

The environmental sustainability of Australia's private rental housing stock

authored by

**Michelle Gabriel, Phillipa Watson, Rachel Ong,
Gavin Wood, and Maryann Wulff**

for the

**Australian Housing and Urban Research
Institute**

Southern Research Centre
Western Australia Research Centre
RMIT Research Centre
Swinburne-Monash Research Centre

January 2010

AHURI Positioning Paper No. 125

ISSN: 1834-9250

ISBN: 978-1-921610-30-1

Authors	Gabriel, Michelle Watson, Phillipa Ong, Rachel Wood, Gavin Wulff, Maryann	University of Tasmania University of Tasmania Curtin University RMIT University Monash University
Title	The environmental sustainability of Australia's private rental housing stock	
ISBN	978-1-921610-30-1	
Format	PDF	
Key words	environmental, sustainability, Australia, private, rental, housing, stock	
Editor	Jim Davison	AHURI National Office
Publisher	Australian Housing and Urban Research Institute Melbourne, Australia	
Series	AHURI Positioning Paper, no.125	
ISSN	1834-9250	
Preferred citation	Gabriel, M. et al. (2010), <i>The environmental sustainability of Australia's private rental housing stock</i> , AHURI Positioning Paper No.125. Melbourne: Australian Housing and Urban Research Institute.	

ACKNOWLEDGEMENTS

This material was produced with funding from the Australian Government and the Australian States and Territories. AHURI Ltd gratefully acknowledges the financial and other support it has received from the Australian, State and Territory governments, without which this work would not have been possible.

AHURI comprises a network of universities clustered into Research Centres across Australia. Research Centre contributions, both financial and in-kind, have made the completion of this report possible.

DISCLAIMER

AHURI Ltd is an independent, non-political body which has supported this project as part of its programme of research into housing and urban development, which it hopes will be of value to policy-makers, researchers, industry and communities. The opinions in this publication reflect the views of the authors and do not necessarily reflect those of AHURI Ltd, its Board or its funding organisations. No responsibility is accepted by AHURI Ltd or its Board or its funders for the accuracy or omission of any statement, opinion, advice or information in this publication.

AHURI POSITIONING PAPER SERIES

AHURI Positioning Papers is a refereed series presenting the preliminary findings of original research to a diverse readership of policy makers, researchers and practitioners.

PEER REVIEW STATEMENT

An objective assessment of all reports published in the AHURI Positioning Paper Series by carefully selected experts in the field ensures that material of the highest quality is published. The AHURI Positioning Paper Series employs a double-blind peer review of the full Positioning Paper – where anonymity is strictly observed between authors and referees.

CONTENTS

CONTENTS	III
LIST OF TABLES	V
ACRONYMS	VI
EXECUTIVE SUMMARY	1
1 INTRODUCTION	4
1.1 Background	4
1.2 Research and policy significance	4
1.3 Research themes and questions	5
1.4 Structure of the paper	6
2 SUSTAINABLE PRIVATE RENTAL HOUSING: INTERNATIONAL RESPONSES	7
2.1 Emergence of climate change and sustainable housing agenda	7
2.2 Environmental sustainability and social equity	9
2.3 International experience	10
2.3.1 United Kingdom	11
2.3.2 Canada	13
2.3.3 United States	14
2.3.4 New Zealand	14
3 ACTION ON CLIMATE CHANGE IN THE RESIDENTIAL SECTOR	16
3.1 Institutional frameworks	16
3.2 Regulation	17
3.2.1 The Building Code of Australia	17
3.2.2 Carbon Pollution Reduction Scheme	18
3.3 Consumer information	18
3.4 Household assistance and incentives	19
4 PRIVATE RENTAL HOUSING IN AUSTRALIA	20
4.1 Key characteristics of the private rental sector	20
4.1.1 Trends in private rental housing	20
4.1.2 Profile of Australian landlords	21
4.1.3 Profile of private rental households	22
4.2 Policy and legislative framework	22
4.2.1 Taxation measures and charges	23
4.2.2 Property law	23
4.2.3 Policy support for low-income tenants	24
4.3 Sustainable private rental housing	25
4.3.1 Australian Government	25
4.3.2 States and territories	26
5 ADVANCING SUSTAINABLE PRIVATE RENTAL HOUSING IN AUSTRALIA	28
5.1 Current barriers to advancing sustainable private rental housing	28
5.2 Scope for policy innovation in Australia	31
6 RESEARCH PROGRAM	32

6.1 Impact of higher energy prices on private rental tenants	32
6.2 Evaluation of current policy	32
6.3 Landlord motivations and attitudes.....	32
REFERENCES	34

LIST OF TABLES

Table 1: Summary of research program	5
--	---

ACRONYMS

ABCB	Australian Building Code Board
ABS	Australian Bureau of Statistics
ACOSS	Australian Council of Social Service
AGO	Australian Greenhouse Office
AHURI	Australian Housing and Urban Research Institute
BASIX	NSW's Building Sustainability Index
BCA	Building Code of Australia
CMHC	Canada Mortgage Housing Corporation
COAG	Council of Australian Governments
CPRS	Carbon Pollution Reduction Scheme
CRA	Commonwealth Rent Assistance
DCC	Department of Climate Change
DEWR	Department of Environment, Water and Resources
DEWHA	Department of Environment, Water, Heritage and the Arts
E ₃	Equipment Energy Efficiency Program
EPC	Energy Performance Certificate
GCCR	Garnaut Climate Change Review
IPCC	Intergovernmental Panel on Climate Change
NAHA	National Affordable Housing Agreement
NFEE	National Framework for Energy Efficiency
NRAS	National Rental Affordability Scheme
NSESD	National Strategy for Ecologically Sustainable Development
RECS	Renewable Energy Certificates
SBCI	Sustainable Buildings and Construction Initiative
SDC	Sustainable Development Commission
UNFCCC	United Nations Framework Convention on Climate Change
VCOSS	Victorian Council of Social Service
VEET	Victorian Energy Efficiency Target

EXECUTIVE SUMMARY

The Australian Government, in partnership with state and territory and local governments, is currently committed towards the reduction of greenhouse gas emissions, principally through the establishment of the Carbon Pollution Reduction Scheme (CPRS). It has committed to delivering a 60 per cent cut in carbon emissions from 1990 levels by 2050. The Australian Government has also agreed to make progress towards this goal by committing to up to a 15 per cent cut in carbon emissions by 2020 on the proviso that other advanced economies take on comparable reductions. Housing activity in Australia plays a central role in achieving such goals. Recently, the United Nation's Sustainable Buildings and Construction Initiative (SBCI) estimated that 'the building sector contributes to about a third of all energy-related CO₂ emissions worldwide' (Koeppel and Urge-Vorsatz 2007: 3).

This project contributes to present debates about the sustainability of Australian cities by focusing attention on the opportunities for and barriers to improving the environmental sustainability of Australia's private rental housing stock. For existing private rental stock, this entails retrofitting existing dwellings to minimise energy and water consumption. For new dwellings and development, options include consideration of housing design, siting and density. As is widely recognised, housing provision in Australia is predominantly market-led and it is within this framework that present policy initiatives will need to be developed. The residential sector is dominated by owner-occupation with present levels of home ownership at around 70 per cent in 2005-06, 22 per cent of households in private rental housing and a further 5 per cent in public rental housing (ABS 2008: 1). Increased problems of housing affordability combined with a decline in public rental housing stock has facilitated greater reliance on private rental housing for long term occupancy rather than a transitional tenure, particularly among low-income households (Seelig et al 2006; Beer 1999; Wulff and Maher 1998).

Improving the environmental sustainability of private rental housing poses unique policy challenges. Of central concern is the 'principal-agent' or 'split incentive' problem; that is, while the landlord (or the principal) is generally responsible for purchasing the energy-using facilities in the home, the tenant (or the agent) is generally responsible for the payment of recurrent energy bills (GCCR 2008: 476). Also of concern is the potentially uneven impact of new environmental sustainability measures on Australian households, particularly on low-income households. In contrast to home owners, private rental households are more likely to be experiencing poverty and housing stress. Higher concentrations of low-income households within the private rental sector and existing problems of housing affordability place financial restrictions on the capacity of these households to adapt to increased energy prices. With the introduction of new measures to reduce emissions, such as the CPRS, there is a need to prepare households for future energy cost increases. Such measures have the potential to further disadvantage low-income households without adequate improvements in the infrastructure that can result in affordable cooling and heating.

Improvements in the environmental sustainability of Australia's private rental housing offers advantages for the global community in terms of achieving substantial reductions in emissions from Australia's residential sector, as well as potential long-term economic benefits for landlords and improved health and well-being of tenants. The benefits for landlords are potentially higher rental charges, increased occupancy rates and stronger reputations. The benefits for tenants are a more comfortable living environment, with improved health and wellbeing and lower energy bills. Despite these multiple benefits, the review undertaken for this report highlights that there are

substantial barriers to advancing the environmental sustainability of Australia's private rental sector. These barriers relate to the structure of the Australian housing market, the profile of housing investors, and the legislative context and policy settings in which investors and tenants operate. Key barriers include:

- The 'principal-agent' or the 'split incentive' problem.
- The lack of institutional investors and the prevalence of many small-scale and accidental individual/family investors in Australia who hold few properties and who are unable to take advantage of economies of scale.
- The opportunity for landlords to quit housing stock, thereby undermining the effectiveness of compulsory measures (i.e. measures to improve the sustainability of dwelling may impact negatively on the supply of low-cost private rental housing either through rent increases or through landlords opting to sell rental property).
- The lack of mandatory basic housing standards in state and territory residential tenancy legislation.
- Current residential tenancy legislation, which prohibits tenants from making alterations to their property without their landlord's consent.
- The lack of long-term security for private rental tenants, which may discourage investment in energy and water efficient solutions.
- The lack of knowledge among landlords, tenants and real estate agents about the sustainability profile of properties and (except for some jurisdictions such as the ACT and Queensland) no current requirement for disclosure of this information at the point of lease or sale.
- The lack of landlord organisations and associations to support cultural shift in attitudes among landlords regarding sustainable initiatives and to support the dissemination of relevant information.
- The ongoing problem of housing affordability, as well as the prevalence of low vacancy rates in urban areas, provides little incentive for landlords to act and for tenants to risk security of tenure.
- The recent growth in multi-unit dwellings in the Australian housing market with rising body corporate fees. The owners of such properties are constrained by the need to obtain consent from the body corporate of multi-unit dwellings in order to adapt properties, particularly in regards to the shell of the building and the heating and lighting of communal space. Currently, there is limited knowledge of the energy use of multi-dwelling residences.

In Australia, early interventions to address environmental sustainability within the residential sector were predominantly focused on new build. This situation is changing with a plethora of new policy initiatives directed towards retrofitting existing housing stock. With specific regards to private rental housing, there are some policy initiatives already in train to address environmental sustainability. However, to date, these initiatives have tended to be piecemeal rebates rather than comprehensive audits and improvements to ensure that substantial reductions in emissions are achieved. For the most part, these initiatives have not been means-tested and they have lacked strategies to reach low-income private rental households.

There remains considerable scope for further advancing sustainable rental housing policy in Australia. A review of international and national literature and policy debates in relation to sustainable private rental housing highlights the need for a multi-faceted approach. This includes strategies that are focused on education and information sharing; technical retrofitting solutions; a cultural change in attitudes, behaviours and

relations among landlords and tenants; legislative changes in tenancy laws, and ongoing monitoring of the environmental, economic and social impacts of particular policy interventions. Key examples of innovative policy yet to enter the agenda in Australia include: the use of concepts such as fuel poverty/energy poverty; adjustment of present definitions of affordable housing to include energy costs and quality of housing; the introduction of legislated basic housing standards; expansion of the energy efficiency requirements of building regulations, with greater consistency across states and territories; the introduction of a mandatory energy performance certificate scheme, and disclosure of energy and water efficiency of dwelling at point of sale or lease; the roll-out of green or low carbon neighbourhood zones; the promotion of a community dialogue about ethical landlord practices, including the introduction of green landlord awards; and linking current incentives available to housing investors through the Australian taxation system with sustainability outcomes.

The primary research proposed in the second stage of this project will build on the international experience documented in this positioning paper and the identification of key barriers to the widespread uptake of environmentally sustainable measures in the Australian context. There is a need for a better understanding of 'what is currently working'. This includes: the effectiveness and efficiency of present policy in delivering more sustainable outcomes; and the capacity of present policy to reach low-income households to enable such households to respond to climate change without being further disadvantaged. There is also a need for a better understanding of the motivations and attitudes of private landlords, who are the key drivers of change in this sector. This is important in ensuring that policy measures are relevant and well-targeted.

