



Residential Building Mandatory Disclosure (RBMD)

Regulatory Impact Statement (RIS) submission

by

Association of Building Sustainability Assessors

September 2011



Overview

This submission template should be used to provide comments on Residential Building Mandatory Disclosure Consultation Regulatory Impact Statement (CRIS).

Contact Details

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Submission Instructions

Submissions should be made by **close of business on 12 September 2011**. The Department reserves the right not to consider late submissions. Please restrict your submission to 4 pages of comments

Where possible, submissions should be lodged electronically, preferably in Microsoft Word or other text based formats, via the email address – residentialdisclosure@climatechange.gov.au

Submissions may alternatively be sent to the postal address below to arrive by the due date.

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12 September 2011

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Re: Residential Building Mandatory Disclosure RIS

Association of Building Sustainability Assessors (ABSA) welcomes the opportunity to make comment on Residential Building Mandatory Disclosure (RBMD) RIS.

ABSA accredits sustainability assessors through both the NatHERS program and general home sustainability assessment programs. Our members have direct experience implementing many of the objectives of the residential mandatory disclosure policy and we have prepared this submission to assist the government and department better understand the opportunities available in this policy, its associated benefits and costs.

Residential Building Mandatory Disclosure (RBMD) represents not only an opportunity to improve the living conditions for Australian people, but it is also a major catalyst to re-invigorate and update Australian cities. The opportunity is to create a market-led program of housing renewal with benefits at five levels:

1. improving the comfort and quality of existing homes
2. protecting Australians from the rising costs of energy
3. increasing consumer knowledge and protection through greater information
4. establishing longitudinal data sets to create benchmarks, identify trends and inform policy.
5. re-orientating the building industry to re-invigorate and update Australian cities (rather than a continued focus on green-field development).

Central to all these opportunities is information: establishing the right policy settings now will ensure that future decision-making about residential buildings can actually be based on real and accurate information.

For the consumer, RBMD protects them from being locked into energy poverty and enables them to value resource efficiency when purchasing a new home, make decisions about how important energy efficiency it is to them, and what they want to improve in their homes to reduce their cost of living.

RBMD will set market signals that create new demand and encourage innovation in the building industry, and will provide information to government so as to deliver targeted and costed policy and incentives.

To achieve maximum benefit, RBMD needs to be one national system that incorporates thermal performance (NatHERS) and building components (i.e. option 1), that uses nationally accredited assessors to transfer knowledge to consumers.

The submission makes 11 recommendations:

1. Expand the problem definition to include (1) valuing information, and (2) understanding and knowing what to do with such information.
2. That the RBMD policy be based on the following principles
 - consumers are best served and protected by accurate and reliable information
 - the collection of accurate information and the accompanying transfer of knowledge can only be assured through the use of nationally accredited assessors across Australia
 - long-term policy development (to improve the quality of Australian homes) requires a nationally consistent and comparable database.
3. Expand the benefits accounted for in the RIS to reflect
 - health and productivity improvements which evidence in the commercial sector suggests could be between 5-15% of salaries
 - greater take-up rates based on improved certainty in the development application process for community stakeholders (ie councils and banks/lending organisations).
4. Expand the RIS to:
 - apply an increased weighting to the benefits of the policy for lower income earners
 - explicitly include indirect costs of forgone energy generation investment which, based on the estimated figures by AEMC could be approximately \$1500 per head of population.
5. Include a factor for improved consumer protection based on information and cost-benefit analysis used for previous policy decisions such as MEPS or food labelling.
6. That the costs of not establishing a single, national data base of housing information be modelled and included in the RIS.
7. Increase the take up rate factors for those options that include assessors to reflect the increased implementation ease for these solutions
8. That the mandatory disclosure model be developed as a market-driven, three-tiered system that combines options 1, 2, and 3 with common data standards across each level.
9. That the government develop and run a national education campaign educating consumers about both the need for mandatory disclosure and the different building

rating systems (in addition to the development of a mandatory disclosure rating system, rather than just as option 5 within the RIS).

10. That the costs for an assessor be set at \$160 per hour to reflect a professional salary including workers compensation, holidays and sick leave allowance.
11. That clearly defined competencies for assessors that combine elements from the Certificate IV in Home Sustainability Assessment and NatHERS training packages be developed.

If you would like to discuss any of the issues raised in this submission please contact me on r.maher@absa.net.au or by phone on 1300 889 438.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'R. Maher', with a large, stylized flourish at the top.

Ross Maher
Policy & Research Manager

Introduction

Residential Building Mandatory Disclosure (RBMD) represents not only an opportunity to improve the living conditions for Australian people, but it is also a major catalyst to re-invigorate and update Australian cities. The opportunity is to create a market-led program of housing renewal with benefits at five levels:

- improving the comfort and quality of existing homes
- protecting Australians from the rising costs of energy
- increasing consumer knowledge and protection through greater information
- establishing longitudinal data sets to create benchmarks, identify trends and inform policy.
- re-orientating the building industry to re-invigorate and update Australian cities (rather than a continued focus on green-field development).

Central to all these opportunities is information: establishing the right policy settings now will ensure that future decision-making about residential buildings can actually be based on real and accurate information.

For the consumer, RBMD protects them from being locked into energy poverty and enables them to value resource efficiency when purchasing a new home, make decisions about how important energy efficiency it is to them, and what they want to improve in their homes to reduce their cost of living.

RBMD will set market signals that create new demand and encourage innovation in the building industry, and will provide information to government so as to deliver targeted and costed policy and incentives.

