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Affordable and Sustainable Housing: What can Australia learn from the UK?

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Abstract

Improving housing affordability is a challenge for both the United Kingdom and Australia. Likewise, both countries are committed to sustainable development which inevitably means working the global goal into local policy responses. The two issues, however, need not be considered in isolation. Both countries need to develop housing that is both affordable and sustainable. This paper considers the history of affordable housing provision in the UK and compares this with the Australian experience. The paper then analyses recent affordability policy, developed at the same time as impressive sustainability policy that aims to see all new homes in the UK carbon neutral by 2016. The article looks at a practical application by summarising a new development at Milton Keynes. The concluding discussion considers what Australia could learn from the UK and what factors might inhibit an application of British policy and innovation to Australia’s housing market.

Keywords: Housing policy; affordable housing; sustainable housing; affordable and sustainable housing; UK; Australia.
Introduction

This paper discusses research at the University of South Australia, which seeks to address the question of whether housing can be both affordable and sustainable. Funded by construction industry and government partners, the project will develop models of affordable and sustainable housing systems and is intended to result in the construction of demonstration housing. This paper discusses work in progress and considers possible learnings from the British experience in terms of key affordability and sustainability policy and initiatives.

When considering improvements to Australia’s housing system, the UK is a useful comparison. There are similar governance, finance, legal, regulatory and planning systems and frameworks. Likewise, there are historical similarities in urban development patterns. Although there are differences in the relative importance of each tenure, housing is provided in similar forms (Berry et al. 2006). Australia has a long history of drawing on the UK for policy responses to housing and planning challenges, such as the roll out of ‘garden city’ planning ideas in the early twentieth century and the development of public housing in the post-war years.

The historical difference between the UK and Australia in terms of housing policy has been the extent of government involvement. Whereas public housing was embraced in the UK from the early twentieth century, successive Australian governments have been “reluctant landlords”, preferring to facilitate home ownership wherever possible (Arthurson 2008 p.485). The relative absence of government interest is reflected in how beyond funding, housing is largely dealt with by state governments. In terms of sustainability policy, Australia has been largely on the back-foot, evident, for example in how the Kyoto protocol on climate change was ratified only in 2008.

The article begins by providing a background to the UK housing system and identifying relevant similarities and differences with Australia. This sets the foundation for a document analysis which looks at key British government policy documents regarding affordable and sustainable housing. Such policy is put in a meaningful context with the practical example at Milton Keynes, a project that seeks improvements to the affordability of construction while being environmentally sustainable. The discussion links the policy and practical outcomes by considering what Australia can learn, and identifies some factors that may inhibit success. The outline of the paper is shown in Figure 1 below.
Background to the UK housing system

During the nineteenth and early twentieth centuries, the UK housing market in rapidly urbanising cities was predominantly composed of poor-quality private rental dwellings, with 90% of the 1914 population living in rented housing, and the remainder in owner occupation (Malpass and Murie 1999 in Anderson 2004). Legislation passed throughout the nineteenth century dealt with sanitation and the need for basic regulation to deliver “minimally healthy mass housing” in rapidly urbanising cities (Ravetz 1986 p.16).

Concerns for health and well-being in poor quality housing resulted in slum clearance and new housing constructions, perhaps the first form of housing policy. From the 1920s, local authorities constructed housing for working households, with housing policy linked with emerging town planning legislation and practice (ibid). The general trend was inner-city slum clearance and the subsequent development of new local authority housing estates on the fringes of towns (Conway 2000).

Like Australia, the UK construction industry all but stopped during the Second World War, which coupled with high population growth created a post-war housing shortage. This was exacerbated by war-time destruction; over 200,000 dwellings were destroyed and an estimated three million homes were damaged (Conway 2000 p.21). Central government, via local authorities, were realistically the only structure that could meet the need for quality mass housing (Anderson 2004). In the five years following the war, over a million homes were built, 80% of which by local authorities (Conway 2000).
Through this period, local authority housing policy held a tension between socialist ideologies of state-supported housing as a social service and the more conservative concept of providing last-resort housing (Ravetz 1986).

During the 1960s and early 1970s, while the private purchaser market was expanding, local authorities continued to construct new dwellings. Pressure to reduce standards and costs resulted in the development of high rise public housing blocks. The proportion of council-owned public housing reached a 32% peak in 1979 (Conway 2000 p.30). In 1980, a ‘right-to-buy’ policy was introduced, facilitating the transition to home ownership. Thus, the better off tenants moved into home ownership, while the economically disadvantaged remained (Conway 2000).

