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Sustainability and Mandatory Disclosure in Queensland
An assessment of the impact on home buyer patterns

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Abstract

Sustainability Declarations were introduced by the Queensland State Government on 1 January 2010 as a compulsory measure for all dwelling sales. The purpose of this policy decision was to improve the relevance of sustainability in the home ownership decision making process.

This paper assesses the initial impact of this initiative over its first year in operation.

In partnership with the Real Estate Institute of Queensland, real estate agents and salespeople in Queensland were surveyed to determine what impact the Sustainability Declaration has had on home buyer decision making. The level of compliance by the real estate industry was also reviewed.

These preliminary findings indicate a high level of compliance from the real estate industry, however results confirm that sustainability is yet to become a criterion of relevance to the majority of home buyers in Queensland.

The Sustainability Declarations are a first step in raising awareness in home owners of the importance of sustainability in housing. Further monitoring of this impact will be carried out over time.

Key Words

Sustainability, housing, buyer decision making, buyer preferences, mandatory disclosure.

Introduction

Issues of energy efficiency and environmental sustainability have been increasing in awareness in residential ownership and construction worldwide.

Over the last decade more stringent environmental laws have been introduced by many countries to counter soaring energy usage and prices. This has increased the need for the real estate industry to react and participate in overall energy reduction and housing sustainability through efficient house construction and design, as well as upgrading of existing housing stock to be more energy efficient and environmentally suitable. This environmental suitability relates to the maximisation of energy and water efficiency for specific housing markets and the weather conditions they experience. Although new residential construction standards have been legislated in countries such as Australia (Building Code of Australia, 2009), New Zealand (New Zealand Building Act 2004) and US (Energy Efficiency in Housing Act of 2009) to ensure that some levels of energy efficiency and sustainability are factored into both design and construction materials, this is not the case with existing housing stock built prior to current regulations.

In these situations the various governments have opted for voluntary schemes to improve the energy efficiency and sustainability of older housing stock, such as the home insulation scheme and solar hot water schemes introduced by the Australian Government in 2009.

In Australia, the Commonwealth Government is also in the process of legislating mandatory disclosure of residential building energy, greenhouse and water efficiency performance at the time of sale or lease from May 2011 (Council of Australian Government (COAG), 2009).

In late 2009, the Queensland State Government enacted mandatory disclosure of the environmental features of dwellings for sale in Queensland, through the introduction of the *Building and Other Legislation Amendment Bill 2009*. This "Sustainability Declaration" came into effect on 1 January 2010 and compelled all residential sellers to complete a declaration of their dwelling's environmental and social sustainability features in four key areas: energy, water, safety and access.

This initiative was introduced to:

- *Increase community awareness of sustainable building features and thereby over time help to improve the sustainability of our community;*
- *Promote the relevance of sustainability features for the value of homes;*
- *Encourage sellers to improve the value of homes by adding sustainable building features; and*
- *Provide valuable information about how the features of an existing home compare to most of the mandatory minimum energy and water efficiency features of a new (or in some cases renovated) home. (Queensland Government, 2009a, 2009b, 2010a, 2010b)*

In essence, the mechanisms of this legislation requires a) the seller to disclose the household sustainability features at the time of sale; b) the selling agent to advertise the availability of that declaration; and c) the prospective buyer to proactively request a copy of the declaration. These mechanisms are discussed more fully in Section 1 of this paper.

The purpose of this research is to assess the impact of this mandatory disclosure legislation on buyer decision making in the first year since its introduction.

Household Energy Use

Energy usage by residential and commercial property accounts for a substantial proportion of total energy use in Australia

According to recent research, building impacts on the environment include 55% of timber consumption, 27% of plastics use, 12% of iron and steel applications, 30% of raw material consumption, 40% of atmospheric pollution, 25% of solid waste, 24% of all water use, 20% of effluent, substantial indoor air quality issues, 37% of all energy, and 68% of all electricity use (Lenssen & Roodman, 1995; Newton et al., 2001). Given that building impacts could be split almost evenly between homes (55%) and commercial buildings (45%), the impact of residential housing on total energy use is substantial and increasing (Sullivan, 2007).