To meet all the above the information collected on residential buildings needs to be accurate and able to compare one building against another. As such, ABSA believes RBMD policy needs to be (1) structured so all jurisdictions can implement the policy through one national system quickly and efficiently, and (2) be based on a medium-term model that includes an independent assessor to collect and verify the information. If the RBMD policy does not incorporate these two aspects, it will not achieve the maximum benefits across the five levels outlined above.

This submission outlines:

- the problem that needs to be addressed
- the principles to underpin the RBMD policy
- the benefits and opportunities of RBMD based on the five levels outlined above
- the tools and options to implement RBMD
- anticipated costs of delivering the policy
- necessary skills and competencies for independent assessors.

The problem

ABSA agrees the problem of building inefficiency is created by information asymmetry and missing information, however, we believe that in addition to these two issues, that the problem is further complicated because the market doesn't *value* the information, nor *understand what to do* with such information.

What average Australian households can do to reduce or limit their use of energy and water is undoubtedly tied to their access and understanding of credible and meaningful information. A recent [Auspoll survey](#) (June, 2011) on energy efficiency, commissioned by the Clean Energy Council, found

that 89% of respondents would be prepared to make additional changes or actions to use less energy in their home or be more energy efficient.

Furthermore, 91% said that they would be “prepared to make changes or take actions to use less energy in their home if they were given more information on how you could do this without compromising their lifestyle”, but, “around half of all Australians don’t know very much, or know ‘nothing at all’, about key aspects of their home energy use.”

Auspoll concluded: “These results demonstrate the interest and desire for people to make changes, but they need to know what they can do, the difference it will make, and the benefits it will bring them.”

To ensure consumers value energy efficiency information they need (1) a rating that tells them how well their property can perform, and (2) a suitably qualified person to provide tailored, site-specific information and support them through the change process. ABSA agrees that information asymmetry means that general consumers do not have sufficient knowledge and information to see and value the sustainability benefits in a home, and argue that these are niche and unique pieces of knowledge that require the services of an assessor to overcome.

ABSA believes that you can’t manage what you can’t measure and results from surveys such as Auspoll clearly indicate that the problem is more complex than information asymmetry: Australians want to take action, and are prevented from doing so by lack of information and support through the change process.

Recommendation # 1

Expand the problem definition to include (1) valuing information, and (2) understanding and knowing what to do with such information.

Principles

Informed, believable, standardised, quality information = action. To that end, the RBMD policy must be underpinned by three central principles:

- consumers are best served and protected by accurate and reliable information
- the collection of accurate information and the accompanying transfer of knowledge can only be assured through the use of nationally accredited assessors across Australia
- long-term policy development (to improve the quality of Australian homes) requires a nationally consistent and comparable database.

Given the nature of Federal-State relations, the implementation of RBMD has the potential to create different data sets in each State. Furthermore, past policies to improve the state of the existing building stock have been undermined by a lack of data, properly trained and accredited assessors to assist individual homeowners and poorly targeted incentives. If these principles are not adopted, we will have failed to learn from past errors.

In addition to these three central principles, ABSA believes the following items should be incorporated into the RBMD policy to ensure that the data collection activity provides a useful outcome for householders, prospective purchasers and governments:

- RBMD should provide a framework that includes different levels of engagement reflecting the requirements of homeowners and current capacity of the market

- the RBMD assessment should create a 'life plan' for the building that identifies improvements that can be made over the long term that is handed over to the new occupant on at sale or lease.

If the above principles and value-add items are incorporated into RBMD then the scheme can be used to drive further improvements:

- the benefits of retro-fit improvements can be benchmarked to demonstrate the improvements achieved
- government incentives can only be made available after an appropriate assessment is conducted to identify and quantify the problem
- funded improvements to homes could be limited to those that are 'hard-wired' to the house to prevent sustainability improvements being un-done by future occupants.

Recommendation # 2

That the RBMD policy be based on the following principles

- consumers are best served and protected by accurate and reliable information
- the collection of accurate information and the accompanying transfer of knowledge can only be assured through the use of nationally accredited assessors across Australia
- long-term policy development (to improve the quality of Australian homes) requires a nationally consistent and comparable database.

The opportunity & benefits

The benefits of improved building sustainability are well documented and include:

- improved productivity
- lower operating & maintenance costs
- improved quality of life
- reduced human health issues.

The Regulatory Impact Statement (RIS) as it currently stands does not factor in the cost benefits including quality of life, reduced human health issues, productivity, consumer protection, positive changes in the building industry, or policy improvements from establishing a national and standardised longitudinal data set about existing homes. Although these are difficult to quantify without detailed modelling and study, previous reports, policies and comparative examples exist across government and in the commercial property sector which highlight dollar savings for Government and individuals that should be explicitly included within the RIS. This section outlines those which ABSA believe to be most important.

Improving the comfort and quality of existing homes

The building industry has dramatically improved the comfort and quality of homes over the past 20 years. This has occurred through both consumer demand and regulation, but arguably the major driver has been market forces and explicit efforts by the industry to deliver a higher quality product. Unfortunately, however, the majority of houses built prior to the 1990's were more functional and utilitarian, reflecting the priorities of the era.

Despite the changes to new housing, improvements to existing homes has significantly lagged behind. It has been left to individual home owners or small developers to identify opportunities and negotiate with local councils and communities to implement change. This process is often hindered by differing council rules, NIMBYISM (Not In My Back Yard), and bank/lending determinations of value.

The RIS does not take account of the macro cost benefits to the economy from higher quality housing and an increased rate in improving the quality of housing. Evidence from the commercial sector indicates that improved quality of buildings translates directly to cost reductions through improved productivity and health. For Melbourne City Council's *Council House 2 (CH2)*, their business case projected this benefit at 4.9% of salaries, or \$1.12 million dollars¹. Likewise, Cetec-Foray² estimate higher productivity of 10-15% and less absenteeism of 2.5% from higher indoor environment quality.

