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Mandatory residential energy efficiency rating: how are marketers likely to respond?

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Abstract

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The residential housing market is the largest and also the dominant land use in Australia where promotion is via established marketing methodologies and specific legal information is disclosed to a prospective buyer. There will soon be an additional requirement for sellers to disclose the energy efficiency performance of the dwelling prior to sale. The purpose of this disclosure is to encourage buyers to purchase energy efficient homes in their decision-making process.

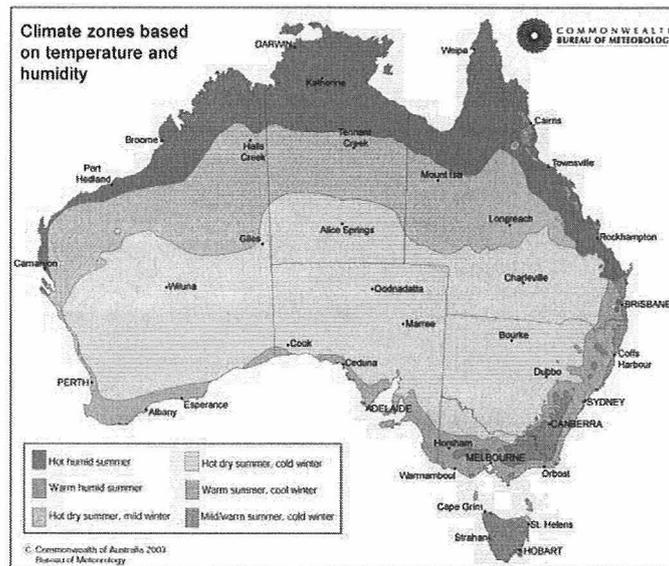
This paper examines potential impact of mandatory disclosure about energy efficiency and the relationship with house prices. A review is undertaken of international housing markets which have already introduced similar measures and examines the relevance of marketing strategies. The results include an analysis of houses designed for specified energy performance levels and marketed as capable of achieving these levels.

Introduction

The residential housing market receives the highest marketing attention and is the largest and most common land use in Australia. However in economic terms the residential market is considered a relatively inefficient (API 2007). Information and promotion concerning a particular property offered for sale is made known via established marketing methodologies and certain legal information is required to be disclosed to the buyer prior to entering into a contract of sale. To-date the disclosed legal information has focussed upon the title and

statutory requirements impacting upon the improvements on the land. However a recent COAG agreement (DSE 2010) determined that there would be an additional requirement for sellers to disclose the energy efficiency performance of all dwellings prior to sale. Similar disclosure requirements have been mandated in the ACT since 1999 (DSE 2010). The purpose of such disclosure is to inform buyers via the market process about energy efficient homes in the decision process thereby creating a buyer demand for energy efficient building characteristics. This in turn is intended to result in reduced carbon emissions. The COAG agreement requires each state and territory to determine the appropriate measures within their respective regions. This is sensible as there are 6 recognised climates zones within Australia. Figure 1 reveals the location and diversity of these climate zones and the subsequent challenges of developing meaningful and coherent energy performance indicators.

Figure 1- Australian Climatic Zones



(Source: Bureau of Metrology 2011)

Purchasers of residential real estate consider many factors when seeking a new home with financial constraints being one of the key determinants (Reed & Mills 2007; Zhang 2010a) et al.). Widely publicised threats of increased energy costs is likely to bring energy performance of houses into much greater focus and, in turn, create new challenges for marketers of real estate, namely estate agents.

In this paper, a review is undertaken of international housing markets that have introduced similar measures and the impact these measures had upon housing markets. Then a review is undertaken into the Australian housing market to examine potential impacts on the marketing of properties affected by this requirement.

To-date newly constructed homes in Victoria and some other states have been required to meet a minimum 5 star energy rating upon completion. From May 2011 the standard was been increased to 6 stars in Victoria. Since the COAG agreement affects both new and established homes in Australia, this requirement will have a significant impact on the housing market. In Victoria the mandatory disclosure is scheduled for introduction on 1st July 2012. This raises the issue of whether consumers will take these energy ratings into account and in

particular whether they will affect consumer willingness to pay a premium for more energy efficient homes. Similarly, it raises the issue of whether real estate agents have the knowledge or skills necessary to make energy efficient homes more attractive to buyers than their more inefficient housing alternatives

Literature review

There is a growing body of knowledge about sustainability and the impact on the global resources of the built environment (Bernier, Fenner & Ainger 2010; Faesy 2000; Newton & Tucker 2010) have presented arguments about to various measures for the reduction of greenhouse gas emissions (Crosbie & Baker 2010; Eves & Kippes 2010; Gill et al. 2010). Many studies have examined architectural design, occupancy behaviour or the ability of energy rating measures to accurately predict building energy performance. Limited research has been conducted into the perceptions of buyers towards houses with high standards of energy performance; even less research has investigated how marketers of real estate present these homes compared to less energy efficient houses.

Real estate theory confirms that location, constrained by financial resources, will largely determine where a buyer will purchase and how much they will pay (Edelstein & Tsang 2007). Nevertheless there is no evidence to suggest this will change when mandatory energy reporting is introduced throughout Australia. However, as mandatory energy reporting requires the seller to disclose the energy performance of their home prior to sale (DSE 2010) it is likely that buyers will begin to consider the variations between house characteristics more closely (Bloomers, Magnani & Peters 2001). With reference to past energy bills and in light of potentially increasing energy costs, prospect theory suggests buyers are likely to begin to evaluate the energy performance of a house within their preferred location (Gatersleben et al. 2010).