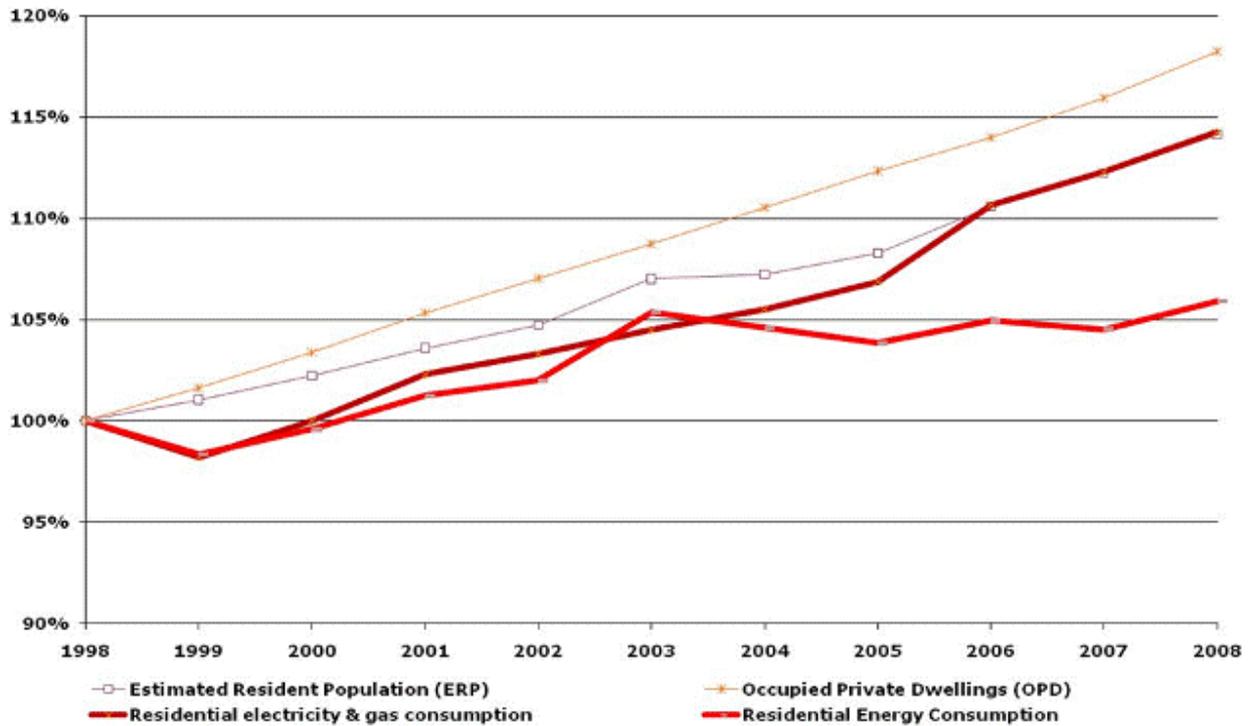
According to the ABS (2008) the majority of households (77%) resided in separate houses in 2008. Of these separate houses, 37% comprised four or more bedrooms and this is a contributing factor to increased energy use.

This 2008 ABS report also states that there has been an increase in the use of insulation in homes, up from 52% of dwellings in 1994 to 61% in 2008. However, this research shows that the increase in awareness and installation of insulation has been driven by the need for comfort rather than an awareness or concern for energy use. Only a small proportion (4%) of households reported that they had installed insulation in order to save energy. The main reason for not installing insulation was that the household was not responsible for insulation (34%), i.e. that they were renting their dwelling (Australian Bureau of Statistics, 2008).

The same ABS report stated that electricity was the main source of energy in 2008, used by nearly every household (99.9%). Electricity was also the most commonly used energy source for hot water systems (46%) and space heating (35%).

Since the Building Code of Australia first introduced minimum energy standards in housing, energy usage per household has dropped. In Victoria, Climate Change Victoria (2010) states that residential property energy consumption accounts for 17.5% of total energy consumption for the State.

Figure 1: Residential energy consumption and growth in dwellings and population, Victoria, base year = 1998.



(Sources: ABS, 2006; DPCD, 2008; ABARE, 2008)

Figure 1 shows that that total residential energy consumption within Victorian households (excluding use of private transport) rose by 8% between 1998 and 2007, compared to a 15% growth in numbers of households. Hence, although energy use per household has decreased, total residential property energy use is still increasing due to increasing household numbers (Department of Sustainability and Environment (Victoria), 2010)

The Australian Capital Territory (“ACT”) has had an energy efficiency mandatory disclosure scheme for housing for sale or lease since 1999. Research in the ACT concludes that there is a significant relationship between house prices and energy ratings (National Framework for Energy Efficiency, 2008).

