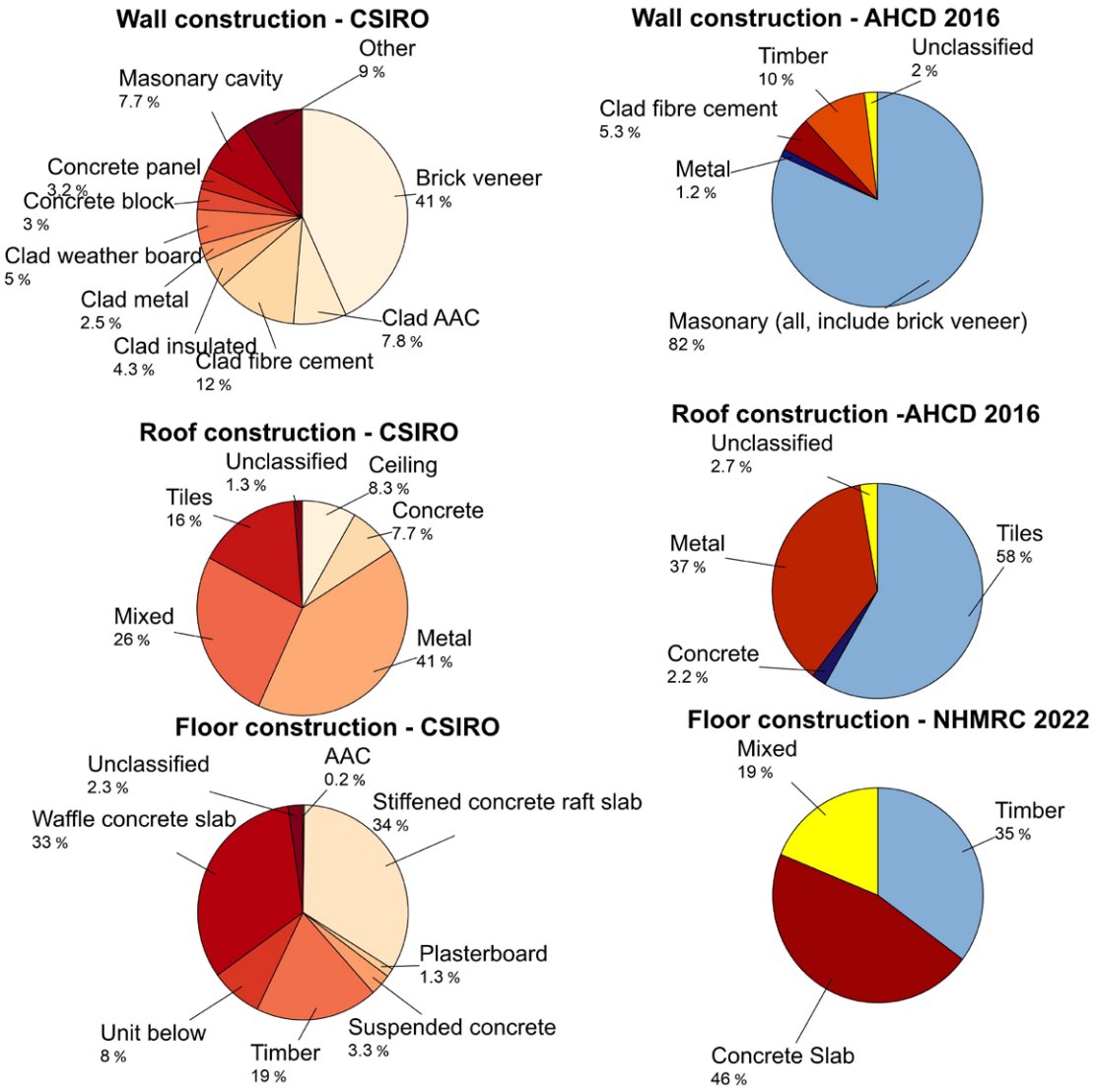

*Respondents were asked to report major structural problems, however severity was not independently verified.
Source: AHCD data 2022 (Baker, Daniel et al. 2023; Baker, Morey et al. 2023)

## 2.4 Construction materials from CSIRO's Housing Dataset

CSIRO's NatHERS dataset provides some insight into the construction materials landscape. This is widely considered to be the best source of data on housing construction and energy efficiency. However, importantly, the vast majority of existing homes are systematically excluded from this dataset. This is because the dataset only captures information about new houses built since 2016 that attained a house energy rating certificate via NatHERS.

For this reason, Figure 4 also includes data from the AHCD and the smaller Winter Home Temperature Dataset to provide insights into the difference between new and existing homes. Figure 4 shows that most homes were built of brick veneer and masonry. Tiled roofs were dominant in existing homes, but were only present in 16 per cent of new homes, with metal roofing being the major category (41%). The majority of homes continue to be based on concrete slabs or 'waffle-pod' hybrid slabs.

Figure 4: Construction materials




Source: CSIRO data (2024), Baker, Beer et al. (2019) and the authors' unpublished data from the Winter Home Temperature Dataset.

## 2.5 Energy efficiency from CSIRO's Housing Dataset

Energy efficiency data from the CSIRO's NatHERS dataset are presented here. Again, these are not widely representative of conditions in existing homes, but limited to predominately new homes. Indeed, there was very little data available for existing homes (Figure 5).

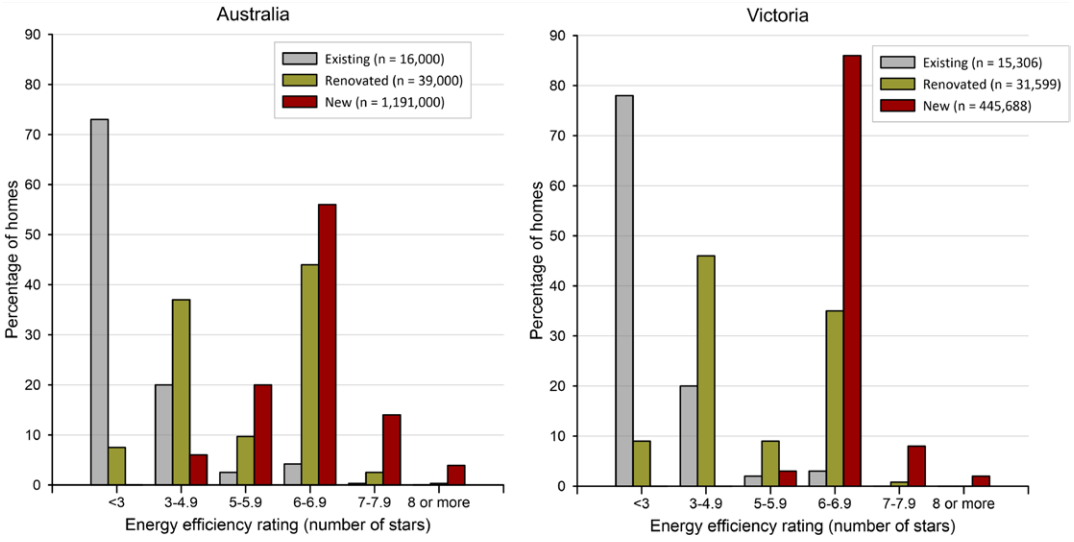
From the available data, significant improvement can be seen in homes built in the past five years, as compared to existing homes. Renovated homes also showed significant improvement compared to existing homes. This indicates that there is likely to be a majority of very energy inefficient homes in Australia's current housing stock.

It is most useful to study Victoria which makes up the bulk of the data available for existing and renovated homes. This demonstrates the success of the Victorian Residential Efficiency Scorecard scheme. Whilst the scheme is voluntary, it has resulted in over 15,000 homes being assessed.

The extent of ACT data is surprisingly small considering the ACT has mandatory ratings required for the sale of properties (Fuerst and Warren-Myers 2018). In Victoria there is very significant improvement in new homes compared to existing homes. There is also evidence that lower socio-economic areas have lower rates of reporting, hence data for existing homes is likely to not be fully representative (Fuerst and Warren-Myers 2018). Data for other states is insufficient to draw conclusions from.

NatHERS data also includes information on floor area and, noting the poor coverage of existing housing stock discussed already, the data suggests that floor areas of new homes are increasing, while apartment floor areas are decreasing. This is interesting considering the increasing energy efficiency of new homes, suggesting that gains in energy efficiency of new construction may be larger than assumed.

**Figure 5. Energy efficiency of homes in Australia and for Victoria only**



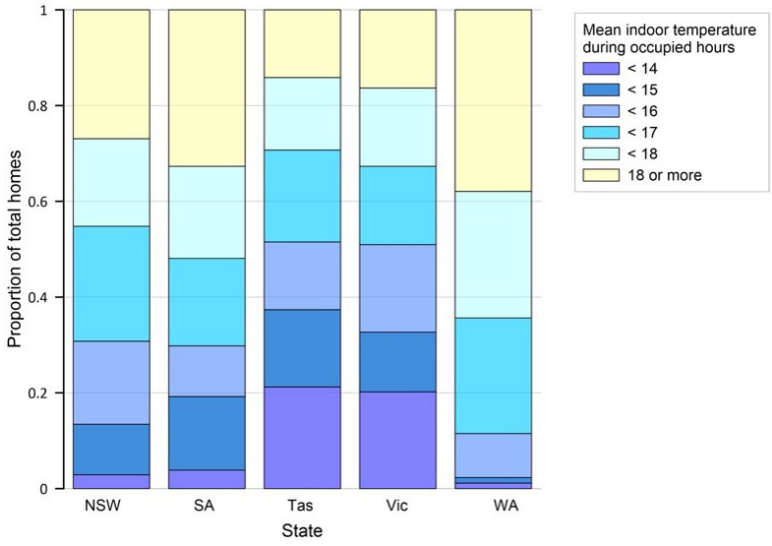

Source: CSIRO data (2024)

## 2.6 Temperature conditions from the Winter Home Temperature Dataset

The Winter Home Temperature Dataset is relatively small (502 homes), but rich.[9] It includes objective data on temperature, physically measured in homes (Barlow, Daniel et al. 2023). Temperature data are also available by state, dwelling age and rental tenure.

Wintertime temperatures in homes across five Australian states (Figure 6) were largely below 18 degrees Celsius, which is the World Health Organization's recommended minimum temperature to maintain health (World Health Organization 2018). It demonstrates that only one degree in home winter temperature improvement has been gained over 70 years of Australian housing design (Figure 7). In these robust data, there was no significant difference in winter indoor temperatures across homes that were owned outright, mortgaged, rented from a private landlord, and rented from a State Housing Authority (Figure 8).

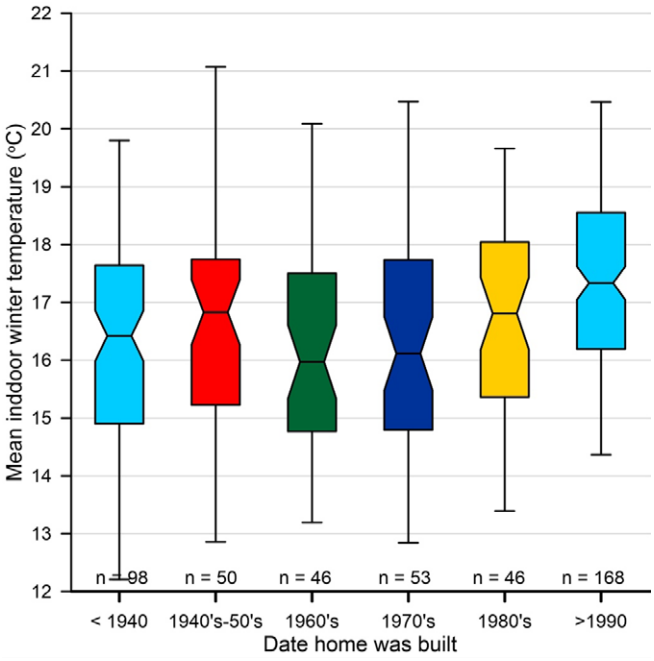
**Figure 6: Proportion of hours by temperature, during occupied hours**




Source: Figure reproduced from Barlow, Daniel et al. (2023)

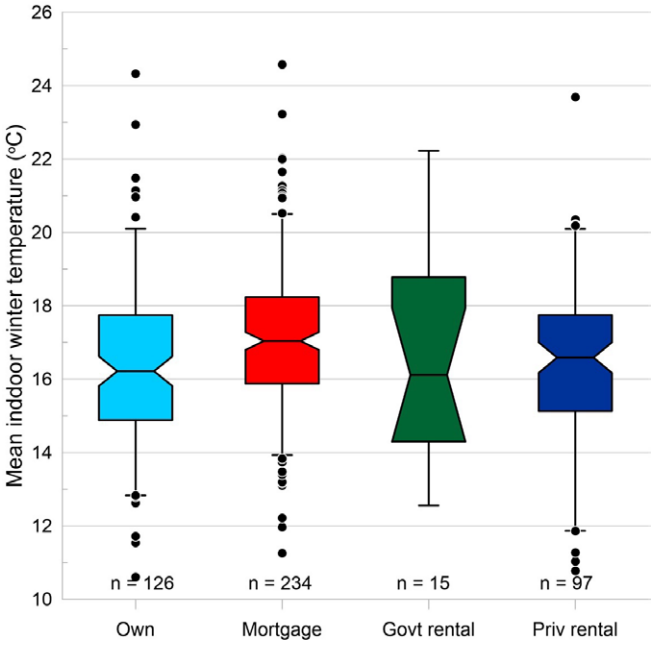
9 Funded by the University of Adelaide (H-2022-027) and supported by a National Health and Medical Research Council Ideas Grant (APP2004466)

