



SUBMISSION BY THE INSULATION COUNCIL OF AUSTRALIA AND NEW ZEALAND (ICANZ)
Residential Buildings Mandatory Disclosure – Consultation Regulatory Impact Statement - July 2011

OVERVIEW

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

CONTACT DETAILS

Name of Organisation:	ICANZ
Name of Author:	Dennis D'Arcy
Phone Number:	Landline: 03 9265 4096 / mobile: 0418 392 382
Email:	dennisd@icanz.org.au
Website:	www.icanz.org.au
Date:	Tuesday, 6 September 11

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Residential Buildings Mandatory Disclosure – Consultation Regulatory Impact Statement (CRIS)- July 2011

GENERAL/OVERALL COMMENTS

The Insulation Council of Australia and New Zealand (ICANZ) support Mandatory Disclosure as a policy and believe it addresses a major market failure. It favours the use of BOTH Option 1 and 2. Consumers should be allowed to choose, and the benefits of utilising an existing NatHERS rating should be available to contain costs. Option1 should be the only option allowed where highly efficient fabric is declared.

Option 3 and 4 and opt-out variations to 1 and 2 are not considered sufficient to address market failure.

Option 5 is needed in addition to all other options to help address market failure. Consumer faith in government energy efficiency programs has been shaken by the demise of other programs.

Benefits have been underestimated:

1. Discount rate is too high: Garnaut's use of 1.35% and 2.65% creates a precedent that should be followed for all climate change related programs. Sensitivity studies showed that benefits are substantially higher at 3% than the 5% used in the RIS.
2. Take up rates based on the ACT scheme for Options 1 and 2 are probably too low due to the much smaller scope of the ACT scheme – it relates to building fabric alone.
3. And market research indicates that Australians concerned about energy costs, want to take action and are looking for the federal government to provide leadership. This also indicates that take up rates may be much higher.
4. Benefits to health and peak loads should be included. Both have been quantified in recent projects and this provides a template for use with this RIS.

Costs are overstated for appliance replacement, which should consider only the remaining life of the existing appliance and the incremental cost of the more efficient appliance. Re-use of ratings from both NatHERS and RBMD is considered to offer far greater savings than assumed in the RIS.

The design of the scheme is critical to its success. As RBMD potentially influences sale prices Quality Assurance must be at the highest level.

Comments

See attached report.

1 THE EXTENT OF THE ‘PROBLEM’ IN RESIDENTIAL BUILDING ENERGY, GREENHOUSE AND WATER PERFORMANCE.

That is, to what extent are there market failures, which present a barrier to improved energy, greenhouse and water performance of residential buildings in Australia? Has the problem been accurately represented in this RIS?

The Insulation Council of Australia and New Zealand (ICANZ) believe that there is significant market failure in the residential sector regarding the sustainability of homes offered for sale or lease. This is nowhere better illustrated than the fact that there still remains over one million houses with uninsulated roofs. This is despite the many millions of dollars spent in advertising and promotion of insulation itself by the industry, the previous endorsement of insulation and encouragement to install it by government and other independent consumer organisations and the overwhelming satisfaction of those who install insulation with the effect of insulation in improving comfort and lowering energy bills. Furthermore, several independent field studies have verified that insulation saves energy:

- The Gas Demand Management Discussion Paper No. 9 released in December 1991 found a 22% saving due to ceiling insulation in centrally heated homes and 12% in space heated homes,
- A study of public housing in Tasmania (Coldicutt et al, AHRC Project 106, 1983) found houses with wall insulation and ceiling insulation saved 12% on heating energy use over houses with ceiling insulation only,
- A study of the Home Energy Advisory Service in Victoria (DITR, 1985) found ceiling insulation installed in the living areas of houses of Commonwealth Card holders saved 9.2% of gas and 7.6% of electricity consumption, and
- A study of retrofit wall insulation in the ACT (Beckman and Associates, 2003) found that it saved 15% of total energy consumption.

