

The real cost of affordable housing includes building quality, energy use and transport costs



Based on AHURI Final Report No. 427: Measuring housing affordability: Scoping the real cost of housing

What this research is about

This research examines the relationship between housing, energy and transport, with a focus on housing quality (performance and comfort) and location in relation to housing affordability. It aims to establish a framework for a more comprehensive and nuanced assessment of housing affordability in consideration of the multiple and complex trade-offs households make in their housing decisions.

The context of this research

Housing affordability is largely understood as a relationship between housing costs and household income, tied to the principle that households should have an adequate standard of housing without the cost burden impacting household health, wellbeing and their non-housing essential expenditure. Accurately measuring housing affordability and identifying housing affordability problems is particularly challenging given the many interrelated variables (such as rents/mortgages, heating/cooling costs and transport costs) affecting households in diverse ways.

The key findings

Governments need to take a multidimensional approach to measuring housing affordability

The literature argues for a more nuanced and multidimensional approach to measurements of housing affordability, including greater consideration of the multiple and complex trade-offs households make in their housing decisions. For example, lower-income households who have to find housing in under-serviced locations with limited transport access often commit greater costs and time to commute, and experience spatial dislocation from social and economic networks.

Lower-income households make trade-offs to meet housing costs

Lower-income households routinely make trade-offs to meet their housing costs, which can result in:

- material deprivation, including financial hardship, food insecurity and energy poverty
- health, wellbeing and life-satisfaction implications
- socio-spatial exclusion and isolation.

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Most of these trade-offs and their implications are not accounted for in affordability measurements used by policy makers. For instance, under current measurements, housing can appear affordable due to under-consumption, when a household occupies poor-quality housing or a dwelling that is ‘too small’.

Poor housing quality impacts householders' health

Housing affordability challenges may force some households to reside in physically inadequate housing, such as housing with:

- poor or no insulation
- insufficient heating and cooling systems
- exposure to mould and damp, with insect and vermin issues
- structural defects.

The subsequent health implications of poor housing conditions span a range of physical illnesses and mental health conditions, as well as instances of family and domestic violence triggered and exacerbated through the occupancy of substandard housing

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Renters live in lower quality, less energy efficient housing

Social and private rental properties tend to be of poorer quality and less energy efficient than owner-occupied housing. Most Australian state and territory governments have not yet implemented adequate minimal rental housing standards or mandatory energy performance disclosures on sale or rent.

Australian renters are more likely to spend more on energy than equivalent owner-occupiers. Recent studies found that two-thirds of private renters had trouble maintaining comfortable temperatures in their home and up to 40 per cent of renters were experiencing energy hardship. Victorian renters were spending up to 400 per cent more on heating and cooling energy compared to owner-occupiers, despite their homes rarely exceeding a healthy minimum temperature. At the same time, social and private rental tenants have few legal rights to make modifications to improve the thermal performance and energy efficiency of their home.

Energy hardship needs to be recognised

The recognition of energy hardship—when a household experiences payment difficulty or difficulty maintaining indoor thermal comfort—has heightened as energy prices have risen well beyond inflation, wages and income support payments.

Three types of energy-related hardship are identified:

1. being unable to pay energy bills
2. rationing energy to the detriment of health and wellbeing
3. spending a high proportion of income on energy to the detriment of consuming other essential goods and services.

Importantly, households can experience all three forms of hardship simultaneously.

There is very little data on the extent of energy hardship in Australia; nor are the characteristics of households in energy hardship, and their subsequent experiences, well known. Excluding utility bill underpayment, experiences of energy hardship can often 'fly under the radar' of policy makers and beyond the scope of housing affordability measurements and policy measures.

Housing locations can reinforce households' disadvantages

Housing affordability challenges are also tied to the quality of local amenities, as well as proximity and accessibility to essential resources—such as employment, education, transportation, facilities and services. Across Australia's urban environment, accessibility to essential resources is spatially varied and unevenly concentrated within inner-urban areas.

Lower-income households may enter housing stress to reside in amenity-rich locations or seek less-expensive housing on the urban periphery and travel long distances by private vehicle to participate in economic and social activities. This means they face greater costs and time for commuting and experience spatial dislocation from their economic and social networks.