Figure 7: Temperature of home by build date




Source: Authors' unpublished data from the Winter Home Temperature Dataset

Figure 8: Tenure versus indoor winter temperature



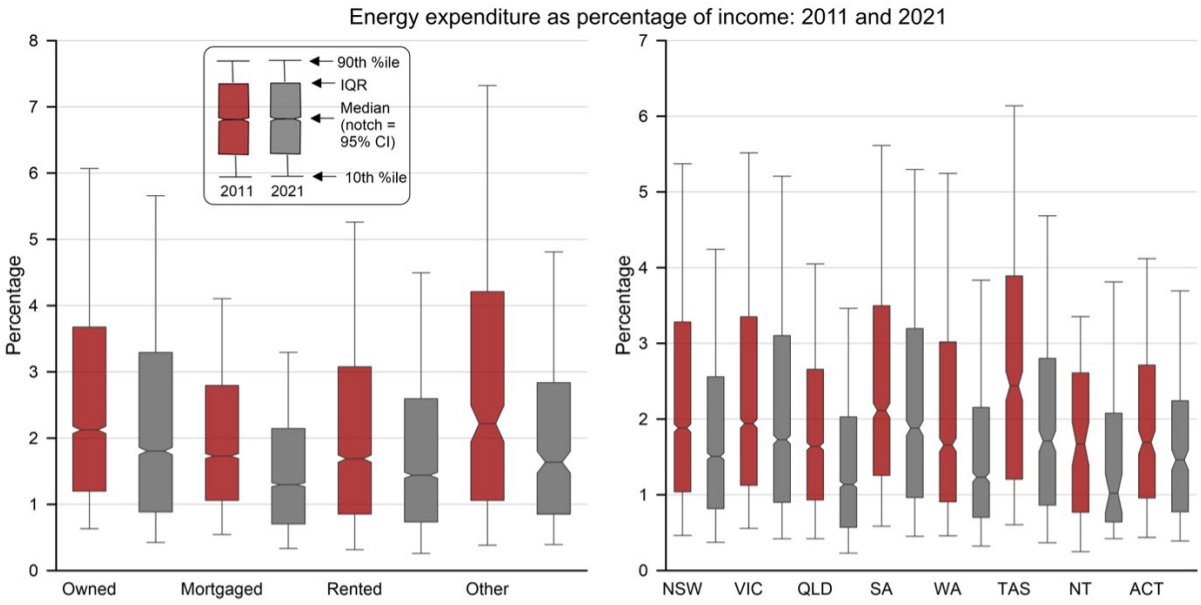

Source: Authors' unpublished data from the Winter Home Termperature Dataset

## 2.7 Energy affordability from the HILDA dataset

The Household Income and Labour Dynamics in Australia (HILDA) dataset is a longitudinal panel of approximately 18,000 households. Collected annually for almost a quarter of a century, HILDA enables the tracking of historical change over time for a number of household characteristics that are a useful to understanding residential building performance.

Providing a useful addition to the data landscape on energy performance, the HILDA dataset enables monitoring of the energy expenditure of households, and comparison of this expenditure to income. Note that to enable graphing of energy expenditure, values lying outside of the range 0—100 per cent have been excluded; values outside this range occurred when respondents reported negative income or energy costs exceeding income. Hence, the energy cost is higher than depicted here. It is interesting to note that, as a proportion of total income, energy expenditure has decreased in the decade from 2011 (red in Figure 9) to 2021 (grey). South Australians spent the most on energy in 2021, at 2.7 per cent of total income; followed by Tasmanians (2.3%).

**Figure 9: Household energy expenditure compared to income for 2011 and 2021**



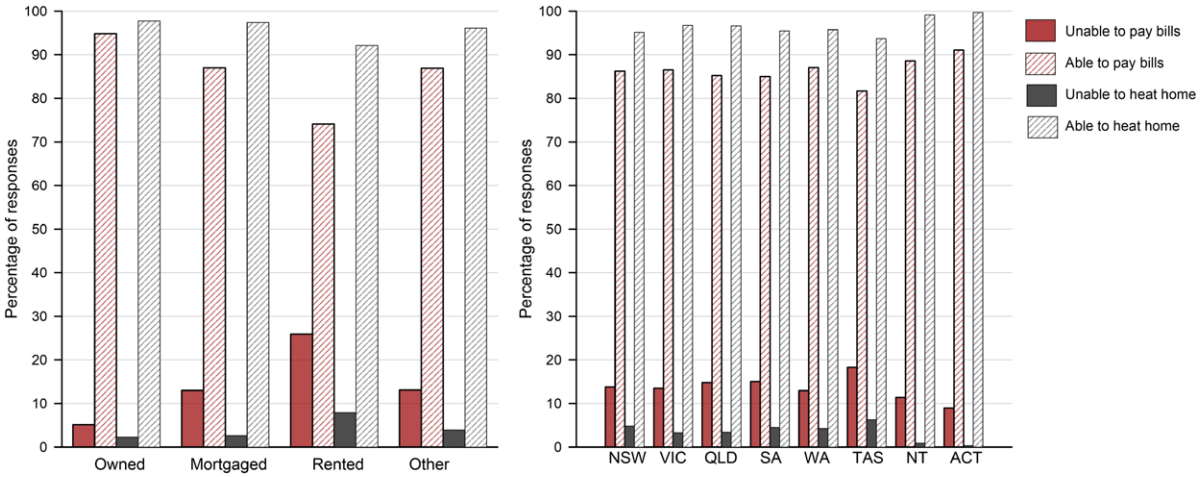

Source: Data from the Department of Social Services and Melbourne Institute of Applied Economic and Social Research (2023)

Data on ability to pay utility bills, including energy bills, on time, is also of interest. In 2021, 10 per cent of people were unable to pay utility bills on time (Figure 10). Of particular note to housing is that 3 per cent were unable to heat their home. Again, these figures show a slight improvement in affordability from 2011 (14% were unable to pay utility bills; 4% unable to heat home).

These measures may also be considered against the cost of energy relative to income (Figure 11). It is interesting to note that there is relatively small, but significant difference in energy cost as a proportion of income for those who can (median 1.5% of income) and cannot (1.7%) pay their bills on time (both with mean approximately 3%). Yet a much greater gap exists between energy expenditure as a proportion of income for those who are unable to heat (mean 4.1%, median 2.3%) and those who can heat their homes (mean 2.8%, median 1.5%).

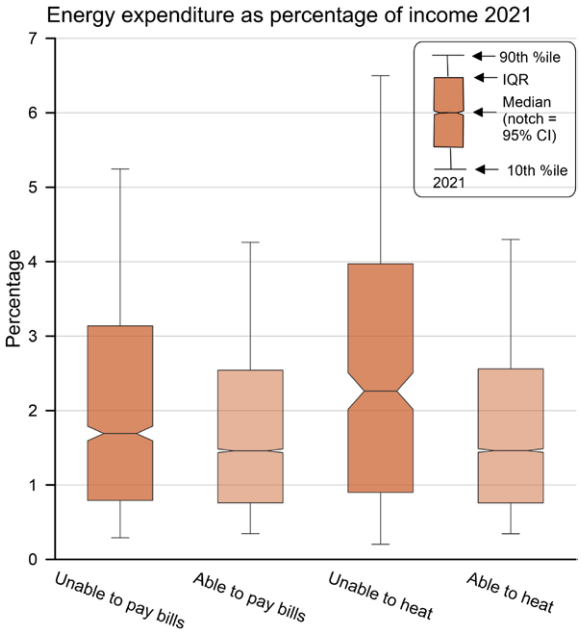
Hence the overall data on the improving affordability of energy costs masks that there is a segment of the community that still experience difficulty in warming their homes in winter.

Figure 10: Ability to pay utility bills and to heat home




Source: Data from the Department of Social Services and Melbourne Institute of Applied Economic and Social Research (2023)

Figure 11: Household energy expenditure compared to ability to pay bills and heat home, 2021




Source: Data from the Department of Social Services and Melbourne Institute of Applied Economic and Social Research (2023)

## 2.8 What are the policy development implications of this research?

This brief review and assessment of the available data resources to support policy has provided a series of insights. For example, there is a significant gap between the energy efficiency of new and existing homes, older homes are in poorer condition than newer homes, and older homes are more likely to be cold homes.

But first and foremost, although the review highlights the existence of some high quality, useful and publicly available data resources, it also presents a piecemeal, largely opportunistic, collection of secondary data that is insufficient to the task of monitoring progress or guiding good policy.

Australia needs a coordinated data infrastructure that can:

- enable *people* to make informed decisions
- enable *regulators* to better regulate
- enable *policy stakeholders* to understand what needs to be improved and monitor improvement
- inform building code and all other related *policy*
- identify who needs protecting and enable advocacy to happen.

While no one dataset will provide the required scope and level of detail for all applications, some coordination between the datasets in Australia's national repository is necessary. In order to develop a solid and reliable infrastructure for monitoring progress and developing appropriate housing, urban and allied policy, we propose consideration of:

- Priorities for data development: what data gaps and methods should be prioritised? What existing data resources could be feasibly extended, either in scope or depth?
- Custodianship: who maintains the data and gatekeeps its ethical and public good use?
- The role and responsibility of industry and advocacy organisations in providing secondary data for public good.
- The potential for governments to incentivise data provision via the regulatory process.

Historically, some of the effects of poor quality and energy inefficient housing could be affordably avoided because (often state owned) home energy was cheap. By 2024 though, energy costs are unaffordable for many households and a significant burden to many more. At the same time, climatic conditions are becoming increasingly variable, with the projection being a sustained rise in climate extremes, heat waves, and extreme events. This means that, while previously we could buffer the effects of an inefficient housing stock, we are increasingly unable to do so. Housing policy may have been able to rely on poor quality evidence in the past, but this is not sustainable. The need to build better, monitor gaps and improve efficiency has never been greater.

# 3. Opportunities and gaps in Australian housing standards regulation

- **Existing research finds that Australian environmental performance standards are considerably weaker than international counterparts.**
- **Our review of the Australian policy landscape reveals fragmented and, in some cases, ineffectual regulation of housing standards, including environmental performance.**
- **International case studies offer useful models of building performance certification and disclosure, integrated housing quality standards, and research-informed health-based housing standards that could be adapted to the Australian context.**
- **A multi-pronged strategy will likely be needed to develop fit-for-purpose housing standards policy in Australia.**

This chapter considers what policy, or suite of policies, are needed to improve housing standards in Australia. The chapter begins with a brief review of existing research on Australian housing policy. It then moves to a deeper examination of current federal and state and territory policies, and to three brief case studies of cognate regulation in the UK, the US and NZ. We conclude the chapter by offering a multi-pronged approach for the development and implementation of fit-for-purpose housing standards in Australia.

## 3.1 Existing research

For decades, research has explored and documented weaknesses in Australia's housing standards regulation (Berry and Marker 2015; Easthope, Palmer et al. 2023). This has resulted in calls for longer-term goal setting, clearer pathways, broader linking policies between levels of government and different sectors, stronger financial elements, and wider social considerations (Moore and Doyon 2023; Moore, Horne et al. 2014). At a high level, the policy mechanisms required to improve conditions in the existing housing stock can be divided into two categories: voluntary and mandatory. Doyon and Moore (2020a) outline the different roles played by voluntary and mandatory policies. While voluntary policies are important for encouraging leadership and innovation, they are accessed to improve a small proportion of the housing stock. In contrast, mandatory approaches are needed to lift the standard of the worst performing homes.

Research also offers specific direction for national policy. In examining mandatory policies, Moore and Holdsworth (2019:49) find that the current requirement of a seven-star rating for new homes is below best practise and that nearing nine-star standard is what is required to eliminate mechanical heating and cooling in line with the requirements of a low-energy house. Moore, Berry et al. (2019) demonstrate that most new Australian houses are designed to meet—but not surpass—mandated standards, highlighting the importance of increasing minimum energy performance standards.

A mandatory approach that aims to improve information and communication about housing quality is compulsory disclosure of the energy efficiency of a home at point of sale or lease (Easthope, Palmer et al. 2023). In considering the effectiveness of mandatory disclosure in the ACT, it was found that the territory not only has the "highest level of energy efficiency improvements to existing owner-occupied dwellings", but that "for each half-star improvement in the Energy Efficiency Rating, house prices increased by 1.23 per cent in 2005 and 1.91 per cent in 2006 (Fuerst and Warren-Myers 2018: 2).

Improving the quality of existing housing relies almost exclusively on voluntary approaches. Two challenges are prominent: that more needs to be done to incentivise upgrading and retrofit of existing housing; and that this is not happening equally between owner-occupied dwellings and rental tenancies (Liu and Judd 2018). Research shows that owner-occupiers are more likely to have energy efficient appliances and better insulation (Krishnamurthy and Kriström 2015) and that rental properties tend to be of poorer quality than other dwellings (Daniel, Moore et al. 2020; Wrigley and Crawford 2017). When government incentives are offered, they are disproportionately accessed by owner-occupiers rather than landlords (Commonwealth Coordinator General 2009; Sommerfeld, Buys et al. 2017). The literature also acknowledges issues of scale for voluntary programs. For example, Liu and Judd (2018: 1) outline that policies and programs, particularly around solar rebate and insulation schemes have been 'relatively piecemeal'.