The RBMD opportunity for existing homes is a qualified rating, underpinned by a rigorous methodology that gives certainty to councils, local communities and bank/lending organisations as part of the development application process of both current quality and future potential of the property. Accelerating the already existing forces of renovation that are emerging in the Australian community can translate to higher productivity.

Recommendation # 3

Expand the benefits accounted for in the RIS to reflect

- health and productivity improvements which evidence in the commercial sector suggests could be between 5-15% of salaries
- greater take-up rates based on improved certainty in the development application process for community stakeholders (ie councils and banks/lending organisations).

Protecting Australians from the rising cost of energy

The cost of living is rising for all Australians and increases in energy costs are forecast to continue. The Australian Energy Market Commission (AEMC) in its recent issues paper highlighted that 'in recent years, national electricity prices have increased approximately 32% in real terms, and are forecast to increase further by approximately 30 % to 2012-13.'³ and by 2015, 'an electricity bill will represent 2.5% of the average household income.' Furthermore, AEMC expects energy demand to continue to increase at 2.1% pa until at least 2020.⁴

Without RBMD it is almost impossible for ordinary families to be protected from these price rises. The problem will be exacerbated for lower-income families because of their tendency to be the victims of the split-incentive issues surrounding rental accommodation, and that the housing they can afford is generally older and in greater need of upgrade.

RBMD represents the opportunity to assist these families to identify the areas of greatest energy savings, rather than using guess work to guide their investment in improving their homes.

In addition to reducing the day-to-day costs of living for families, RBMD represents the opportunity for a reduction in indirect charges that will need to be paid to manage investment in new generation

¹ <http://www.melbourne.vic.gov.au/Environment/CH2/aboutch2/Pages/Designsnapshots.aspx>

² <http://www.cetec-foray.com.au/IEQ/GBCA%20WA%20Productivity%20290610.3VG.pdf>

³ *Australian Energy Market Commission* Issues Paper: "Power of choice - giving consumers options in the way they use electricity" pg 22

⁴ *Ibid* pp. 9-12

capacity, especially to manage peak demand issues. AEMC estimates that there will be 2.6% growth in peak demand that will create “the need for more investment in generation and expanded network capacity (in addition to investment)... to replace ageing network assets... generation investment under a moderate emission reduction scenario is estimated at \$33 - \$37 billion to 2020”⁵.

Recommendation # 4

Expand the RIS to:

- apply an increased weighting to the benefits of the policy for lower income earners
- explicitly include indirect costs of forgone energy generation investment which, based on the estimated figures by AEMC could be approximately \$1500 per head of population.⁶

Increasing consumer knowledge and protection through greater information

Arguably one of the greatest, yet hardest to define and quantify benefits of RBMD is increased consumer information. This has been an increasing trend over the past 20 years in levels of information disclosure that extends to numerous packaging labels (i.e. food), ratings (i.e. NatHERS, MEPS, Ecolabels), and certification processes (i.e. roadworthy certificates for cars). They are all aimed at improving consumer protection through awareness. RBMD is no different, and arguably is more relevant given the time individuals spend in their homes (it is estimated that we spend approximately 90% of our lives indoors, of which at least half of this can be assumed to be in our homes), and the value of the home (being the most expensive acquisition that most families and individuals make in their lifetime).

In addition to this, the RIS should factor into the options that use an accredited assessor the additional benefits of having verified information. In the same way that a building inspection provides independent, third-party advice on the construction aspects of the home and the conveyancer provides assurances of the legalities of the buying and selling transaction, a sustainability assessor provides assurances of quality of the design in terms of potential energy (and water) use, and the running costs over the lifetime of the property (or period of time the purchaser plans to own the home).

Recommendation # 5

Include a factor for improved consumer protection based on information and cost-benefit analysis used for previous policy decisions such as MEPS or food labelling.

⁵ *Australian Energy Market Commission Issues Paper: “Power of choice - giving consumers options in the way they use electricity”* pp. 9 - 11

⁶ Based on population of approximately 22 million.

Establishing longitudinal data sets

There are multiple audiences that will engage with, and/or use data collected from RBMD, and the scope of the policy can be much broader than just resolving the central problem identified within the RIS, namely, information asymmetry. ABSA believes the benefits (and costs if necessary) to these stakeholders should be more appropriately modeled, in particular to the building and sustainability assessment industries.

The benefits of the RBMD policy should also include the opportunities available from having nationally consistent and comparable longitudinal data sets. Such data could be particularly useful for benchmarking options previously discussed by Federal ministers, as well as local councils and State governments for understanding the extent of issues in their jurisdictions.

For example, based on approximately 1 million homes sold or leased annually across Australia, it is possible that within three years of the commencement of the policy, the number of homes with a raised floor, single pane glass, and westerly facing major living areas could be identified and accurate policies be created (and costed) which provide for under floor insulation, double glazing/high performance windows, and/or the need for major shading devices. This will reduce instances observed with other similar policies where government's have underestimated demand, incorrectly costed incentives, and subsequently had to reduce or remove incentives abruptly which has caused anger for not only consumers, but also industry.

Although some State governments have said they only need State based data, this view is short-sighted and represents siloed thinking. Furthermore, this preference is generally to quote national data (i.e. from the Australian Bureau of Statistics) so as compare their approach with others. Access to national data, and benchmarking State initiatives against it, can help to continually lift the bar and encourage innovation.