Renters more likely to suffer locational disadvantage

Tenure also plays an important role in locational advantage and disadvantage with private renters less likely to secure a dwelling in their first-choice location compared to purchasers. Research showed that 37 per cent of renters ended up choosing housing more than 10 kilometres away from their first-choice location.

The National Construction Code aims to improve housing standards

The most significant policy shift in recent years to improve the quality, energy efficiency and accessibility of Australian homes is the recent changes to the National Construction Code 2022 (NCC 2022) implemented by the Australian Building Codes Board. The NCC 2022 incorporates new standards to enhance the liveability of new homes, making them more accessible, energy efficient and comfortable to live in.

The minimum requirement for new houses and apartments will increase from 6 stars to 7 stars (out of 10), according to the Nationwide House Energy Rating Scheme (NatHERS). A new 'Whole of Home' energy-use budget will also apply annually to account for a home's major fixed appliances and any on-site renewable energy generated.

The **Liveable Housing and Design Standards** ensure that homes are more accessible to older people, people with disability, families with young children and people with temporary mobility issues.

Most states and territories are scheduled to implement the NCC 2022 at varying dates and through a phased approach. The standards apply to new Australian homes and not to existing dwellings. The application of the NCC 2022 into state and territory policy is largely voluntary, which has led to jurisdictional variation in minimum performance requirements.

States and territories are implementing minimum rental housing standards

As of December 2023, a framework for minimum rental requirements—which outlines the settings for minimal rental standards, including energy-efficiency requirements—was under development by federal, state and territory governments as part of the Trajectory for Low Energy Buildings.

Federal, state and territory governments are implementing housing energy-efficiency schemes

Federal, state and territory government commitments to achieving net zero by 2050 include a range of incentives, programs and supporting initiatives to promote energy efficiency in Australian homes. These include:

- rebates on home energy assessment ratings—home audits
- rebates for the installation of renewable systems—solar panels, hot water systems and solar batteries

- rebates to improve a dwelling's thermal performance—draught-sealing, insulation, window glazing
- rebates for energy-efficient appliance upgrades—refrigerators, air conditioners, lighting

While largely accessible to all households, the schemes primarily favour property owners who have the autonomy and long-term incentives to upgrade their homes or investment properties.

Most states and territories offer some form of energy-efficiency program targeted at very low-income households, including no-interest appliance loans, in-home efficiency audits or fixed rebates for appliances.

Energy hardship relief schemes vary across Australian states and territories; most were identified as short-term responsive measures, offering eligible households time-limited, one-off payments to mitigate the extent of energy hardship. Few jurisdictions have initiated more holistic, proactive measures to address some of the root drivers of energy hardship—particularly relating to energy-inefficient housing.

Federal Government commits to social housing energy-efficiency scheme

Under the federal government's Energy Saving Plan, \$300 million over four years has been committed to target energy upgrades for vulnerable Australians in social housing. Upgrades can include the installation of energy-efficient solar systems, heat pump hot water systems, reverse-cycle air conditioners, ceiling fans, insulation and draught-proofing.

Few policies to improve housing affordability in specific locations

The policy review showed that few government measures apply a spatial-specific focus to housing affordability. Although varying degrees of tenure-neutral infill development targets have been proposed, most jurisdictions do not practise inclusionary zoning, with the exception of urban areas across South Australia, New South Wales, the Australian Capital Territory, and to some extent Victoria, where voluntary and mandatory measures apply.

Each state and territory has committed to increasing the proportion of infill development to promote sustainability and liveability, and also to reduce urban sprawl and maximise the use of existing infrastructure and services. Infill targets range between 40 per cent and 85 per cent of new development across the major capital cities.

Strategic infrastructure programs aim to improve transportation and accessibility

All state and territory governments have made commitments to improving transport accessibility, connectivity and sustainability throughout the built environment. Most commitments are documented in each jurisdiction's respective strategic infrastructure plans or housing strategies.

Transportation concession schemes help lower income householders

A wide range of public transport concessions are available across Australia to assist eligible concession card holders to access transport. Concessions exist for students, seniors, pensioners, carers and people with mobility impairments. For motorists, most jurisdictions offer private vehicle registration concessions for eligible low-income households, such as seniors, veterans and pensioners. Some jurisdictions offer toll-relief rebates to individuals with high toll usership.

Travel assistance schemes are also available in some jurisdictions to contribute to travel and accommodation costs to access medical treatment, education or training facilities.