## 3.2 Coverage and gaps in Australian policy

The following review focusses on national and state and territory policies that relate to housing conditions and quality or environmental performance either directly (such as building codes, some residential tenancy acts) or indirectly (such as rebates for energy efficient appliances). This review does not cover policy or initiatives at the local government level, nor from within the private sector beyond brief mention of some notable examples in Section 3.2.3.[10] Relevant policy is summarised in Section 3.2.4 using the International Energy Agency's (IEA's) *Roadmap for Energy Efficient Buildings and Construction in the Association of Southeast Asian Nations* status reporting framework.[11]

### 3.2.1 National policy and strategy

#### Trajectory for low energy buildings

The National Energy Productivity Plan (NEPP), endorsed by the former Council of Australian Governments (COAG) Energy Council in 2015, aims to enhance Australia's energy productivity by 40 per cent from 2015 to 2030. Measure 31 of the NEPP is *Advance the National Construction Code (NCC)*. Under this measure, the Council produced the 2018 Trajectory for Low Energy Buildings (the Trajectory).[12]

10 Rajagopalan and colleagues provide a comprehensive view of private sector and local government initiatives in their 2023 report: https://racefor2030.com.au/wp-content/uploads/2023/05/H2-OA-0199-Final-Report_.pdf
11 https://www.iea.org/reports/roadmap-for-energy-efficient-buildings-and-construction-in-the-association-of-southeast-asian-nations
12 https://www.dcceew.gov.au/energy/energy-efficiency/buildings/trajectory-low-energy-buildings

The Trajectory outlines measures to achieve zero energy (and carbon) ready buildings, that is, buildings that are thermally efficient and sufficiently energy efficient to achieve zero net energy (and carbon) use by using renewable or decarbonised energy systems. These measures are plotted on two timelines for new residential and new commercial buildings. Most actions in the Trajectory were inclusions for the 2022 NCC update, including expanding the energy efficiency objective, adding an energy and carbon budget for residential buildings (including increased thermal energy efficiency requirements), and requiring residential buildings to be equipped to accommodate on-site renewable energy generation and storage and electric vehicles.

The process for establishing the Trajectory also considered energy efficiency opportunities outside of the NCC and particularly highlighted the need for action to improve energy efficiency in existing buildings.

### Addendum to the Trajectory for Low Energy Buildings—Existing Buildings

In 2019, the Energy Council produced an Addendum to the Trajectory for Low Energy Buildings—Existing Buildings (the Addendum). The Addendum sets out measures for existing commercial and residential buildings from 2020 to mid-2022 (Phase 1) and mid-2022 to 2025 (Phase 2). Phase 1 measures for the residential sector include:

- a program to improve energy efficiency in strata-titled buildings
- establishment of a national dataset of existing homes
- national frameworks for energy efficiency disclosure and for minimum energy efficiency standards for rental properties[13]
- stronger and more nationally consistent requirements for major renovations in the NCC
- expansion and centralised administration of white certificate schemes[14]
- energy efficiency upgrade incentives, including for regional and remote areas, for public, community and Aboriginal housing, and for other low income and vulnerable households,' and to support the introduction of disclosure and minimum rental standards.

Phase 2 includes the implementation of energy efficiency disclosure and minimum energy efficiency standards for rental properties, which were to have commenced by mid-2023.

### 2024 Trajectory and Addendum Updates

At the time of writing, an updated Trajectory is under development.[15] The revised Trajectory reflects an increased emissions reduction ambition, with the goal of a low energy and net zero emissions building sector by 2050, and 43 per cent emissions reduction by 2030. The Trajectory's' scope has been expanded to include embodied carbon.

The 2024 update reports that Trajectory actions were supported by $1.7 billion in funding from the Australian Government and state and territory governments in the May 2023 Budget. However, the update notes that on current policy settings, net zero emissions will not be achieved by 2050.

Additionally, key Addendum actions that were slated for implementation between 2020–23 have not yet been delivered, including the targeted program for strata-titled buildings, national dataset of existing homes, increased requirements for renovations in the NCC, expansion and centralised administration of white certificate schemes, and implementation of energy efficiency disclosure and rental minimum standards by states and territories.

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13 The framework for disclosure can be accessed at: https://www.dcceew.gov.au/sites/default/files/documents/national-framework-for-disclosure-of-residential-energy-efficiency-information.PDF

14 Existing white certificate schemes are introduced in Section 3.2.3

15 The update combines all actions from the original Trajectory and the Addendum. A presentation on the update can be viewed at: https://www.dcceew.gov.au/sites/default/files/documents/trajectory-for-low-energy-buildings-national-construction-code-2025-2028-presentation.pdf

### The National Construction Code

The NCC is the national code that sets the minimum standard for all buildings, building elements, and plumbing and drainage systems.

In line with the Trajectory, the 2022 NCC update increased the minimum level of thermal performance required for new houses from six to seven stars under NatHERS. The update also introduced a whole-of-home annual energy use budget, and provisions to reduce the cost of future on-site renewable energy and electric infrastructure. It also introduced universal housing design based on the Livable Housing Design Standard (LHDS) (Silver Level),[16] which aims to improve housing for residents and support ageing in place.

While the NCC is a national policy, it is legislated by the states and territories. The 2022 update was implemented by states and territories in May 2023. However, adopting the policy does not automatically bring it into legislation. The seven star thermal performance requirement has been adopted by the ACT and NSW. Victoria and Queensland adopted the revised standard in May 2024, with Western Australia scheduled to follow in 2025.[17] Tasmania will not adopt the new standard, while the NT is updating to only five star, and three and a half star for apartments.[18]

While the NCC specifies minimum performance requirements for energy efficiency (and now LHDS requirements), these are certificated at the building approval stage and there is no testing or certification on completion of construction.

### Greenhouse and Energy Minimum Standards (GEMS)

GEMS mandates energy labelling of appliances and regulates minimum standards for household appliances[19].

## 3.2.2 State and territory policy and strategy

Strategic documents in all Australian jurisdictions lay the groundwork for building low-carbon, health-promoting homes. All jurisdictions have net zero emissions targets and strategies for climate change mitigation and adaptation. Additionally, all jurisdictions have housing strategies that are focussed on access and affordability, often with reference to increasing the sustainability or climate resilience of housing. However, these high-level strategies have limited functional impact unless they are supported by regulations, policies and programs with clear actions and allocated budgets. The following section details the substantive state and territory Acts that have bearing on housing quality and conditions.

16 https://livablehousingaustralia.org.au/
17 Queensland will update via the Modern Homes standard, which is aligned with the NCC updated standard but includes a one-star credit for outdoor living areas.
18 https://www.abcb.gov.au/ncc-2022-state-and-territory-adoption-dates
19 https://www.energyrating.gov.au/industry-information/products

### Residential tenancy, housing, building and related Acts

Most of the states' and territories' Residential Tenancies Acts have the objective of regulating the relationship between lessors and tenants, including the rights of both parties. Victoria is notable in its inclusion of "protecting human health or welfare" (2021 update also includes "fairer" and "safer") in its stated objectives. Generally, the Acts specify some level of basic habitability (including, in some instances, sufficient heating) and cleanliness. Recent revisions to some Acts (such as Victoria and WA) have created dispensation for minor tenant-led modifications. The ACT Act requires disclosure of energy efficiency rating if an assessment has been undertaken and sets a minimum standard for insulation. Victoria's Act sets a minimum energy efficiency standard for space heating. No other Acts contain specific requirements regarding building energy efficiency or environmental performance. Responsible or administering departments of Residential Tenancy Acts include Departments of Consumer Affairs, Business Affairs, Customer Service, Commerce and Housing.

Housing Acts are termed slightly differently across the jurisdictions, but generally relate to the regulation and provision of public, community or 'affordable' housing. Objectives of the Acts are mainly centred on the administration, governance and provision of housing and housing related services. The provisions within the Acts are largely unrelated to the physical quality or conditions of housing. However proposed changes to the NSW Act include requirements for adequate ventilation, declaration of non-obvious health risks in the property and water efficiency. Housing Acts generally sit within the portfolios of Departments of Communities or Human Services, or statutory housing authorities.

The states' and territories' Building Acts mainly regulate building work (licenses contracts, insurance), though some do specify building standards (for example, Victoria's Act specifies safety standards, and the TAS Act refers to the NCC requirements). The ACT Act also sets out requirements for Energy Efficiency Certificates. Building Acts sit across a range of portfolios including Departments of Justice, Commerce, Industry Regulation and Safety, Energy and Public Works, and Consumer and Business Affairs, as well as a statutory Building Authority in Victoria.

Three regulations are notable in their lack of counterparts across the other Australian jurisdictions – the ACT's Civil Law (Sale of Residential Property) Act 2003, SA's Housing Improvement Act 2016, and the Gas Substitution Roadmap in Victoria. The ACT Civil Law Act 2003 provides for the mandatory disclosure of the energy efficiency rating of a property for sale, while the SA Housing Improvement Act 2016 sets out minimum housing standards, which, if not met, can result in a property being listed on the Substandard Property Register and subject to rent control. The Civil Law Act 2003 sits with the Department for Justice and Community Safety and the Housing Improvement Act 2016 sits jointly with the Ministers for Human Services and Social Housing. Victoria's Gas Substitution Roadmap requires all new homes requiring a planning permit to be all-electric.[20]

## 3.2.3 Voluntary programs

### Support for low-income households

Several jurisdictions offer targeted energy efficiency advice or financial incentives for low-income households. In Western Australia, Energy Ahead (formerly the Household Energy Efficiency Scheme)[21] provides individual advice and replaces low-efficiency appliances, such as refrigerators. In the ACT, the Home Energy Support[22] scheme offers rebates for low-income homeowners to install solar photovoltaic (PV) arrays, reverse cycle heating and cooling, hot water heat pumps, electric stove tops and ovens, and ceiling insulation. The NSW government's Swap for Solar[23] rebate provides free solar PV installations for low-income homeowners.

20 https://www.energy.vic.gov.au/renewable-energy/victorias-gas-substitution-roadmap
21 https://www.wa.gov.au/government/announcements/energy-ahead-formerly-the-household-energy-efficiency-scheme
22 https://www.climatechoices.act.gov.au/policy-programs/home-energy-support-rebates-for-homeowners
23 https://www.energy.nsw.gov.au/households/rebates-grants-and-schemes/rebate-swap-solar-offer

Energy bill payment assistance is available for low-income households in all states and territories through the Energy Bill Relief Fund.[24] Although the fund is financed by the Australian Government, it is administered by state and territory governments and the value and process varies across jurisdictions.

Some jurisdictions offer additional energy bill payment support to low-income households. For example, Queensland provides one-off emergency energy payments via the Home Energy Emergency Assistance Scheme.[25] Victoria[26] and NSW[27] offer a range of energy rebates for people with medical vulnerabilities, and Victoria offers summer cooling and winter heating rebates to concession card holders. The Tasmanian Government provides advice and energy audits to low-income households that are struggling to pay their energy bills through the Your Energy Support[28] program.

### General rebates and loans

In addition to the targeted assistance provided to assist low-income households with energy bills, some jurisdictions offer rebates or interest-free loans to specific groups or all households. Rebate programs change frequently. Several rebates were changed or discontinued while this policy stocktake was conducted. At the time of writing, most available rebates and loans are focused on transitioning households to renewable energy.

In the NT, the Home and Business Battery Scheme[29] offers $5,000 for homeowners to install batteries. In Victoria, the Solar Homes[30] program provides $1,400 grants for solar PV and solar hot water. Solar Homes also offers interest-free loans for batteries and to supplement the solar PV rebate. Solar Homes rebates and loans are available to homeowners, landlords and community housing providers.

In Tasmania[31], interest-free loans for energy efficient upgrades or renewable energy installations range from $500 to $10,000. In the ACT[32], loans of up to $15,000 are available for a range of installations, such as solar PVs and batteries, electric heating, cooling and stove tops, insulation and electric vehicles. Additionally, the ACT provides a 50 per cent rebate for insulation installation to help community housing providers meet the new standard set in the Residential Tenancies Act.

### White certificates

Victoria, NSW and the ACT administer white certificate schemes (also known as energy efficiency obligations)[33]. White certificate schemes require energy companies to buy certificates generated when prescribed energy efficiency measures are installed. Installers sell these certificates to energy companies to offset the installation cost of those measures, which reduces the cost to householders. Governments add and remove installations from the prescribed list of eligible installations over time.

24 https://www.energy.gov.au/energy-bill-relief-fund/energy-bill-relief-fund-households
25 https://www.qld.gov.au/community/cost-of-living-support/concessions/energy-concessions/home-energy-emergency-assistance-scheme
26 https://services.dffh.vic.gov.au/energy
27 https://www.energy.nsw.gov.au/households/rebates-grants-and-schemes/national-energy-bill-relief
28 https://www.auroraenergy.com.au/yes#payment-options
29 https://nt.gov.au/industry/business-grants-funding/home-and-business-battery-scheme
30 https://www.solar.vic.gov.au/solar-homes-program
31 https://www.premier.tas.gov.au/site_resources_2015/additional_releases/energy-saver-loan-scheme-has-a-brighte-future
32 https://www.climatechoices.act.gov.au/policy-programs/sustainable-household-scheme
33 https://www.energy.vic.gov.au/households/victorian-energy-upgrades-for-households/about-the-veu-program; https://www.energy.nsw.gov.au/nsw-plans-and-progress/regulation-and-policy/energy-security-safeguard/energy-savings-scheme; https://www.climatechoices.act.gov.au/policy-programs/energy-efficiency-improvement-scheme#What-does-it-mean-for-households-and-business-

South Australia's Retailer Energy Productivity Scheme (REPS)[34] follows a similar model, although without certificates. Instead, REPS sets energy productivity targets (EPTs) for certain electricity and gas retailers. EPTs are set annually by the Minister for Energy and Mining. Retailers meet these targets by delivering incentives to householders and businesses, with a focus on low-income households. The incentives can take the form of discounted services, free or discounted products, or rebates.