1 INTRODUCTION

1.1 Background

This Positioning Paper is the first output of a research project examining the potential opportunities for and barriers to improving the environmental sustainability of Australia's private rental stock. For existing private rental stock, this entails retrofitting existing dwellings to minimise energy and water consumption. For new dwellings and development, options include consideration of housing design, siting and density. The project has five aims:

- To review how the current policy and legislative framework in Australia operates to facilitate or discourage investment in environmentally sustainable private rental housing.
- To estimate the impact of CPRS on private renters' energy bills, particularly low-income tenants.
- To test the principal-agent hypothesis, which predicts that private rental households are more vulnerable to higher energy prices than home owners.
- To assess the potential impact of policy measures, legislation and other regulatory tools designed to improve the environmental performance of private rental housing stock on low-income tenants.
- To investigate the attitudes of private rental investors towards measures designed to improve the environmental sustainability of their investment.

The Positioning Paper includes a summary of the research proposal, a review of literature on environmental sustainability and housing policy, and an outline of the present legislative and policy context in Australia in relation to environmental sustainability and private rental housing. The Positioning Paper responds directly to the first research question: How do current policy and legislative settings operate to facilitate or discourage investment in environmentally sustainable private rental housing?

In addition to the Positioning Paper, Wood, Ong and Seymour (2009) have produced a Modelling report. This report responds directly to the second research question: What impact will the CPRS have on private renters' energy bills, particularly low-income tenants?

1.2 Research and policy significance

The Australian Government, in partnership with state and territory and local governments, is currently committed to addressing climate change through the reduction of greenhouse gas emissions, principally through the introduction of a Carbon Pollution Reduction Scheme (CPRS) (DCC 2008), and the fostering of environmentally sustainable patterns of development (DEWR 2007). At the household level, this has translated into a commitment to improving the energy efficiency of residential housing stock and to assisting residential households to reduce their resource consumption (DEWHA 2008). While early research and policy initiatives have been directed towards the construction industry and new home-owners, less attention has been paid to the existing dwelling stock, including private rental housing. This is a concern given that increased problems of housing affordability combined with a decline in public rental housing stock has facilitated greater reliance on private rental housing for long-term occupancy rather than a transitional tenure, particularly among low-income households (Wulff and Maher 1998; Beer 1999; Seelig et al 2006).

The project's focus on private rental housing reflects: the growing significance of this tenure in the Australian housing system; the unique 'principal-agent' or 'split incentive' problem faced by the private rental sector (i.e. the lack of financial incentives for landlords (i.e. the principal) to invest in low-emission energy efficient options, and restrictions on the ability of tenants (i.e. the agent) to adapt to the higher price of energy); the vulnerability of low-income private rental tenants to higher energy prices; and the relative lack of environmentally sustainable policy initiatives directed towards private rental housing stock to date.

The project will provide policy-makers with estimates of the effectiveness of state energy rebates in cushioning the impacts of the CPRS on private renters, as well as identifying the state government budgetary implications of higher energy rebates due to CPRS. In addition, the project will provide policy-makers with insight into strategies that can encourage providers and consumers of rental housing to adopt more energy efficient practices, while ensuring that such policies do not exacerbate existing socio-spatial inequalities in Australian cities.

1.3 Research themes and questions

The central research question guiding this project is: What are the potential opportunities for and barriers to improving the environmental sustainability of Australia's private rental housing stock? There are five specific research questions detailed in the table below.

Table 1: Summary of research program

<i>Research question</i>	<i>Data sources</i>	<i>Methodology</i>
1. How does the current policy and legislative framework operate to facilitate or discourage investment in environmentally sustainable private rental housing stock?	International and national academic and policy documents.	Documentary analysis. Review of environmental sustainability policy initiatives.
2. What is the impact of the carbon emission trading scheme (ie higher energy prices) on private rental tenants' energy bills, particularly <i>low-income</i> tenants?	Wave 5 of the Household, Income and Labour Dynamics in Australia (HILDA) Survey Garnaut Report estimates of the real increase in energy prices under alternative carbon price scenarios.	Simulation estimates of increase in energy expenditure using AHURI-3M (microsimulation model of the Australian Housing Market). The tax-benefit simulator in AHURI-3M used to determine eligibility for concessions on energy bills. Population weights used to cost the state government budget implications.
3. Does market failure due to principal-agent problems contribute to higher energy bills for private rental tenants and leave them more vulnerable to the adverse consequences of increased energy prices than other housing consumers?	Wave 5 of the HILDA Survey that contains measures of energy expenditure.	Econometric estimation of a reduced form hedonic price model that relates energy expenditure to personal and housing characteristics. Landlord type/ tenure are variables of interest.
4. What are the potential impacts of policy measures	Data on energy rebate program recipients—	Mapping of location of uptake of energy rebates. Analysis of

<i>Research question</i>	<i>Data sources</i>	<i>Methodology</i>
designed to improve the environmental performance of private rental housing stock on private rental tenants, particularly <i>low-income</i> tenants?	Sustainability Victoria, Glenorchy City Council (ie postcode, housing stock, rent price). Views of stakeholders.	impact of rent prices. Interviews with key stakeholders from state housing agencies, the social and community housing sector, tenants' unions, and consumer affairs (Victoria and Tasmania).
5. What are the attitudes of private rental housing investors towards measures to improve the environmental sustainability of their housing investment? (price/other motivations).	Views of private rental housing investors.	Focus groups/interviews with landlords who have invested in: 1) low-emission technologies, and 2) low-cost suburbs with high concentrations of Commonwealth Rent Assistance (CRA) recipients.

1.4 Structure of the paper

The remainder of the Positioning Paper has been structured as follows. In Chapter 2, we consider the emergence of climate change and the sustainable housing agenda, including the role of social justice and equity within this agenda. We then document innovative policy developments in the United Kingdom, Canada, the United States and New Zealand. In Chapter 3, we review the emergence of environmental legislative and policy settings in Australia that target the residential sector. In Chapter 4, we focus on the private rental sector. Here we examine trends in private rental housing and review the present legislative and policy context in which landlords and tenants currently operate. In Chapter 5, we examine the barriers to advancing the environmental sustainability of the private rental sector and the scope for further policy innovation in Australia. Finally, in Chapter 6, we outline how the next stage of the research will be conducted. This next stage will build on what we know by examining the effectiveness of policy to date, particularly in terms of effectively targeting low-income households. It will also provide a better understanding of the motivations and attitudes of landlords. This will assist in determining the most appropriate policy mechanisms and enable policy-makers to fine tune policy settings.

2 SUSTAINABLE PRIVATE RENTAL HOUSING: INTERNATIONAL RESPONSES

In Chapter two, we survey key examples of policy designed to: improve the environmental sustainability of private rental housing, with a particular emphasis on energy efficiency; enable low income households to respond to climate change; and support low income households who are financially disadvantaged by increased energy prices and new policy settings. While there are differences in the housing systems of each of the nations reviewed, these international examples provide useful insight into potential sites of policy innovation.

2.1 Emergence of climate change and sustainable housing agenda

Since the energy crisis of the mid-1970s, concerns about global environmental conditions have gained traction in international policy-making forums and generated activity focused on sustainability and sustainable development. The emergence of new international protocols, regulations and commitments to a reduction in greenhouse gas emissions (including carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride) have been underpinned by scientific modelling that has demonstrated a link between climate change, or rather global warming, and human-made greenhouse gas emissions; such emissions being a consequence of rapid urbanisation and industrial development (Roaf et al. 2005: 1–11). In 1988, the Intergovernmental Panel on Climate Change (IPCC) was established to assess the state of scientific knowledge concerning climate change and to formulate strategies to address the problem of climate change. The Panel concluded that the growing accumulation of human-made greenhouse gases in the atmosphere was contributing to the warming of the earth's surface. This led to the adoption of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 at the United Nations Conference on Environment and Development (the Earth Summit) at Rio de Janeiro. The framework called for voluntary efforts by developed nations to reduce greenhouse gas emissions. The Rio Declaration set forth universally applicable principles of sustainable development and led to the adoption of *Agenda 21*, a blue-print for action on sustainability.

In 1997, a more substantial international agreement on greenhouse gas emissions emerged at Kyoto. As part of the UNFCCC, the Kyoto Protocol aimed to stabilise and reduce gas emissions by an average of about 5 per cent below 1990 levels by the period 2008–2012 (Roaf et al. 2005: 12). Under the Kyoto treaty, countries are asked to meet their targets through three market-based mechanisms: emissions trading, clean development mechanisms (i.e. countries commit to an emission-reduction project in developing nations) and joint implementation (i.e. countries earn emission reduction units) (for further detail see: http://unfccc.int/kyoto_protocol/items/2830.php, 31 August 2009). While Australia did support the targets in principle, the Australian Government only ratified the protocol in late 2007. Since the late 1990s, action to meet the emission-reduction targets outlined in the protocol have been modified by consideration of the extent to which nations participate in carbon-offsetting practices, such as preservation of forestry, which act to store carbon, and the development of renewable energy sources.

In 2007, the release of the fourth IPCC report confirmed that climate change is happening and indeed progressing more rapidly than expected. The report concluded that 'warming of the climate system is unequivocal' (IPCC 2007: 5) and that 'most of the observed increase in globally averaged temperatures since the mid-20th century

is very likely due to the observed increase in anthropogenic (human) greenhouse gas concentrations' (IPCC 2007: 10). This report signalled a growing consensus within the international scientific community over climate change, thereby increasing pressure on national governments to act to address climate change. While national governments have recently committed to reducing carbon emissions under the 2009 Copenhagen Accord, specific targets for reduction are yet to be ratified.

In recognition of the central role of the built environment in exacerbating or limiting carbon emissions, a partnership between the United Nations and the building sector was established in 2006, labelled *The Sustainable Buildings and Construction Initiative* (SBCI). In a report to the group, Koepfel and Urge-Vorsatz (2007:3) observe that the 'building sector contributes about a third of all energy-related CO₂ emissions worldwide'. They argue that: 'no other individual sector has the same impact in terms of energy use and associated greenhouse gas emissions' and that 'no other sector has such a high potential for drastic emission reductions through energy efficiency improvement in buildings' (Koepfel and Urge-Vorsatz 2007: vii). The report provides a comparative assessment of policy instruments aimed at improving the energy efficiency of the building sector and reducing greenhouse gas emissions. The assessment is based on an analysis of 80 existing evaluation studies or review articles (Koepfel and Urge-Vorsatz 2007). The authors classify policy instruments into four categories: regulatory/control mechanisms; economic/market-based instruments; fiscal instruments and incentives; support, information and voluntary action (Koepfel and Urge-Vorsatz 2007: 11) and they outline key barriers to energy efficiency improvements in buildings: economic/financial barriers; hidden costs and benefits; market failures; behavioural and organisational constraints; political and structural barriers; and information barriers (Koepfel and Urge-Vorsatz 2007: 7–8). The SBCI has also commissioned additional research on options for carbon emission abatement in the building sector (Levine, et al. 2007). The authors argue that buildings offer substantial opportunities for cost-effective carbon emission abatement with 'a global potential to reduce approximately 29 per cent of the projected baseline emissions by 2020' (Levine, et al. 2007: 389).

Today, there is a burgeoning body of research on sustainable housing (Bhatti, et al. 1994; Edwards and Turrent 2000; Tosics 2004; Goldie, et al. 2005; Roaf, et al. 2005; Jenks and Dempsey 2006). This work is multi-disciplinary, encompassing urban design and technological solutions (Edwards and Turrent 2000; Jenks and Dempsey 2006) and social practices and householder behaviours (McKenzie-Mohr and Smith 1999; Shove 2003). It charts: the conceptual development of sustainable housing; the uptake of environmentally efficient technologies and design; life cycle analysis and auditing of houses; surveys of energy consumer attitudes and behaviours; interventions directed towards changing household consumption patterns; and links between environment, health and housing. In 2003, *Housing Studies* produced a special edition focusing on environmental sustainability and housing. The contributors argued that housing researchers need to engage more systematically with environmental debates and to reflect on the contribution of housing studies to environmental dialogue. A central theme in this collection was the need to review housing provision in a way that reconciles traditional concerns about social justice and equity with new environmental objectives. The contributors also favoured greater engagement with a range of stakeholders in the housing system in order to enable low-income or disadvantaged households to participate in environmental action and sustainable solutions (Bhatti and Dixon 2003).