Innovation is critical to meeting the climate change and energy efficiency challenge, and a more detailed and informed data set of existing housing stock in Australia facilitates innovation in the areas of greatest need. Industry always focuses their attention, time and resources to innovate and promote products and services where there is the greatest need and demand.

This issue was highlighted by the Prime Minister's Task Group on Energy Efficiency as a central recommendation and discussed at length. Although the specific benefits of improved data sets were not defined, the Task Group noted:

“Establishment of an EE-MAP could bring together the array of energy efficiency institutions and players to synthesise available data, help remove remaining information gaps, create assessment and modelling tools, and provide a central data and information hub. By providing such a hub, it could facilitate an integrated national approach to energy efficiency data collection, analysis and information dissemination, and importantly a single central hub and focal point for national energy efficiency data...”

*In addition to mining the wealth of data from current energy efficiency program, and EE-MAP could link and enhance current data initiatives, such as National Greenhouse and Energy Reporting and the Energy Efficiency Data Project. It could also identify new **low cost** avenues for data collection – for example, seeking to ensure that information from the smart grid development, **building assessments under mandatory disclosure** and new building ratings is captured and integrated...*

Broader economic costs are considered negligible; indeed improving data, analysis and innovation should lead to considerable economic benefits over time.

An EE-MAP would support more economically efficiency decisions (by policy-makers, businesses and individuals) and could also lower business information search costs by providing reliable detailed information in one central location. The development of an energy efficiency innovation pathway would be likely to increase efficiency and productivity, particularly towards 2020.”⁷

In addition, the CSIRO Report, *Growing the Green Collar Economy*⁸ prepared by the Allen Consulting Group found that “data on energy intensity (per person or in relation to building size and type) could provide a useful diagnostic tool for targeting offers for efficiency audits and investments.”

Furthermore, this report states that ‘ensuring access to trustworthy and timely information on environmental performance is crucial to the evolution of more sustainable social and economic practices.’

Unfortunately, the only thing worse than no data is data that is incompatible and cannot be compared. [Appendix A](#) outlines a minimum level of data that needs to be collected through this process. As discussed later under *Tools & Options*, this data should be the minimum set of data collected regardless of the final option decided.

Recommendation # 6

That the costs of not establishing a single, national data base of housing information be modelled and included in the RIS.

Re-orientating the building industry

RBMD represents a significant opportunity for the building industry to shift their current bias from new-build work toward the regeneration of existing stock. There are close to 8 million homes in Australia that have been constructed during a different era with different priorities, and the RBMD policy offers the opportunity to improve the quality of these homes and educate the building industry about sustainability issues.

Assessors are critical to this process, both as a conduit of general knowledge, but also as the transfer of solutions from one project to another where recommendations are implemented. Assessors understand how a building works in terms of thermal performance and airflow, which are topics that are not adequately taught as part of the construction training process (and thus cannot necessarily be delivered by builders).

ABSA believes the take up rates will be significantly assisted by better engagement between sustainability assessors and builders to ensure that recommendations are implemented quickly and efficiently, rather than the situation where consumers become frustrated by an upgrade process where the two key stakeholders don’t understand each other’s issues and limitations.

Access to good data about buildings and contents will identify opportunities for technology interventions and provide natural incentives for these to be brought to market by entrepreneurs. Given the current state of the market (both demand and supply), ABSA’s preferred model (outlined in the next section, *Tools & Options*) is based on an innovation model where there are multiple levels of rating to introduce competition, rather than a system with only one option, based on current market cost-benefit analysis that cannot predict how quickly innovations improve market capacity, and which might stunt innovation that significantly changes the parameters used in the cost-benefit analysis.

⁷ Report of the Prime Minister’s Task Group on Energy Efficiency, July 2010, pp 90-96

⁸ Report to CSIRO, “Growing the Green Collar Economy”, <http://www.csiro.au/files/files/plej.pdf>, pg 24

Recommendation # 7

Increase the take up rate factors for those options that include assessors to reflect the increased implementation ease for these solutions

Tools & options

[Appendix B](#) outlines ABSA's understanding of each option outlined in the RIS and the advantages and disadvantages of each. Unfortunately, based on ASBA's understanding of the market (and recognising that these options have only been outlined conceptually), they appear to be based on the availability of a single tool that doesn't necessary exist and a poorly defined set of competencies for assessors and homeowners..

To achieve maximum benefit, RBMD needs to be one national system that incorporates thermal performance (NatHERS) and building components (i.e. option 1), that uses nationally accredited assessors to transfer knowledge to consumers.

While ABSA believes that one system based on option 1 is the only option to deliver genuine benefit, it recognises that this may be unachievable at this time based on existing State programs, limited tools, skills currently available in the market, and a confused consumer audience (discussed further in the section, [The risk of too many ratings](#)).

As such ABSA recommends a market-driven, three-tiered system that combines options 1, 2, and 3 with common data standards across each level so that a range of tools can meet the market. Based on a competition model, the three levels act as a progression process that signal to the market the need to find solutions that reduce the costs of option 1. Simply adopting option 2 is likely to stunt market development, whereas incorporating all three options is more likely to accelerate market forces and lead to the situation where the market rejects option 3 of its own accord, without government intervention.

In addition to the market based model, ABSA has included a regulatory model which may be more palatable to Governments and industry. This is not ABSA's preferred model because it is overly prescriptive, removes individual choice, and does not set clear signals to the market regarding the long-term outcome.

ABSA's preferred Mandatory Disclosure model

ABSA's preferred mandatory disclosure model has three levels (plus an opt-out option) based on the requirements of individuals. Under this model there would be a maximum number of points that could be achieved within each level, after which the points could be translated to a rating. In this way it creates an incentive for people to use a higher-order method to calculate their rating, but provides alternatives for consumers who do not want, nor need, a full rating.