While there is plenty of information available to consumers about how to make a house more sustainable, many are still unaware of how to do it. A recent survey by the Clean Energy Council (CEC) revealed that “around half of all Australians don’t know very much, or ‘nothing at all’ about key aspects of their home energy use (CEC, 2011). This clearly indicates a problem with information in the market.

The recent experience of the difficulties with the Home Insulation Program (HIP) and the Green Loans scheme has exacerbated the problem of adverse selection in the market. As explained in Box 2.1 of the RIS (p. 5) consumers are reluctant to invest in products when “they are uncertain as to the quality of the product they will receive”. With the adverse media publicity about fires in homes, deaths of installers and consumer dissatisfaction with the services offered through the Green Loans scheme there is a risk that this reluctance could lead to outright resistance for Residential Building Mandatory Disclosure (RBMD). A well designed and carefully implemented RBMD scheme could do much to turn this around.

The CEC study also found that

- Australians want to take action to reduce their energy use – 89% would be prepared to take actions to use less energy in their homes,
- The issue which most concerns Australians is the rising cost of living, and that the greatest concern with the cost of living was the rising cost of energy,
- 73% would welcome more information on how they could use less energy or use it more efficiently, and
- 80% re looking for leadership from the federal government to help them do this.

ICANZ believes that the CEC study shows that Australians are ready for RBMD and are likely to embrace it, but it must be free from the issues that have plagued previous schemes. The RBMD must be communicated positively to demonstrate value for all stakeholders. In the case of buyers and sellers this would equate to higher ratings resulting in better property values.

2 THE ADEQUACY OF THE OPTIONS ASSESSED IN THE CONSULTATION RIS IN ADDRESSING THE PROBLEM

Other feasible policy options that should also be considered in the assessment

A study commissioned by ICANZ and undertaken by Energy Efficient Strategies (EES) - to be completed October 2011 - looked at the benefits of completing the installation of ceiling insulation started by the HIP over a 10 year period. This study used the same housing stock modelling techniques that the federal government used in its study of “Energy Use in the Australian Residential Sector 1986 – 2020” (DEWHA, 2008). It found that ceiling insulation has substantial benefits for energy use, greenhouse emission reductions and in the moderation of peak loads. The national average benefit to cost ratio for installing ceiling insulation was found to range from 3.9 to 5.6 depending upon the discount rate and fuel price assumptions applied. The HIP remains a good policy which was let down by the speed implementation and lack of early auditing and administrative controls. As the cost of energy increases a number of other everyday-use insulation opportunities become cost effective. These include insulation for ceiling top-ups, wall cavity fill, underfloor retrofit and pipe insulation. A national subsidy for the installation - particularly roof insulation, should still be on the national policy agenda.

3 THE ASSESSMENT OF COSTS AND BENEFITS OF OPTIONS

3.1 DOES THE ASSESSMENT FULLY REFLECT ALL POTENTIAL COSTS AND BENEFITS OF THE OPTIONS ASSESSED?

3.1.1 OPTION 1 AND 2 BENEFITS ARE UNDERESTIMATED

- RBMD Options 1 and 2 would allow those upgrades with the greatest ‘bang for buck’ to be identified and implemented because the house performance is modelled in a very detailed way. The stock modelling approach used for the RIS, while generally excellent, will necessarily average out effects of individual measures. As such it is an imperfect model of how the scheme would operate. To show these sort of detailed effects in the modelling, however, would involve

considerable expense. Some case studies showing how RBMD allows identification of upgrades which may not be economic as a whole of stock measure but which would be very economic in individual cases would help to highlight this issue and lead to a more balanced evaluation of the policy.