2.2 Environmental sustainability and social equity

Notions of sustainability and sustainable development typically address concerns about environmental impacts and inter-generational equity. While sustainability is broadly understood as a belief system and a way of living that enables life on the planet to be self-sustaining, the concept of sustainable development has become the principal framework for government policy and regulation centred on reducing the impact of human activity on the environment (Baker 2006; Roaf, et al. 2005). In the Brundtland Report, *Our Common Future*, 'sustainable development' is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987: 43). Priemus (2005:6) has previously adapted this definition to the specific issue of housing, defining environmentally sustainable housing as 'housing that is geared to meeting the needs of the current residents without compromising the ability of future generations of residents to meet their own needs' and further that such housing must have 'a minimum of negative environmental impacts in terms of climate change (greenhouse effect; the quality of air, water and soil; noise; stench; the stock of nonrenewable materials; and biodiversity)'. (Priemus (2005: 6). In recognition of the difficulties in measuring sustainable housing, Priemus (2005: 10) advocates the use of a 'multivariate yardstick that would offer a 'sustainability profile' for the dwelling'. It would be a 'combined measurement, reflecting the consumption of fossil-fuel energy, non-renewable materials and water; and the negative environmental impacts (greenhouse effect; quality of air, water and soil; noise nuisance; stench; and biodiversity) that arise during the new building developments and/or the annual use of the dwelling' (Priemus (2005: 11).

While debate around sustainability has been important in highlighting the issue of inter-generational equity, such debate has also been interlinked with issues of intra-generational equity and global poverty from the outset, with international protocols and strategies directed towards addressing climate change framed within the context of uneven development (Baker 2006). This has been a critical issue within the emerging literature on sustainable housing, as housing researchers have sought to make explicit links between the new environmental agenda and earlier housing policy and research anchored as it has been in issues of social equity and redressing housing poverty (Bhatti, et al. 1994; Bhatti and Brown 2003; Boardman 1991; Priemus 2005; Roaf, et al. 2005). Bhatti (2001) argues for the need for housing research to engage more actively with environmental concerns, while also recognising the need for policy-makers and researchers to address issues of equity and social justice.

Bhatti (2001: 40) observes that, in the United Kingdom, traditional debates about housing inequality and poverty have been linked to environmental debates through the notion of 'fuel poverty'. Boardman (1994: 107), who has undertaken extensive work in this area, defines 'fuel poverty' as 'the inability to achieve affordable warmth because of the energy inefficiency of the home'. Based on present levels of energy expenditure, the benchmark for affordable warmth in the UK is set at '10 per cent of the weekly household budget spent on all fuel as "affordable"' (Boardman (1994: 108). The notion of fuel poverty is important in highlighting two distinct issues. First, that indoor environment quality is unevenly distributed across the population, with low-income households more likely to be living in poorly insulated and damp housing. And second, that policy interventions designed to reduce carbon emissions can have uneven effects. For example, while increases in fuel costs might exacerbate financial hardship for low-income households, poorly targeted subsidy schemes might fail to reach the lower end of the housing market.

The emphasis on a comprehensive renewal of housing, based on new principles of sustainable design, raises further questions about how this change is managed in a way that is just and participatory. Gibson (1994) draws a useful link between the garden city movement and associated slum clearances of the 1920s, which aimed to weaken the link between poverty and bad housing, with the type of sustainable renewal underway today. While this time the focus is on improving the energy and water efficiency of housing and giving people access to affordable, warm and energy efficient homes (ie reducing fuel poverty), such a process raises similar issues of social inclusion and participation. In view of these challenges, Bhatti, et al. (1994) call for a greater emphasis on equity and participation in the process of developing governmental solutions to the problem of climate change as well as, greater insight into the everyday practices of households.

2.3 International experience

This section outlines key programs directed towards improving the sustainability of private rental housing within four nations—the UK, Canada, the US and New Zealand. While this survey highlights areas of policy innovation that may be relevant to the Australian experience, it is recognised that there are significant differences between the housing systems of each of these nations.

Among the nations examined below, the proportion of households who rent privately varies. The US and Canada have the largest private rental sectors, with just under a third of households renting privately in 2000 (Hulse 2003: 31). Australia and New Zealand are comparable in size, with approximately a quarter of New Zealand households renting privately in 2000 (Hulse 2003: 31). In Australia, the private rental sector declined to a low of around 19 per cent in the 1980s and 1990s, but it has recently expanded to 22 per cent in 2005–06 (ABS 2008:1). In comparison, the private rental sector in the UK is relatively small at approximately 9 per cent in 2000 (O'Sullivan and De Decker 2007: 98). While the housing systems of each of the nations are predominantly market-based with relatively high rates of home ownership and substantial private rental sectors, the UK has historically had a higher percentage of households in social housing. Here 'social housing' includes, but is not limited to, state-provided housing and is defined as housing in which 'eligibility, access, rents and other tenancy conditions are determined primarily through administrative processes rather than market mechanisms' (Hulse 2003: 32). While Australia, New Zealand, Canada and the US have in common a relatively limited social housing sector, Hulse (2003: 32) has previously noted that the division between the private rental and the social housing sector is considerably less rigid in Canada and in the US compared with Australia and New Zealand. These nations, Canada and the US, have a broader mix of housing arrangements. The US system in particular provides substantial incentives to attract private financing and management of low-cost housing and, accordingly, three-quarters of the assisted housing is privately owned and managed not-for-profit rental housing (Hulse (2003: 33).

The nations examined below also vary in terms of the mix of small-scale and large-scale landlords within the private rental market. Institutional investors are particularly prevalent in the US housing market where special assistance is available to attract private developers serving the low end of the rental market. In the UK, there has been a growth in institutional investment in the (albeit smaller) private rental market largely as a consequence of privatisation policies in the 1980s, which led to the transfer of social housing stock into the private housing market (Whitehead 1993). In Canada, incentives were put in place in the 1980s and 1990s to stimulate the supply of affordable housing, but institutional investment remains relatively limited. In New

Zealand and Australia, the private rental sector has been dominated by individual or family investors (Berry 2000; Hulse 2003).

2.3.1 United Kingdom

As a signatory to the Kyoto protocol, the UK Government has committed to substantial reductions in national carbon emissions. The UK Government has undertaken a series of initiatives to drive this change, including two Energy White Papers, a Climate Change Program, an Energy Review, the Stern Review and key legislative changes (Boardman 2007). It has also established an independent watchdog, the Sustainable Development Commission, to steer policy development and monitor policy implementation. In relation to the residential sector, the UK Government supports an 11–18 per cent carbon reduction by 2020 from 1990 levels (Boardman 2007: 5). Within the residential sector, sustainable housing programs have been directed towards improving the energy efficiency of new build and retrofitting existing housing stock. The focus of these programs has been on energy savings, water savings and reduction in household-generated waste.

The UK has introduced a suite of measures aimed at the domestic sector that impact on, but are not limited to, the private rental sector. In 2001, the UK Government released a Fuel Poverty Strategy (DTI 2001). The strategy aimed to eradicate fuel poverty by 2016 and prioritised support for vulnerable households including those containing children, older people, disabled and the long-term sick (Boardman 2007: 70). The Strategy addresses the government's legal obligation under the *Warm Homes and Energy Conservation Act 2000* in England and Wales to eradicate fuel poverty 'as far as reasonably practicable' by 2016 (Boardman 2007: 70). The Strategy is supported by the Warm Front scheme in England and the Homes Energy Efficiency Scheme in Wales, which offer grant-funded support for low-income groups. Warm Front provides households with a comprehensive audit and associated grants for appropriate retrofits. The grants are available to home owners and private rental tenants/landlords and they focus on improvements in insulation and heating (<http://www.warmfront.co.uk>, 2 Sept, 2009; <http://www.heeswales.co.uk/>, 2 Sept, 2009).

There are mixed views on the success of the Warm Front scheme. The Fuel Poverty Advisory Group argues that the scheme has been successful in reducing the fuel bill of low-income customers by 20 per cent in 2006, as well as increasing the comfort levels of low-income households. It is also recognised as a cost-effective way of reducing carbon emissions (BERR 2008). In contrast, Boardman (2007: 72–73) argues that, despite substantial investment in the energy efficiency of the homes of the fuel poor, the results are disappointing. She argues that the grants are piecemeal and while they make minor improvements to individual properties they do not necessarily lift the household out of fuel poverty. She favours the approach taken under the Warm Zones policy that was introduced in 2000. The scheme is managed by local authorities and provides support to households on an area-basis. She contends that it has been more successful as the assessments undertaken are more comprehensive, with households offered a fully-integrated service, including subsidised insulation and heating measures. As Boardman (2007: 73) argues, 'It is only the total package that succeeds in lifting households out of fuel poverty, because of the depths of deprivation—the energy efficiency measures alone are rarely sufficient'. For Boardman, improving existing housing stock and capital infrastructure is the preferred way forward, as increasing household income would be extremely expensive and result in recurring annual expenditure.

The UK has also introduced measures that specifically target the private rental sector. The Landlords Energy Saving Allowance is a tax allowance that lets landlords claim

on their tax return against the cost of buying and installing energy saving items. Private landlords can make claims on capital expenditure for 'installations of loft, cavity wall and solid wall insulation and draught proofing for their rented property'. Currently, it does not cover 'heating upgrades and heating controls' (SDC 2006). Landlords can also access a personalised Home Energy Check report on each of their properties for free through the Energy Saving Trust (http://www.swansea.gov.uk/media/pdf/4/6/Landlord_Energy_Saving_Allowance.pdf, 2 Sept 2009). Since 2006, landlords in England and Wales are obliged to ensure that their property does not pose a risk to their occupants and that the property is assessed under the Housing Health and Safety Rating System. This includes provisions relating to excess cold/heat and the reduction of damp and mould growth. If landlords refuse to grant permission for the installation of appropriate heating and insulation measures made available under the UK Government's various energy efficiency grant programs, then they may be directed by the local authority's Environmental Health department to undertake improvements at their own cost (<http://www.communities.gov.uk/hhsrs>, 2 Sept. 2009).

In response to an EU directive, all domestic properties in the UK being sold or rented will be required to have an Energy Performance Certificate (EPC) from October 2008, every landlord will be required to produce an EPC before letting a property. An EPC provides tenants with information on the energy efficiency of a property and it must be available free of charge to prospective tenants. The EPC provides a rating from A to G, where A is very energy efficient and G is very inefficient. It will identify the energy efficiency rating of the home (ie how much the home would cost to run) and the environmental impact rating (based on how much carbon dioxide is released into the environment because of the home). The certificate will also include a recommendation report which identifies a range of measures that could improve the energy performance of the home (Communities and Local Government 2008). Consultation with landlords suggests that the EPC scheme has had some teething problems, in particular, a widespread lack of compliance during the early phase of implementation. Landlords were also concerned that lodgement fees for undertaking second EPCs penalise those landlords motivated to improve their property. From the tenant's perspective, the current situation whereby an EPC is considered valid for ten years means that the certificate becomes less accurate and less useful to tenants when deciding on leases over time.(Energy Efficiency Partnership for Homes 2009b).

A further strategy to engage landlords and tenants has been the recent introduction of Green Landlords Awards. The awards are designed to raise awareness among tenants, to encourage landlords to utilise current government incentives and to acknowledge those landlords who have made improvements to the energy efficiency of their residential properties (Energy Efficiency Partnership for Homes 2009a). In 2008, the Private Rented Sector Group of the Energy Efficiency Partnership for Homes offered 18 awards with a total value in excess of £30,000.

In the UK, the proliferation of new schemes has been accompanied by research on the attitudes of landlords and tenants. The most recent findings to emerge from social research undertaken by the Energy Efficiency Partnership for Homes in 2009 reveal some important insights for this project. The project team found that 'Landlords and tenants are equally concerned about energy efficiency; 58 per cent of landlords compared to 53 per cent of tenants' and growing awareness among landlords of tenant demand for energy efficient properties (Energy Efficiency Partnership for Homes 2009c: 7). Focusing on landlords, they found that landlords in high demand areas were more concerned about energy efficiency ((Energy Efficiency Partnership for Homes 2009c: 7). In addition, 'Fewer commercial landlords are convinced/engaged with the energy efficiency in rental properties compared to BTL

[Buy-To-Let] landlords with one property' ((Energy Efficiency Partnership for Homes 2009c: 9). Not surprisingly, they found that landlords tend to be interested in 'measures which add direct value to their property (e.g. double glazing), or to be concerned about how to deal with solid-walled properties or those in conservation areas'. (Energy Efficiency Partnership for Homes 2009b: 2). Their research also drew attention to how tenant and landlord relations might act as a barrier to improving the environmental sustainability of the property. As the authors note, 'many sitting tenants are reluctant to ask their landlords to make improvements for fear of being 'troublesome'. The relationship between tenant and landlord is key to enabling existing tenants to ask for improvements to be made' (Energy Efficiency Partnership for Homes 2009b 3). This research also identified ongoing problems with trying to implement 'whole-block solutions across multiple ownership/tenures' (Energy Efficiency Partnership for Homes 2009b: 4).