### Voluntary rating tools

Two government-accredited, voluntary rating tools exist to measure the energy performance of existing residential buildings. The Residential Energy Efficiency Scorecard[35] was created by the Victorian Government to provide a rating for existing homes, as well as information such as running costs, greenhouse gas emissions, and ratings for fixed appliances. The Scorecard is used nationally and is being integrated into NatHERS. The National Australian Built Environment Rating System (NABERS)[36] was created to provide ratings for existing commercial buildings. While NABERS ratings are mandatory for many commercial buildings, voluntary NABERS tools have been added, including for apartments, retirement living and residential aged care complexes.

The Green Building Council Australia, an Australian non-profit organisation that works closely with governments, has developed Green Star[37] ratings. There are five separate Green Star tools for rating the sustainability of buildings, precincts, interiors, new homes and existing buildings.

Livable Housing Australia (LHA) is a non-government organisation that works to develop safe and accessible homes. The LHA's LHDS provide specifications for homes that are accessible, easy to live in, and adaptable to changing life stages.[38] Homes can be certified against the LHDS to the LHA Silver, Gold or Platinum levels, with design and final-as-built certification. The 2022 update of the NCC includes a liveability standard, based on an adapted version of the LHDS Silver standard.[39]

A collaboration of councils in Victoria, the Council Alliance for a Sustainable Built Environment (CASBE), developed the Sustainable Design Assessment in the Planning Process (SDAPP) framework and the Built Environment Sustainability Scorecard (BESS).[40] BESS is a rating tool used to assess Ecologically Sustainable Development (ESD) in accordance with the SDAPP framework. BESS is a voluntary tool, while compliance with SDAPP is mandated or voluntary, depending on local area planning scheme amendments. In July 2022, 24 councils, in conjunction with CASBE and the Municipal Association of Victoria, lodged the Elevating ESD Targets Planning Policy Amendment with the Victorian Government. The amendment proposes increasing ESD requirements and includes targets for net zero emissions development.

## 3.2.4 Summary of the coverage and gaps in Australian policy

Table 7 summarises current federal, state and territory policy settings using the IEA's *Roadmap for Energy Efficient Buildings and Construction in the Association of Southeast Asian Nations* status reporting framework, adapted for the Australian residential sector.[41] While Australian jurisdictions have actions across all three categories (regulation, information and incentives), there are gaps in current policy settings and an emphasis on voluntary programs. With the exception of some targeted rebates and loans for low-income households (outlined in Section 3.2.3), current policy settings are directed to buildings or appliances rather than people whose health is at risk from poor energy efficiency.

34 https://www.escosa.sa.gov.au/industry/reps/overview/reps
35 https://www.homescorecard.gov.au
36 https://www.nabers.gov.au/ratings/spaces-we-rate
37 https://new.gbca.org.au/green-star/exploring-green-star/
38 https://livablehousingaustralia.org.au
39 https://ncc.abcb.gov.au/news/2022/new-livable-housing-design-requirements
40 https://www.casbe.org.au/what-we-do/sustainability-in-planning/
41 https://iea.blob.core.windows.net/assets/5255ea58-1fa7-4fb4-bca0-b32923e9184a/RoadmapforEnergy-EfficientBuildingsandConstructioninASEAN.pdf

The primary regulation that sets standards for buildings across Australia is the NCC. The NCC includes energy efficiency and thermal efficiency standards that can be increased over time. The NCC sets thermal performance standards and a whole-of-home energy budget. It does not mandate electrification or performance requirements based on healthy housing standards. While the NCC is a federal policy, legislation is implemented by states and territories. As discussed in Section 3.2.1, introduction of energy efficiency and thermal efficiency standards is slow and not all jurisdictions increase standards in line with the NCC. The NCC applies only to new buildings or major renovations. The only mandated standards for existing buildings are an insulation standard for rental properties in the ACT and a heating efficiency standard for rental properties in Victoria.

Information about energy and thermal efficiency in residential buildings is available in Australia, such as the Australian Government's *Your Home* guide.[42] Information about energy and thermal efficiency of specific homes can be accessed using the rating tools outlined in Section 3.2.3. Participation in energy efficiency programs is voluntary, as there is no federal mandate for disclosing energy efficiency ratings of residential properties. However, in the ACT there is a mandatory disclosure policy. This policy requires energy efficiency ratings to be declared when any property is sold or rented, when rental properties have an existing rating. Apart from the ACT, there are no regulated requirements for energy efficiency ratings of existing residential buildings in Australia. Other information programs, such as training to equip building and construction professionals with the skills to transition to net zero buildings, are also voluntary.

Incentives for improving energy and thermal efficiency vary between states and territories (Section 3.2.3). All jurisdictions, supported by the Australian Government, offer rebates to support low-income households with paying energy bills. Some jurisdictions also support low-income households to improve energy and thermal efficiency with rebates, loans, or installations of fixed appliances, white goods or solar PV. Several jurisdictions also offer loans, rebates, or white certificate schemes that are not restricted to low-income households. All incentives are voluntary. Financial benefits such as tax deductions, home loan interest rates and energy tariffs do not reward energy or thermal efficiency or installation of renewable energy systems. There are no non-financial incentives, for example expedited planning process, for energy or thermal efficient properties.

This project is focused on buildings as dwellings rather than the construction sector. However, it is important to note that best-practise policy settings for net zero-carbon buildings include policies to minimise embodied carbon. There is currently little consideration of embodied carbon in Australian jurisdictions. Additionally, the IEA framework highlights that creating zero-carbon buildings requires changes to policies that regulate the energy system as well as policies that regulate the built environment.

42 https://www.yourhome.gov.au/

Table 3: Summary of housing standards policy at the national and state and territory levels

| | | AUS | ACT | NSW | NT | QLD | SA | TAS | VIC | WA |
|---|---|---|---|---|---|---|---|---|---|---|
| **Regulation** | Mandatory minimum energy and thermal requirements | | | | | | | | | |
| | Mandatory minimum energy performance standards (MEPS) for all types of appliances that are progressively and regularly updated | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Requirements for renewable energy systems installation or utilisation, maximum allowed amount of embodied carbon emissions new and existing buildings | | | | | | | | | |
| **Information** | Certification of energy and carbon performance for new and existing buildings; mandatory rating labels for buildings, disclosure and benchmarking schemes for new and existing buildings based on energy and carbon performance and embodied carbon | | | | | | | | | |
| | Mandatory labelling of appliances based on their energy efficiency | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Integrated policy portfolio for net zero carbon buildings. Training on use of low-carbon materials, energy efficient home improvements, life cycle analysis of embodied carbon emissions and reduction strategies | | | | | | | | | |
| | Accreditation systems for professionals e.g. for low-carbon construction, renovation, building energy management | | | | | | | | | |
| | Awareness-raising programs for consumers on benefits of net zero carbon buildings | | | | | | | | | |
| | Integrated design tools to assess energy performance and embodied carbon for building construction or renovation, building management systems | | | | | | | | | |
| **Incentives** | Grants and rebates | | | | | | | | | |
| | Preferential loans tied to energy and carbon performance levels of new or renovated buildings | | | | | | | | | |
| | Tax rebates tied to energy and carbon performance levels of new or renovated buildings | | | | | | | | | |
| | Reflective energy pricing and preferential tariffs for renewable energy | | | | | | | | | |
| | Non-financial incentives such as expedited development review and approvals, fee reductions, density bonuses and development allowances for energy efficient low-carbon buildings. | | | | | | | | | |

*Notes: Adapted from the IEA (2022) Roadmap for Energy Efficient Buildings and Construction in ASEAN Timelines and actions towards net zero-carbon buildings and construction*

**Building Energy Codes, Certification, Labelling for buildings:**

Mandatory for all buildings | Mandatory for certain building types | Voluntary | Under development | No known policy | Mandatory for new/significantly renovated building only

## 3.3 International case studies

International case studies can be useful to policy makers, highlighting policy approaches that have succeeded or failed to address comparable challenges in other jurisdictions and the reasons for those outcomes (Kelemen 2015). However, policies cannot be directly transplanted from one location to another without consideration of context (Hantrais, Lenihan et al. 2018). Instead, receiving jurisdictions typically adapt policies to suit their local context, making adjustments ranging from minor tweaks to significant modifications, or even combining policies from different sources to create entirely new policies (Rose 1991).

Policy transfer is more successful when the transferring jurisdictions are compatible across various dimensions such as geography, culture, socio-economic factors and institutional frameworks (Dolowitz and Marsh 1996; Minkman, van Buuren et al. 2018). The process of policy transfer tends to be smoother when relationships exist between jurisdictions. These connections may include formal affiliations like membership in international networks such as the Organisation for Economic Co-operation and Development (OECD) or the European Union (EU), as well as informal ties like shared colonial histories or relationships among policy makers, politicians and subject matter experts (Minkman, van Buuren et al. 2018).

The case studies presented in this section are drawn from the UK, US and NZ. These innovator jurisdictions were chosen due to their cultural and socio-economic similarities to Australia, along with comparable housing policies and institutional frameworks. For instance, owner-occupation is the predominant housing type in all of these jurisdictions, followed by private renting, with the majority of private rental properties owned by small-scale landlords rather than large corporate landlords or housing cooperatives (Hulse, Parkinson et al. 2018). Australia maintains strong ties with each of the innovator jurisdictions, as evidenced by free trade agreements and mutual membership of the OECD.[43]

The case studies represent three policy mechanisms that provide useful examples and comparisons to Australia's own policy: Energy Performance Certificates (EPCs) in the UK, and Healthy Housing Standards in the US and NZ.

43 https://www.dfat.gov.au/trade/agreements/trade-agreements, https://www.oecd.org/about/members-and-partners/

### 3.3.1 Energy Performance Certificates in the UK

Since 2008, Energy Performance Certificates (EPCs) have been a mandatory requirement for all dwellings sold or rented in the EU and UK (Kelly, Crawford-Brown et al. 2012). An EPC is essentially a report on the 'calculated energy performance of a specific building' (Watts, Jentsch et al. 2011: 361). In 2011, one research study found that although there was an awareness of the scheme, there remained a lack of recognition of its potential (Watts, Jentsch et al. 2011). In many ways this reflects other commentary that the power of an EPC is not necessarily in its direct power as a 'leveler' to overcome information asymmetries between landlords and tenants or sellers and buyers (Kelly, Crawford-Brown et al. 2012; Turley and Sayce 2015), but in its power when integrated with other measures (Watts, Jentsch et al. 2011). For example, others consider that as a source of data it can 'lever' other policy measures such as financial incentives and minimum standards (Kelly, Crawford-Brown et al. 2012), improve energy planning and strategic decision-making between local and state governments and be used by private industries in better shaping their products and services, such as energy counseling or building retrofitting (Pasichnyi, Wallin et al. 2019). EPCs are not without their critics, who consider that the costs of management, regulation and enforcement of them make them less effective than more direct regulatory measures such as legal energy requirements, taxes and subsidies (Olaussen, Oust et al. 2017). Others suggest improvements to the system, whereby EPCs would improve on the existing recommendations it provides (Clara, Cocco et al. 2022) by offering 'more structured retrofit recommendations that lead building owners to go beyond the lighting section when they try to carry out structured moves' (Yuan and Choudhary 2023: 16). EPCs can be likened to the ACT's mandatory disclosure program, from which a national framework for mandatory disclosure is being developed (see Section 3.2.1 above). Lessons for Australia from the UK's EPC program include: EPCs are mandatory for any property sold or leased; they are integrated with other policy mechanisms (such as financial incentives and building retrofitting); and EPCs and their data are made publicly available.

### 3.3.2 The National Healthy Housing Standard in the US

The US's National Healthy Housing Standard, published in 2014, is an evidence-based tool aimed at reconnecting the housing and public health sectors by providing a comprehensive guide to those in positions to improve housing conditions.[44] The Standard came off the back of the Green and Healthy Homes Initiative (GHHI), which was inspired by an 'influx of weatherization funding' and seeks to integrate the 'greening' of buildings (energy efficiency retrofits such as insulation and caulking) with healthy housing interventions (lead abatement, mould removal and ventilation) (Miller, Pollack et al. 2011: 52). Early work informing the current standard was particularly focussed on addressing lead paint contamination in housing. In the early 2000s, the National Centre for Healthy Housing expanded this focus to address other housing concerns, including childhood asthma, mould and pest management. The standard primarily acts as guidance for a wide range of stakeholders, including governments, NGOs, public health and housing authorities and private organisations, and seeks to fill gaps in federal, state and local building regulations. In reference to the Australian context, the example of the National Healthy Housing Standard provides an illustration of the potential effectiveness of a voluntary standard with accompanying opportunities for advocacy, research and collaboration. In some respects, this kind of arrangement could offer an alternative (though perhaps less desirable) pathway to housing standards regulation in Australia, where an innovator jurisdiction (such as a state, territory or coalition of local governments) develops a standard which is then progressively adopted by others.