- Peak Load benefits are real and quantifiable. ICANZ study of the value of ceiling insulation (EES, 2011) found that if all ceilings in Australia were insulated by 2020 peak loads would be further cut by 482 MegaWatts (worth \$137 million per year). The RISfor RBMD does not estimate the benefits of peak load reduction. This is a major oversight. Given the similarity in the modelling undertaken for the RIS and ICANZ, the ICANZ modelling may be able to be used as a starting to allow this issue to be addressed more fully in the final RIS.
- Garnaut looked at the issue of the appropriate discount rate to use when assessing climate change abatement, in his Targets and Trajectories paper (Garnaut, 2008): “the two discount rates used by the Review for the assessment of discounted net costs of climate change in Australia are 1.35% and 2.65%”. Regulations designed to assist Australia’s efforts to reduce greenhouse gas emissions and avoid catastrophic climate change are therefore different to other regulatory measures. The discount rate appropriate for energy efficiency measures should not be based on discount rates normally used for regulation. While the rate of 5% used for the study is lower than the 7% used for other regulation, ICANZ believes that Garnaut’s rates are more appropriate. This means that the sensitivity analysis which used 3% and found much higher benefits is more appropriate. If this is not done then the economic assumptions on which overall climate change policy is evaluated under is not consistent with the evaluation of the measures being used to address it.
- Take up rates for Options 1 and 2 may well be significantly higher.
 - Firstly, the CEC research shows a high level of overall concern regarding energy costs, a high level of preparedness to take action and an expressed desire to have more information. This is reinforced by the huge and overwhelming demand there was from the public for both the HIP and Green Loans scheme.
 - Secondly, basing take up rates on the ACT scheme overlooks the fact that the ACT scheme ONLY looks at building fabric. Aside from insulation and draft control, building fabric is the most difficult to modify in existing homes. RBMD will present a much broader range of affordable and easily implemented options such as appliance change over and water conservation features. Further, the ACT scheme gives no information as to the likely GHG emission or energy bills and so fails to provide anywhere near as strong an impetus for action as the RBMD scheme will do.
- Health benefits are quantifiable. Williamson (Williamson et al, 2009) evaluated the financial benefits of reducing health costs which could be attributed to the increase in new house regulatory stringency from 5 to 6 stars for the Australian Building Codes Board. While this study found minimal benefits, the difference in comfort between NatHERS rated 5 and 6 star houses is very small compared to the very large improvement in comfort that ceiling insulation and air leakage control would provide. Together these can easily improve a star rating from a NatHERS rating of 0 or 1 to 2 or 3 stars. The performance jump from 0 to 2 star is much bigger than the jump from 5 to 6 stars and the health benefits that would be obtained by building fabric improvements under RBMD would therefore be far greater.

3.1.2 OPTION 3 AND 4 BENEFITS ARE OVERSTATED

- The ability of RBMD to identify which measures work best for individual houses depends on accurately identifying the unique weak points in the design and appliances of individual houses. A technique which has to be ‘dumbed down’ sufficiently to allow self assessment or a simple checklist can not possibly hope to correctly identify and value the benefits of upgrades with sufficient accuracy to encourage their adoption. For example, the Queensland Sustainability Declaration gives no guidance to consumers on whether it is more valuable to have a gas cooktop in the kitchen or insulation in the roof when roof insulation will clearly provide a greater and longer environmental benefit in those homes with air-conditioning.
- ICANZ is concerned that self assessment (Option 3) and checklists (Option 4) do not sufficiently address the market failures of inadequate information and adverse selection to make a difference. Checklists do not provide adequate performance information to allow the market to make rational decisions. And self assessment entrenches the situation where the seller has better information than the buyer and could lead to buyers having little faith in the system. It is a clear conflict of interest for the seller to self assess, particularly where the seller believes that RBMD will help to increase the sale price. The potential for fraud is higher with option 3.