This research aims to assess the impact Sustainability Declarations as a form of mandatory disclosure have had on home buyer decision making in the first year of their introduction in Queensland. Data was collected from real estate agents and salespeople in Queensland to assess this impact.

This paper has been structured as follows. Section 1 discusses the evolution of the issue of sustainability in housing from a national and international perspective. Section 2 reviews the available literature. Section 3 outlines the methodology employed in this study. Section 4 presents key findings and the conclusion is presented in Section 5.

1. Background and Policy

The issue of sustainability in buildings has been gaining momentum since first identified as a factor in the environmental debate in the early 1990's. Initially identified as a commercial building issue, sustainability and in particular energy usage, has now entered the vernacular of home owners/occupiers.

International

Since The European Parliament and The Council of the European Union issued its Directive on the energy performance of buildings in 2002, a number of member countries have set building energy usage goals and introduced supporting legislation (Official Journal of the European Communities, 2002):

- The UK has set a goal that all new houses should be net-zero emissions by 2016. The United Kingdom's Code for Sustainable Homes was established in 2007, with compulsory rating against the Code of new homes from 2008. The Code uses a star rating from 1 to 6, based on performance against 9 sustainability criteria which combined to assess the overall environmental impact. Energy usage is a key criterion, with an Energy Performance Certificate required for the sale of all new homes. (Department of Communities and Local Government (UK), 2010)

- German authorities have set a goal that by 2020 buildings should be operating without fossil fuel. Mandatory disclosure of home energy usage at the time of sale or lease came into effect on 1 July 2008. Two types of Energy Certificates are required: a Demand Certificate applies to the building's thermal efficiency, rating aspects of energy efficiency such as the walls, roof, windows and furnace. The Usage Certificate is based on the actual energy use of the property over the past three years. (Deutsche Energie-Agentur, 2010)
- France introduced thermal regulations in 2000 and 2005 which defined performance levels for new buildings. From 2012, all buildings are to be low-consumption (energy ratio for heating, DHW, cooling, ventilation and lighting must be less than 50kWh/m².y). By 2020, all buildings are to be energy-positive by balancing their low consumption by the production of renewable energy. (French Environment and Energy Management Agency 2010; Lenoir, Garde, Ottenwelter, Bornarel, & Wurtz, 2010)

Following Europe's lead, legislative sustainability targets for housing, and in particular energy usage in homes, have been introduced in a number of countries around the world including USA, Canada, Malaysia, and New Zealand.

Australia - Federal

Increases in energy efficiency regulation in Australia gained momentum in 2004 when 4-star energy efficiency was mandated in Australia for all new residential dwellings through the Building Code of Australia. In 2007 this mandate was increased to a five-star rating. All States and territories in Australia have now agreed to make all new residential dwellings six-star energy efficient by May 2011 (Housing Industry Association, 2010a, 2010b). However, this regulation is specific to new residential housing and not housing stock existing prior to 2004.

At the April 2009 meeting of the Council of Australian Government (COAG), it was agreed to introduce an Australia wide mandatory disclosure scheme to provide information to home buyers or renters about the energy efficiency of dwellings (Council of Australian Government (COAG), 2009). This scheme is due to commence in May 2011 across the nation and will

require allocation of a thermal performance star rating by an accredited assessor for all homes for sale or lease, in a similar nature to the long running ACT model (see below). Future expansion of the scheme is to include water consumption and greenhouse gas emissions.

Australia – Other States

The Australian Capital Territory (ACT) has had mandatory thermal efficiency disclosure for all homes sold since 1999. This star rating (0 to 10) must be included in all advertising material with the full certificate, including possible improvements to the property, included in contract documents. This rating system requires accredited and trained assessors to measure a home's energy efficiency based on thermal qualities only, such as building fabric, window design, orientation, air leakage and cross ventilation. It excludes energy consumption other than temperature control, such as lighting, appliances, hot water etc. New homes built since 1995 are required to meet a minimum 4 star energy rating (National Framework for Energy Efficiency, 2008).

Queensland

As stated previously, the Queensland State Government mandated disclosure of the sustainability features of dwellings for sale in Queensland from 1 January 2010. Compliance with this legislation requires specific action from each of the three parties involved in a transaction, being the seller, the sales agent, and the buyer.