44 https://nchh.org/tools-and-data/housing-code-tools/national-healthy-housing-standard/

### 3.3.3 The Healthy Housing Index in NZ

The Healthy Housing Index (HHI) in NZ is 'the only outcome-validated housing quality assessment tool available internationally' (Gillespie-Bennett, Keall et al. 2013: 4). It is unique in that it was formed from years of independent, science-based research, backed by a collection of practical studies. The HHI ultimately has two purposes: to improve decision-making power for those living in, owning and/or managing dwellings (Wimalasena, Chang-Richards et al. 2022); and to provide 'a robust basis for policy development' (Gillespie-Bennett, Keall et al. 2013: 7). From its beginnings in research to its implementation as a tool, a core aspect of its success was that it embraced and was therefore enhanced by cross-sector collaboration. For example, in the government sector, consultation occurred between various agencies over potential adverse consequences, and various local authorities volunteered to trial implementation (Telfar-Barnard, Bennett et al. 2017). In the private sector, an online rental listing company agreed to provide data on cities involved in the studies, and a home insurance company also agreed to provide claims data to study whether there was a reduction in insurance claims (Telfar-Barnard, Bennett et al. 2017). Howden-Chapman and colleagues surmised that this program 'can be construed as collective action that has led to what Elinor Ostrom (2000) called the "evolution of social norms"' and further that the population expects this level of partnering to achieve progressive aims (Howden-Chapman, Bennett et al. 2023: 27). The result of such collaboration was a standard that 'consolidated a moral universe in which greater specificity of minimum housing standards was reasonable, and that the increase to such standards could be achieved with relatively low impact on landlords' (Grealy 2023: 10). Components of the HHI have been adopted in NZ's Healthy Homes Standard (Daniel, Baker et al. 2023), which will be explored in more depth in Chapter 4.

## 3.4 Policy development implications

This review of the Australian policy landscape revealed a number of gaps in existing policy, presenting considerable opportunity to improve the regulation of housing standards in this country:

- **Clear plans and transparent systems:** in a number of areas, the policy review observed instances where high-level strategy was unsupported by specific actions or funding. Similarly, where commitments have been made (such as the Trajectory and the Addendum), there is little publicly available information or accountability as to the progress of specific actions.
- **Higher standards:** the review clearly demonstrates that Australian performance standards are weaker than their international counterparts. This is not a new finding and has been documented by other research (see Section 3.1 above). Higher standards could be set via the NCC requirements as well as minimum standards within the rental sector.
- **Low hanging fruit:** three key existing or emerging areas stand out as warranting immediate development and action: 1) higher and more comprehensive performance standards for new buildings via the NCC, 2) minimum standards within the rental sector (such as following the example of NZ's Healthy Housing Standards, see Sections 3.3.3 and 4.2), and 3) the mandatory disclosure of energy performance (this could be extended to include a general assessment of quality and condition similar to point-of-sale building inspections, as well as disclosure of problems like mould or contamination) at the point of sale or lease.
- **Enforcement and compliance:** in the case of the NCC, certification is given at the design stage (required for building approval). However, there are no checks to ensure that what is actually built matches the design-stage specification. Weak enforcement and compliance is seen elsewhere. For example, SA's Substandard Housing Act is rarely utilised to impose rental controls on poor quality housing, and a recent study found that 15 per cent of currently leased properties in Victoria failed to meet minimum heating standards (Consumer Policy Research Centre 2023). There is an opportunity for independent certification of the performance standards of newly built houses and houses offered for lease.

- **Better data supports better policy and market function:** the UK example of EPCs provides a model of mandatory disclosure that goes well beyond current frameworks proposed for Australia, to a mechanism that is fully integrated across many aspects of the housing system. Importantly, it provides an opportunity for the routine collection of data on the environmental performance of all properties that are sold or offered for lease. This data represents a powerful tool for both policy makers in developing and reviewing regulation, but also for the consumer in making informed decisions about their housing choices.
- **Explicit health objectives:** the US and NZ Healthy Housing Standards provide examples in which health has been positioned as the primary objective of housing regulation. This remains missing from the Australian context, but could be very usefully integrated. For example, it could open up the range of performance criteria that we might consider including in standards, as well as positioning house quality as not just a luxury but also an essential preventative public health measure.
- **Compelling and guiding action:** as a whole, the framing of housing standards regulation in Australia is dominated by a concern for energy (such as the energy efficiency of fixed appliances, the thermal performance of the building shell, home electrification and net-zero targets), rather than consumer protection, occupant health and wellbeing, or household operational costs. As seen in other countries, narratives particularly around health, but also consumer protection, might be usefully mobilised to engender greater public engagement and support of new forms of housing standards regulation (such as Healthy Housing Standards).

The policy development implications from this chapter demonstrate that a multi-pronged approach to housing standards regulation in Australia will be needed. An approach that is capable of spanning levels of government and portfolios, that is nuanced to the different issues faced within the second-hand housing market, the new-build market and across tenures, and that can effectively bring the bulk of the housing stock up to standard while not leaving vulnerable households behind.

# 4. What drives change in housing policy

- **This chapter examines the circumstances when governments are likely to change or not change policy. It uses a combination of a literature review, two case studies and the results of interviews with stakeholders.**
- **Research evidence is a necessary but not sufficient condition for policy change. Just as vital is the need to build a compelling narrative about why policy change is important.**
- **Any policy change must contend with lobbying by often powerful stakeholders who are resistant to change.**
- **The chapter examines two recent case studies of policy change – one in NZ and one in Australia – to demonstrate the circumstances when policy change in housing conditions are feasible.**

An argument often made by Australian social policy researchers is that the housing crisis is attributable to a failure of government implementation and that if provided with the right evidence, governments will react with improvements in policy. Jacobs (2015b: 55) challenges this view and points to the lack of action in housing policy over recent years. He comments that:

> *Over the last twenty or so years government policies that are implemented have been small in scale, usually focused on planning regulations or extending subsidies to first time homeowners.*

Jacobs suggests that researchers need to examine the role of government intervention in housing more critically and to acknowledge that policy making decisions in this area are the outcome of competing claims-making in which different interest groups seek to impose their agenda. He refers to the work of Kemeny (2004), who argued that housing policy, while presented to the wider public as benign, is primarily concerned with ensuring that opportunities for profit continue.

In considering how we can develop a national roadmap for improving the building quality of Australian housing stock, it is important to investigate how and why governments make and change policy about the quality of Australian housing stock. That is the purpose of this chapter.

The chapter will examine:

- the literature about why governments change policy
- the role of lobbyists in housing policy
- the role of research in policy change
- a case study of a government policy that improved housing standards for renters– the Healthy Housing Standards in NZ
- the process of improving housing standards through changing the NCC
- a case study of improving housing standards by changing the NCC — the Livable Housing Design Standard.

The research method involves a combination of techniques including a literature review and in-depth interviews with academics, advocates, staff from industry organisations, private sector consultants, politicians and policy makers (see Table 1 for details). Lastly, web sites of relevant organisations were examined to provide a range of policy documents.

## 4.1 Existing research

### 4.1.1 Analysing behaviours of government

The results of the baseline study in Chapter 2 and the overview of Australian housing standards in Chapter 3 suggest that there has been government inaction in some key policy areas. But what might be generating this outcome. Are governments simply not listening?

Research in the area supplies some interesting explanations. Gurran and Phibbs (2015) describe the concept of 'busy work', where politicians want to sound concerned about an issue but do not want to make any fundamental policy changes. In more recent work, McConnell and Hart (2019) systematically examine the reasons why politicians might not act on a policy issue. They comment that they have been surprised by the focus of political researchers on government actions and the relative lack of research of government inaction. They suggest that a common reason for policy inaction is a pragmatic one:

> *Governments have limited attention spans and do not have the time or space to provide equal and sustained attention to all issues and consequently deprioritising issues is a fact of life. (p. 654)*

This issue is well captured by Jacobs in relation to housing policy when he quotes a Federal Government policy advisor:

> *It's very difficult to get them [the government] engaged . . . particularly in a situation like ours today where you've got a PM under siege, you've got a couple of major public issues running ad nauseam that are occupying all the airspace and there's practically no room for any substantive policy and I think that's exactly the situation we're in. (Jacobs 2015a: 706)*

McConnell and Hart suggest other reasons for inaction. Some policy issues are paused rather than ignored. They describe the process as wait and see:

> *No government or policy maker can ever win all the policy debates they are involved in at any given point in time — and so they slice policy conundrums into manageable bits and pace their attempts to get things done, meaning some aspects get addressed first and others are not acted upon until the stars align. (McConnell and Hart 2019: 654-655)*

A variation on this theme is wait and hope:

> *Furthermore, in a world of immense complexity and uncertainty about how (or whether) issues will escalate and with what support or media attention, 'doing nothing' can be the product of governments deciding to wait in the hope that the problem will dissipate or disappear, or more favourable conditions for addressing it will emerge. Doing nothing can be intended to prevent inflaming contentious issues and ride out what they perceive to be fleeting media storms and temporarily inflated public concerns by refusing to 'overreact' (McConnell and Hart 2019: 655).*

Governments must also balance the political risks between action and inaction.

> *Whatever pathway governments forge, and whatever plausible policy alternatives are cast to the margins of agendas, both involve an element of risk... Governments routinely deem certain risks and costs acceptable in the pursuit of policies that deliver on 'core promises' made during electoral campaigns or otherwise suit the core values and interests of major constituencies. Conversely, they are unwilling to absorb the risks associated with programmes or reforms that address 'non-core' promises, eat into their political capital, or cater to less essential constituencies — and thus choose not to act (McConnell and Hart 2019: 655).*

The last issue in McConnell and Hart's typology of inaction is described as Ideological Inaction.

> *Ideological stances about the role of the state versus other mechanisms of public problem-solving may play a significant role in limiting the scope of and sympathy for governmental and public intervention (McConnell and Hart 2019: 651).*

### 4.1.2 The role of lobbying

The seminal research examining lobbying is Keith Jacobs' paper on lobbying in the housing policy space in Australia (Jacobs 2015a). It revealed in stark detail how the major property industry associations have used the hollowing out of the housing policy function within the Australian Government to increase their influence. One of the respondents in the study, an ex-Australian Treasury official provided the following description:

> *There is a big hole in government and, other than the Treasury, there is little capacity for policy innovation in the public service. John Howard in his time in office, had stripped away much of the expertise within government departments apart from Ken Henry in Treasury who had insisted on expertise being retained. FaHCSIA[45] in particular is bereft of policy expertise, staff move on quickly. In contrast, industry associations have invested resources on policy development and they have filled the space successfully. They produce research and lobby effectively. They have filled the vacuum in policy expertise (Jacobs 2015a: 706).*

45 The former Australian Department of Families, Housing, Community Services and Indigenous Affairs.

One of the patterns that Jacobs observed was the focus of property industry lobbyists was to preserve the status quo. A property lobbyist described it in the following terms:

> *What you want is to get to the stage where they'll flag with you like we're thinking about this, what do you guys think about it? And so you can try and become part of the process so you are able to stop bad things going forward before they become formalised. You're able to influence what gets put into Cabinet submissions, you get to influence what public servants are saying to their ministers that type of thing . . . That's the sort of area where a lot of work goes on your members don't see. (Jacobs 2015a: 698)*

### 4.1.3 The role of research in government decisions

Whilst researchers are often bemused that governments do not react immediately on the basis of their particular research evidence, it is clear that there are many pressures on government (see above) and that there are many other sides of many housing debates where opposing views have similar research evidence.

One of the sharp lessons from NZ case study on the Healthy Housing standards is that having research evidence is not enough. The case study suggests that two other elements are important:

- the coverage of the evidence in the popular media
- the construction of a narrative around the research findings.

Two housing and health researchers, Sarah Bierre and Philippa Howden-Chapman, from the University of Otago, one of the world's leading housing and health research centres, describe how both a narrative and an emphasis on getting their research work into the media had helped build a case for reform in the private rental sector (see Case study 1 in section 4.2 below) (Bierre and Howden-Chapman 2020). The narrative about housing and health was constructed around the needs of children. They describe the narrative in their paper:

> *The most prevalent narrative around rental housing conditions identified children as the primary victims of poor quality rental housing, based on evidence of the number of children hospitalized for housing-related illnesses and their vulnerability to poor housing conditions. The narrative followed a consistent storyline—New Zealand houses are cold and damp, they make children sick, these children go to hospital, some die and something needs to be done. (Bierre and Howden-Chapman 2020: 39)*

They also adopted a conscious strategy of using the media to publish the results of their research findings. In their paper, they track media reports about healthy, unhealthy, damp or cold housing in NZ from 1995 to 2015 (Bierre and Howden-Chapman 2020: 37). There were not more than 50 mentions per year before 2008, but by 2015 there were over 300 media reports.[46]

The power of a narrative was previously raised by Jacobs, Kemeny et al. (2003: 430) who argued that:

> *Three necessary conditions have to be met for a housing problem to be accepted and acted upon. First, a convincing narrative needs to be deployed to tell a plausible story of a social problem. Second, a coalition of support has to be constructed, and finally this coalition needs to ensure that institutional measures are implemented.*

46 One of the authors of the paper recently commented that they realised their work was having impact when a Wellington taxi driver started giving them a short lecture on the health issues with cold and damp housing.

## 4.2 Case study: The Healthy Housing Standards

NZ established a minimum standards regime under the Residential Tenancies (Healthy Homes Standards) Regulations 2019 (NZ), effective from July 2019.[47] The Healthy Homes Standards set minimum requirements for heating, insulation, ventilation, moisture ingress and drainage, and draught-stopping across NZ's approximately 592,000 rental households. Between 1 July 2021 and 1 July 2025, all private rentals must comply with the Healthy Homes Standards within certain timeframes from the start of any new, or renewed, tenancy.

The changes were instituted by NZ's then Labour Government after attempts to introduce a warrant of fitness program for rental properties involving inspection of properties on various housing quality measures was rejected by a previous National Party Government led by John Key. He commented at the time:

> *I would just caution if we went to a really rigid warrant of fitness it would see more cost on landlords. [….] Some of the advice we've seen is not only would rents rise but it's likely some landlords would pull out of the market (Trevett 2015).*

Instead, Key's Government made some modest changes involving insulation and smoke alarms.