2.3.2 *Canada*

Canada has a comprehensive strategy in place to address environmental sustainability within the residential sector. Natural Resources Canada's Office of Energy Efficiency has been established by the Canadian Government to oversee a network of energy efficiency and sustainable development programs. The Office of Energy Efficiency manages the government's 'ecoEnergy Efficiency Initiative', which includes a range of measures to reduce energy use in the residential sector such as ecoEnergy Retrofit grants and the Energy Star qualified products scheme. Canada's ecoEnergy Retrofit program provides financial support to implement energy-saving projects on residential buildings. The program requires households to hire the services of a certified energy advisor. The household is then provided with a checklist of recommended retrofits to improve the energy efficiency of their home, and in some instances reduce water use. Grants are then available to assist with a range of improvements (<http://www.oee.nrcan.gc.ca/residential/personal/retrofit-homes/retrofit-qualify-grant.cfm?attr=4>, 7 Sept. 2009). The program targets the homeowners of low-rise residential buildings, with no specific provisions for private and public landlords or low-income tenants. Municipal social housing and First Nation, Band Council and Tribal Council housing are eligible under the program, as are condominium owners, mobile homeowners, landlords with multiple rental properties, and landlords residing outside Canada.

The Canadian Government has also introduced energy efficiency initiatives directed towards affordable housing. In February 2007, National Resources Canada, working jointly with the Ontario Power Authority, announced a \$3.7 million program to encourage the use of energy efficient products in the construction of new housing built under the Canada-Ontario Affordable Housing Program. Under the program, affordable housing providers can claim rebates to offset the cost of purchasing and installing a range of energy-efficient products (<http://canada.ihs.com/news/canada-energy-housing.htm>, 7 Sept. 2009).

In addition, Canada's National Housing Agency, Canada Mortgage Housing Corporation (CMHC), offers tailored mortgage insurance to help finance the purchase or construction of an energy-efficient home. Qualified borrowers can obtain a 10 per cent mortgage insurance premium refund and choose extended amortisation periods without the usual premium surcharge (<http://www.cmhc.ca/en/corp/nero/retousar/2009/2009-05-01.cfm>, 7 Sept. 2009).

In regards to the private rental sector, CMCH administers a scheme to encourage the renewal and rehabilitation of private rental accommodation. The Rental Residential Rehabilitation Program offers financial assistance to landlords of affordable housing to pay for mandatory repairs to self-contained units occupied by low-income tenants.

Mandatory repairs are those required to bring properties up to minimum levels of health and safety. The assistance is a fully forgivable loan covering up to 100 per cent of the cost of mandatory repairs with certain conditions attached. Landlords must also agree to place a ceiling on the rents that may be charged after the repairs are completed; limit rent increases during the term of the agreement; and agree to limit new occupancy to tenants with incomes at or below the income ceiling (http://www.cmhc-schl.gc.ca/en/ab/noho/noho_016.cfm, 7 Sept. 2009).

A web-search identified an additional relevant scheme administered through the province of Montreal. The Energy-Cost Saving Program for Low-Income Households in Quebec, Montreal, was introduced in 1997 and is available to low-income households. It entails a free audit of the building conducted by a social worker and a technician. While the counsellor offers tips on reducing energy costs and other tenant matters, the technician provides advice on energy saving measures (http://www.cmhc.ca/en/inpr/afhoce/tore/afhoid/opma/reenco/reenco_006.cfm, 7 Sept. 2009).

In addition, the Canadian Government has considered the inclusion of energy efficiency provisions in its recent review of the *Residential Tenancies Act*. The new rules would regulate how landlords could install electricity meters in individual units, and 'ratio bill' the electricity or other utilities of smaller buildings (buildings with no more than six units). However, this section of the Act has yet to have been enacted in law (<http://www.mah.gov.on.ca/Page1156.aspx>, 7 Sept. 2009).

2.3.3 United States

In the US, the federal Department of Energy is responsible for a range of policy programs directed towards energy efficiency improvements in the residential sector. These programs are administered and implemented through the states and include consumer information programs, the Home Energy Rating System which provides evaluations of individual home's energy efficiency, and the provision of rebates and tax credits for installation of energy efficient technologies and renewable energy systems (<http://www1.eere.energy.gov/buildings>, 28 Sept. 2009). Individual states offer additional programs such as community information and appliance exchanges.

While there are no federal programs that target private rental households, low-income households are able to obtain assistance with energy efficiency measures through the Weatherisation Program and the Low-Income Home Energy Assistance Program. The Weatherisation Program commenced in 1976 with the aim of reducing the energy costs of low-income families. The program serves low-income families in owned or rented homes. After a unit is selected, weatherisation crews determine the most cost-effective measures for each home. Low-income households can access further financial assistance with their utility bills through the Low Income Home Energy Assistance Program.

Under the 2009 US *Recovery Act*, funding for the Weatherisation Program has increased substantially from previous years. Accordingly, the US Department of Energy aims to make improvements to as many as one million homes per year by early 2010. (See http://apps1.eere.energy.gov/weatherization/recovery_act_faqs.cfm, 7 Sept. 2009).

2.3.4 New Zealand

The New Zealand experience of improving the sustainability of private rental housing is notable for its emphasis on the development of a sound policy evidence-base. The major residential energy efficiency program 'Warm Up New Zealand' is coordinated by the Energy Efficiency and Conservation Authority

(<http://www.eeca.govt.nz/node/3107>, 1 Oct. 2009). Commencing in July 2009, the program aims to retrofit approximately a fifth of the 900,000 homes previously identified as lacking adequate insulation. This scheme differs from earlier schemes (i.e Energy Wise home grants) in that the scale of the funding available and the eligibility criteria has expanded beyond low and middle income households to include all households. Landlords with tenants who hold community services cards are able to get a rebate for 60 per cent of their insulation costs, twice the proportion available to homeowners. Rebates are also available to landlords installing clean heating systems.

The Warm Up New Zealand Program builds on research work undertaken for the Warm Home Project, an extended study of the health impacts of insulating houses. A randomised trial with 1,350 participants was undertaken in seven local communities (three urban and four rural) across New Zealand. Households randomly allocated to the intervention group were provided with comprehensive insulation and draught-proofing while the control group received no intervention. The study relied on self-reported experience, as well as independent measures of use of health services, house temperature and other environmental characteristics of the houses (Howden-Chapman, et al. 2007: 3). The study focused on low-income households; 24 per cent of the households were private rental tenants and 11 per cent were public rental tenants. The study found that 'improving the thermal properties of older houses led to warmer houses and had demonstrable health benefits' ((Howden-Chapman, et al. 2007: 8). The intervention also highlighted that a relatively modest investment in insulation led to significant savings on energy bills for households ((Howden-Chapman, et al. 2007: 8).

3 ACTION ON CLIMATE CHANGE IN THE RESIDENTIAL SECTOR

In this chapter, we provide an overview of major policy developments designed to improve the environmental sustainability of Australia's residential sector. This overview is important in understanding the parameters in which contemporary policy directed towards private landlords and tenants is currently being formulated. The review focuses on energy efficiency measures, as opposed to reduction in water use and waste disposal; as such measures have the greatest potential for reducing carbon emissions and addressing the problem of climate change. The review examines: changes in institutional frameworks; new national and state regulations; the development of consumer information and support; and the introduction of household incentives.

3.1 Institutional frameworks

In Australia, there has been an increase in government activity centred on environmental sustainable development and climate change issues since the 1990s. The United Nations Conference on Environment and Development (the Earth Summit) at Rio de Janeiro in 1992 was particularly important in providing international leadership and direction on sustainable development. The key principles and action plans formulated at the Earth Summit are widely known as 'The Rio Declaration' and 'Agenda 21'. Coinciding with the Earth Summit, the Australian Government in 1992 released a National Strategy for Ecologically Sustainable Development (NSED), which was adopted by all levels of government, and a 'National Greenhouse Response Strategy' (Commonwealth of Australia 1998). In 1997, the Kyoto Protocol asked countries to sign and commit to action around greenhouse gas reduction. While Australia did not sign the Kyoto protocol until 2007, the government did agree in 1997 in principle with the central tenets of the protocol and this arguably provided the impetus for policy activity in Australia, namely through the establishment of the Australian Greenhouse Office (AGO).

Since 2004, the *National Framework for Energy Efficiency (NLEE)* has provided the national policy framework for energy efficiency in Australia in industrial, commercial and domestic energy sectors. The Ministerial Council on Energy is the national policy and governance body for the Australian energy market and, as such, has played a key role in steering the uptake of energy efficient solutions in the residential sector. On 2 July 2009, the Council of Australian Governments (COAG), signed the National Partnership Agreement on Energy Efficiency, which will deliver a nationally-consistent and cooperative approach to energy efficiency. Central initiatives within that paper included the increase of building regulations, the move towards a mandatory disclosure scheme for energy efficiency in commercial buildings, and public funding of retrofits through the Green Building Fund. (<http://www.ret.gov.au/Documents/mce/energy-eff/nlee/default.html>, 1 Oct. 2009).

The Department of Climate Change (DCC) was established in December 2007. The department's activities are directed towards reducing Australia's greenhouse gas emissions; contributing to global strategies to address climate change, and assisting households and business to adapt to the impacts of climate change.

States and territories have developed sustainable energy and energy efficiency policies that are linked to the Commonwealth's *National Framework for Energy Efficiency (NLEE)*. For example, NSW is currently developing a Climate Change Action plan and it has released an Energy Efficiency Strategy. In other states, a lead agency has been established to direct environmental policy initiatives. This is the

approach adopted in Victoria. In 2005, Sustainability Victoria was established to provide leadership and implement policy initiatives that aim to reduce environmental impacts and improve the efficiency of resource use. More recently, Victoria adopted the Victorian Energy Efficiency Target (VEET) scheme. *Our Environment Our Future: Victoria's Environmental Sustainability Framework* (2005) sets out a framework for action. Similarly, the Queensland Government has established an Office of Clean Energy and recently adopted a *Climate Smart 2050* policy. In 2007, the South Australian Government established an independent council to provide advice on adapting to climate change. In Western Australia, the Sustainable Energy Development Office is responsible for implementing the state's energy policies. The Tasmanian Government has recently introduced a Framework for Action on Climate Change and established a Climate Change Office within the Department of Premier and Cabinet.

3.2 Regulation

3.2.1 The Building Code of Australia

In Australia, national building standards are regulated through the Building Code of Australia (BCA). While the BCA provides a uniform platform for health, safety and amenity issues (Australian Building Codes Board 2008), responsibilities for building standards generally rests with state and local governments and therefore variation exists between the states. In the late 1990s, the Australian Government supported investigation into BCA requirements for energy efficiency. In 2003, the issue of sustainability was adopted as a core national goal within the BCA alongside health, safety and amenity. In response, energy efficiency regulations were incorporated into the BCA with the introduction of a new five star standard for all new residential homes (Ashe et al. 2003: 327). While some states immediately adopted the national five star standard for new build and have acted to expand the sustainability requirements of the BCA (e.g. NSW BASIX assessment regulates water efficiency and management), others opted for amendments that reduced the requirements to 3 and 4 stars. In addition, despite the BCA attaching energy efficiency requirements to all building types, some states currently do not require all building types to comply. For example, Tasmania only requires 'class one' buildings (i.e. stand alone domestic dwellings) to comply with energy efficiency regulation from the BCA. Subsequently, 'class two' and 'class three' buildings (i.e. aged care facilities, retirement communities and community housing organisations) do not have to be energy efficient when constructed or renovated and this leads to higher energy bills. This is a concern because these building types are likely to house private rental tenants.

More recently (May 2008), the BCA's energy efficiency requirements have been extended to home renovation. These energy efficiency requirements apply only to substantial home renovations and each state and even local governments have specific requirements. Again, the NSW and Victorian governments have provided leadership in this area. NSW and Victoria require substantial renovations to comply with five state energy and water efficiency standards. However, small home improvements are not normally required to seek a building approval and therefore are not checked by a building certifier or any other official who knows the BCA or state regulations. Consequently, many simpler home renovations, such as installing insulation and solar hot water heaters, or replacing windows, or removing a wall, may not be covered by regulation or overseen by a building certifier.

