

# Lifetime Affordable Housing in Australia

Centre for Design



## About LAH

While residential energy efficiency is high on the policy agenda in Australia, the debate is frequently simplified to an argument of ‘sustainability vs. affordability’. One problem has been a dearth of research into the full lifecycle costs of housing provision, which takes account of upfront capital costs but also considers ongoing energy and transport costs. In order for future planning and policy mechanisms to deliver optimal environmental performance and affordability, there is a need to investigate these themes to inform development of potential market and regulatory mechanisms.

The innovative contribution of this project resides in the development of an analytical framework for reconciling housing affordability and improved environmental performance of housing within a metropolitan context. Empirical analysis on the cost implications of higher thermal efficiency, locational efficiency factors and the social cost implications of these across socio-economic groups contributes evidence to inform appropriate policy responses. These can in turn facilitate the development of ‘lifetime affordable housing’, fit to meet current and future social, economic and environmental needs.

## Research Themes

### Theme 1: Housing life cycle costs and benefits

Existing studies indicate that, although methods exist, life cycle costing of environmental performance is in its infancy. LAH has developed an innovative and integrated Life Cycle Costing, Thermal Modeling methodology appropriate for assessment of Australian housing conditions. This has been applied to a sample of 80 dominant house designs. Results suggest that cost savings from higher efficiency standards are significant over 25 and 40 year time-horizons.

### Theme 2: Locational efficiency costs and benefits

The assessment of housing costs, considering both ‘direct’ mortgage and rental costs and ‘indirect’ costs such as transport has not been seriously analysed in Australia. Limited analysis has suggested that planning policy which supports car dependency increases the vulnerability of households to increasing fuel prices. Analysis for theme 2 incorporates the real costs of location into total household housing costs by factoring in travel to work costs by various transport modes and setting these against household income. Results highlight the influence of spacial factors on housing affordability and have significant policy implications.

### Theme 3: Affordability implications

Analysis identifies the cost consequences for households over the short, medium and long term, the real (as opposed to perceived) trade-offs between environmentally performing housing and cost to the household, and the government interventions required to enable households to minimise their long term housing costs.

### Theme 4: Policy and transition mechanisms

In the light of the integrated analyses presented in answer to the first three research themes, we explore how particular policy instruments can be utilised to minimise the long term net cost of housing development to households and the broader community.

## Project Partners

Funding has been provided by the Australian Research Council (ARC) to carry out this work under the Linkage Projects Scheme for a period of three years. The linkage projects scheme supports collaborative research and development projects between higher education organisations and other organisations, including within industry, to enable the application of advanced knowledge to problems. Collaborating partners on Lifetime affordable Housing include third level institutions and Industry Partner Organisations (PO's).

### VicUrban

VicUrban is the Victorian Government's sustainable urban development agency. One of Victoria's largest residential land developers, VicUrban works in partnership with the public and private sector and takes a leadership role in urban developments across metropolitan and regional Victoria.

<http://www.vicurban.com>

### Building Commission

The Building Commission is a statutory authority that oversees the building control system in Victoria. The Building Commission oversees building legislation, regulates building practices, advises Government, and provides services to industry and consumers. BC promotes initiatives such as sustainability and

accessibility, and continuing professional development for building practitioners.

<http://www.buildingcommission.com.au>

### Land Management Corporation

The Land Management Corporation (LMC) is a State Government Corporation responsible for managing South Australia's portfolio of land assets. The primary aim of the corporation is to provide social, economic and environmental benefits to all South Australians, by creating, facilitating and developing a range of land-based opportunities.

<http://www.lmc.sa.gov.au/home/>

### RMIT University

The Centre for Design promotes sustainability through research, consulting, and capacity building through active dissemination and professional development. Centre for Design are recognised internationally for our innovative design methods and tools to support sustainable design of products and services – everything from packaging and consumer products to buildings, suburbs and cities. The Climate Change and Social Context group focuses on the interplay of policy and regulation, industry, technology, design, economy, demography, culture and social practices, in the transition towards sustainable communities and consumption patterns. [www.rmit.edu.au/cfd/](http://www.rmit.edu.au/cfd/)

### University of South Australia

The School of Natural and Built Environments at the University of South Australia focuses on the unique relationships and synergies between natural and built environments, with a particular interest in teaching and research to support improved environmental and socio-economic sustainability for the future. Expertise covers Environmental Sciences, Civil Engineering, Construction Management and Economics and Urban and Regional Planning. <http://www.unisa.edu.au/nbe/>

For more information about Lifetime Affordable Housing and to access project outcomes, visit our website:  
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