Thus, like Australia, social disadvantage in public housing became increasingly concentrated (Conway 2000) and this led to the description of public housing as the ‘wobbly pillar of the welfare state’ (Torgersen 1987 p.116 in Malpass 2004 p.211). The sector became increasingly stigmatised, characterised by poor quality, low levels of maintenance, poor amenities and containing households labelled as “work shy, anti-social and undeserving of subsidies” (ibid p.31). This is strikingly similar to the Australian experience, with suburban public housing estates described as ‘problem places’ for ‘problem people’” (Dean and Hastings 2000 in Palmer et al. 2004 p.411).

More recently in the UK, local authorities have reduced financial constraints by selling their stock to another body through voluntary transfers (Conway 2000). The ‘registered social landlords’ (RSL) sector encompasses housing associations, local housing companies, tenant cooperatives and other agencies. In more recent times, local authorities have given land to RSLs to build, with certain conditions for letting (ibid p.34) to the extent that RSLs have replaced local authorities not only as landlords but also as the preferred developer of social housing (Nygaard et al. 2008).

The involvement of the RSLs in housing has many benefits (Manzi and Smith Bower 2004). Financially, the risk associated with housing is spread amongst a range of partners rather than a single local authority. Innovative housing developments are thought to result as different landlords of different sizes and needs group all developments on a single site. This means, for example, that in a single development, there might be an RSL focusing on welfare housing, with another on housing for the aged and another for housing for the disabled. Additionally, greater private funding can be levered into the sector by non-profit organisations and resources can be more effectively pooled. The increased market orientation is thought to help RSLs better meet housing demands and tenant preferences and promote economic efficiency (Gruis and Nieboer 2007).
Socially, it is thought that the use of the RSL can create a more pluralistic policy environment that will avoid the perceived social challenges, such as paternalistic management structures and limited tenant involvement, that existed in the large post-war local authority estates (ibid). Nygaard et al. (2008 p.8) note that the stock transfer process can be interpreted as “attribute spin-offs” whereby an alternative owner (i.e. housing associations) are able to extract unrealised value that the original owner (i.e. the local authority) could not capture.

While the large-scale voluntary transfers may have provided a new branding and vision for social housing, major problems remain. Concern remains, for example, that transferred stock will fail to meet the housing needs of the poorer section of the community in the long term and will perpetuate the stigma associated with a ‘last resort’ tenure for those receiving multiple government benefits (Daly et al. 2005 p.339).

Decreasing government involvement and the increased role and independence of RSLs is the result of neoliberal politics, placing financial and market pressure on social housing, resulting in a greater market orientation and business-like behaviour. This has resulted in tenants being increasingly constructed as the consumer of social housing (Daly et al. 2005). Such dramatic shifts in the provision and management of housing are the physical manifestation of longstanding debate about the involvement of the state in housing. Leaving housing to the free market can result in a sub-standard and unaffordable private rental market. There is a need to “attain a balance between economic efficiency and social equality” (Gruis and Nieboer 2007 p.46).

Interestingly, in considering the role that community housing organisations could play in Australia, Nygaard et al. (2008) note that the sector has the potential to access additional funding streams such as the Commonwealth Rental Assistance scheme. Community housing has non-financial benefits to tenants and the broader community. Benefits include flexibility in meeting diverse needs, flexibility in asset management, secure tenure, tenant empowerment and involvement. Broader benefits include non-housing involvement in tenants’ lives, such as skill development leading to employment and the ability of non-profit organisations to make links with local governments, the private sector and other community agencies (CHCSA n.d.)

The strength of the not-for-profit sector is that any residual value after expenditure and liabilities are met must be re-invested into the company (Nygaard et al. 2008). Despite the potential benefits of utilising the non-for-profit sector, unlike the UK, the sector in Australia does not have national or state-wide regulatory framework. A substantial portion of the non-for-profit housing stock in Australia is managed by schemes not covered under the Commonwealth-State Housing Agreement (ibid).
In summary, there are four key differences between the UK and Australia. First, the scale of post war construction was greater in the UK, meaning that a large amount of equity was realised. Moreover, through transfers to RSLs and right-to-buy initiatives, more than 2 million UK tenants have moved into home ownership since 1980 (Berry et al. 2004 p.33).