The seller is required to complete a "Sustainability Declaration" checklist ("the form") prior to the property being put on the market. The form which is a declaration of the dwelling's environmental and social sustainability features in four key areas: energy, water, safety and access. The seller is able to complete the form themselves, and the seller may leave items on the form blank if they do not know the answer. However, the seller can be liable for any losses incurred by the buyer as a result of false or misleading information contained on the form.

The sales agent is required to include information on where a copy of the Sustainability Declaration is available from on all forms of advertising, excluding newspaper and magazine advertisements. A copy of the completed form is to be on display whenever the home is open to the public for inspection and a copy must be provided to any prospective buyer on request.

The onus is on the buyer to ask for a copy of the form from the selling agent. (Queensland Government, 2009a, 2009b, 2010a, 2010b)

Buyer Awareness

Despite these continuing legislative frameworks and general awareness raising of energy and water costs in home ownership and occupation, this is not always considered to be a major factor in the residential house purchase decision making process. A study by Reed and Mills (2007) found that the financial aspects of the house purchase decision were the most significant factor for first home buyers and not the environmental factors. A further study by Eves and Kippes (2010; Kippes & Eves, 2010) found that in the German and New Zealand residential property markets, buyers were more concerned about the price of the property, its location and number of bedrooms, than the energy efficiency or green rating of the property. These studies also showed that buyers were generally unaware of the energy efficiency schemes and measures and considered the most important environmental aspect of the residential dwelling to be the aspect of the building.

Kippes and Eves (2010) also found that although mandatory disclosure of sustainability features were required for both residential home buyers and renters, in less than 50% of residential sales transactions it was not considered important by the purchaser and even less so by those considering leasing residential property.

3. Research Purpose and Methodology

This research has been undertaken to assess the real estate industry compliance with the legislative requirements, as well as public awareness of the current legislation, specifically

the need for residential property sellers to supply a Sustainability Declaration, the buyer awareness in respect to the availability of the form and the importance of sustainability features in the buyer decision making process.

The research methodology focuses on two stages. The first stage research was designed to review the real estate industry compliance with the legislative requirements in relation to advertising the availability of the form, whilst the second stage surveyed the real estate industry on its experience with residential buyers and sellers since the introduction of the enabling legislation.

The first stage research involved a review of advertising material for residential property listings in the State's major population centre, South East Queensland. Over a two week period, a random selection of real estate advertisements were audited to determine the level of compliance of real estate agents and major residential property developers in respect to their obligations under the new legislation. This review covered internet real estate sites, newspapers and promotional brochures.

Stage two involved the construction of an online survey instrument to determine:

- the level of awareness of residential property sellers of the new legislation requirements;
- the level of awareness of the potential residential property buyers of the sustainability declaration, including if and/or when this declaration was requested/provided in the inspection and sale process; and
- Buyer sustainability relevance and preferences.

With the co-operation of the Real Estate Institute of Queensland, member real estate agents and sales people were provided with an opportunity to participate in this on-line survey.

The survey also sought data that would allow the survey responses to be classified on the basis of:

- Geographic location (Brisbane and surrounds, Gold and Sunshine Coasts, etc)
- Number of sales (gauge experience of responder)
- Average market sale range (Low value, medium value, high value markets)
- Typical buyer profile (Single, investor, family/couples)

These respondent characteristics will allow the results to be further analysed in subsequent research on the basis of market location and buyer type. Based on these classifications the results will determine if the level of awareness of the new sustainability declarations is consistent across the Queensland residential property market or varied depending on location or buyer type factors.

As this legislation has only recently been introduced, this initial survey and research will enable a benchmark position to be determined and follow up surveys will be conducted to assess changes in the level of compliance, awareness and acceptance over time.

Respondent Summary

A total of 587 responses to this survey were received over a two week period. A summary of the respondent profiles are shown in the following figures.

From Figure 2 it can be seen that the survey was completed by a good cross section of respondents across Queensland. A high proportion from Brisbane and surrounds is to be expected (38%) where a large portion of the population is centred, however it is also pleasing to see good response rates from regions such as North/Far North Queensland (12.3%) and even 21 responses from Western Queensland.