Zero-emission vehicle schemes reduce transport greenhouse gas emissions

Zero-emission vehicles (ZEVs) produce zero tailpipe emissions of greenhouse gases and pollutants during operation, and are typically cheaper to run than fossil-fuel-vehicles. All state and territory governments offer non-means-tested ZEV incentives to support the decarbonisation of the automobile sector. Most ZEV schemes invariably favour households along the higher end of the income spectrum with the capacity to afford new vehicle purchases. Notably, Queensland is the only jurisdiction to offer an increased rebate to participants with a household income of \$180,000 or less.

Some states and territories offer financial incentives for electric-vehicle charging systems, such as subsidies to support the uptake of e-mobility devices, such as e-scooters and e-bikes.

Australian transport-energy-housing case studies

The research investigated 11 Australian case studies to better understand the quality, energy, and locational and transportation dimensions of housing affordability.

Quality dimensions of housing

Research findings point to the need for a universally applied definition of safe and healthy housing standards across Australia. This methodology underscored the need for policy makers to determine, and subsequently measure, a household's required energy expenditure, rather than their actual energy expenditure.

Energy hardship and poverty

To measure the prevalence and experience of energy hardship, the research examined data from the self-reported measure of energy hardship over a three-year period. This revealed both payment difficulty and heating inability, illustrating the extent of energy hardship beyond household expenditure. The findings clearly illustrate the multiple dimensions of energy hardship and the need for carefully tailored policy interventions for different groups of households.

Locational aspects of housing

The case studies examine the relationship between housing affordability and locational advantage or disadvantage, and revealed the spatial patterns of residential inclusion and exclusion in relation to employment connectivity. It highlights the need to address socio-spatial inequality through urban policy and housing interventions.

Transportation disadvantage

The case studies demonstrate how areas with lower housing costs but higher transportation costs were more likely to experience social exclusion and spatial disadvantage. Findings illuminated the extent of commuting hardship experienced and highlighted the need to expand interventions to increase social and affordable housing supply in well-located, job-rich areas.

What this research means for policy makers

Existing methodologies and datasets can be integrated into housing affordability policies

The various methodologies explored in the case studies delivered research that shows a more comprehensive and refined understanding of housing affordability.

Given the accessibility of most datasets used, there is great potential to reproduce these methodologies more frequently and at a larger scale.

Adopt NCC 2022 to Improve minimum standard of housing

The energy efficiency and liveable housing provisions of the NCC 2022 need to be adopted by all states and territories. Measures that seek to improve the housing performance of existing residential dwellings should also be explored.

Enhance energy-efficiency measures in rental housing

Minimum standards for rental housing need to be introduced across the states and territories to enhance housing conditions and affordability, including mandating minimum energy-efficiency standards; facilitating targeted energy-efficiency upgrades; and empowering renters to make minor modifications without requiring landlord approval or fear of retaliation. Overcoming financial hurdles for social and private housing providers to undertake retrofitting or solar panel initiatives was identified as paramount.

Expand energy assistance programs to reduce energy hardship

Energy assistance programs are required that cater to the diverse types of households facing energy poverty. A key finding is the importance for policy responses to consider a household's required energy expenditure, rather than actual energy expenditure, in order to adequately capture energy-use rationing to mitigate financial hardship.

Policy settings that improve landlord responsiveness to maintenance requests may improve dwelling standards and reduce tenants' energy costs.

Address locational and transportation disadvantage

The integration of housing, planning, transport and employment policies is critical to mitigate risks of housing stress and displacement, while offering increased accessibility to key resources and services, including employment hubs.

Planning incentives can encourage delivering affordable housing through the likes of density bonuses. Private sector development of affordable housing can be mitigated through policy intervention addressing increased planning certainty, cost issues, including taxes, developer contributions to infrastructure, and exploring alternative construction technologies proven to cut costs and build times.

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The research also highlights the need for programs to encourage private landlords to provide well-located affordable rental housing.

There is a need to expand transport accessibility and assistance schemes for low-to-moderate-income households currently experiencing transportation disadvantage.

Methodology

This research reviewed Federal, state and territory policies and practices; analysed academic and grey literature from the fields of housing, poverty, health and wellbeing, urban planning, transportation and energy across Australia; and investigated 11 case studies to highlight methodologies and datasets that have potential to strengthen current housing affordability measurements.

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