The introduction of the Healthy Housing Standards was the second attempt to get these provisions through the Parliament. The Labour Party had previously lodged a bill whilst in opposition (in May 2016). The Member of Parliament (MP) responsible for both the original unsuccessful bill and the 2017 Act was interviewed for this study and was asked to describe the circumstances associated with the successful implementation of the policy.

### 4.2.1 The view of the responsible Minister

This section draws directly from the transcript of the interview with the NZ Labour Government Minister:

#### The context

> *Over the last 20 years we have done almost everything wrong about housing policy. Massively invested housing as a source of wealth. We ended up with a large number of renters existing in a very unregulated market with poor quality housing. We were not letting our cities grow and we weren't building enough public housing. In the period from about 2011 to 2017, the policy failures compounded and there was clear evidence of a housing crisis. There was a large national debate about housing policy which provided a broad opportunity for change.*

#### The research evidence

> *In terms of the Healthy Housing Standards, the work of Otago University was central to changing the public debate. It was high-quality empirical work with a clear narrative about the health issues and the poor quality of rental housing. The public was shocked that in such an advanced society we were letting the health of our children be compromised.*

#### The political strategy

> *In opposition we took up the policy of healthy homes. A member's Bill was drafted. It was drawn in a ballot and went through the system. The Government wasn't there yet. It didn't get through in opposition but when the Labour Party came into power the new Government gave the bill to the Department to implement. The Department worked out the details.*

47 https://www.legislation.govt.nz/regulation/public/2019/0088/latest/whole.html

> *We legislated based on the work of the Department. There was some debate about how it should be implemented between us and our partners in the Greens. They wanted a stricter compliance system where landlords would have their places inspected and issued with complying certificates. We thought that would be too expensive so we used a tenant-led complaints process to identify non-complying properties. There was also a series of time extensions to give landlords more time to comply. The landlords weren't originally supportive of it but their opposition has softened over time.*
>
> *This issue is* ***a text book case of evidence/research–led policy change. The research enabled a narrative that really touched the public and created the opportunity for us to design the policy change to usher in a new system, and it stuck.***[48]

### 4.2.2 The public health researcher

The public health researcher interviewed for this case study commented that the values of the research centre was 'research with impact'. It was important to the centre that research partners had the potential to implement research findings and that the results of the research were publicised through the media. They also suggested that since NZ is a relatively small place it was probably easier to engage with Ministers and senior policy makers through a range of personal networks within the research centre and that researchers were a clear target for enquiries from policy makers. The researcher also commented that the leaders of their research centre were very adept at using the media to highlight their research and to take up the implications of their research with appropriate policy makers.

They suggested that the case for change was strengthened by the tragic death of Emma Lita Bourne, a two-year-old child who died in Auckland in 2014 after contracting a severe respiratory infection. The coroner said that the cold, damp public housing dwelling in which the family lived was a contributing factor to the child's health status (Shortland 2015). The case received widespread publicity in NZ and led to sharper calls for minimum standards for rental housing.

One of the researcher's disappointments was the lack of a safety element in the Healthy Housing Standards given its potential to generate significant benefits for tenants with fairly small investments by landlords.

## 4.3 The NCC and the Australian Building Codes Board

The NCC serves several key purposes within the construction industry and the broader community[49]:

- **Safety:** The primary purpose of the NCC is to ensure the safety and health of building occupants. This includes specifications for structural integrity, fire safety, and amenities to ensure buildings are safe for use and occupancy.
- **Health and amenity:** The NCC sets standards to ensure that buildings provide a healthy and comfortable environment for occupants. This includes requirements for ventilation, lighting, sanitation and noise control. It includes provisions to ensure that buildings are accessible to people with disabilities, promoting inclusivity and ensuring that all individuals can use and access buildings safely and comfortably.
- **Energy efficiency:** The NCC contains requirements for energy efficiency in buildings to reduce greenhouse gas emissions and ensure that buildings are cost-effective to operate. This includes standards for insulation, glazing and building services.

48 Emphasis by authors.
49 https://ncc.abcb.gov.au/

- **Consistency:** The NCC provides a uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia. This helps to ensure consistency in construction standards across different states and territories.
- **Regulatory framework:** The NCC serves as a regulatory instrument that underpins the building control system in Australia. It is a tool used by authorities to ensure that buildings comply with the required standards for construction and performance.
- **Economic benefits:** By providing clear and consistent regulations, the NCC helps to reduce construction costs and barriers to interstate trade, contributing to a more efficient and competitive construction industry.

In summary, the NCC is a critical document that impacts various aspects of building construction and performance, aiming to ensure safety, health, sustainability and accessibility in the built environment. The code is controlled by the Australian Building Construction Board (ABCB).[50] Its functions in relation to the NCC include:

- **Development and review:** Responsibility for the ongoing development and review of the NCC. This involves conducting research, consulting with industry stakeholders, and reviewing best practices and emerging technologies to ensure that the NCC remains current and effective.
- **Amendments and updates:** Overseeing the process of amending and updating the NCC. The code is typically updated every three years to incorporate new building practices, materials and safety standards. The ABCB manages this update process, which includes public consultation phases where stakeholders can submit proposals for change and comment on proposed amendments.
- **Stakeholder engagement:** Engaging with a wide range of stakeholders, including government bodies, industry groups, professionals and the general public to ensure that the NCC reflects the needs and concerns of all interested parties. This engagement helps in understanding industry challenges, technological advancements, and public safety concerns that should be addressed in the NCC.
- **Guidance and support:** Providing guidance and support to practitioners and authorities on the interpretation and application of the NCC. This includes publishing advisory materials, offering educational programs, and providing tools to facilitate compliance with the code.
- **Research and innovation:** Conducting and supporting research on building and plumbing matters to inform the development of the NCC. This research helps to ensure that the code is based on the latest scientific and engineering principles.

### 4.3.1 Changes to the National Construction Code

The NCC is updated every three years, incorporating the latest industry research, public feedback and policy directions from the government. The process for changing it involves a systematic and structured approach led by ABCB.

The revision process begins with the ABCB seeking input from industry stakeholders, experts and the public. This is typically conducted in stages, with each stage focusing on different aspects of the Code. For instance, the first stage may seek feedback on general areas for improvement, while the second stage may focus on specific technical provisions.

Once the consultation period ends, the ABCB reviews all the feedback received from stakeholders. This includes a detailed analysis of the implications of proposed changes, including economic impacts through a consultation Regulation Impact Statement (RIS). In the RIS, a benefit cost ratio for the changes is estimated. The feedback is then used to inform the final content of the Decision RIS.

50 https://www.abcb.gov.au/

Following this, the revised version of the NCC is published and adopted by the states and territories on a specified date. It's important to note that while the ABCB coordinates the development and revision of the NCC, the actual adoption and enforcement of the code are the responsibility of the individual states and territories.

### 4.3.2 Transparency

In comparison to many other government rule-making agencies in Australia, there is a lack of transparency in the ABCB. Some respondents described it as 'black box'. While there have been significant improvements in recent times, further improvements are needed to reach the level of transparency achieved in other agencies.

For example, looking at the public face of the ABCB, its website:

- Provided no public record of what was discussed at board meetings before November 2022. At the time of writing, there is still no record of Board member attendance.
- Provides no details about the board members such as their industry experience and qualifications or when their membership of the board commenced.
- Provides no details of when the Building Codes Committee meets or what they discuss.
- Provides no details about senior staff of the board.
- Provides little detail of the process used by the board to engage consultants to undertake a key decision-making document: the RIS.
- Provides, it appears, no annual report of the Board.

### 4.3.3 Hearing consumer views

Whilst many historical decisions of the board appear to have been most concerned with technical issues about building safety and resilience, in recent years the board has been considering some broader issues such as the need for better design of buildings for a broader range of occupants, such as people with disabilities. It is difficult to make good decisions about these issues without hearing the views of consumers directly. However, there are no formal consumer consultation processes associated with the ABCB. By way of comparison, the Therapeutic Goods Administration, which regulates medicines, medical devices and biologicals, has a number of formal consumer advisory committees.[51]

### 4.3.4 The Regulation Impact Statement

The RIS is the main technical document used by the ABCB to consider changes to the NCC. The methods for the RIS are mandated by the Federal Office of Best Practice Regulation who review the RISs undertaken for the ABCB to ensure that correct methods have been used.

Interview respondents were concerned by a number of features of the ABCB RIS approach. Firstly, the documents were overly long and difficult for non-economists to understand. There was also criticism that they were not meeting guidelines for accessibility. Secondly, there was concern that board members were paying too much attention to RIS findings without questioning the inbuilt assumptions, particularly the discount rate.

51 Details are available from https://www.tga.gov.au/about-tga

A discount rate in an economic analysis reduces future values. A 7 per cent discount rate significantly reduces future values, which in the case of many RIS documents are the benefits of the proposed changes to the NCC. This makes it more difficult for the future benefits to exceed the costs which are experienced in earlier years. Many economists have argued that a 7 per cent discount rate should not be used for projects when interest rates are much lower than when these rates were set in government policy more than 20 years ago, particularly for low-risk projects such as building houses. (Terrill and Batrouney 2018).

### 4.3.5 The case study of Livable Housing Design Standard

It is useful to examine the operation of the ABCB using a case study. This section explores the long process of changing the accessibility standards for residential dwelling in Australia, which began with a voluntary approach in 2010 and ended with changes to the NCC in 2022.[52]

#### The National Dialogue on Universal Housing Design and the Livable Housing Strategy — an experiment in voluntary standards

Australia's Livable Housing Design Standard derives from the establishment in 2010 of the National Dialogue on Universal Housing Design (NDUHD) by the then Parliamentary Secretary for Disabilities and Children's Services, Bill Shorten. The NDUHD was a collaboration between government, the construction and property sectors, and disability and community organisations. Its goal was to improve the availability of accessible housing through voluntary industry-led change. It agreed that there was a need to develop a national approach to the issue of Universal Housing Design. The National Dialogue's members are shown in Table 4.

52 The case study relies heavily on Ward and Bingolf (2018: 256, 299-306; 2022: 151-158).

**Table 4: The members of the National Dialogue on Universal Housing Design**

| Member organisation |
|---|
| Australian Human Rights Commission |
| Australian Institute of Architects |
| Australian Local Government Association |
| Australian Network for Universal Housing Design |
| COTA Australia |
| Grocon |
| Housing Industry Association |
| Lend Lease |
| Master Builders Australia |
| National People with Disabilities and Carers Council |
| Office of the Disability Council of NSW |
| Property Council of Australia |
| Real Estate Institute of Australia |
| Stockland |

Source: The National Dialogue on Universal Housing Design (National Dialogue on Universal Housing Design 2010)

The NDUHD's strategic plan stated that a universally designed home should be:

- easy to enter
- easy to move in and around
- capable of easy and cost-effective adaptation
- designed to anticipate and respond to the changing needs of home occupants (NDUHD 2010: 1).

The plan identified the cohorts that would benefit from a universally designed home as:

- families with young children who need to get strollers and prams into their homes and want safer homes
- people who sustain temporary or permanent injuries which limit their mobility, for example sporting and motor vehicle injuries, who would potentially require less time in hospital if they could safely move around their home while recovering
- ageing baby boomers looking to renovate their existing homes to better accommodate their future needs
- older people who are particularly vulnerable to slip, trip and fall injuries in their homes
- people with disability and their families looking for a home to accommodate their current and future needs
- people with disability who wish to visit the homes of friends and relatives
- home care workers and family and friends who provide in-home care and support (NDUHD 2010: 3).

National Dialogue members proposed a 10-year timeframe for the implementation of this Strategic Plan, with the aspirational target being that all new homes would have an agreed Universal Housing Design standard by 2020 (the silver level of accessibility) with interim targets being:

- 25 per cent to Silver level by 2013
- 50 per cent to Silver level by 2015
- 75 per cent to Silver level by 2018
- 100 per cent to Silver level by 2020.

The strategic plan was to be supported by reviews every two to three years to help achieve the targets (NDUHD 2010: 7).

Whilst some of the community groups who were signatories to the agreement were doubtful about the voluntary approach, they were prepared to give the process a chance. In some cases, there has been success with a voluntary approach where early adopters lead industries to think about new ways of working leading to widespread change in an industry. A voluntary approach also allows industries to get used to a different approach before it is made mandatory. However, in this case there was very little evidence that early adopters were having an impact on the broader housing industry. As Ward and Bringolf (2018: 301) state:

> *By 2014, they had the evidence they needed. The agreement had failed. The first interim targets were not met, no reviews had been done, and the strategic plan as agreed was abandoned.*

In 2014, Australian Network for Universal Housing Design (ANUHD) with Rights and Inclusion Australia, undertook an alternative review and found that:

> *The housing industry, as a whole, has failed to show signs of voluntary systemic transformation. A generous estimation is that the current voluntary approach will achieve less than 5% of the National Dialogue's 2020 target (ANUHD and Rights and Inclusion Australia 2015: 13).*[53]

The failure of the voluntary approach was not surprising. Previous Australian research has identified the lack of enthusiasm by major built environment stakeholders for changing the status quo. Everyone thought the issue was someone else's problem (see, for example, Bringolf 2011).

With the voluntary model a failure, a number of groups supporting the Universal Design approach looked for opportunities through regulation. One of the leaders in this process was the ANUHD, which was established in 2002 as a loose network of people who believed that the homes we build for today should be fit for all of tomorrow's Australians. Years of failed voluntary strategies strengthened ANUHD's belief that regulatory change in the NCC was required. ANUHD's strategy was simple. Armed with the evidence that the Livable Housing Design agreement had failed, it called on the government and non-government institutions that had supported the agreement to act.