Secondly, while many houses were subsequently sold, many were transferred into the non-profit sector and remain as social housing. Between 1998 and 2001, for example, RSLs have increased their share of the housing system from 2.7% to 6.6% while over the same period, the local authority sector has reduced its stock from 24% to 14% (Berry et al. 2004). This means that low-income households in the UK are housed in social housing, which offers greater security of tenure and cheaper rents (ibid p.77). In contrast, in Australia public housing is seen as a ‘last resort’ option associated with poverty and income support. The risky and unstable private rental market houses those unable to purchase their own home (Berry et al. 2004).

Additionally, private finance has been levered into the sector in the UK to facilitate the acquisition of affordable housing by local authorities and increasingly by RSLs (Berry et al. 2006). RSLs raise funds from the finance market to purchase the homes, and the process provides local authorities with a capital receipt. RSLs also grow social housing stock through new housing (Berry et al. 2004). The use of private funding for social housing ensures a better financial return than could be yielded from public investment. Berry et al (2004) conclude that while overall costs to government are higher than a conventional public funding model, the cost per household are lower and the number of households assisted has significantly increased.

The final difference is the use of the planning system. Under section 106 planning obligations on developers, over 90% of local authorities in the UK now have arrangements in place which ensure the provision of affordable housing as part of the planning approval (Gurran 2007; Berry et al. 2004). This gives affordable housing providers access to development sites that otherwise would be too expensive. Dwellings are typically provided by RSLs although increasingly low cost homeownership options are being provided (Berry et al. 2004). The use of the planning system may become more substantive in Australia, with South Australia, for example, legislating a minimum provision of 15% affordable housing in new developments (Lawson, 2007).

**Document analysis: affordable housing in the UK**

There has been substantial progression in British housing affordability policy over the last five years, as shown in Table I below.
Table I: Key government documents to facilitate affordable housing in the UK.

Current housing policy in the UK rests heavily on the Barker Review (Barker 2004), an investigation sponsored by the UK Treasury. The review quantified ongoing concerns about decreasing housing affordability, the inability of housing supply to meet changing demands, the broader social and economic impacts of these challenges and the need for a strong policy response.

Key findings of the Barker Review included:

- Declining levels of new home constructions; over the ten years to 2002, outputs of new homes were 12.5% lower than the previous ten years
- Volatility in the housing market was linked with broader macroeconomic volatility
- Household growth being driven by demographic changes
- Housing supply is responding poorly to demand shifts
- Decreasing affordability and widening wealth gap between homeowners and others; real house prices have risen an average 2.4% per annum for the past 30 years
- Need to redress spiralling real house prices and curb price growth to 1.8%
- An additional 70,000 private sector homes are needed per year
- 17 000 new social homes are needed each year to meet ongoing need among new households; an additional 9000 are required per annum to redress current backlogs.

(Barker 2004)
In November 2006, the UK Department of Communities and Local Government (hereafter CLG) released *Delivering Affordable Housing* which established the framework for improving affordability by noting current housing affordability and supply challenges and mechanisms in place to respond to them (CLG 2006).

Crucially, the document stated that “everyone should have the opportunity of a decent home, which they can afford, within a sustainable, mixed community” (ibid p.1). *Delivering Affordable Housing* built upon broader supply issues identified in the Barker Review. In moving policy toward implementation, the roles of local authorities, regional assemblies and national government were clearly established. *Delivering Affordable Housing* also established the key working definitions for use in the UK.

**Affordable housing** includes social rented and intermediate housing, provided to specified eligible households whose needs are not met by the market. Affordable housing should:
- meet the needs of eligible households including availability at a cost low enough for them to afford, determined with regard to local incomes and local house prices; and
- include provisions for:
  - (i) the home to be retained for future eligible households; or
  - (ii) if these restrictions are lifted, for any subsidy to be recycled for alternative affordable housing provision.

**Social rented** housing is rented housing owned and managed by local authorities and RSLs, for which guideline target rents are determined through the national rent regime. It may also include rented housing owned or managed by other persons and provided under equivalent rental arrangements to the above, as agreed with the local authority or with the Housing Corporation as a condition of grant.

**Intermediate affordable** housing is housing at prices and rents above those of social rent but below market price or rents, and which meet the criteria set out above. These can include shared equity (e.g. HomeBuy) and other low cost homes for sale, and intermediate rent.