The advantages of this model are:

- alignment with existing residential rating system (NatHERS) and improves on the Green Loans process which, although initially flawed, has significant merit⁹
- provides consumer choice and flexibility for individuals to decide their level of disclosure
- creates a competitive marketplace for the achievement and provision of the rating
- prevents artificially ‘stunting’ the development of tools to achieve option 1 and instead will accelerate market forces.

Level	Includes	Used for	Maximum points available (out of 100)
One (highest level)	Full NatHERS assessment + Green Loans style assessment (balanced to energy bills) to identify building component information.	Homeowners with homes that have a good sustainability focus.	100
Two	Green Loans style assessment which includes minimal thermal performance variables (listed at Appendix A with an asterix*).	Homeowners who have invested in improving thermal performance and sustainability, but only have minimal benefit because their home is older.	60
Three	Self-assessment of thermal performance and building component information.	Homeowners that have an older house and have not invested in other building components (i.e. water tanks, improved windows etc).	20
Four (lowest level)	Opt-out (i.e. zero rating).	Limited to homeowners in regional areas where housing alternatives are limited, or where the house has a serious defect and will either be knocked or significantly changed upon sale.	0

Table 1: ABSA’s preferred RBMD model

From ABSA’s perspective, the primary reason this model works is because each level includes a measure of the base building’s thermal performance (i.e. wall construction, orientation, location of

⁹ The NatHERS assessment focuses on the thermal performance of the building envelope or shell and is relevant not only for its alignment with the BCA, but more fundamentally because how the house is designed and built dictates how easy the house is to be thermally comfortable. Conversely, a Green Loans style assessment pays cursory attention to the building envelope and focuses on appliances and how householder behavior dictates the use of these appliances. Appliances are either fixed such as lighting and hot water, or plug-in such as washing machines and televisions, and if an ‘energy-balance’ was included to ensure the projected consumption of these appliances matched with actual energy bills (within a defined tolerance), this would accommodate the various pieces of information sought after by the market.

windows etc.), providing information on the 'built-in' capacity of the house to reduce consumption (rather than reducing built-in high consumption). Furthermore, these things can only be improved by actually changing something in the building, hence contracting a builder, engaging the designer and buying building products.

In a perfect world, option 1 would be adopted because a full thermal performance assessment will highlight, quickly and accurately, the base building deficiencies which when combined with the services of an assessor, will lead to more targeted recommendations. While adoption may not be significant in the first few years after its introduction, ABSA believes this combination of factors will lead to a faster uptake of change, and hence the quickest pay-back of the benefit. Unfortunately, however, the current industry limitations to do this might mean that the initial costs are too high (as discussed in the RIS) and that this faster ROI is effectively neutralised.

To that end, option 2 makes most sense (although ABSA still questions how it would be implemented) because it reduces the upfront cost, but still highlights the structural deficiencies which the building market needs to generate more work.

Option 3 can also do this, however, the time between information and action is likely to be significantly longer because people do not have an assessor to highlight specifically where the big problems are, and likewise, how to actually make the changes. In this option, the problems are likely to be more generic and arguably understated. Furthermore, this option could represent a conflict of interest for the homeowner/vendor/lessor.

ABSA believes that option 4 is a waste of time because it does not facilitate the transfer of knowledge, and it is more likely to focus on bigger ticket add-on items such as water tanks, insulation, solar hot water, ceiling fans, external shading devices etc. that only reduce built-in higher consumption rather than items such as wall construction, orientation, location of windows etc. that actually build-in reduced consumption.

Recommendation # 8

That the mandatory disclosure model be developed as a market-driven, three-tiered system that combines options 1, 2, and 3 with common data standards across each level.

ABSA's alternative, regulatory model

The alternative model is based on two pathways, defined by a set-date based on the introduction of NatHERS (and could be either 1st generation – 2003 – or 2nd generation – 2008). This date is significant because it means that these buildings already have ratings and plans are lodged with councils, and assuming no changes to the house, will mean a new NatHERS rating is not needed (to this end, the most logical set-date is 2008, given the improvements made between 1st and 2nd generation software.

Pathway 1: Fast track

This pathway would apply to all dwellings pre the set-date and would need to be verified on site by an assessor, however, it could provide the option for homeowners/agents to complete a preliminary assessment of the information. The anticipated time for this assessment would be two hours if an assessor performs a full assessment, and 1 hour if the preliminary assessment is completed by the homeowner/agent.

Using a modified green loans-type assessment (similar to that described in option 2), dwellings would have a simplified thermal assessment in addition with a rating for appliances and water.

Pathway 2: Full assessment

Dwellings built after the defined set-date would require a full NatHERS rating as well as an appliance assessment, however as most of these dwellings would already have a NatHERS rating for construction compliance it would only need to be redone if the assessor deemed that alterations and additions since the construction approval may have altered the score.

Again, the appliance assessment could be assessed by the homeowner/agent, and the role of the assessor would be to verify the information.

Alternative Recommendation # 8

Although this regulatory method is not ABSA preferred method, it is recommended that should this method be adopted it also include a common data standard.

The risk of too many ratings

Mandatory disclosure is the necessary catalyst to improve the comfort and quality of Australian homes, protect Australians from the rising costs of energy, and re-invigorate and update Australian cities, but it also can potentially confuse the market and create future problems.

The building industry is only just beginning to understand the difference between NatHERS, Green Star and NABERS ratings, all of which use different scales and methodologies to determine a different aspect, or market, of building sustainability. Such ratings are in addition to various other sustainability and efficiency labels such as those for white-goods and building products.