The BCA requirements for energy efficiency are currently under review with the expectation that a new six star standard will be adopted nationally in 2010.

3.2.2 Carbon Pollution Reduction Scheme

In 2007, the Australian Government commissioned the Garnaut Climate Change Review to examine appropriate mechanisms for reducing Australia's carbon emissions. In July 2008, the Australian Government released the related Green Paper, which canvassed options for an emissions trading scheme. Later that year, the White Paper was released, which outlined the medium-term target for reducing carbon pollution and the final design of an emissions trading scheme (<http://www.climatechange.gov.au/whitepaper/summary/index.html>, 1 Oct. 2009).

The proposed CPRS is a cap and trade scheme, whereby aggregate emissions are capped at a level that is defined by an environmental objective. The cap sets a limit on the aggregate annual emissions. A number of tradable carbon pollution permits will be issued according to the proposed cap. For example, if the cap were to limit emissions to 100 million tonnes of carbon dioxide equivalent (CO₂-e) in a particular year, 100 million emission permits would be issued for that year. Entities responsible for emissions sources covered by the scheme will be obliged to surrender a permit for each tonne of CO₂-e that they have emitted during the compliance period. Carbon pollution permits will be tradable and the price of permits determined by the market (<http://www.climatechange.gov.au/whitepaper/summary/index.html>, 1 Oct. 2009). The assumption is that all costs will be directly transferred to consumer households.

While the CPRS legislative bill was rejected by the Senate, the Government's intention is to commence the scheme on 1 July 2010. The Australian Government is proposing to provide assistance to businesses and households to help them make the transition to a cleaner future. Currently the remedy to this impact entails low-income households receiving direct financial assistance, above indexation, to fully meet the expected overall increase in the cost of living flowing from the scheme.

3.3 Consumer information

The Australian Government's 'Your Home' site provides consumers with information and technical guide materials that can assist with the design, construction or renovation of environmentally sustainable homes. It provides advice on building products, appliances and lighting, heating and cooling, rain and waste water, sustainable landscaping, renewable energy options and environmentally sustainable design (<http://www.yourhome.gov.au>, 1 Oct. 2009).

The Australian and New Zealand Governments support a nationally consistent framework to monitor the energy performance of domestic appliances. The National Appliance and Equipment Energy Efficiency program (E₃) covers the technical, legal, and administrative aspects of national appliance and equipment energy efficiency initiatives. E₃ provides mandatory minimum energy performance standards and labelling.

Individual households are also eligible for 'green loans' from the Australian Government. Under the green loans program, households are provided with detailed, quality home sustainability assessments and access to interest-free green loans of up to \$10,000 to make the changes recommended in the assessment (<http://www.environment.gov.au/greenloans/index.html>, 16 Sept. 2009).

In addition to the national initiatives above, the states and territories run complementary public awareness campaigns, household audit programs, as well as factsheets and checklists for households. Some states offer appliance exchange programs and metering equipment to assist households in determining their energy use. For example, the Victorian Government has recently (2008) launched the *Energy Saver Incentive Buyer Guide*. It directs consumers to participating businesses that

offer government subsidised discounts on key energy saving products such as insulation, double-glazing, energy efficient white-goods, solar or gas hot water, efficient electric or gas heating, and lighting (<http://www.saveenergy.vic.gov.au/465.aspx>, 16 Sept. 2009).

3.4 Household assistance and incentives

As Fielding et al. (2009: 7) have noted in their review of Australia's environmental policy context, there are a number of Commonwealth programs that have been established to support energy efficiency at the household level, including: ceiling insulation rebates; the Photovoltaic Rebate Program; Solar and Heat Pump Hot Water System Rebate. The economic crisis saw the government providing further insulation and solar hot water rebates as part of its economic stimulus package.

Some states and territories and local governments had existing rebate schemes in place before the introduction of the Federal Government's insulation and solar hot water rebate schemes. While some of these schemes have been superseded by the federal rebates, additional programs such as Queensland's gas hot water system rebate continue to offer incentives to households to improve the energy efficiency of their space heating.

4 PRIVATE RENTAL HOUSING IN AUSTRALIA

In this chapter, we outline trends in private rental housing, review the policy and legislative context of the private rental sector in Australia, and survey existing initiatives to improve the environmental sustainability of private rental housing.

4.1 Key characteristics of the private rental sector

4.1.1 *Trends in private rental housing*

The private rental sector has been a key feature of the Australian housing system since colonisation. In contrast, to other nations, the early affluence of the Australian economy enabled the settling Australian population to access property ownership and led to the development of Australia as a home owning democracy (Burke 1999). While the proportion of households relying on private rental was around 40 per cent in the early part of the twentieth century, access to home ownership expanded dramatically in the post-war period and, as consequence, the proportion of the private rental sector declined to around less than a quarter of the housing stock in the 1960s and 1970s. Since then, the private rental sector has continued to hold secondary status to home ownership. Home ownership in Australia is underpinned by a taxation system that encourages investment in the housing market (Yates 2003). As Yates's (2003) research indicates, the distribution of housing subsidies and exemptions through the taxation system overwhelmingly favour home owners and housing investors, above private and public rental tenants. In the 1970s and 1980s, the private rental market continued to contract further due to growth in ownership and rising government investment in public housing, but more recently has expanded to a peak of 22 per cent in 2005–06 (Burke 1999: 2; ABS 2008: 1). The key reasons for this recent expansion include: rising expectations about capital growth as a consequence of continued economic prosperity in Australia; the continuation of governmental support for investment in housing (in particular, the halving of capital gains tax for non-primary residences in 1999); growing problems of affordability that have constrained the aspirations of low-income households; and a withdrawal of government funding out of public housing.

In Australia, the private rental sector has historically been viewed as a transitional tenure and a stepping stone for young families into home ownership. While it continues to play an important transitional role today, recent research indicates that this role may be changing. In their analysis of 1994 ABS survey data, Wulff and Maher (1998) found that over 40 per cent of renter households had rented for longer than ten years. Their study identified two types of long-term renters; 'continuals', young people who were yet to access home ownership, and 'returners' who were older tenants who had fallen out of ownership for a range of reasons, in particular separation and divorce. More recently, the growth in long-rental households has been linked with growing problems of housing affordability (Beer 1999; Seelig, et al. 2006; Yates and Milligan 2007; Seelig, et al. 2009). The declining capacity of the public housing sector over the past two decades has also resulted in a movement of disadvantaged households into low cost private rental accommodation. For families who are unable to afford home ownership and who do not qualify for public housing, private rental housing has become a tenure of last resort (Seelig, et al. 2006: 10).

A central feature of the private rental sector in Australia is the relative lack of regulatory control. A landlord's right to sell the property as they please, whether as a tenanted rental property or a vacated owner occupied property, is enshrined in state-based residential tenancy legislation. This has important consequences for the stability of the private rental stock and in particular the availability of low-cost private

rental housing. Previous research has highlighted clear market failure at the lower end of the rent range in Australia's capital cities (Yates and Wulff 2000; Wulff, et al. 2009). The process of gentrification currently occurring within the major cities, that is, the increased demand for inner city dwellings, has resulted in a shortfall of affordable centrally-located private rental housing in recent years. As Burke (1999: 16) notes, this has been compensated by growth in affordable rental accommodation in outer areas, but he suggests that there is a potential duality emerging in the market, with relatively affluent inner city tenants exercising a degree of choice and lifestyle preference, while lower income tenants are increasingly located in outer areas and they are constrained in terms of locational preference and quality of housing stock. While historically housing in Australia has not been earmarked as private rental, the new National Rental Affordability Scheme (NRAS) aims to encourage the supply of affordable rental housing. However, the scale of such purposively built development will remain limited.

4.1.2 Profile of Australian landlords

Australia has a highly dispersed pattern of rental ownership. Research on housing investment in Australia indicates that the private rental sector is dominated by petty landlordism, rather than institutional investors. As Berry (2000: 663) notes, the typical landlord is 'an individual or family partnership owning one or two dwellings for rent, and usually a home owner'. Drawing on the 1997 ABS rental investor survey, Berry (2000: 664) reports that 'individual households own 60 per cent of the dwellings rented out to private tenants' and that '76 per cent of investors owned a single rental dwelling'. In addition, 'two-thirds of investors held their properties, in part, as a secure long-term investment'. Berry (2000: 672–674) attributes the prevalence of individual landlords compared with institutional investors to a range of factors. Such investment is appealing to small-scale investors because of the relatively low entry costs into the housing market, the familiar and tangible aspects of 'bricks and mortar' compared with other investment options, and the capacity to self-manage the property and thereby increase profit margins. In contrast, institutional investors are discouraged from investment because of: the relatively low returns on rental yields; the high risks associated with property ownership; high management costs; the illiquidity of property; poor market information; and no proven track record.

In their extended study of private rental investors, Seelig, et al. (2006) examine the characteristics of low-cost private rental housing providers. Again, drawing on ABS data, they found that low-cost landlords are more likely than other investors to 'own just one dwelling; to be more reliant on income from investment and business sources but to have lower levels of income and to be retired; to have purchased the dwelling outright or to have inherited; to own older dwellings; to self-manage the rental dwelling; to have been a landlord for longer; and to be residual providers in that they would like to get out of the sector but cannot sell' (Seelig, et al. (2006): 34).

Seelig, et al's (2009) research on private rental investors focuses in particular on investor motivations. Their project highlights the importance of perceived long term capital gains as a key motivation for many investors. Related to this is the importance of property as a 'low risk' investment option, with many investors reporting that they feel comfortable with property and that it is considered 'safe, stable and familiar' (Seelig, et al. 2009: 2). However, the research also identifies another type of investor, whose motivation is less planned. These investors have unexpectedly come into assets possibly via inheritance or changes in personal circumstances such as re-partnering or geographic location. Seelig, et al. (2009: 4) note that 'economics is only part of the story' and the fact that investors are motivated by long term gain, rather than being reactive to market fluctuations, suggests that some landlords might be

open to policy interventions that aim at encouraging behaviour changes but do not jeopardise their long term investment.

4.1.3 Profile of private rental households

In 2005–06, the ABS estimated that there were 1.7 million households renting from private landlords. Over the past decade, the proportion of Australian households in private rental increased slightly from 19 per cent of all households in 1995–96 to 22 per cent in 2005–06 (ABS 2008: 1). While private rental tenants are relatively heterogeneous, in general, renter households tend to be younger than owner-occupier households, with a median age of 37 years compared with a median age of 52 years (ABS 2008: 1). In 2005–06, higher rates of renting were recorded among lone person and lone parent households, compared with households comprised of couples and children. Young ‘couple only’ households were more likely to be renting, compared with older ‘couple only’ households (ABS 2008: 2). Rental households were also more mobile than owner-occupiers. In 2005–06, private and public rental households were three times more likely than owner-occupiers to have changed address within the previous 12 months (ABS 2008: 2).

Low household income is associated with higher rates of renting, and as income rises the likelihood of renting falls. While in 2005–06 less than a quarter (23%) of high income households were renting, around one-half (49%) of households in the bottom quintile were renting. In 2006, 34 per cent of renter income units were in receipt of Commonwealth Rent Assistance (CRA) (ABS 2008: 1). In their research into intergenerational sustainability, Yates et al. (2007: 17) note that the wealth gap between owner-occupiers and tenants is increasing: ‘not only do owner-occupier households, by definition, hold all the owner-occupied housing wealth...they also hold nearly all the non-housing wealth’. This wealth is not evenly distributed, but rather is concentrated among older owner-occupiers, with younger households more likely to have substantial mortgage burdens and less likely to hold shares.

Housing costs are a major component of the household budget, particularly so for low-income private rental households. ABS data indicates that rent levels have been relatively stable in the previous decade, but in the 12 months to March 2008, the rent component of the Consumer Price Index rose by 7.1 per cent, outstripping the increase of 4.2 per cent in overall inflation (ABS 2008: 6). Housing researchers suggest that the relative stability of rent levels are a consequence of the capacity of tenants to pay any more, as well as the focus of small-scale landlords on the long-term capital gain and relative security of property rather than high short-term yields (Yates et al. 2007: 10). Yates and Milligan's (2007) national study of housing affordability identifies low income private renters as being particularly vulnerable to high housing costs and more likely to be experiencing ‘housing stress’ (i.e. paying over 30% of the household budget on housing costs). Analysing ABS Survey of Income and Housing data, Yates and Milligan (2007: 12) observe that ‘while average housing cost ratios across all households have increased slowly but steadily from 11.4 per cent of gross household income in 1975–76 to 15.1 per cent in 2003–04’ housing cost ratios for private renters have increased more rapidly from ‘13.2 per cent in 1975–76 to 19 per cent in 2003–04’.