(CLG 2006 p.9)

The definition of affordable housing in the UK is much broader than the quantitative definitions used in Australia. It captures those struggling to access appropriate housing better than quantitative income to housing cost ratios, such as the ‘30/40 split’, whereby more than 30% of household income is spent on housing costs for the bottom 40% of household incomes (Yates et al. 2007). The problem with a
A quantitative definition is that it is possible to still experience hardship due to factors such as house size and quality, location, access to employment and proximity to family and social networks but not fall within a strict affordability definition due to income (ibid).

In *Delivering Affordable Housing*, social housing prices, being well below market rates, are dependent on relative property values, local earning levels and property sizes. Social housing tenants in local authority and RSL housing have the opportunity to purchase their homes at a discount through ‘right-to-buy’ and ‘right-to-acquire’ mechanisms respectively, with the funds re-invested to provide more social housing (CLG 2006).

An “intermediate” housing assistance option that has potential for Australia is the UK’s *Home Buy* shared-equity scheme. Home Buy schemes are targeted toward social housing tenants and key public sector workers where there are recruitment and retention difficulties and first home buyers who otherwise could not afford ownership and thus are eligible for assistance. The intention with such models is that the homeowners’ equity share increases over time, so that the public value can be recycled to assist further households (CLG 2006).

There are three home buy products:

- **Social Home Buy** facilitates the home ownership process for social housing tenants by allowing them to buy a share of their home. The minimum equity share is 25% and buyers purchase the maximum share they can sustainably afford with the percentage stepped up in 10% intervals until a mortgage can be taken for the full 100%. In such a model, buyers assume full maintenance of a home so in many ways are pseudo-home owners (Housing Corporation 2007).

- **New Build Home Buy** allows purchasers to buy a component of a newly built home and pay a rent on the remainder. The repayment process is the same as Social Home Buy (ibid).

- **Open Market Home Buy** enables households to share the equity on a home purchased in the open market. In this model, the conventional component of the mortgage is provided by one of four participating private lenders (CLG 2006).

In July 2007, the CLG released a comprehensive housing green paper, *Homes for the future: more affordable, more sustainable* (CLG 2007a), which considers the overall structural problems in the housing system. This document responds to the findings of the Barker review in terms of the entire housing system, not merely the affordability challenges at one end of the market.

The document establishes affordable housing as a “material concern” in public policy and ensures that local and regional targets are set for affordable housing, based on a needs assessment process (Gurran
In terms of redressing the ongoing housing supply shortfalls, an annual target of 240,000 new dwellings is outlined, resulting in 3 million new dwellings by 2020. In addition to expanding on the aforementioned policy initiatives, the paper notes the potential for maximising the use of government land. The affordable housing provision on such land is offered at 50% (CLG 2007).

In terms of social housing, the green paper establishes a significant building program that will see 45,000 new social homes a year by 2010-11. Although a large proportion of this will be done by RSLs, there is an increasing role for the private sector and especially local authorities to again build new social homes (ibid).

In terms of home purchase opportunities, the plan is to provide a minimum of 25,000 shared ownership and shared equity schemes. Additionally, up to 18,000 shared ownership dwellings are to be provided without any sort of grant through the use of public sector land. The paper also notes the establishment of a taskforce to facilitate a greater private sector involvement. There are also plans for a ‘covered bond regime’ to allow financers to provide affordable, long term fixed rate mortgages (ibid).

The broader policy agenda is formulated into action in the National Affordable Housing Programme (NAHP), the policy document which outlines how the Housing Corporation, a division of CLG, will increase the supply of affordable housing between 2008 and 2011. This document defines roles and opportunities available to different stakeholders, from central government, the housing corporation, regional assemblies, local authorities, housing associations and the private sector (Housing Corporation 2007).

The NAHP outlines a range of products, for which bids are sought. The NAHP establishes a marked divergence from the historical provision of social housing in concentrated estates, in that to “make communities work” there will be a mixture of market and affordable housing. In the affordable housing component, there will be a mixture of social housing and affordable home ownership tenures. It is policy that socially rented homes will be located in groups of more than 25 on an exception basis (ibid).