As such, the introduction of RBMD needs to be integrated within a well-targeted education campaign. The evidence for such campaigns exists in the confusion of home owners that their 5-star rated building plan does not automatically translate to a 5-star rated in-situ house. There are many potential reasons for this, but principally they fall into two categories: (1) the plan rating is the equivalent of a laboratory test with standardised assumptions and conditions which only attempt to compare one house to another, and (2) that the build process does factor in these standardised assumptions and conditions (i.e. air leakage). [Appendix C](#) is the transcript from a 7:30 Report bulletin on 26 April 2011 which clearly articulates consumer confusion.

In addition to this, the issue of ratings on a new home is unclear. Does a new home built on a green-field or completely demolished site require a mandatory disclosure rating in addition to its DA NatHERS ratings? And if it does, what safe guards are in place such that the NatHERS and mandatory disclosure ratings do not attempt to rate the same thing, and inadvertently create different ratings.

Recommendation # 9

That the government develop and run a national education campaign educating consumers about both the need for mandatory disclosure and the different building rating systems (in addition to the development of a mandatory disclosure rating system, rather than just as option 5 within the RIS).

Anticipated costs of delivering the policy

The sustainability assessment industry is in its infancy and as such is still defining necessary standards, protocols and processes. The Green Loans program – for all its criticisms – identified both a demand from customers and a number of genuine individuals who are either trained, or want to be trained, to undertake home sustainability assessments. As a new (or immature) market, it has come a

significant way toward achieving a critical mass for both demand and supply, however more work and time is required to support the sustainability assessment industry (for both residential and commercial sectors).

The impact of this is that costs are higher than they would be in a mature market, where appropriate levels of competition and innovation provide the most efficient solutions. The market is further hindered on the demand side by a 'welfare' mentality that consumers have adopted around the environment and the purchase of such skills. Consumers don't necessarily value the benefits outlined in the introduction of sustainable buildings, but rather believe that because they are doing something for the environment, the Government should pay.

While ABSA supports various incentives aimed to improve the sustainability of buildings, it believes that programs such as mandatory disclosure should not be paid for or completely incentivised by Government. Furthermore, that mandatory disclosure could be applied more widely in the form of a compulsory green audit (e.g. Level 1 of ABSA's preferred model, refer: *Table 1*) before households are eligible for other rebates on products and services.

As well as breaking the 'welfare' state mentality around environmental issues, expanding the mandatory disclosure model to compulsory green audits will assist the demand side of the sustainability market to genuinely reach a critical mass where assessors innovate and develop niche areas of expertise to service a range of technical areas.

As far as the costs listed in the RIS, ABSA agrees generally with the costs for option 1, however believes that the costs for option 2 are based on a part-time delivery of services rather than a professional salary including workers compensation, holidays and sick leave allowance.

Furthermore, it does not appear to take into consideration the ancillary costs of running a business including training, motor vehicles, computer equipment, mobile telephone, software, advertising, postage, accounting, home office expenses, record keeping, insurance, and registration. In the experience of ABSA assessors (who have similar experiences across other occupations in the building industry such as building inspectors etc.) these costs, amortised over a number of assessments per year, are around \$160 per hour.

Based on our understanding of the scope of option 2, which includes: (1) travel to the house, (2) take measurements of the house, assess the orientation and shading, assess fixed plant, assess insulation installed, assess physical assets such as drying areas, outdoor living areas, generally collect data, and (3) enter the data, we believe an option 2 assessment will take between 2-3 hours. As such, a more realistic cost for option two will be in the range of \$320-\$480.

Recommendation # 10

That the costs for an assessor be set at \$160 per hour to reflect a professional salary including workers compensation, holidays and sick leave allowance.

Necessary skills and competencies for independent assessors

Independent assessors are necessary to ensure the accuracy and validity of ratings and recommendations, and to also protect the consumer from unscrupulous actors within the marketplace. Like conveyancers, building inspectors, real estate agents and other experts involved in the buying and selling process of homes (or other major assets such as second-hand cars), having defined competencies and assessment processes ensures that consumers are protected.

The skills for independent assessors will depend on the final model chosen but will be a combination of the competencies from the Certificate IV in Home Sustainability Assessment (HSA) and NatHERS training packages.

[Appendix D](#) lists the competencies ABSA recommends independent assessors have; however, it is worth noting that one assessor is unlikely to undertake all parts of the assessment, but rather sub-contract out parts (in particular the thermal performance assessment). In this case, arrangements need to be made such that the assessors have the competencies to understand thermal performance assessments and assure their accuracy.

Recommendation # 11

That clearly defined competencies for assessors that combine elements from the Certificate IV in Home Sustainability Assessment and NatHERS training packages be developed.

Household demographics & occupancy	
Address including Postcode for climate zone*	
House size (Floor area) (m2)*	
Block size (m2)	
Household location categorisation	Inner city
	Suburban
	Urban
	Rural
# of people	
Age of occupants	
# of bedrooms*	
# of Lounge/living rooms*	
# of bathrooms*	
House construction	
Type of building* Single story Double story Split level	Detached House
	Semi-detached house
	Apartment
Wall insulation*	Yes/No/Don't know/type/age
Roof insulation*	
Floor insulation*	
Orientation (N/NE/E/SE/S/SW/W/NW)*	To street
	To main living area
	Long axis
	Major glazing area
Floor construction*	Slab
	Raised
Floor covering*	Tiles
	Carpet
	Lino
	Floorboards
	Exposed slab
Wall construction & colour*	Upper floor
	Ground floor
Connected Garage* N/S/E/W side of house	Insulated