53 It was interesting to note that three major housing construction companies and the Housing Industry Association decided not to participate in this review.

### The regulatory approach – Standards Australia

The first attempt at a regulatory reform was an approach to Standards Australia, Australia's voluntary standard-setting mechanism, to seek a review of the out-of-date accessible housing standard to align with the intent of the National Disability Strategy.

Standards Australia uses a consensus approach that requires a wide range of stakeholders to support a proposal before it is accepted. The proposal above attracted support from over 100 community organisations. However, the four peak housing industry bodies who had signed the Livable Housing Design agreement did not support it. As a result, Standards Australia considered that they were unable to proceed.

### The regulatory approach – Australian Building Codes Board

The second approach was to the ABCB, which oversees the NCC. ANUHD proposed that the ABCB, in its next review of the Code in 2019, include an agreed accessibility level for all new housing that would enable the Council of Australian Governments (COAG) to meet its 2020 target commitment in the National Disability Strategy. The proposal was refused consideration, as it was 'a policy rather than a technical matter, which given it has involved a decision of COAG, will require resolution at that level' (Ward and Bringolf 2018: 301).

### The regulatory approach – Building Ministers Forum

After that rebuff, ANUHD intensified its letter campaign to state and territory governments reminding them of COAG's commitment to the 2020 target and the failure by industry to respond. By late 2017, ANUHD had gained the attention of COAG, which in turn directed the ABCB to 'undertake a national Regulatory Impact Assessment regarding accessible housing for private residences … [to] examine the silver and gold performance levels as options for a minimum accessible standard; use a sensitivity approach; and be informed by appropriate case studies' (Australian Government 2017). The Universal Design approach now had support from the highest level of government not only to consider a regulatory framework for universal design in all new housing construction, but also to a higher level of access than was originally considered possible in the voluntary Livable Housing Design agreement. According to Ward and Bringolf (2022: 153) the decision to investigate the possibility of regulation was in part a response to the housing industry's failure to follow through with the Livable Housing Design agreement and in part to appease the growing pressure from social advocates.

### Back to the ABCB

The RIS process took five years, from October 2017 to September 2022, in four stages:

1. an options paper developed by the ABCB and released for public comment
2. a summary by the ABCB of the comments on the options paper, also released to the public
3. development of a consultation (or draft) RIS by external consultants and released for consultation
4. decision (or final) RIS sent to building ministers to inform their decision.

The supporters of the universal design approach were very critical of the RIS process for failing to address three key points raised in the initial Options paper (Australian Building Codes Board 2019).

The first key point was that 'qualitative, or intangible, benefits should be identified and given due consideration ... as well as ensuring that it goes beyond consideration of people with a disability' (ABCB 2019: 9). Instead, the RIS focused on individuals with disability, rather than households of a wide range of people with mobility-related issues. This approach mirrored the views of the Housing Industry Association (HIA) in a policy document (HIA 2018) titled Accessibility in Residential Buildings where the first three points of the paper referred to people with a disability including the statement: 'The overwhelming majority of private homes will not be used, now or in the future, by people requiring wheel chairs [sic]'. The focus on disability and wheelchair users significantly underestimated the total benefits of universally designed homes. The document championed a voluntary strategy with a target of 100 per cent of new homes despite the failure of the voluntary approach followed in the Livable Housing Strategy (which the HIA had agreed to 2010).

The second key point was that 'costs should be accurately quantified and the distribution of costs and regulatory burdens between industry and consumers is clearly identified' (ABCB 2019: 9). ANUHD raised concerns of perceived bias towards costs over benefits early in the development of the RIS. An independent academic review of the economic analysis in the RIS confirmed ANUHD's concerns (Dalton and Carter 2020). It found that:

- There was a problematic understanding of the principle of symmetry, which requires that benefits and costs are reported in a way that avoids bias.
- The consultants' 'willingness to pay approach' undercounted the benefit side; the cost-benefit analysis should have reflected the fact that the entire population derives benefit from the improved design and functionality of accessibility.
- The discount rate used by the consultants (7%) should have been more reflective of the 'present value' (approximately 3%) to be in closer alignment with current practice.

The third key point advised the consultants 'to consider aligning the project objectives to the concepts of equity and independence' (ABCB 2019: 8) The consultants argued instead that issues of social inclusion, equity, and human rights obligations were beyond the purview of the RIS. Although the relation between social and economic participation and suitable housing is well documented, the consultants found no direct quantifiable evidence to support the qualitative evidence.

## The decision

In the light of the RIS's approach to measuring costs and benefits, the proponents of the silver and gold approaches to Universal Design decided to cut across the government-sanctioned process and take their concerns directly to the building ministers. The Summer Foundation, through their Building Better Homes campaign, garnered the support of user-stakeholders with a political message of broad community support for regulation. At their meeting in April 2021 the building ministers decided to support a mandatory standard in the NCC. They included this commentary in their communique:

> *In agreeing to implement a regulatory solution, Ministers took into consideration the feedback from industry, advocates and the lived experience of members of the community affected by the lack of accessible housing. They also considered the findings of the Decision Regulation Impact Statement (RIS) prepared by the Australian Building Codes Board (ABCB). The decision taken by a majority of Ministers acknowledges the costs identified in the Decision RIS but reflects their assessment that a regulatory solution will result in significant and lasting benefit to Australians who need access to homes with accessible features. (Australian Government 2021)*

### Next steps

The states and territories have to implement the NCC changes and in some states there has been much lobbying to delay the implementation of the silver standards. At this stage the laggards are NSW and WA. In light of the number of complaints from the disability sector about the process, and possibly because of the disjuncture between the RIS findings and the final decision, the ABCB commissioned an independent review of the process by a firm of independent consultants (Board Mattters 2022). The review outlined eight recommendations to improve the operation of the ABCB based on four guiding principles of transparency, robustness, integrity and fairness.

Our interview with a property industry professional in relation to changes to the NCC reiterates the finding presented in Section 4.1.2: that housing standards lobbyists are primarily concerned with maintaining the status quo. A property industry group representative said that they were concerned by proposals that will make housing more expensive or could lead to significant changes in building processes for their members. Another observation, from an American consultant working for an Australian firm who was a respondent in this study, commented that they were surprised by the power of the property lobby in Australia. They noted that the property lobby ran the same arguments in the US, but that politicians in the US were more prepared to push back against their views in making decisions.

Many of the interviewees called for greater national leadership in housing standards regulation, for example:

> *It would be helpful to have great top-down administrative structure and governance … It could benefit a national standard, national declaration, and unified administrative structure. (Economic consultant)*
>
> *My point is that governments should lay down minimum standards and seek compliance with them — it does work. (Commissioner)*
>
> *We don't have effective structures for building and housing Ministers…People expect governments to be taking the lead, they see that as their role. (Director, Policy)*
>
> *What I would really like to see is better centralised oversight and governance. (NGO advocacy representative)*

There is clear opportunity here for political and bureaucratic leadership.

## 4.4 Policy development implications

Change is difficult because of both the challenges of getting government attention and pressure from strong property industry lobbyists, but it is possible. Jacobs, Kemeny et al. (2003) identify the following key elements as requirements for change:

- building a convincing narrative to tell a plausible story of a social problem
- building a coalition of support, and
- for the coalition to ensure that institutional measures are implemented.

The two case studies demonstrate the importance of these elements. In the first case study, the narrative was developed by a group of public health researchers in NZ. The opportunity was provided by a housing crisis and a reformist government and minister who were able to leverage the research evidence to generate Healthy Housing Standards for rental housing that had previously been resisted.

The Livable Housing Design Standard (LHDS) case study showed a much different pathway to change. The narrative was set in the initial establishment of the National Dialogue on Universal Housing Design. The narrative was about improving housing design and construction to provide benefits to a wide cross-section of society including but not restricted to people with a permanent disability. The initial excitement of an effective collaboration between government, the community sector and industry in a voluntary approach to embed a universal design approach to the design and construction of Australian housing was replaced by the reality that very little change was occurring, and that the construction industry seemed to be resisting change rather than embracing it.

The alliance of community sector actors changed strategy and after a long process was able to generate changes to the NCC that will have enduring benefits for a broad range of stakeholders. In doing so they delivered probably the first major recent policy defeat to the Australian construction lobby that had vehemently resisted the move from a voluntary to a mandatory approach. An important tool in this fight for change was a range of academic research that was commissioned to counterbalance the views of the consulting firm that delivered the RIS documents. The change campaign leadership was determined and kept pressing for change despite numerous setbacks.

The second case study also demonstrated a number of important lessons for the ABCB, as well as for thinking about a roadmap to improve building quality in Australia. The first lesson was that the processes used by the ABCB in dealing with the LHDS was not fit for purpose. When forced to take up the issue by the nation's building ministers, the ABCB ran a very slow process and was actively lobbied by the building sector to adopt a voluntary strategy despite the obvious failure of that approach. The case study also demonstrated some failings in the RIS process.

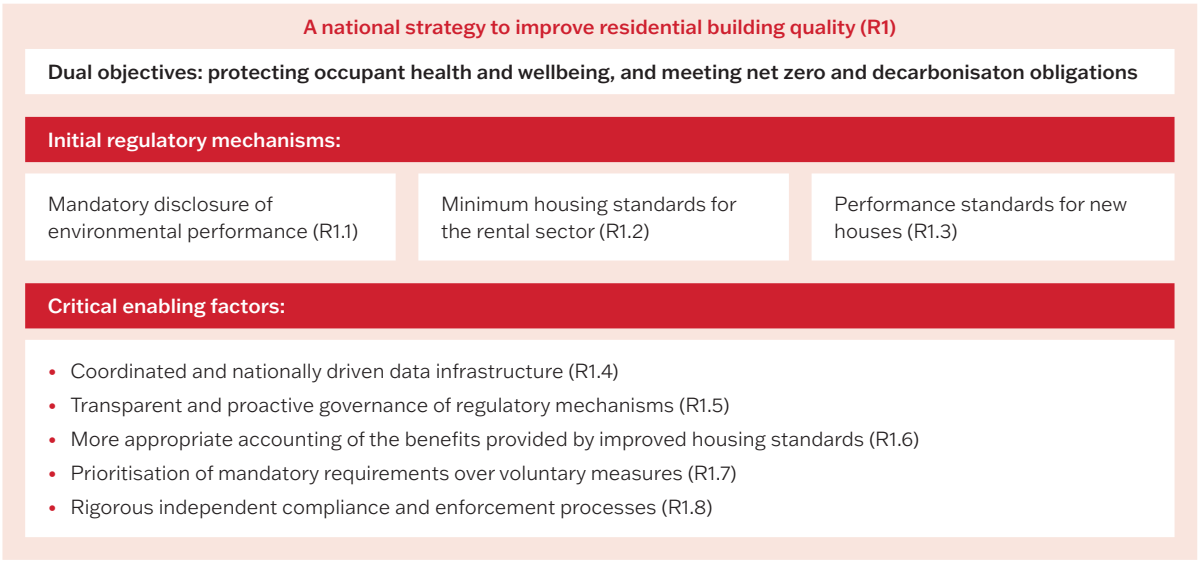
Without some significant changes to the ABCB, it is unlikely that it will be able to address the range of policy challenges facing the built environment, notably Australia's move to net zero by 2050. Several suggested reforms are discussed in the next chapter.

# 5. Policy development options

The research highlights the poor standard of some Australian housing, the weakness of Australia's current evidence infrastructure (see Chapter 2), the slow progress Australia is making in achieving targets in energy efficiency and other areas (see Chapter 3), and the types of conditions that may enable or hamper policy change (see Chapter 4).

The principal recommendation arising from this research is that a national strategy to improve residential building quality should be developed. Figure 12 summarises the primary and secondary recommendations, which are elaborated further in the sections below.

**Figure 12: Diagrammatic representation of the principal and secondary research recommendations**




Source: Authors.

## 5.1 A national strategy

The review of the Australian policy landscape in Chapter 3 reveals a fragmented regulatory framework in terms of the specification and delivery of healthy, efficient and affordable housing. Table 7, summarising the national and state and territory policy, plainly demonstrates the lack of policy in key areas designated by the IEA *Roadmap for Energy Efficient Buildings and Construction* framework. One of the main challenges illustrated by the review is Australia's federated model of government, in which the states and territories hold much of the responsibility and power for regulating housing standards.

As such, we see marked inconsistency across the different jurisdictions in terms of uptake of nationally led policies (such as the NCC 2022 updates), as well as the development of state-based policy (such as minimum standards within residential tenancy acts). This observation was echoed by many of the interviewees, who called for stronger, overarching national leadership. Specifically, effective national leadership expressed through a national strategy could enable:

- Longer-term plans, aligned for instance with the Australian Government's commitment to the Paris Agreement, for the regulation of new housing stock as well as the remediation and retrofit of existing housing stock.
- A consistent approach to housing standards regulation across the states and territories, incentivising timely uptake of nationally led policies (such as the NCC and mandatory disclosure) with potential for penalising laggard jurisdictions.
- A mandate for inter-governmental and inter-departmental collaboration to overcome siloed policy portfolios (for example, housing related policies sit across multiple portfolios with some interviewees noting that collaboration or discussion of policy initiatives between departments is prohibited in the absence of ministers' express directive).

A national strategy could be developed and led from within existing frameworks (such as the Trajectory for Low Energy Buildings, the National Housing and Homelessness Plan currently in development and the Net Zero Plan), or from a purposefully formed agency incorporating representatives from social services, housing, infrastructure, energy, health, and consumer affairs portfolios.[54] This second approach aligns with recommendations made in a report by Martin, Lawson et al. (2023) that called for an Australian Housing and Homeless Strategy tasked with ensuring that everyone in Australia has adequate housing. The report highlighted improvement of housing quality as a core area of business.