Figure 2: Respondent Summary - Geography

Brisbane and surrounds		38.4%	221
Gold Coast		15.3%	88
Sunshine Coast		13.9%	80
Western Queensland		3.6%	21
North/Far North Queensland		12.3%	71
Central Queensland		7.1%	41
Other		9.4%	54
Comments			69
Total # of respondents 587. Statistics based on 582 respondents; 0 filtered; 5 skipped.			

Figure 3 shows that the majority of respondents (71%) have sold less than 50 residential properties since the introduction of the legislation, with 21% selling between 50 and 100 residential properties during this time period and only 8% selling in excess of 100 residential properties.

Figure 3: Respondent Summary – Number of Sales Since 1 January 2010

Less than 50		70.5%	408
50 -100		21.6%	125
More than 100		7.9%	46
Total # of respondents 587. Statistics based on 579 respondents; 0 filtered; 8 skipped.			

The survey data also showed that 65% of all properties sold during this time period by the respondents have been in the range of \$300,000 to \$550,000, with 12% of sales being less than \$300,000 and 23% being over \$550,000, as indicated in Figure 4 below.

Figure 4: Respondent Summary – Average Sales Values since 1 January 2010

Less than \$300,000		12.4%	72
\$300,000 - \$550,000		65.1%	379
\$550,000 - \$700,000		17.4%	101
\$700,000 and above		5.2%	30
Comments			18
Total # of respondents 587. Statistics based on 586 respondents; 0 filtered; 1 skipped.			

A breakdown of buyer type from respondents is shown in Figure 5. This figure shows that 43% of residential property buyers dealt with by the survey respondents since the introduction of the Sustainability Declaration requirements have been families, 24% singles or couples, 21% investors and older/retirees representing 19% of sales. The higher proportion of family and young buyers buyers also corresponds to the predominant price range being \$300,000 to \$550,000.

Figure 5: Respondent Summary – Buyer Profile

Single/Couple	24.05	24.1	503
Families	43.08	43.1	521
Older/Retiree	19.17	19.2	447
Investor	20.91	20.9	512
Other	9.38	9.4	117
Total # of respondents 587. Statistics based on 553 respondents; 0 filtered; 34 skipped.			

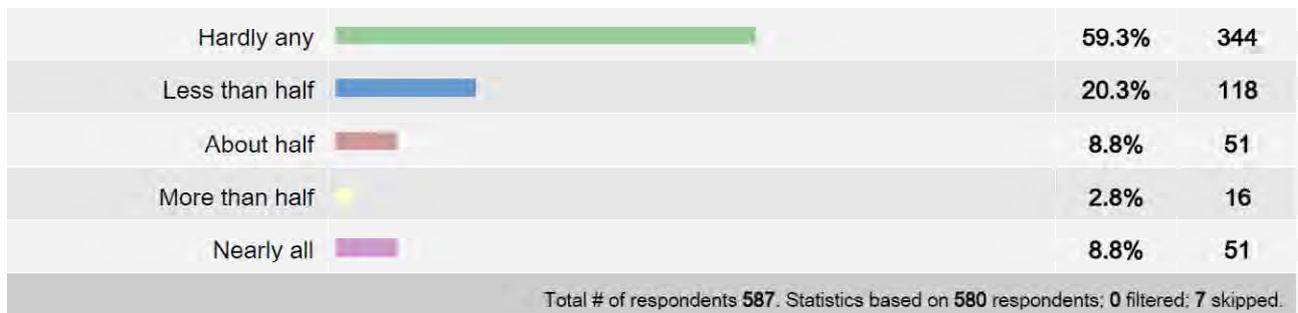
4. Results.

Stage One research findings indicated a very high level of compliance from the professional real estate community. All forms of advertising reviewed, including online and print media, did comply with the requirements of the legislation. This compliance was generally achieved via a notation that Sustainability Declarations were available on request.

Stage Two quantitative research was completed over a two week period, with 587 responses received from REIQ members across Queensland. The following results are a preliminary assessment of the data gathered.

The initial survey questions focussed on the level of awareness of buyers and sellers in respect to the forms. Figure 6 below shows the current level of seller awareness of their responsibility to provide a sustainability declaration.

Figure 6: Seller Awareness of the Sustainability Declaration



From this figure it can be seen that 60% of real estate agents reported that sellers they had dealt with over the past 12 months had very limited awareness of the requirements to provide a sustainability declaration, with less than 10% of real estate agents reporting that nearly all their sellers over the past 12 months were aware of this requirement.