Data Requirements
Appendix A

Roof construction*	Tiles
	Corrugated iron
	Pitch
Ceiling Height (m)*	
Windows/Skylights* Quantity Area of windows	standard, single pane
	double glazed
	High performance glass
Sources of energy For cooking For heating For cooling	Generator
	Wood
	Geothermal
	Oil (heater)
	Kerosene
	Natural Gas
	LPG
	Electricity
	Greenpower (%)
Source of water	potable
	Grey
	Water
	Black
Fixtures	
Curtains*	
Blinds*	
Weather stripping*	External doors
	Windows
Lighting type	
Cooking	gas
	electricity
	wood
External shading devices* Northern elevation Eastern elevation Western elevation	Awning
	Eave
	Pergola
	External blind

Type of Heating	
Slab heating*	
Reverse-cycle*	
Central (ducted)*	
Radiator (fixed)*	
electric element heaters (plug in)	
radiators (plug in)	
Type of Cooling	
Evaporative Cooling	
Cooling-only	
Reverse-cycle	
Central (ducted)	
Ceiling fans	
Pedestal/personal fans (plug in)	

Option	Advantages	Disadvantages
1. Full Thermal Assessment	<ul style="list-style-type: none"> • Site-specific • Most accurate • Based on NatHERS thermal performance • Requires homeowner to engage with assessor which enables the transfer of information • Recommendations tailored to homeowners specific needs 	<ul style="list-style-type: none"> • Requires full house plans and/or significant assumptions that increases the costs and may reduce effectiveness of recommendations • May create additional confusion for homeowners and the marketplace about NatHERS and the difference between NatHERS and RBMD
2. Simplified Thermal Assessment	<ul style="list-style-type: none"> • Site-specific • Focuses on the ‘built-in’ capacity of a house to achieve sustainability outcomes, rather than the ‘bolted-on’ features such as water tanks etc • Currently more cost effective than option 1 • Good transition option to facilitate long-term adoption of option 1 • Requires homeowner to engage with assessor which enables the transfer of information • Recommendations tailored to homeowners specific needs 	<ul style="list-style-type: none"> • Less accurate (than option 1) • Requires a number of assumptions that reduces the site-specific accuracy, and which can cause confusion
3. Online self assessment	<ul style="list-style-type: none"> • Easy to create and track data • Contains a minimum judgment of thermal performance 	<ul style="list-style-type: none"> • Does not require an assessor which can lead to errors and requires the assessment to be overly simplistic and/or rely on large assumptions • Does not provide homeowners with new and tailored knowledge about their property • Almost impossible to provide quality assurance • Will tend to focus consumers on ‘bolted-on’ features such as water tanks, rather than those aspects which are ‘built-in’ and reduce consumption
4. Self assessment checklist	<ul style="list-style-type: none"> • Identifies the houses which have easy to understand sustainability features (ie water tanks, solar hot water, PVs) 	<ul style="list-style-type: none"> • Does not provide a comparable rating • Does not consider ‘built-in’ features of thermal performance that reduce consumption • Does not require an assessor which can lead to errors and requires the assessment to be overly simplistic and/or rely on large assumptions • Does not provide homeowners with new and tailored knowledge about their property • Impossible to provide quality assurance • Anecdotal evidence (from QLD Sustainability Declaration) indicates people prefer not to indicate the presence of features
5. Public education campaign	<ul style="list-style-type: none"> • Can articulate one message clearly (ie, black balloons) 	<ul style="list-style-type: none"> • Cannot provide site specific information • Does not provide nationally consistent and comparable data • No guarantee that message is heard or that action is taken

'Home energy rating system questioned', *7.30 Report*, Australian Broadcasting Corporation, 26 April 2011, available <http://www.abc.net.au/7.30/content/2011/s3200765.htm>.

Reporter: Matt Peacock

More than a million and a half houses nationwide could be incorrectly rated under the compulsory energy standards that have been progressively introduced by introduced by state and territory governments in the past seven years.

Transcript

LEIGH SALES, PRESENTER: There have been revelations that a million and a half houses around Australia may be incorrectly rated as energy efficient when they're not. In the past seven years, state and territory governments have progressively introduced a system of green ratings that are now in force across the country. But according to academics and some in the building industry, the star ratings can be deeply misleading, with wide variations in their results and loopholes in their use. Matt Peacock investigates.

MATT PEACOCK, REPORTER: This newly-built home was sold as five-star energy-rated with a price tag to match. But its energy rating is now being put to the test. Here a specialist team is measuring ventilation inside the house to calculate how much leakage there might be, either of hot air during winter, or air-conditioned cool air during the summer.

JAN BRANDJES, AIR BARRIER TECHNOLOGIES: The typical leakage areas or problems that we find in the houses are in the ceiling area. Mostly, I would say, downlights and exhaust fans are a major problem.

MATT PEACOCK: But along with more than 100,000 new homes built every year, the compulsory Australian energy rating on this house may not be worth the paper it's written on.

TERRY WILLIAMSON, ARCHITECTURE, UNI. OF ADELAIDE: It worries me that householders are potentially expending a considerable amount of money with no effect.

JACQUI SUTTIE: I feel like I've spent all this money and for what.

MATT PEACOCK: Jacqui Suttie thought when she bought her new home in Melbourne its high energy rating would save her money.

JACQUI SUTTIE: I thought five-star meant it was going to improve my power bill, cooling wasn't gonna be an issue, heating it wasn't gonna be an issue, and they promoted five-star through looking at all the display homes, so you would assume that it's fabulous, but turns out it's not really.

MATT PEACOCK: In fact, it was anything but fabulous, as her test results have now revealed.

JACQUI SUTTIE: So, what star rating does it come out at?