4.2 Policy and legislative framework

In this section, we examine the key taxation measures and charges available to landlords, property law and policy support for low-income tenants.

4.2.1 Taxation measures and charges

Australia's current taxation system encourages small-scale investment in the rental housing market. Seelig et al. (2006) has recently provided a comprehensive review of taxation measures that support investment in the private rental sector. These include relief on capital gains tax, the capacity to negative gear property, and the capacity to claim depreciation of assets and property transaction costs against the landlord's total income.

Capital gains tax was introduced in the mid-1980s and applies to any net capital gain accrued over the financial year. While capital gains tax is levied on rental property at the point of sale, owner occupied dwellings are exempt. The capital gain represents the difference between the selling price ('capital proceeds') and the cost ('cost base') provided that the property has been held for more than twelve months. In 1999, the Australian Government halved the rate at which the capital gain was calculated (referred to as the 50% discount method). The capital gains tax is payable only when the property is disposed of so that accrued capital gains represent untaxed gains, with 50 per cent of the capital gain added to other assessable income in the year of realisation and taxed at the applicable marginal income tax rate. Effectively, individuals pay capital gains tax at half the rate at which they pay income tax so that even for individual investors in the highest personal tax bracket, they will pay no more than 24.25% (including a 1.5% Medicare levy) in tax on their capital gain. (See Seelig, 2006: 11; <http://www.ato.gov.au/individuals/content.asp?doc=/content/20427.htm>, 14 Sept. 2009.)

There are a number of key deductions allowed for rental property, the most significant being the capacity to negative gear a rental property. Negative gearing occurs when the interest on the borrowings (together with other deductible property expenses) is greater than the rental income produced by the property. The resulting net rental loss can then be offset against income from any other source with a reduction in personal income tax payable on that other income (<http://www.ato.gov.au/individuals/content.asp?doc=/Content/66031.htm&page=21&H21>, 14 Sept. 2009). When an investor negative gears a property, she is speculating that over the long-term her *potential* capital gain will be consistently more than her *certain* income loss.

In purposefully acquiring residential property for rental, investors will incur specific property transaction costs. The main taxes and charges are stamp duty on the purchase contract and, in some states, mortgage duty and land titles fees. These costs can be claimed as an expense for tax purposes. Investors are also entitled to deductions for certain expenses incurred for the period the property is rented or available for rent. In addition, they can claim depreciation costs for rental property assets against their income (Seelig et al., 2006: 15).

4.2.2 Property law

In Australia, property law is the responsibility of state and territories. Historically, legislative controls have been relatively limited and overwhelming weighted towards the landlord's rights to ownership and possession. As Seelig et al. (2006: 20) note, residential tenancy law has 'invariably sought to balance the interests of tenants and landlords rather than to provide strong rental consumer protection'. Indeed, Australian tenancy law is notable for what it does not provide: it does not regulate the value of rents, nor does it provide security of tenure to tenants. Instead, the various state and territory residential tenancy acts are based on principles of basic health-related housing standards, minimum notice periods for 'no cause' eviction, and limits on the frequency of rent increases (as opposed to constraining the value of rent) (Seelig et

al., 2006: 20). The landlord's right to sell his property takes precedence over the tenant's security of tenure.

The lack of adequate minimum basic housing standards across various jurisdictions is a key concern of tenant advocacy groups (VCOSS 2009). While tenancy legislation specifies that landlords are responsible for the provision of a clean dwelling and ongoing maintenance, such legislation makes no reference to the existing conditions of a property. This legislative gap makes it difficult to regulate poor quality, sub-standard housing. It has also meant that landlord-tenant disputes have primarily focused on eviction and property damage, rather than the provision of adequate and affordable housing. Moreover, this situation has restrained state and territory governments in the use of residential legislation to mandate the use of energy and water efficiency technologies in private rental dwellings. Victoria is an exception. The Victorian *Residential Tenancies Act* is the only tenancy legislation that contains reference to energy or water efficiency. However, as VCOSS (2009: 6) notes, this requirement is inadequate and fails to secure substantial reductions in water use as the Act states that 'any water appliance that requires replacement must be replaced with an A rated appliance' despite current best practice for water-efficient appliances being AAA (or 3 star) rating.

In addition to residential tenancy legislation, investment in multi-dwelling properties is regulated by strata title legislation. Strata title is 'a form of legal ownership of properties which enables a building to be subdivided into 'lots' held by a number of individual owners with owners sharing the rights and responsibilities of the common property, but with the freedom to use and sell their own lot independently' (Seelig et al., 2006: 21). One of the central problems facing strata title ownership is the problem of who is responsible for ongoing maintenance of a property that is held by multiple shareholders. In response to this issue, states and territories have introduced new legislation to ensure that such developments are accompanied by sinking funds to cover repair, maintenance and renewal. However, recent research on strata title legislation in NSW indicates that the legislation is complex and the sector faces significant compliance problems (Easthope and Randolph 2009). This is a particular concern in relation to improving the sustainability of multi-level and multi-dwelling buildings as landlords are likely to be reluctant to make any financial contribution beyond basic maintenance. Moreover, Easthope and Randolph (2009: 253) note that 'while owners in a strata scheme usually hold some power based on their market share, renters living within a strata scheme have no right to participate in the representative structures in place in their scheme (they have no vote) and have power only to the extent that they are able to influence the position of the owner of their unit'.

4.2.3 Policy support for low-income tenants

A direct housing assistance payment by the Australian Government to tenants has been the primary policy instrument to support low-income tenants in the private sector in the post-war period (Yates et al., 2007). While payments were first introduced in 1958, such subsidies were expanded substantially in the mid-1980s with the introduction of the Commonwealth Rent Assistance (CRA) scheme. This expansion was part of a broader policy shift away from the provision of low-cost public housing towards greater support for low-income households in finding appropriate low cost housing within the private sector. The payment is available to all recipients of pensions and government allowances who are renting privately.

Housing researchers have been critical of the relatively limited forms of policy support for private rental tenants, particularly low-income tenants. In her comparative review of housing allowances across liberal welfare regimes, including the US, Canada, Australia and New Zealand, Hulse (2003: 40) notes that this form of income support

offers 'no specific guarantees in terms of affordability benchmarks or the quality and suitability of housing'.

More recently, the Australian Government, in partnership with state and territory governments, has introduced new policy measures to increase the supply of affordable private rental accommodation. The National Rental Affordability Scheme (NRAS) is designed to encourage private sector investment in rental housing. Rent for these properties will be charged at 20 per cent below the market rate for eligible tenants. The scheme aims to increase the supply of affordable rental dwellings by up to 50,000 by June 2012. (See http://www.fahcsia.gov.au/sa/housing/progserv/affordability/nras/Pages/default.aspx#nras_8, 11 Sept. 2009.)

4.3 Sustainable private rental housing

There is currently limited targeted policy support for landlords and tenants, with Australian federal, state and local governments opting for schemes that offer broad-ranging rebate assistance to owner-occupiers and private renters. These schemes provide only limited incentives for voluntary investment in the quality or efficiency of rental properties by landlords and do not compel landlords to act on tenant requests for subsidised property improvements.

4.3.1 Australian Government

A Low Emission Plan for Renters was announced as part of the Federal Labor Party's 2007 election platform. While this scheme was introduced to provide landlords and tenants with rebates for the installation of ceiling insulation in rental properties, it has recently (1 Sept. 2009) been superseded by a new scheme, the Energy Efficient Homes Package.

Under the new scheme, landlords and tenants (as well as owner-occupiers) of currently un-insulated or inadequately insulated homes are able to continue to access rebates up to \$1,200 for the installation of ceiling insulation. The rebate is available once a mandatory risk assessment is undertaken, which entails the owner to obtaining two quotes. Assistance is also provided for the installation of a solar hot water system (up to \$1600) or a \$1000 rebate for installing a heat pump hot water system, to replace an electric storage hot water system. However, households are only able to claim one rebate per address.

In terms of providing adequate assistance for landlords and tenants, the current provisions are limited. The earlier scheme entitled a 'low emission plan for renters' was somewhat misleading in that it suggested that the government was implementing a multi-faceted and targeted strategy to assist renters to reduce carbon emissions. In reality, the package provided renter households with assistance for ceiling insulation only, and offered no additional incentives for the uptake of these rebates beyond what was currently available for owner-occupier households. The new Energy Efficient Homes Package also lacks a comprehensive approach, with incentives restricted to either the uptake of insulation or hot solar water.

In regards to issues of social equity, under the new package landlords can apply for assistance for each rental and other property they own including dwellings where they do not receive rental payments and untenanted properties—for example, holiday homes. However, assistance available under this package is not means-tested and the Australian Government offers no additional concessions to low-income households (<http://www.environment.gov.au/energyefficiency/index.html>, 16 Sept. 2009).

The National Affordable Housing Agreement (NAHA) delivers affordable housing options for potential first home buyers as well as private rental tenants. As noted above, the National Rental Affordability Scheme (NRAS) is specifically designed to encourage private sector investment in rental housing. While sustainability outcomes form part of the five key areas of assessment criteria, they are not a mandatory requirement. (See

http://www.fahcsia.gov.au/sa/housing/progserv/affordability/nras/Pages/default.aspx#nras_8, 11 Sept. 2009.)

4.3.2 *States and territories*

Victoria offers the most advanced policy and legislative settings to improve the sustainability of private rental housing across the country. Victoria as a state complies with the BCA standards. It has what is called a 'Five star standard' that requires five star water and energy efficiency in new build and home additions that require a building permit. With specific regards to private rental households, since 2008 Sustainability Victoria has made rebates for insulation and gas hot water systems available to landlords where tenants are directly responsible for the energy bills. Under this scheme, landlords received up to \$300 in rebates for ceiling insulation and \$400 in rebates for gas hot water systems. If tenants were concession card holders, landlords were also eligible for higher rebates. In March 2009, the insulation program was superseded by the Australian Government's insulation rebate. Sustainability Victoria also runs a showerhead exchange program that provides tenants with access to a free water-saving showerhead.

Sustainability Victoria, in association with not-for-profit organisations, has established an Energy and Water Task Force to assist low-income Victorians to adapt to climate change and to save energy and water at home. The Energy and Water Task Force offers free audits and energy and water home improvements to low-income households. To date, 4,700 low-income households in over 25 different towns and suburbs across Victoria have received a free energy and water retrofit (<http://www.sustainability.vic.gov.au/www/html/1464-energy-task-force.asp>, 16 September 2009). While this scheme effectively targets low-income private rental households, it only covers a small percentage of the low-income households in urban and regional Victoria that could be eligible for household retrofits (Brotherhood of St Laurence 2008).

The Victorian Government has also recently (June 2009) announced six new Smart Energy Zone projects. The aim of this scheme is to improve energy efficiency on a neighbourhood, rather than individual basis. To date, the scheme has focused on community organisations and precincts, as well as new residential build.

Outside Victoria, there are several programs that target low-income households, including those in the private rental sector. Introduced in January 2009, South Australia's Residential Energy Efficiency Scheme requires electricity and gas retailers with more than 5,000 customers to provide energy audits to households in an effort to lower household energy costs and reduce greenhouse emissions. This program builds on the gains achieved through the South Australian Government's Energy Efficiency Program for Low Income Households, which provides energy audits, consumer advice and financial support for appliance exchanges and retrofits (Spoehr et al., 2006). Similarly, the NSW Government has introduced a \$63 million Low Income Household Refit Program, where 220,000 households will receive an energy efficiency audit, refit kits that include water and energy saving devices and advice, and information on purchasing more efficient appliances. In addition, non-government organisations have produced new rental housing and sustainable living guides that focus on energy and water efficiency issues. Some of these have been produced in association with state

governments. (See <http://www.envict.org.au/inform.php?menu=8&submenu=715&item=2035>, 1 October 2009; http://www.ata.org.au/wp-content/sustainability/ata_renters_guide_sustainability.pdf 1 October 2009; <http://www.sustainablelivingtasmania.org.au/>, 1 October 2009.) In 2009, the Council of Australian Governments (COAG) supported in principle the introduction of mandatory disclosure of the energy performance of commercial and residential buildings. In the ACT, owners of residential properties currently must provide prospective buyers with an energy efficiency rating statement. The Queensland Government has also recently introduced a new 'sustainability declaration' scheme that requires sellers to inform buyers of the sustainability properties (i.e. energy, water, access and safety) of a house, townhouse or unit at point of sale. Sellers must provide a sustainability declaration to every prospective purchaser. This scheme does not extend to private rental housing.