Additional questions were then asked to determine at what stage a sustainability declaration was requested by potential house buyers. This was based on the initial inspection, particularly for an open house inspection, as well as at any time during the sales process in

general. From Figures 7 and 8 below, it can be seen that 95% of real estate agents reported that during the open house inspections that they have carried out over the past 12 months hardly any (0 - 20%) of all potential buyers requested a copy of the form.

Figure 7: Buyer propensity to Ask to view or receive a copy of the Sustainability Declaration at an open for inspection

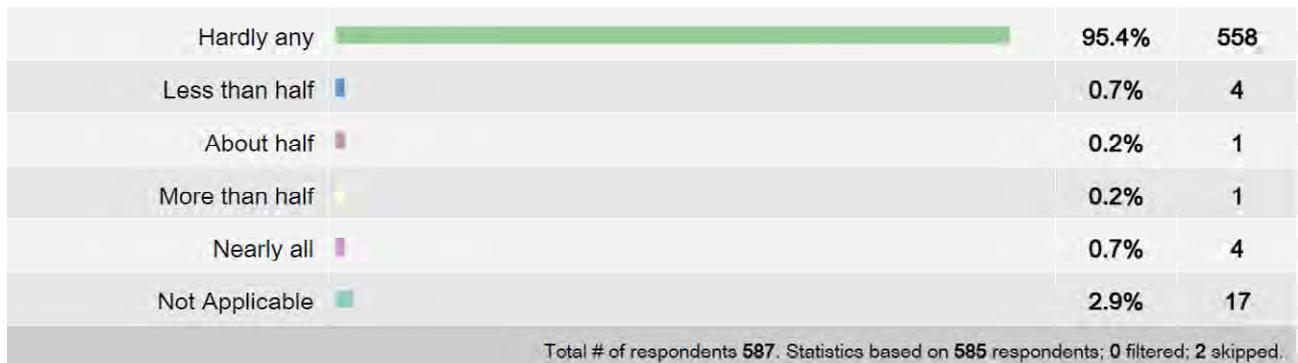
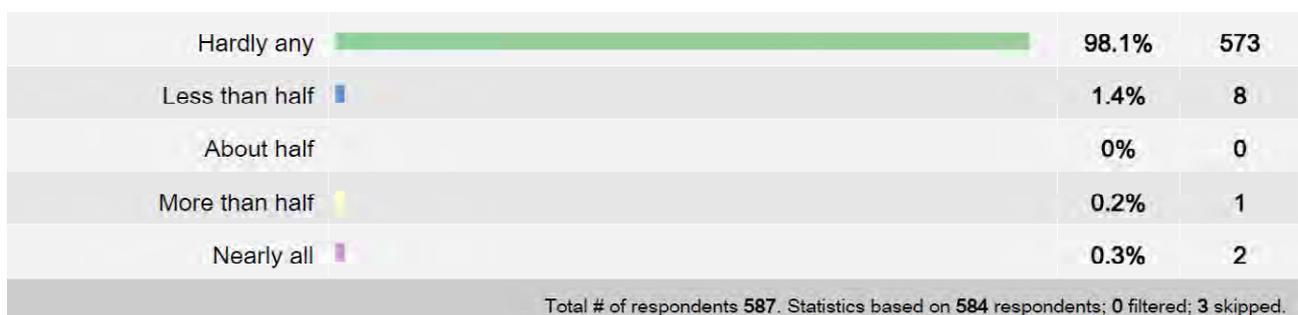


Figure 8 shows that this limited buyer interest and/or awareness during the initial property inspection continued throughout the full sales process, with 98% of agents surveyed indicating that hardly any (0 - 20%) clients requested the declaration at any time during the sales process.

Figure 8: Buyer propensity to Ask for a copy of the Sustainability Declaration at any time during the sales process



This evidence indicates that despite the fact that sustainability declarations have now been in operation in Queensland since January 2010, only a very limited number of house buyers are

taking advantage of this energy and water efficiency measure in determining the suitability of the house for purchase.

Although real estate agents are only required by law to provide a copy of the sustainability declaration when asked for it by a potential buyer, anecdotal evidence collected prior to the formulation of the survey questions, indicated that a number of agents do provide the form to buyers in any case. Hence, the survey respondents were asked the question *“If the buyer does not request the sustainability declaration at what point in the sales process is the declaration provided”*.