JAN BRANDJES: Well the star rating: on your original plans you had a five-star rating. According our figures, the actually house performs just at 3.5 stars. So you're losing 1.5 star in this process.

TERRY WILLIAMSON: Well we don't know that they work and that's the issue: there is no

evidence around to show that they actually do work.

MATT PEACOCK: The problem with energy ratings, according to Adelaide University's Professor Terry Williamson, is that there's been no research to prove that they're accurate.

TERRY WILLIAMSON: There could be a serious resource misallocation going on. Within the total building industry in Australia compliance is probably worth \$4 to \$6 billion a year. That's quite a lot of money if we're wasting it.

MATT PEACOCK: In 2004, a minimum of three to four star ratings became compulsory for all new homes across the country. Six years later, the mandatory rating has now been raised to a minimum of five stars virtually everywhere. Victoria, Queensland, South Australia and the ACT have already moved to a six-star rating, with Western Australia following next year.

Whereabouts you live can dramatically affect your energy consumption.

MONICA OLIPHANT, UNI. OF SOUTH AUSTRALIA: Round Australia, heating and cooling is a different percentage of total household energy use. For example, in Tasmania, Victoria and ACT, heating and cooling is 60 per cent of total energy in the home, whereas in Queensland, it's 15 per cent.

MATT PEACOCK: In most homes, warns adjunct professor Monica Oliphant, something like a solar hot water heater can significantly reduce energy use. So too can people's individual behaviour.

MONICA OLIPHANT: Behaviour can have one of the largest impacts. For example, people have quite an efficient heater, but like to have it full blast in winter and go around with T-shirts on, or they don't bother to turn off all the things that are on standby like computers and videos and so on.

MATT PEACOCK: Where home heating or cool is used, the key to energy efficiency is to plug air leaks.

JAN BRANDJES: The solution with a man-hole like this is just basically a weather-strip around it, lower the manhole cover back in its frame and the problem is solved.

JACQUI SUTTIE: OK. Is that expensive?

JAN BRANDJES: This particular solution is very cheap.

MATT PEACOCK: Home ratings are determined by feeding design data into one of three government-approved software programs, but even these have problems.

TERRY WILLIAMSON: If you run the same building through three different programs, you get, at some times, significantly different answers. And we would need to find out why that is.

KEVIN HERBERT, AUST. CELLULOSE MANUFACTURERS ASSN: There's 1.5 million-odd people to date or home buyers who've been subject to this faulty software. So in fact they've been charged for something they're not getting.

MATT PEACOCK: All governments, state, territory, federal, Liberal, Labor, are to blame for the mess, believes Kevin Herbert of the Cellulose Insulation Manufacturers.

KEVIN HERBERT: Normal Australian people and families on average incomes, the kind of

savings you're going to get annually for an energy-efficient house are substantial, and into the thousands of dollars if the house is done properly. And people have to be educated how to use it. To date, it's all been window-dressing, trying to keep up with this big environmental pressure to do something.

MATT PEACOCK: The Federal Government has just belatedly acted on a Productivity Commission recommendation to conduct a study on the accuracy of the ratings.

TERRY WILLIAMSON: They made a recommendation in August 2005 that the Government immediately introduce a research project to compare the ratings with actual energy use, not simulated energy use, as they said. Now, it's only last month that the Government finally announced a tender for a project to do that.

KEVIN HERBERT: It's all a bit after the event, and given that they won't report on their findings until the end of next year, that's 2012, that means another 300,000 homes are going to be rated using this software, plus all the extensions that are done now have to be rated.

MATT PEACOCK: Kevin Herbert, though, believes there's a simple solution.

KEVIN HERBERT: The answer is to make the builders responsible, legally responsible for delivering a house that has a test certificate done by the builder to the consumer saying, "This house is energy efficient."

MATT PEACOCK: Meanwhile, hundreds of thousands of home owners like Jacqui Suttie are left waiting and wondering.

JACQUI SUTTIE: I feel very cheated in the price that I've paid and for what we've received.

The assessor skills have been identified as:

- Communication
 - Giving clear and accurate information to customers
 - Interprets relevant legislation, regulations, industry standards, safety signs, financial arrangements, drawings and specifications
 - Demonstrates awareness of individual, social and cultural differences
 - Researches, prepares and presents a range of documents
 - Effective interpersonal skills
 - Uses effective listening skills
 - Consults and contributes effectively with other members of the team
- Technical skills in the use of computers and the software programs
 - Uses a range of measurement tools to gather information
 - Ability to use a number of tools to produce the best result for the client
 - Uses information and software tools to produce business documents and reports
 - Uses the web and other research tools to keep information current on sustainability products and services
 - Ability to read and interpret building plans and analyse thermal performance properties
- Problem solving
 - Identifies ways of improving the environmental and thermal performance of the building
 - Negotiates options with the client
 - Satisfactory resolution of issues with the client
 - Uses strategies to mitigate risk
- Initiative and enterprise
 - Promotes the adoption of change
 - Adapts to new work conditions
 - Relates with team members on home sustainability and thermal performance issues
 - Promotes change in the householder behaviour
- Planning and organising
 - Implements organisational procedures and policies
 - Collects, collates and organises information
 - Develops risk management and personal safety plans, personal developments plans and home sustainability action plans
- Self management
 - Identifies the limitations of roles and responsibilities
 - Follows regulatory, organisational and ethical practices
 - Works without supervision
 - Models sustainability practices
 - Uses feedback to improve performances
 - Uses personal presentation, manner and language suitable to the employer and the industry
 - Assesses competing demands and prioritizes work
- Learning
 - Maintains current knowledge codes of practice, standards, regulations, practices and industry updates
 - Ability to change practices and processes to meet information needs.