**Document analysis: sustainable housing in the UK**

The UK approach to sustainable housing has a different emphasis to Australia. Owing to a cooler climate, the necessity of heating and the age and nature of the housing stock, housing in the UK is responsible for a much larger proportion of energy consumption and CO$_2$ emissions. In the UK, the domestic sector emits approximately 18% of national greenhouse gas emissions (DTI, 2007 p.11) compared with 9.1% of emissions by the residential sector in Australia (Australian Government, 2009
Thus, sustainability debates place a larger emphasis on energy efficiency and thermal comfort whereas Australian sustainable housing policy typically places a more equal value on energy efficiency and water conservation.

Housing sustainability factors are measured in the English Housing Survey. Each year, 17,000 households complete the interview survey; 8,000 of these dwellings are physically inspected and desk-based market valuations are provided. An interesting observation from the 2006 survey was that while there are still room for improvements in the social housing sector, the energy performance is substantially better in the social sector than the private sector and the gap is widening (CLG 2008b).

Improving the environmental performance of housing has been a policy objective in the UK for some time, possibly because of the comparatively higher cost and energy savings that can be yielded. The English Housing Survey found that energy efficiency has been steadily improving in the decade to 2006, with the average energy-efficiency rating improving by seven index points over the ten year period (Ravetz 2008).

There has been substantial progression in British sustainable housing policy in recent years, as shown in Table II below.

<table>
<thead>
<tr>
<th>Document title</th>
<th>Year</th>
<th>Agency</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building a greener future</td>
<td>2007</td>
<td>Communities and Local Government</td>
<td>• Policy statement</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Outlines the need for sustainable housing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Establishes goal of carbon neutrality in new homes by 2016</td>
</tr>
<tr>
<td>Code for sustainable homes</td>
<td>2008</td>
<td>Communities and Local Government</td>
<td>• Practical framework to improve housing sustainability</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Establishes an indicator system that allows new homes to be ranked</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• All new homes receive a ranking certificate or certificate of non-assessment</td>
</tr>
<tr>
<td>Heat and energy saving strategy</td>
<td>2009</td>
<td>Department of Energy and Climate Change</td>
<td>• Seeks to decarbonise energy supply and heating</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Targets for retrofitting existing homes with appropriate measures</td>
</tr>
</tbody>
</table>

Table II: Key government documents to facilitate sustainable housing in the UK.

In July 2007, CLG released *Building a Greener Future* (CLG 2007b), a policy statement that assumes that action is needed now to respond to climate change. Housing will play a crucial role in any response since energy use in buildings accounts for nearly half of all CO₂ emissions in the UK. In response, the policy statement sets the broad target of achieving carbon neutrality in new homes by
2016 as part of a broader target of an 80% reduction in carbon emissions by 2050 (ibid). In this context, the focus on achieving carbon neutrality covers addresses both operational and construction issues. This, as reflected in the Code for Sustainable Homes below, can be achieved using a variety of techniques at the builder’s discretion, including active renewable electricity generation or using power generated through bio-mass fuelled combined power and heat plants.

At a more practical level, CLG has developed the Code for Sustainable Homes (CLG 2008c), which establishes the framework supporting the goal of attaining carbon neutrality in all new homes by 2016. The code assesses the environmental sustainability of new homes as reflected in nine indicators, which combine to give the home a star rating. The categories are

- Energy and CO₂ emissions
- Water
- Materials
- Surface run-off
- Waste
- Pollution
- Health and well-being
- Management
- Ecology

Interestingly, all new homes must be accompanied by either the code certificate or statement of non-assessment. Thus the code will allow builders to provide a marketing advantage for sustainable housing (CLG 2008). The targets in the code exceed the minimum building regulation standards and as such, differ from the commonly used star ratings in Australia.

The star ratings range from 1 star, which exceeding current building regulations might, for example be 10% more energy efficient and 20% more water efficient, to 6-star, when the home is carbon neutral and achieves over 90% of the points required (CLG 2008c). The code works by having a minimum standard for each level of the code for energy efficiency, CO₂ emissions (see Table III) and water (see Table IV), while establishing a minimum standard benchmarks for materials, surface run-off and waste. Beyond these, there are no minimum standards, with ‘tradable credits’ proving builders flexibility in choosing which areas to improve the environmental performance and thus sustainability rating (CLG 2008b p.7). There is a weighting given to each category to reflect the relative contribution to sustainability. The result is a percentage score from which a star rating can be derived. The derivation of the various code levels, showing mandatory standards and tradable credits, is shown in Figure 2, while Figure 3 and 4 show an example certificate.
**Figure 2: The scoring system for the Code for Sustainable Homes (CLG 2008c p.18)**