3.1.3 COSTS FOR OPTION 1 AND 2 ARE OVERSTATED

- Companies such as Energy Makeovers have developed new systems for data entry for NatHERS software that eliminate the need to separately draw up the plan and rate the house. There is no doubt that if a NatHERS style assessment is allowed the market will find innovative solutions that will help to contain and reduce costs.
- Costs of using NatHERS style assessment tools will be far less for new houses if the data from the NatHERS assessment can be easily reused. NatHERS tools will need to be upgraded to do this. Over time the stock of houses with assessments will increase making this a more attractive and cheaper option.
- The assumption that after 5 years the assessment will need to be redone overlooks the fact that the old assessment could be reused and simply updated. The most time consuming part of the assessment cost will be the entry of building fabric data. Even if all appliances have changed since the last assessment updating the assessment would still take half the time it would have if the old assessment can be used. Furthermore, even additions or renovations will generally not mean that all the building fabric data needs to be entered again from scratch.

3.2 ARE THERE COSTS TO INDUSTRY THAT HAVE NOT BEEN ACCOUNTED FOR?

- Sellers may make modifications to the house prior to sale in order to obtain a better rating. It is not clear from the RIS whether a subsequent verification rating has been allowed for. While this would be nowhere near the cost of the initial rating, and buyers rather than sellers may be more likely to implement the changes, the cost of re-rating does not appear to have been allowed for. Note that some improvements may not require an additional inspection

depending on the design of the scheme e.g. it may be sufficient for the assessor to be provided with receipts for the installation of a new heater together with a photo of the installed appliance. This would require strict guidelines and auditing.

3.3 ARE THE COSTS OF THE ENERGY AND WATER EFFICIENCY MEASURES INCLUDED IN THE RIS REASONABLE?

- In the ACT the rate of blown in wall insulation is much higher due to the subsidy offered for the product by the ACT government. As a result the price per square metre shown in the RIS may fall over time.
- Appliances must be replaced at the end of their economic life. The cost of installing new appliances is therefore the cost of bringing forward this purchase and the incremental cost between replacing the old appliance with one of equivalent efficiency with a more efficient model. It is considered unlikely that a perfectly functional relatively new appliance would be removed simply to improve the rating except in the case of installing a heater to replace a day rate electric heater or where no heater is installed. If the full cost of appliances shown in Appendix C has been applied this is significantly overstating the cost of appliance replacements.

3.4 ARE THE ASSUMPTIONS UNDERLYING THE ANALYSIS VALID/REASONABLE?

- ICANZ believes that an opt-out option is not reasonable. Inevitably the best houses with the least scope for improvement will participate more frequently than the worst houses with the greatest potential for savings. This would decimate the potential savings the policy could deliver and would do little to address the reasons for the market failure in the first place. Voluntary schemes have been found to be far less effective, for example, in the 5 years of voluntary NatHERS ratings in Victoria, some 2,500 houses were rated out of a potential 150,000. The RIS states that the objective of government intervention is to improve the quality and quantity of information to assist market participants to compare value and act upon cost effective energy and water efficiency performance. Allowing houses to opt out simply won't achieve this objective.
- Option 5 is necessary to help overcome market failure regardless of which Option is finally selected. This is particularly true in the light of the problems with the HIP and Green Loans scheme. There is a real risk that that, despite the latent demand and support shown for such a program in the CEC study, consumers will be uncertain as to the quality of the product they are receiving. In order to restore this certainty sufficiently to allow market failure to be overcome Option 5 must be a part of any mandatory disclosure scheme. A vital part of such a marketing program will be the involvement of independent consumer organisation – the CEC research shows that these organisations are most trusted by the public.

3.5 ARE THE TAKE-UP RATES FOR THE PROPORTION OF SELLERS AND LESSORS THAT INVEST IN UPGRADES TO THEIR PROPERTIES IN EACH SCENARIO REASONABLE?

- As outlined under sections 3.3.1 and 3.3.3, ICANZ believes that take up rates are likely to be higher for Options 1 and 2, and lower for 3 and 4.