Figure 9: Agent provision of Sustainability Declaration (without being asked)

If a buyer does not ask for a copy of the Sustainability Declaration, at what point in the sales process is it provided?	Response Percent	Response Total
Not provided unless requested	38.8%	224
Provided with initial property details	42.6%	246
Provided prior to contract signing	8.8%	51
At contract signing	4.2%	24
After contract signing	0.7%	4
Other - specify	4.9%	28
Comments		91

Total # of respondents 587. Statistics based on 582 respondents; 0 filtered; 5 skipped.

Responses to this question are shown in Figure 9, and this shows that despite not being asked directly for the declaration, 43% of real estate agents actually provide this declaration to potential buyers with the initial property details, 39% advised that the declaration was not provided unless requested, with the remaining percentage advising that the declaration is provided just prior or at the signing of the contract. This indicates that almost 40% of the declarations provided by sellers are never presented to a potential buyer and remain only in the hands of the selling agent.

The remaining questions in this initial survey were designed to assess the perceptions of real estate agents in respect to the perceived importance of the sustainability declaration for home buyers and the main sustainability features buyers considered most important in the house purchase decision.

Figure 10: Importance of Sustainability to Home Buyers

Not important		96%	554
Somewhat important		3.3%	19
Very important		0.7%	4
Total # of respondents 587. Statistics based on 577 respondents; 0 filtered; 10 skipped.			

As indicated in Figure 10 above, at this stage of the sustainability awareness scheme, real estate agents report that in relation to the buyers that have purchased houses since the introduction the scheme, 96% have not considered the sustainability declaration to be an important factor in their house purchase decision. Only 3.5% of buyers considered this declaration to be somewhat important, with less than 1% of buyers considering this to be very important.

Figure 11 below shows the environmental aspects of home ownership that home buyers in Queensland over the past 12 months have considered being of some importance in relation to their home purchase.

Figure 11: Desirable Sustainability features by home buyers

Sun/Shading		10.7%	53
Ceiling insulation		38%	189
Water saving devices		11.3%	56
Energy saving devices		17.7%	88
Other - specify		22.3%	111
Comments			211
Total # of respondents 587. Statistics based on 563 respondents; 0 filtered; 24 skipped.			

Real estate agents reported that ceiling insulation was a factor that 38% of buyers enquired about during the sales process (both from a positive and negative perspective). 17% of buyers were looking for energy saving devices in the houses they purchased, with 11% looking for water saving devices. 11% of home buyers were looking for houses with appropriate aspect (sun and shading).

Qualitative analysis of the 211 comments provided on this question, as well as numerous comments received on other questions and in general, will be undertaken as part of further research on this topic.

5. Conclusion

This paper presents initial findings on the impact of Queensland's sustainability declarations in the first 12 months since their introduction by the State Government in January 2010. The real estate industry has been very compliant with the new legislation and all residential property advertising in Queensland surveyed provided a note in relation to the sustainability declaration that the declaration will be made available on request and over 60% of real estate agents actually providing this declaration to the buyer during the sale process, whether requested or not.

Widespread disengagement with the sustainability declaration process was recorded from sellers, and even more so, from buyers. Results indicate that 98% of buyers do not ask for a copy of the sustainability declaration at any time during the sales process. Despite this, sellers are legislatively required to complete these forms to their best knowledge, prior to the property going to the market. Whilst agents are not required by law to provide sustainability declarations to potential buyers, many do (60%). Therefore, up to 40% of the forms completed by sellers, are never provided to any potential buyer. Of those that are used, virtually none (96%) impact the buyer's decision making process.

Previous studies in the area of buyer awareness in 2007 and 2009, noted that environmental issues were not a major factor in the house purchase decision. This study again confirms that a further year on, this is still the case.

This lack of awareness from both buyers and sellers could be countered by a public awareness campaign formulated to raise awareness of the scale of housing's contribution to sustainability issues such as water and energy consumption, and role of the sustainability declaration in helping home buyers make informed choices. Alternatively, a review of the current legislative mechanisms could work to more closely align the intent of the legislation with the actual outcomes.

The findings presented herein are based on raw data collected. Further research on this topic will include qualitative analysis of the numerous supporting comments provided by respondents, as well as the potential for subsequent surveys, particularly after the introduction of the proposed national mandatory disclosure scheme for home energy efficiency (upon sale or rent) in May 2011.

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