<table>
<thead>
<tr>
<th>Code level</th>
<th>Minimum percentage reduction in dwelling emission rate over target emission rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>44</td>
</tr>
<tr>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>‘Zero Carbon’ Home</td>
</tr>
</tbody>
</table>

**Table III: Code levels for mandatory minimum standards in CO₂ emissions (CLG 2008c p.11).**

<table>
<thead>
<tr>
<th>Code level</th>
<th>Maximum potable water consumption in litres per person per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>120</td>
</tr>
<tr>
<td>2</td>
<td>120</td>
</tr>
<tr>
<td>3</td>
<td>105</td>
</tr>
<tr>
<td>4</td>
<td>105</td>
</tr>
<tr>
<td>5</td>
<td>80</td>
</tr>
<tr>
<td>6</td>
<td>80</td>
</tr>
</tbody>
</table>

**Table IV: Code levels for mandatory maximum standards in potable water consumption. (CLG 2008c p.12)**
Figure 3: An example of the certificate issued for a home assessed against the Code for Sustainable Homes (CLG 2008c p.65).
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Figure 4: An example of the certificate issued for a home assessed against the Code for Sustainable Homes (CLG 2008c p.65).
Recently, the Department of Energy and Climate Change (DECC), together with CLG published a *Heat and Energy Savings Strategy* (DECC 2009). Currently undergoing community consultation, the strategy seeks to provide mechanisms to decarbonise the energy supply and heat generation.

Mechanisms to achieve such objectives and targets include subsidies, voluntary codes of practice and building code regulations. Crucially, the strategy looks for how improvements can be made to the existing housing stock, in recognition that even the most sustainable new housing will represent only a fraction of overall resource and energy use (DECC 2009).

**A practical application: Oxley Park, Milton Keynes**

English Partnerships is the national regeneration agency in the UK and they support high quality sustainable growth in England. They are a non-departmental public body and their sponsor government department is Communities and Local Government (CLG). In 2005, they announced winners of the Designed for Manufacture competition (DFMC) which was developed to showcase “how to build cost effectively across a range of housing types without sacrificing quality and sustainability standards” (DFMC 2006). The competition is providing government funding to projects around the UK which will demonstrate that a high quality, environmentally sustainable home can be built with a construction cost of £60,000.

The competition’s scope was broad, encouraging both traditional and contemporary construction materials and methods. Key criteria included a construction cost of £60,000 per dwelling for at least 30% of the dwellings, a minimum of two bedrooms and dwelling space of 76.5 sqm, high standards in terms of design and construction quality and set environmental sustainability benchmarks (DFMC 2006). One winner was the residential construction company George Wimpey who, with the leading architectural practice Rogers Stirk Harbour and Partners (formerly Richard Rogers Partnership), came up with a ‘flat pack’ concept for starter homes. This concept is currently being developed at Oxley Park at Milton Keynes on a 3.6 ha site with 145 housing units, 43 of which will be affordable (22 shared ownership; 7 reduced cost sale; 7 low cost sale and 7 for affordable rent) (DFMC 2008). It is a greenfields site within minimal site preparation or remediation required. The DFMC site is one component of a larger development site and many homes have now been completed with construction commencing in 2006 and expected to be finalised by December 2010 (ibid).

In excess of the competition requirement, 38%, or 56 homes will be built for under £60,000. The densities will vary from 35-45 dwellings per hectare. The site involves a mixture of traditional brick construction, light steel and timber framed homes. The timber and steel frame designs come ‘flat-packed’ leading to economies of scale with the theoretical construction time reduced to 31 days. The
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Proposal incorporates in-built flexibility with the option to physically bolt-on modifications, such as balconies, studies and canopies at a later stage. Further cost savings were made by designing homes in two distinct zones – a service zone with the complex but standardised features, such as plumbing and stairways, with the living zone designed as flexible, open shell (George Wimpey n.d.).