3.6 THE IMPACT OF THE HIP UPON THE PENETRATION OF ROOF INSULATION IN THE STOCK OF AUSTRALIAN RESIDENTIAL BUILDINGS.

As mentioned in 3.3.1, ICANZ have commissioned a major study of the costs and benefits insulating roofs/ceilings. This study includes an estimation of the impact of the HIP. This study is not yet complete and should be ready in October. This has used a detailed postcode by postcode breakdown of installation rates across Australia and ICANZ believes this would provide significant and valuable information to help evaluate the costs and benefits of RBMD. **ICANZ therefore seeks leave to provide the information from this report to the Department after the closing date.** Some preliminary data from this report is shown below:

Overall there were estimated to be between 2 and 2.6 million Australian dwellings without ceiling insulation in 2008 and after the HIP in 2010 there were estimated to be between 830,000 and 1.4 million Australian dwellings without ceiling insulation, this data is shown in tabular form in Table 1.

Table 1 : Estimate of dwellings estimated to have no ceiling insulation by year (000's)

<i>Estimate</i>	<i>NSW</i>	<i>VIC</i>	<i>QLD</i>	<i>SA</i>	<i>WA</i>	<i>TAS</i>	<i>NT</i>	<i>ACT</i>	<i>AUS</i>
<i>Pre HIP (2008)</i>									
<i>Lower Estimate</i>	<i>900</i>	<i>230</i>	<i>661</i>	<i>69</i>	<i>160</i>	<i>29</i>	<i>21</i>	<i>10</i>	<i>2046</i>
<i>Upper Estimate</i>	<i>1081</i>	<i>387</i>	<i>769</i>	<i>111</i>	<i>207</i>	<i>42</i>	<i>28</i>	<i>21</i>	<i>2628</i>
<i>Post HIP (2010)</i>									
<i>Lower Estimate</i>	<i>413</i>	<i>0</i>	<i>341</i>	<i>30</i>	<i>94</i>	<i>14</i>	<i>19</i>	<i>4</i>	<i>833</i>
<i>Upper Estimate</i>	<i>595</i>	<i>110</i>	<i>449</i>	<i>72</i>	<i>141</i>	<i>27</i>	<i>26</i>	<i>15</i>	<i>1415</i>

4 IDENTIFIED RISKS AND UNCERTAINTIES ASSOCIATED WITH EACH OPTION.

- A number of the sections above have identified some of the risks ICANZ believes are associated with the various options. In particular, ICANZ is concerned that Options 3 and 4, and the opt-out proposal simply won't be sufficient to overcome market failure.
- The use of NatHERS tools for Mandatory Disclosure will require some significant upgrades to existing tools and rating practices and would be more costly than a simplified calculation method. However, ICANZ believes that it would be a significant risk to allow these simplified tools to evaluate the heating and cooling loads of buildings with highly efficient building fabric. Simplified tools such as the Australian Greenhouse Calculator, NABERS energy explorer, BASIX DIY and the Home Sustainability Assessment tool used for Green Loans are perfectly adequate for getting the heating and cooling loads of typical houses in the right ball park. Because RBMD may affect the sale price of new homes, however, ICANZ believes that to declare the rating of a

house with a highly efficient fabric without verification from a NatHERS simulation could pose legal risks.