The Queensland Government has introduced new procedures for water charges. Landlords are able to pass on the full costs of water consumption to tenants provided the rental premises are individually metered, the rental premises are water efficient (i.e. taps, showerheads and toilets are 3 star standard or above), and that the tenancy agreement states that the tenant must pay for water consumption (http://www.rta.qld.gov.au/water_charging_1.cfm, December 2009).

Local governments have also played a key role in implementing energy and water efficiency measures. While it is beyond the scope of the positioning paper to survey the various programs available across jurisdictions, local initiatives in the two proposed case study sites, Victoria and Tasmania, will be examined in the next phase of the research.

5 ADVANCING SUSTAINABLE PRIVATE RENTAL HOUSING IN AUSTRALIA

In this chapter, we draw together the major findings of the review of international and national policy and research. Here we identify the major barriers to improving the sustainability profile of private rental housing. We then outline the potential scope for policy innovation in Australia.

5.1 Current barriers to advancing sustainable private rental housing

In 2007, Australian housing researchers observed that while considerable advances had been achieved in improving the environmental performance of new residential dwellings, there has been 'relatively little attention to strategies to systematically improve the environmental performance of the existing 7.5 million residential dwellings' (Dalton et al., 2008: 215). Since then, a suite of new policy initiatives have been implemented by the Australian Government in partnership with states and territories and local governments to improve the sustainability profile of existing dwellings. However, the effectiveness of these initiatives in adequately targeting private rental dwellings is unclear. The major barriers to improving the sustainability profile of private rental housing have been identified as follows.

The 'split incentive' problem

As previously highlighted, improving the environmental sustainability of private rental housing poses unique policy challenges. Of central concern is the 'principal-agent' or 'split incentive' problem; that is, while the landlord (or the principal) is generally responsible for purchasing the energy-using facilities in the home, the tenant (or the agent) is generally responsible for the payment of recurrent energy bills (GCCR 2008: 476). While the landlord is responsible for the initial capital outlay for alternative energy efficient equipment, they do not reap the immediate benefits of such investment. Consequently, the financial incentives that underpin investment in energy efficient technologies are weaker among landlords than those of home-owners.

Private tenants are also constrained in their adoption of low-emission substitutes as they do not have the right to adapt their homes without landlord acquiescence and any gains in asset value that accrue from energy efficient investments are captured by the landlord. As Dalton et al. (2008: 221) observe, 'landlord-tenant legislation provides no basis for reconciling distinct interests. As a result, tenants are more likely to buy cheap appliances, such as expensive-to-run electric heaters. Drawing on ABS data, Dalton et al. (2008: 221) note that the main reason that 34 per cent of respondents gave the for living in dwellings without insulation was that they were 'not the home owner/not responsible for insulation'.

To date, policy initiatives to address this problem include providing landlords with access to rebates to install energy efficient technologies such as insulation, solar panels and hot water systems, and the availability of tax deductions to support general property improvements. In addition, private rental tenants will be able to access financial assistance to compensate for increased energy bills as a consequence of the introduction of the CPRS. Currently, there is no baseline information on the quality of private rental housing stock and monitoring is required to identify whether these initiatives have been successful in overcoming the 'split incentive' problem.

Profile of landlords

The prevalence of individual and family investors affects the capacity of the private rental sector to adapt promptly and comprehensively to the challenge of reducing carbon emissions. The highly dispersed pattern of rental ownership requires more complex and multi-faceted strategies to target information to different types of investors and to support behavioural changes. Equally, the typical investment pattern of one or two rental properties makes it difficult to take advantage of economies of scale when adapting properties. While the prevalence of petty landlords presents some barriers, more positively, existing research suggests that such landlords are not always motivated solely by economic factors. Instead, some are accidental investors having inherited property or divorced or separated and many are focused on long-term capital gain, rather short-term rental yields.

Another challenge is the lack of an umbrella organisation for landlords in Australia. In the UK, such associations have been important in monitoring trends in the private rental sector and in providing advice and information to individual landlords. Such associations have more recently played an active role in: enabling landlords to participate in sustainable policy development; directing landlords to relevant auditing and rebate schemes; and disseminating advice and information about current regulations and energy efficiency standards. In Australia, there is a need for a coordinating body to facilitate a cultural shift in attitudes among this group.

Residential tenancy legislation

There are three key aspects of Australian residential tenancy legislation that pose challenges to advancing the sustainability profile of private rental housing. These are:

- The lack of mandatory basic housing standards in state and territory residential tenancy legislation.
- The right of the landlord to sell property with or without a tenant in place, above the right of the tenant for security.
- Tenants are prohibited from making alterations to their property without their landlord's consent.

As highlighted previously, there is a lack of minimum and enforceable standards covering private rental dwellings. Where there have been minor reforms such as in Victoria, these reforms have been inadequate and inconsistent with the BCA's five star standard requirements. This is a potential area of policy reform that has yet to gain support across the states and territories.

The opportunity for landlords to quit the private rental sector is a major barrier to any costly or compulsory measures. As highlighted, the Australian housing system has historically been characterised by a clear institutional separation between state-owned and managed rental housing and privately-owned and managed rental housing. While this is gradually changing with an increase in social housing that is managed by not-for-profit organisations and with the introduction of new schemes that support private investment in the provision and management of low-cost rental accommodation, the scale of development is still small. The second phase of this research project will investigate how policy can effectively deliver improvements in the quality and sustainability of low-cost private rental while simultaneously ensuring the ongoing supply of this type of accommodation. This is a major challenge.

Further, the prohibition of tenants from making alterations to their property without their landlord's consent has the capacity to undermine the rapid uptake of energy and water efficient technologies. This may be counteracted with more advanced consumer

information and auditing schemes that target landlords and by addressing inadequate information flows between landlords, property managers and tenants. Following the experience of the UK, landlords who fail to provide permission to tenants to participate in government-funded energy assessment programs could be directed by a regulatory body to undertake improvements at their own cost.

Long term security

Historically, the private rental sector has been viewed as a transitional tenure, in which young households rent for a short period of time before entering first home ownership. This is changing with an increase in households entering and remaining in private rental for extended periods of time, largely as a consequence of problems of housing affordability and the decline in public housing stock. In Australia, tenancies are typically undertaken for a 12-month period and there are limited opportunities for long-term leases. The prevalence of small-scale landlords who retain the right to sell property with or without a tenant in place, as well as the assumption that tenants enter private rental on a temporary basis, has contributed to this situation. This lack of long-term security discourages tenants and landlords from investing in energy and water efficient solutions.

Encouragement of long-term leases has the potential to deliver security for an increasing number of tenants who are reliant on private rental housing on a more permanent basis, as well as facilitating a stable situation in which repairs, maintenance and retrofits can be planned and enacted over the life of a dwelling.

Disclosure of sustainability information

Currently, there is a lack of knowledge among landlords, tenants and real estate agents about the sustainability profile of properties and no current requirement for disclosure of this information at the point of lease or sale. In response, the Australian Government has announced plans for a mandatory disclosure scheme at point of sale or lease. Details about this scheme are yet to be finalised. Key concerns remain over the comprehensiveness of the assessments on which properties will be rated, the weightings of the rating scheme, and the length of time that a certificate will remain valid.

Housing affordability

The Australian housing market has been characterised by an extended period of rising investment in the market, rapidly increasing house prices, and growing problems of housing affordability. Within the private rental sector, such trends have been accompanied by low vacancy rates, particularly within highly sought after inner urban areas. This situation presents a further barrier to the facilitation of sustainable activity within the private rental sector as ongoing problems of housing affordability and the prevalence of low vacancy rates provides little incentive for landlords to act and for tenants to risk security of tenure. Low-income households who already have limited options within a tight rental market may be further disadvantaged by policy settings that increase rental yields or encourage disinvestment in low-cost housing. Research undertaken in the second stage of this project will address this issue through an examination of the motivations and priorities of landlords who invest in low-cost housing. Also relevant, is the need for additional strategies to boost the supply of quality, low-cost housing, as well as monitoring the impact of proposed policy settings on housing affordability and low-cost housing supply.

Growth in strata-titled, multi-unit dwellings

There has been an increase in strata-titled, multi-unit dwellings within the Australian housing market. These dwellings have multiple ownership and tenure and are

managed through a body corporate. This situation poses specific challenges in terms of adapting the property for sustainability. The owners of such properties are constrained by the need to obtain consent from the body corporate in order to adapt the dwelling. Such consent is dependent on consensus around the need to make improvements and the willingness of individual owners to pay for additional work. Consequently, renovations that relate to the shell of the building and communal spaces within strata-titled developments have proven difficult. In regards to sustainable retrofits, it is anticipated that similar problems will arise. While the evidence indicates that multi-unit developments produce less greenhouse gases compared with houses (Holloway and Bunker 2006: 120), information about the energy and water efficiency profile of multi-unit dwellings, in particular high-rise apartments, is limited. It is not clear how tenants and landlords will be affected by increased energy costs associated with communal facilities; whether these costs will be passed on to tenants via rent increases or to landlords via higher body corporate fees. In the context of increasing problems of housing affordability and rising body corporate fees, such additional costs may facilitate disinvestment in multi-storied rental dwellings.

5.2 Scope for policy innovation in Australia

There remains considerable scope to further advancing sustainable rental housing policy in Australia. There is still a shortfall in baseline information on the energy and water efficiency of existing dwellings, and in particular the quality of private rental housing stock. Addressing this knowledge gap will assist in ensuring that any policy development will be underpinned by an adequate evidence-base.

A review of international and national literature and policy debates in relation to sustainable private rental housing highlights the need for a multi-faceted approach that combines targeted incentives with effective compliance measures. This includes strategies that are focused on education and information sharing; technical retrofitting solutions; a cultural change in attitudes, behaviours and relations among landlords and tenants; as well as legislative changes in tenancy laws. Key examples of innovative policy yet to enter the agenda in Australia include:

- The use of concepts such as fuel poverty/energy poverty and adjustment of present definitions of affordable housing to include energy costs.
- The introduction of mandatory basic housing standards.
- Expansion of the energy efficiency requirements of building regulations, with greater consistency across states and territories.
- The introduction of a mandatory energy performance certificate scheme, and disclosure of energy and water efficiency of dwelling at point of sale or lease.
- The roll-out of green or low carbon neighbourhood zones.
- The promotion of a community dialogue about ethical landlord practices, including the introduction of green landlord awards.
- Linking incentives available to housing investors through the taxation system with sustainable outcomes.

6 RESEARCH PROGRAM

The next stage of the research will build on the findings documented in this positioning paper and the modelling research report. In this second stage, the project team will respond to the following three key questions:

- Does market failure due to principal-agent problems contribute to higher energy bills for private rental tenants and leave them more vulnerable to the adverse consequences of increased energy prices than other housing consumers? (RQ3)
- What are the potential impacts of current policy measures designed to improve the environmental performance of private rental housing stock on private rental tenants, particularly low-income tenants? (RQ4)
- What are the attitudes of private rental housing investors towards measures to improve the environmental sustainability of their housing investment? (price/other motivations)? (RQ5)

6.1 Impact of higher energy prices on private rental tenants

The project team will test the principal-agent hypothesis using the hedonic modelling technique that has been widely used in the economic analysis of housing policy. It treats the total expenditures on products or services as a function of personal characteristics, as well as conventional variables that affect ability to pay (e.g. household income). In the present context, the HILDA variables representing annual expenditure on electricity, gas and other fuel will be combined into an annual expenditure on energy measure. This will be modelled as a function of personal and property characteristics. The critical variables are those identifying tenure and landlord type. The size and the statistical significance of these variables will be used to judge whether and to what extent the tenants of private (and public) rental housing have higher energy bills as a result of the blunt incentives associated with the principal-agent problem.

6.2 Evaluation of current policy

The project team will review energy rebate schemes that target landlord/private rental households in Victoria and Tasmania. The purpose of this review will be to evaluate these schemes, particularly in terms of their effectiveness in targeting low-income tenants. The team will map the uptake of these rebates in order to determine whether or not the schemes are impacting on tenancies in low-cost suburbs. In order to assess the potential impact of measures designed to improve the environmental performance of private rental housing stock, the project team will conduct interviews with key stakeholders who work in the private rental sector (approximately 20 interviews), including state housing agencies, social and community housing organisations, tenants' unions, legal and financial institutions, property and real estate industries, energy providers and consumer affairs.