In relation to the prevalence of sustainability issues within real estate marketing advertisements, Kriese and Scholtz (2011, p.1522) noted "*The definite reluctance in the uptake of sustainability issues in housing marketing, if compared with the emergence of public environmental awareness and regulation, confirms housing as a conservative branch.*" The study also noted that prior to 1990, the content of marketing advertisements that mentioned energy performance and/or sustainable features was virtually non-existent. Research into linguistic variations and their relationship to real estate cycles has shown the real estate agents tend to use words and phrases to attract buyers in a counter intuitive sense (Robertson & Doig 2010). That is, the choice of words in a property advertisement are constructed to provide reasons or a level of confidence to buy when the market is considered slow or alternatively hasten the purchase decision when the market is buoyant.

Advertising and marketing property within a legalised consumer aware environment must be approached with caution at all times. Representations in relation to a dwelling's energy performance, given that it has been shown that occupant behaviour has a significant determinant of energy usage, is likely to be a challenging task.

House energy rating systems and mandatory disclosure

Residential housing in Australia is the largest urban land use and a large emitter of greenhouse gas emissions. Property professionals disaggregate these statistics into three primary components: embodied energy, in-use energy and transportation. Embodied energy is the sum of resource use and carbon emissions used in the components used for the construction of the dwelling. In-use energy refers to the on-going energy consumption in the provision of environmental comfort in the house where transportation refers to the

movements within the urban environment. This paper specifically examines in-use energy. The energy consumed to provide an acceptable level of comfort within the dwelling essentially depends upon the following (Todd 2006):

- The architectural design including the relevant climate zone;
- The building fabric;
- The amount and type of insulation including floor, roof and walls;
- Behavioural and lifestyle patterns of occupants in the home; and
- The form of heating and cooling appliances used.

Considerable research has been conducted into the impact of occupants upon the energy performance of the dwelling (Crosbie & Baker 2010; Eves & Kippes 2010; Stein & Meier 2000). Many of the findings confirm that irrespective of how the buildings have been designed with environmental design features and state of the art technologies, the in-use energy usage is actually far beyond the level anticipated. In many cases the behaviour of occupants has been responsible (Crosbie & Baker 2010).

Stein and Meier concluded that from a global perspective the HERS rating systems all required refinement and required substantial public education for acceptance to occur. Since this study was published there have been increasing levels of debate about the environment and how to address concerns. However other than minor improvements to software used to measure energy performance there appears no evidence of substantial improvements of the basis of measurement.

Implications for research

The Victorian Estate Agents Act 1980 prescribes that real estate agents must undertake formal training in order to offer property marketing services to the public. Similar training is prescribed by legislation and regulated throughout Australia by the respective state and territory consumer protection authorities who mandate specific units of study. Examination of Victoria's prescribed agents' licencing program reveals that only 2 units of competency totalling one days training (half day for each unit) refer to the marketing of property (REIV 2011). Discussion and training on the requirements of consumer protection as it applies to marketing is also included within this time allocation. This minimal amount of marketing training is likely to be a problem since agents will not have the underpinning knowledge to develop effective advertising campaigns that accurately represent the energy capabilities of the home being sold.

Given energy representation of dwellings will become a legal document and form part of every purchaser contract it is imperative that all stakeholders understand the implications. It is argued the initial response by real estate agents, and to some extent sellers, may be to overlook comments about the energy performance capabilities of the house. The basis of this contention is that neither party sufficiently understands either the technical implications or the how best to present this development to the buying market. Nevertheless it is most probable buyers will inquire about these documents when provided to them. It has been shown that whilst a home may have been designed for specified energy performance level and marketed as capable of achieving this level, many houses have in fact fallen short of these targets (McGreal et al. 2009; Zhang 2010b). The impact of this problem has caused concerns amongst marketers of residential real estate and there appears to be emerging confusion about the price premium that should be linked to higher energy rated homes. It is argued that for agents to adequately address buyer and seller concerns about how to successfully market mandatory discloser, the agents will require specialised training in

market theory to raise their awareness and understanding of the potential implications of their marketing decisions.

Marketing of real estate requires full consideration of effective marketing strategies to highlight mandatory disclosure of energy efficient houses. The real estate industry is central to the exchange of property in Australia and acts an interaction between buyers and sellers. The skills, integrity and professionalism of an agent will arguably affect the decisions prospective buyers make when deciding where to live and what type of housing to purchase. Real estate agents are required to market clients' property assets to their best ability; with increasing energy costs it is realistic to include the attributes of an energy efficient home as one those prime features. However given the uncertainty about energy performance and the dependence upon occupant behaviour, an agent must undertake marketing of housing with an increased level of professionalism.

The impact of housing upon the environment necessitates affirmative action on behalf of governments but it is important that participants in the industry understand the aims and limitations of HERS classifications and the influence occupants have on energy consumption. The marketing industry is central to the effective delivery of this message and will play a critical role in the education of the buying public and the communication of the merits of this important objective. The end product is the reduction of carbon emissions through energy efficient improvements and the effective marketing of these characteristics to potential purchasers.

Future research and concluding comments

The issues presented provide rich opportunities for future research. It is established practice within Australia for buyers and sellers to engage the services of real estate agents and justifiably to expect these agents be professionally and suitably skilled. The services offered by agents extend to all dimensions of the transaction, including for sellers, an understanding of how to best present all features and characteristics of their home. Aside from highlighting the issues surrounding the implementation of mandatory energy reporting for established residential property, this paper also sets a research agenda for future research to examine the marketing and industry implications of this compulsory requirement.

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