Although the DFMC was developed prior to the Code for Sustainable Homes, the standards are nonetheless high. Homes in Oxley Park, as shown in Plate 1 and 2 below, will have low embodied energy materials, good solar orientation, high levels of insulation, air-tight construction, and ‘EcoHats’, which, being the ‘next generation of chimney stacks’, filter all incoming air, re-circulate hot air, maximise the intake of solar heat and provide passive solar water heating as an optional extra (George Wimpey n.d.). Reductions in the carbon footprint are claimed to be as follows: 27% from house construction, 40% with the inclusion of the EcoHat, 50% when the EcoHat is attached to top-up energy for a hot water system and 70% if the EcoHat uses geothermal energy sources through a local bore hole.

There is some ambiguity about the original target cost of £60,000 as the price for homes on the open market at Oxley Park are substantially more than this. Despite the project at Milton Keynes and other DFMC sites being incomplete, CLG (2006b) has already begun to analyse how successfully their objectives have been met. They suggest that the following 10 lessons have already been learnt:

1. Construction costs can be tamed through linking design, supply and delivery team into a single process.
2. Density with houses, not just flats. Densities of over 60 dwellings per hectare have been achieved while still predominantly developing houses with gardens.
3. A home is forever, not just for the first sale. Designs in the competition have intentionally considered adaptability.
4. Quality and cost are compatible. The cost and floor area requirements have been met, without subsidy.
5. One thousand and one house types, design outcomes have varied substantially.
6. Innovation is for everyone. There was substantial mainstream interest in the project.
7. New players. Most of the successful bidders did something different, and forged new links with housing associations and suppliers.
8. Future proof homes. Homes in the competition are being built to high environmental standards, particularly in terms of energy use reducing occupants’ ongoing costs.
9. Place and product must work together. Important design techniques have ensured the dwellings work in their context, through passive surveillance of streets, minimising the impact of cars and creating small, functional public spaces.
10. Vision. Developments have been most successful when there has been substantial local input and high amounts of communication with local authorities and the broader community. (CLG 2006b p.6-7)

Discussion: What can we learn and what will inhibit success

This paper has thus far addressed the history of housing provision in the UK and compared it with the Australian experience. The final section of the paper considers what Australia could learn from the British experience in terms of policy and real-world outcomes and identifies some factors that may inhibit such application.

First, it should be noted that policy and outcomes in the UK by no means constitute ‘best practice’ or should be seen as the end state of Australian policy or housing outcomes. The discussion has sought to identify shortcomings, as well as strengths, in the British case of improving housing affordability and sustainability.

Additionally, this paper has deliberately focused on affordable and sustainable housing in a policy context and beyond the Oxley Woods example, has not considered the implementation of the government agenda. Recent research from the UK (Osmani and O’Rielly 2009) has, for example, highlighted that the potential difficulty in achieving the government’s agenda. While affordable and
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Environmentally sustainable homes are technically feasible, demonstrated in projects such as Oxley Woods, ambiguity exists in the broader house building industry about what actually constitutes a carbon zero home. Additionally, they suggest there is a perceived lack of legislation to support the current policy, and limited consumer awareness and demand for carbon zero homes (Osmani and O’Rielly 2009).

Beyond this, there is much Australia could learn from the UK. In terms of providing and managing social housing, the benefits of a greater private and non-profit sector involvement may be transferable to an Australian context. Recent housing policy and innovations have sought greater non-profit and private sector role. However, UK policy aimed at leveraging finance into the affordable housing sector was largely the result of incremental changes responding to changing economic and political climates over a period of time (Berry et al. 2006 p.319).

As Berry et al (2004 p.73) note, there is a need for both demand and supply side subsidies in the housing system to lever finance. This is a challenge for Australia, because unlike the UK, recent government involvement has involved a marked shift from supply-driven interventions (such as new public housing units) to demand-driven subsidies (such as Commonwealth Rental Assistance). Further, a co-ordinated approach requires commitment from all levels of government, a factor partially addressed in the new National Affordable Housing Agreement. Critically, the British experience reveals that finance can be levered into the sector when the right institutional and funding frameworks exist (ibid).