6.3 Landlord motivations and attitudes

The project team proposes to undertake a series of focus groups (at least six groups of 5–10 participants) or interviews (dependent on participant preference and availability) with private rental investors (RQ5). The team will target landlords who have already invested in low-emission technologies in order to determine the range of motivations guiding these actions. These landlords will be recruited with assistance from program coordinators of existing energy rebate schemes that target landlords. The team will also target landlords who have invested in housing in low-cost suburbs and which record relatively high concentrations of CRA recipients, but who are yet to

invest in low-emission technologies. The team will draw on 2006 ABS Census and Australian Government data in order to identify key suburbs in Melbourne and Hobart that meet these criteria. The team will also seek the participation of landlords of multi-unit developments in order to gain insight into the unique challenges of this growing segment of the private rental sector. The team will use a range of methods to recruit landlords including: use of residential databases, advertising via key contact organisations, such as Property Owners' Associations, real estate agents and local financial institutions; and advertising in local newspapers. The selection of method depends on the availability of these options in each state.

REFERENCES

- ABS, 2008, *Australian Social Trends 2008 (Renter Households)*, Cat. No. 4102.0, Canberra: Australian Bureau of Statistics.
- Ashe, B., Newton, P., Enker, R., Bell, J., Apelt, R., Hough, R., Thomas, P.C., McWhinney, S. Loveridge, R., Davis, M., Patterson, M., Pham, L., Hargraves, R., 2003, *Sustainability and the Building Code of Australia*, Brisbane: Cooperative Research Centre for Construction Innovation.
- Australian Building Codes Board, 2008 (September), *History of the Building Code of Australia*, Canberra: Australian Building Codes Board.
- Baker, S., 2006, *Sustainable Development*, New York: Routledge.
- Beer, A., 1999, 'Housing Investment and the Private Rental Sector', *Urban Studies*, 36(2): 255–269.
- BERR, 2008, *Fuel Poverty Advisory Group (for England) sixth annual report 2007*, London: Department for Business, Enterprise and Regulatory Reform.
- Berry, M., 2000, 'Investment in rental housing in Australia: Small landlords and institutional investors', *Housing Studies*, 15(5): 661–681.
- Bhatti, M., 2001, 'Housing/Futures? The Challenge from Environmentalism', *Housing Studies*, (16(1): 39–52.
- Bhatti, M., Brooke, J. and Gibson, M. (eds.), 1994, *Housing and the Environment: A New Agenda*, Coventry: Chartered Institute of Housing.
- Bhatti, M. and Brown, T., 2003, 'Whatever happened to Housing and the Environment?', *Housing Studies*, 18(4): 505–515.
- Bhatti, M. and Dixon, A., 2003, 'Editorial Special Issue 'Housing, Environment and Sustainability'', *Housing Studies*, 18(4): 501–504.
- Boardman, B., 1991, *Fuel Poverty: From cold homes to affordable warmth*, London: Belhaven Press.
- Boardman, B., 1994, 'Ch.7: Energy Efficiency Measures and Social Inequality', *Housing and the Environment: A New Agenda*, Coventry: Chartered Institute of Housing: 107–127.
- Boardman, B., 2007, 'Home Truths: A Low-Carbon Strategy to Reduce UK Housing Emissions by 80% by 2050', *A research report for The Co-operative Bank and Friends of the Earth*, Oxford: University of Oxford's Environmental Change Institute.
- Brotherhood of St Laurence, 2008, *Enabling Low-Income Households in the Private Rental Market to Respond to Climate Change*, Fitzroy: Brotherhood of St Laurence.
- Burke, T., 1999, *Private Rental in Australia*, Melbourne: Swinburne University of Technology.
- Commonwealth of Australia, 1998, *The National Greenhouse Strategy: Strategic Framework for Advancing Australia's Greenhouse Response*, Canberra: Australian Government.
- Communities and Local Government, 2008, *Energy Performance Certificates (EPCs) and renting homes: A landlord's guide*, London: Communities and Local Government.

- Dalton, T., Horne, R., Hafkamp, W. and Lee, M., 2008, 'Chapter 17: Retrofitting the Australian Suburbs for Sustainability', in A. Nelson (ed.), *Steering Sustainability in an Urbanizing World: Policy, Practice and Performance*, Cornwall: Ashgate.
- DCC (Department of Climate Change) (2008), Carbon Pollution Reduction Scheme Green Paper, July, Australian Government, Canberra, <http://www.climatechange.gov.au/greenpaper/report/index.html>
- DEWHA, 2008, *Energy Use in the Australian Residential Sector 1986–2020*, Canberra: Department of Environment, Water and Resources, Australian Government.
- DEWR, 2007, *National Strategy for Ecologically Sustainable Development*, Canberra: Department of Environment, Water and Resources, Australian Government.
- DTI, 2001, *UK Fuel Poverty Strategy*, London: Department of Trade and Industry.
- Easthope, H. and Randolph, B., 2009, 'Governing the Compact City: The Challenges of Apartment Living in Sydney, Australia', *Housing Studies*, 24(2): 243–259.
- Edwards, B. and Turrent, D. (eds), 2000, *Sustainable Housing: Principles and Practice*, London: Routledge.
- Energy Efficiency Partnership for Homes, 2009a, *The Green Landlords Awards 2008*: Energy Efficiency Partnership for Homes.
- Energy Efficiency Partnership for Homes (Private Rented Sector Group), 2009b, *Improving Energy Efficiency in Private Rented Housing: Issues and Opportunities*, Energy Efficiency Partnership for Homes.
- Energy Efficiency Partnership for Homes (Private Rented Sector Group), 2009c, *Private Landlords Research*, Energy Efficiency Partnership for Homes.
- Fielding, K. S., Louis, W. R., Warren, C. and Thompson, A., 2009, *Environmental sustainability in residential housing: attitudes and behaviour towards waste, water and energy consumption and conservation among Australian households*, Positioning Paper No.121, Melbourne: Australian Housing and Urban Research Institute.
- Garnaut, R., 2008, *Garnaut Climate Change Review 'Draft Report'*, Canberra: Australian Government.
- Gibson, M., 1994, 'The Greening of Housing Policy', in M. Bhatti, J. Brooke and M. Gibson (eds.), *Housing and the Environment: A New Agenda*, Coventry: Chartered Institute of Housing.
- Goldie, J., Douglas, B. and Furnass, B., 2005, *In Search of Sustainability*, Melbourne: CSIRO Publishing.
- Holloway, D. and Bunker, R., 2006, 'Planning, Housing and Energy Use: A Review', *Urban Policy and Research*, 24(1): 115–126.
- Howden-Chapman, P., Matheson, A., Crane, J., Viggers, H., Cunningham, M., Blakely, T., Cunningham, C., Woodward, A., Saville-Smith, K., O'Dea, D., Kennedy, M., Baker, M., Waipara, N., Chapman, R. and Davie, G., 2007, 'Effect of insulating existing houses on health inequality: cluster randomised study in the community', *BMJ*, 334(460): 1–9.
- Hulse, K., 2003, 'Housing Allowances and Private Renting in Liberal Welfare Regimes', *Housing, Theory and Society*, 20(1): 28–42.

- IPCC, 2007, 'Summary for Policymakers', in S. Solomon, D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.), *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge, UK and New York, USA: Cambridge University Press.
- Jenks, M. and Dempsey, N., 2006, *Future Forms and Design for Sustainable Cities*, Oxford: Architectural Press.
- Koeppel, S. and Urge-Vorsatz, D., 2007, 'Assessment of policy instruments for reducing greenhouse gas emissions from buildings', *Report for the United Nations Environment Programme (UNEP)—Sustainable Buildings and Construction Initiative*, Budapest: Central European University.
- Levine, M., Urge-Vorsatz, K., Blok, L., Geng, D., Harvey, S., Lang, S., Levermore, A., Mongameli Mehlwana, S., Mirasgedis, A., Novikova, J., Rilling, H. and Yoshino, H., 2007, 'Residential and Commercial Buildings in Climate Change 2007: Mitigation', in B. Meyer, O. R. Davidson, P. R. Bosch, R. Dave and L. A. Meyer (eds.), *Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge and NY: Cambridge University Press and New York.
- McKenzie-Mohr, D. and Smith, W., 1999, *Fostering sustainable behavior: An introduction to community-based social marketing*, Gabriola Island, B.C.: New Society.
- O'Sullivan, E. and De Decker, P., 2007, 'Regulating the Private Rental Housing Market in Europe', *European Journal of Homelessness*, 1: 95–117.
- Priemus, H., 2005, 'How to make housing sustainable? The Dutch experience', *Environment and Planning B: Planning and Design*, 32: 5–19.
- Roaf, S., Crichton, D. and Nicol, F., 2005, *Adapting Buildings and Cities for Climate Change: a 21st century survival guide*, Oxford: Architectural Press.
- SDC 2006 'Stock Take': *Delivering improvements in existing housing* London: Sustainable Development Commission.
- Seelig, T., Burke, T. and Morris, A., 2006, *Motivations of investors in the private rental market*, Positioning Paper No. 87, Melbourne: Australian Housing and Urban Research Institute.
- Seelig, T., Thompson, A., Burke, T., Pinnegar, S., McNelis, S. and Morris, A., 2009, *Understanding what motivates households to become and remain investors in the private rental market*, Final Report No.130, Melbourne: Australian Housing and Urban Research Institute.
- Shove, E., 2003, 'Users, Technologies, and Expectations of Comfort, Cleanliness and Convenience', *Innovation: The European Journal of Social Science Research*, 16(2): 193–206.
- Spoehr, J., Davidson, K., Wilson, L. (Prepared for Energy Division, Department for Transport, Energy and Infrastructure), 2006, *An Evaluation of the Energy Efficiency Program for Low Income Households*, Adelaide: Australian Institute for Social Research, University of Adelaide.
- Tosics, I., 2004, 'European urban development: Sustainability and the role of housing', *Journal of Housing and the Built Environment*, 19(1): 67–90.

- VCOSS, 2009, *A Future Focussed Housing Standard: The case for rental housing standards to help vulnerable households adapt to a carbon price*, Melbourne: Victorian Council of Social Service.
- Whitehead, C. M. E., 1993, 'Privatizing Housing: An Assessment of U.K. Experience', *Housing Policy Debates*, 4(1): 101–139.
- Wood, G., Ong, R. and Seymour, R., 2009, *Modelling the Impact of Carbon Pollution Reduction Scheme on Energy Bills*, Melbourne: Australian Housing and Urban Research Institute.
- World Commission on Environment and Development (1987) *Our Common Future* Oxford: Oxford University Press.
- Wulff, M., Dharmalingam, A., Reynolds, M. and Yates, J., 2009, *Australia's private rental market: changes (2001–2006) in the supply of, and demand for, low rent dwellings*, Positioning Paper No. 122, Melbourne: Australian Housing and Urban Research Institute.
- Wulff, M. and Maher, C., 1998, 'Long-term renters in the Australian housing market', *Housing Studies*, 13(1): 83–98.
- Yates, J., 2003, *Tax Concessions and Subsidies for Australian Homebuyers and Homeowners*, Research and Policy Bulletin No.27, Melbourne: Australian Housing and Urban Research Institute.
- Yates, J., Kendig, H., Phillips, B., Milligan, V. and Tanton, R., 2007, *Sustaining Fair Shares: The Australian Housing System and Intergenerational Sustainability*, Final Report No. 111, Melbourne: Australian Housing and Urban Research Institute.
- Yates, J. and Milligan, V., 2007, *Housing Affordability: A 21st Century Problem*, Final Report No.105, Melbourne: Australian Housing and Urban Research Institute.
- Yates, J. and Wulff, M., 2000, 'W(h)ither low cost private rental housing?', *Urban Policy and Research*, 18(1): 45–64.

AHURI Research Centres

Queensland Research Centre

RMIT Research Centre

Southern Research Centre

Swinburne-Monash Research Centre

UNSW-UWS Research Centre

Western Australia Research Centre



Australian Housing and Urban Research Institute
Level 1, 114 Flinders Street, Melbourne Victoria 3000
Phone +61 3 9660 2300 Fax +61 3 9663 5488
Email information@ahuri.edu.au Web www.ahuri.edu.au