54 https://www.dss.gov.au/housing-support-programs-services-housing/developing-the-national-housing-and-homelessness-plan; https://www.dcceew.gov.au/climate-change/emissions-reduction/net-zero

### 5.1.1 Initial regulatory mechanisms

A national strategy should include, as a starting point, the following three regulatory mechanisms.

#### Mandatory disclosure

A program for the mandatory disclosure of dwelling energy performance emerged at all stages of this research. It is a critical and relatively straightforward policy action that should be prioritised. The ACT has had mandatory disclosure since 1997, with research demonstrating a positive relationship between energy performance and higher property values (Fuerst and Warren-Myers 2018). In 2004, the Australian Government committed to a national mandatory disclosure program that was featured in various national strategies but was ultimately not realised due to differences in state and territory priorities (Berry and Maker 2015). Mandatory disclosure is one of the residential building initiatives put forward in the Trajectory for Low Energy Buildings Addendum and has been progressed through the draft *National Framework for Disclosure of Residential Energy Efficiency Information.*[55] A national program of mandatory disclosure for residential buildings could enable:

- improved market function on the provision of better consumer information about the performance of houses offered for sale or lease
- accountability and transparency in the performance standards of public and community housing
- routine data collection and monitoring of performance standards across the entire housing stock.

A mandatory disclosure scheme could also act as a mechanism for mandating increased minimum performance standards over time (following the example of Energy Performance Certificates in the UK), as well as a conduit for government retrofit or remediation programs targeting lower performing dwellings. Like mandatory disclosure, mandatory energy performance standards have already been identified as a priority action in the Trajectory Addendum for existing buildings.

As identified in the draft National Framework, there exist several rating tools that could be deployed within a mandatory disclosure framework. Learning from international experience and the stakeholder interviews, there is an important opportunity here to broaden the remit of future disclosure programs to also include information about healthy housing standards, operating costs and resilience in weather extremes.

#### Minimum housing standards for the rental sector

NZ has demonstrated that implementing minimum standards for the rental sector (that go beyond the basics of habitability) is possible and can gain widespread public support, especially if built on solid research evidence. With the rising level of housing prices in many parts of Australia, the rental market is going to be the lifetime tenure for an increasing number of Australian households (Hulse, Parkinson et al. 2018). Providing a safer, more efficient and healthier environment for renters to live in is an important element of Australian housing policy. The reluctance of the property sector to change is likely to bring the normal voices of 'outrage' saying that investors will abandon the rental market. The economic response to this should be a strong one which is well described in Murray (2024): the property will not disappear and it could be purchased by another investor who thinks minimum standards are reasonable, or by a first home buyer which reduces demand in the rental market. The lesson from NZ is that a strong narrative needs to be built around the benefits of such a change for tenants, for the health sector, and energy conservation. There should be detailed negotiations with landlord groups around the sorts of changes that will be needed and their phased introduction.

55 https://www.dcceew.gov.au/sites/default/files/documents/national-framework-for-disclosure-of-residential-energy-efficiency-information.PDF

### Performance standards for new houses

Performance standards for new houses (via the NCC) remain an important mechanism for the progressive improvement of new houses and existing houses undergoing significant renovation. Chapters 3 and 4, however, highlighted the lack of consistency in the administration and application of the Code across the states and territories, relatively low standards when compared to international counterparts, as well as a historic lack of transparency in its governance (explored further below).

## 5.1.2 Critical enabling factors

For an effective national strategy to improve housing quality and conditions, the following enabling factors should be considered.

### Coordinated and nationally driven data infrastructure

A national data infrastructure will be essential to shape policy responses and monitor progress into the future. As Chapter 2 highlighted, the national data landscape is piecemeal, secondary and not fit for purpose. Across the key considerations for housing performance and quality, data is sparse, under multiple custodianship, and brings together various scales, reliability, populations of focus and robustness. The work undertaken for this project suggests the need for national coordination of existing data resources, and the development of a more fit for purpose data infrastructure. No one data source is likely to meet the varied requirements of providing a solid data foundation for a more efficient and better quality future stock. We propose that much of the required data will be readily available and should be sourced through existing participants in the housing system, such as energy providers, the planning sector, and the building sector. There is a clear role for government in coordinating this much required infrastructure, incentivising it, and making it widely accessible to all.

### Transparent and proactive governance of regulatory mechanisms

Until recently, the ABCB has missed out on the modernisation of the Australian public sector (see section 4.3). It lacked transparency and did not sufficiently listen to and communicate with the broader public. The decision making through the board was dominated by government and industry members.

When decisions about the building code were concerned with mainly technical matters (like the structural integrity of buildings), these weaknesses were probably less of a public policy risk. However, as the ABCB has moved into broader policy areas like the Livable Housing Design Standard and the need to bring Australia to net zero, the organisation's failings have been clearer. For example, complaints from the broader disability sector led to an external review of the ABCB and a change of senior personnel. These developments have already led to some important changes but it is clear that more needs to be done.

The ABCB needs to engage more directly with the public, who have a clear stake in the way that their housing is built and who increase the diversity of views that the organisation is hearing. Most readily noticeable is a lack of consumer representation, as well as inter-generational representation, in its decision-making processes. Both groups were identified by interviewees as able to make important contributions to governance processes; for example, by speaking about lived experience as well as taking a longer-term view of the houses that are being built today.[56] Board Matters (2022) recommended a consumer advisory committee. Another option is to appoint appropriate people from consumer advocacy organisations directly on the ABCB board.[57]

56 Lived experience perspectives are already common in a number of related policy sectors, for example energy, public housing and the Therapeutic Goods Administration.

57 We heard conflicting views on this issue during our research. Some respondents thought the technical nature of the discussions would be inappropriate for consumers. A consumer advocacy group representative strongly disagreed.

Extended further, diversity in representation could also be reflected in more diversity in the types of businesses and portfolios represented. For example, increasingly financial institutions are compelled by Environmental, Social and Governance (ESG) reporting to understand the carbon intensity of their portfolios, including mortgages (Bellrose, Norman et al. 2021). Banks also have an important interest in how housing performs over the life of a 30-year mortgage and not just in the short-term. Diversity could also be helped by having a greater turnover in board membership. Board members are currently allowed to have two board terms of five years.

Principles of transparency and active governance should be embedded across all aspects of a national strategy.

### More appropriate accounting of the benefits provided by improved housing standards

The benefits of improved housing standards can be difficult to capture. However, our examination of the existing RIS process for NCC changes revealed some immediate opportunities for considerable improvement.

The current RIS process (see Section 4.3.4) is good at highlighting the costs of change, but it does not sufficiently capture benefits. This issue has been compounded by the use of high discount rates that tend to ignore long-term benefits; this is unhelpful, given the long product life of housing. Both these issues have made it less likely that RISs would support change.

The RIS process should not be used to decide whether to improve the energy performance of new dwellings, but rather to help decide how to do it. This would make for shorter and less controversial processes. For example, this alternative approach could have shaved years off the Livable Housing Design Standard decision and saved large amounts of time for stakeholders (and taxpayers) who had to keep arguing about a position that had already been decided. On more detailed operational matters there are a number of potential positive changes that the ABCB could introduce:

- RISs should be peer reviewed before they are published and the peer review should be made public.[58]
- A plain language version of the RIS should be published that can be understood by the public.
- The board should place less confidence on the outputs of a RIS and display appropriate spreadsheets on its website that enable all stakeholders to see how the RIS Benefit Cost Ratios (BCRs) change as assumptions change.
- The 7 per cent discount rate should not be used to argue the central case in any RIS.
- Consultants should be regularly rotated and evaluated through the peer review process. Consultants without direct commercial links to the construction industry should be encouraged to participate.
- The ABCB should be more transparent in its dealing with the public.[59]

### Prioritisation of mandatory requirements over voluntary measures

The policy review in Chapter 3 reveals, in the Australian context, a heavy reliance on voluntary uptake of energy efficiency audits, performance disclosure and integration of universal design principles. The case study of the Livable Housing Design Standard in Chapter 4 reveals the ineffectiveness of voluntary measures that, for instance, put the financial onus onto households and have little traction across the construction and property sector. This is a pattern apparent across other policy initiatives, for example the Trajectory for Low Energy Buildings, but reflects outdated regulation when we compare the approach to the IEA's Roadmap where there is the expectation that many measures are mandatory.

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58 As Board Matters (2022) commented in their work, the review of the Office of Best Practice Regulation is not a peer review.

59 It should provide more detailed minutes about all its meetings including showing who was in attendance. It should include a bio of its board and committee members on its web site as well as senior staff. Lastly the public should be encouraged to provide suggestions about improving the building code.

### Rigorous independent compliance and enforcement processes

Weaknesses in compliance and enforcement processes were not something directly explored in the first two stages of the research. However, they were raised by most interviewee. Problems with compliance and enforcement of construction regulation are not new in Australia (Shergold and Weir 2018) and have been highlighted by the large number of defects reported in recent surveys of apartment buildings (Daniel and Roberts 2024). One interviewee, an Industry Expert, observed that the direct engagement of certification practitioners by developers and builders represents a fundamental problem, suggesting that a central authority brokering certification services would assist in mitigating potential conflicts of interest.

The current issues with compliance are not only leading to a problem with building quality (as one interviewee commented: 'it's not much use having a seven star standard if the house is badly built and only performs at five stars') but also with the creation of new housing supply. As new housing is needed in our major cities, with a growing focus on apartments, a large proportion of new stock will be presold before it is built.[60] If the public lacks confidence in the construction process, they will not buy apartments off the plan. This is one of the reasons for the current low levels of apartment construction, particularly in Sydney where the problems with some apartment buildings have been more visible.

## 5.2 Final remarks

This research sits against a backdrop of growing societal, economic and environmental pressures. Housing sits across all of these domains and has the capacity to be protective of households or to amplify risks. It is in this way that we see fit-for-purpose, healthy, affordable, energy efficient and low carbon housing as an essential measure to address growing inequalities in wealth and health, cost-of-living pressures and the effects of an increasingly uncertain climate future.

60 Lenders can require up to 100 per cent of the apartments to be pre-sold off the plan before they will release construction finance.

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# Appendix 1: State of the Nation Housing Data Stocktake Baseline Resource

| | Australian Housing Conditions Data Infrastructure | The Winter Home Temperature dataset | Census of Population and Housing | ABS Aboriginal Housing Statistics | ABS Energy Account | AIHW Housing Data Resource | National Social Housing Survey | Household Income and Labour Dynamics in Australia | CSIRO Nathers | Victorian Residential Efficiency Scorecard |
|---|---|---|---|---|---|---|---|---|---|---|
| **Currency** | 2016, 20, 22, 24 | 2022 only | 5 yearly (2021) | 5 yearly (2021) | 2018, 2022 | Ongoing | Ongoing | Annual panel | Ongoing | Ongoing |
| **Sample Size** | 22,500 | 500 | All households | 343,389 | NA | NA | 8,000 | ~18,000 | 1,246,251 | 1870 |
| **Coverage** | Australia | 5 Capital Cities | Australia | Australia | Australia | Australia | Australia | Australia | Australia | Victoria |
| **Focus and representitiveness** | Representative stratified by renters & owners | Income representative area sample | Yes | Aboriginal and Torres Strait Islanders | NA | NA | Social Housing tenant households | Representative Panel | New homes with opt in for energy rating | Opt in |
| Stock numbers | | | ■ | ■ | | ■ | | | ■ | |
| Dwelling type | ■ | ■ | ■ | ■ | | | | | ■ | |
| Construction | ■ | ■ | | | | | | | ■ | |
| Age | ■ | ■ | | | | | | | | ■ |
| Dwelling quality | ■ | ■ | | ■ | | | | ■ | | |
| Bedrooms | ■ | ■ | ■ | ■ | | ■ | ■ | | | |
| Size | | | | ■ | | | ■ | | ■ | ■ |
| Security | ■ | | | | | | ■ | | | |
| Heating | ■ | ■ | | | | | | | | ■ |
| Thermal comfort | ■ | ■ | | | | | ■ | ■ | | |
| Temperature | | ■ | | | | | | | | |
| Humidity | | ■ | | | | | | | | |
| Mould | ■ | ■ | | | | | | | | |
| Natural light | ■ | | | | | | | | | |
| Ventilation | | | | | | | | | | |
| Tenure | ■ | | ■ | ■ | | ■ | | ■ | | |
| Affordability | ■ | | ■ | ■ | | ■ | | | | |
| Energy Usage | | | | | ■ | | | | | |
| Energy affordability | ■ | ■ | | | | | | ■ | | |
| Energy efficiency | | | | | | | ■ | | ■ | ■ |
| By state | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| By greater capital city | ■ | ■ | ■ | ■ | | ■ | | | | |
| Data download | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | |
| Geospatial data | ■ | ■ | ■ | | | | ■ | | | |
| to access the data… | http://dx.doi.org/10.26193/SLCU9J | http://dx.doi.org/10.26193/MZGFWO | https://www.abs.gov.au/statistics/people/housing/housing-census/latest-release | https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/housing-statistics-aboriginal-and-torres-strait-islander-peoples/latest-release | https://www.abs.gov.au/statistics/industry/energy/energy-account-australia/2021-22 | https://www.housingdata.gov.au/ | https://www.aihw.gov.au/about-our-data/our-data-collections/national-social-housing-survey | doi:10.26193/SJEPRM | https://ahd.csiro.au/ | https://www.energy.gov.au/rebates/home-energy-efficiency-rating |

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