Conservative governments in Australia between 1996 and 2007 gave housing a limited role in Federal policy, beyond specific payments for social and public housing, first-home-buyers grants and rental assistance for the private market. The Rudd Labor government has made housing national policy by appointing a minister for housing and establishing a series of initiatives. Four major new policy initiatives are

1. First Home Saver Accounts – whereby bigger deposits can be saved through low tax superannuation-style savings accounts where the government will make additional contributions.
2. Housing Affordability Fund – aims to lower the cost of building new homes by working with all levels of government to reform infrastructure and planning requirements.
3. National Rental Affordability Scheme (NRAS) – seeks to increase the supply of affordable rental dwellings by providing tax incentives.
In 2009, the Rudd government released the National Affordable Housing Agreement (NAHA). The NAHA represents significant progression in housing policy because for the first time, housing is being considered as a single policy concern, for which there are a variety of issues including homelessness, social housing, rental assistance, home purchase assistance and indigenous housing. The agreement, whose key objective is that “all Australians have access to affordable, safe, sustainable housing that contributes to social and economic participation” (COAG, 2009 p.3), also establishes the roles and responsibilities of Commonwealth, State and Local governments.

The recently released State of the Supply 2008 report (National Housing Supply Council, 2009) projects housing supply and demand to 2028 and perhaps could be described as Australia’s version of the 2004 Barker Review. The report provided data on current and projected shortfalls between housing supply and demand but did not establish targets for housing provision in terms of the number of dwellings required.

A strength of housing policy in the UK are the broader terms used to define and respond to declining affordability. It is unlikely that Australia will be able to adopt individual policy initiatives from the UK without ideological and institutional shifts. Housing issues should not be perceived as “problems to be solved” at the bottom end of the market. Conversely, housing reform is needed across the sector.

Australian policy makers have considered the need to improve housing affordability evident in the NAHA, and creative innovations such as NRAS, which will deliver improvements to housing affordability. But Australia could learn more from the UK by developing housing policy that is less focused on “addressing a problem” and more oriented on delivering structural change to the housing system.

In terms of housing sustainability, environmental performance of housing is controlled by general planning provisions and the Building Code of Australia (BCA). While planning controls can help achieve improvements in areas such as building orientation, stormwater management as well as strategic issues such as land use/transport integration, it is the BCA that has the regulatory strength to deliver improvements to the environmental performance of individual dwellings.

Beyond the BCA, Australian policy makers might adopt a policy like the UK Code for Sustainable Homes. The strength in this approach is that it provides mechanisms to encourage individual developers to build sustainable homes. Homes with improved environmental features beyond BCA requirements would have a government-endorsed marketing advantage while homes that are not
sustainable and have not been certified are issued with a certificate noting just that. A certificate system would be most effectively implemented at a State government level. Currently in Australia, there is the National Australian Built Environment Rating System (NABERS) which has a facility for assessing the energy and water consumption of homes. State governments have also introduced schemes such as the Building Sustainability Index (BASIX) in New South Wales. However, there is scope for a national scheme using a more comprehensive range of sustainability indicators. An assessment tool for sustainable residential developments based on an ecological footprint method is currently being developed by Land Management Corporation using their Lochiel Park site in South Australia (Donaldson, 2009) and this may contribute to this aim.

Finally, in terms of a practical demonstration of affordable and sustainable housing, many of the lessons learnt in the DFMC have implications for Australia. The engagement of “traditional” homebuilders in the DFMC innovations signifies that with the right incentive, the construction industry can be effectively engaged. Additionally, the achievement of higher densities and lower construction costs in building houses rather than flats is encouraging, as there are strong societal preferences towards such housing in an Australian context.

**Conclusion**

This paper has considered what Australia might learn from the UK in terms of housing that is both affordable and sustainable.

In terms of strategic policy, it has been argued that Australia would do well to conceptualise the challenges of affordability in a broader context and seek holistic federal government policy and action.

In terms of particular housing outcomes and initiatives, this paper has argued that Australia could well learn from the UK by developing a government-led shared-equity scheme that has successfully assisted many aspirants into home ownership. In addition, there is scope for expanding the role of private and non-profit organisations in providing affordable housing. In terms of environmental sustainability, Australia could encourage improvements to the environmental performance of housing beyond the BCA through a sustainability code that ranks all new homes.

Factors identified though the research that may inhibit the implementation of the above include a historical reluctance of governments in Australia to be involved in housing, an underlying neoliberal ideology that housing policy should “fix problems” for only the most vulnerable in our society and the complexity of Australia’s governance system with differing responsibilities at each level of government.
Thus, it is likely that affordable and sustainable housing in Australia will only be the result of long-term institutional change toward the role of government in housing. Anything less will merely replicate Australia’s traditional approach to housing – regulation mandating limited standards and piece-meal policy and funding.

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