- To address the risk of using simplified tools ICANZ believes that the efficiency of building fabric that can be reported using tools under Option 2 should be capped at a maximum efficiency level equivalent to 3 or 4 NatHERS stars. In reality, any home which has a 5 or more NatHERS star rating will already have a rating. And to not allow sellers to utilise this existing rating would involve duplication of effort and therefore unreasonable extra costs.
- ICANZ therefore believes that while Option 2 is sufficient, sellers should be able to use Option 1 to enable them to contain RBMD costs for new housing. Furthermore, buyers may wish to conduct a more detailed assessment than the minimum required by regulation to help them identify the best upgrade options. The framework for RBMD should therefore allow both Option 1 and 2 and let the market decide which one it wants to use.
- It is important that government learns the lessons from the problems with the HIP and Green Loans scheme. The public trust in government energy efficiency programs has been significantly damaged. ICANZ believes that:
 - RBMD should be pilot tested to iron out the inevitable bugs that come with the adoption of a new scheme. NatHERS was a voluntary scheme for up to 10 years in some jurisdictions before it became mandatory and has benefitted substantially from the refinements that occurred over this period.
 - The acceptance of the rating tool used in RBMD by industry, and the credibility of the assessor by the community will be most important to allay criticisms that RBMD is simply more government costly red tape with no added value.
 - Residential Building Mandatory Disclosure Assessors must receive high quality training and this training must include the use of whatever tools are developed for the scheme.
 - The minimum requirement to become a trainer should be substantially greater than for the Green Loans program. Trainers must be able to demonstrate a high level of expertise in residential energy efficiency.
 - Assessors must be licensed and subject to an effective auditing program. Auditing should be undertaken at a high level in the very early stages of RDMD to ensure poor practices are identified, publicized to assessors and eliminated.
 - Assessor training should be ongoing through compulsory Continuing Professional Development programs so that the lessons learned in the field can be effectively passed on to assessors.
 - Companies who have experience in high volume energy efficiency programs should be required to demonstrate a commitment to a high level of customer service and proven expertise in energy efficient house design and appliances. Simply installing light globes and shower roses does not constitute sufficient experience, and any experience with the Green Loans program, both positive and negative, should be taken into account.
 - Given the problems with the Green Loans scheme, ICANZ believes it would be wise to involve consumer organisations - such as Choice – in the design of the scheme. This would help to restore consumer faith in government run energy efficiency programs.
- The RIS does not explain how the scheme will work. There are a number of critical scheme design issues that will require further consultation:

- **How the scheme will handle the area of the house.** NatHERS has been criticised because it still allows ‘McMansions’ through at 6 stars. RBMD offers an opportunity to address this issue by assigning a better rating to smaller houses (all other factors being equal) which will encourage better sustainable design practice.
- **How the RBMD rating relates to NatHERS and appliance ratings.** It will be important that the RBMD rating does not create confusion and this will pose a difficult communication task.
- **How the scheme allows for heating and cooling appliances which condition different areas of the house.** A space heated house will use less energy than a centrally heated house under a broad range of scenarios, even if the building fabric is worse. However, if buyers decide to install a central heater in the space heated home it may end up with a worse rating than other centrally heated homes they were considering for purchase. For the scheme to provide the information needed to overcome market failure it will need to consider this issue very carefully.
- **How the scheme allows for houses which have no heating or cooling.** The scheme should clearly communicate how the installation of typical heating and cooling appliances will affect the RBMD rating.
- **How the scheme rating metric balances the performance of building fabric with a very long life against appliances which have much shorter lives.**
- ICANZ notes that different Options represent the most cost effective solution for different jurisdictions. ICANZ believes that National consistency is very important. There simply can’t be different RBMD methodologies in use in Albury/Wodonga Tweed Heads/Coolangatta or the market will just be confused.
- ICANZ looked at all its suggestions regarding the Cost Benefit analysis and evaluated the impact on the overall cost benefit for each option based on the figures provided in the RIS. It adjusted these figures in the following way:

	Option 1	Option 2	Option 3	Option 4
Original National NPV	-\$2,983	\$919	\$817	\$862
Adjust assessment costs: 1/3 lower for 1 & 2	\$1,715	\$370	\$0	\$0
75% of HIP cost	-\$509	-\$440	-\$336	-\$247
15% greater take up for 1 & 2, 15% lower for 3 & 4	\$521	\$444	-\$325	-\$223
Government Costs from Option 5	\$25	\$25	\$25	\$25
Adjusted NPV for each Option	-\$1,230	\$1,318	\$181	\$418

- It is difficult to then adjust these figures for a 3% discount, but the nature of the change under the original assumptions (added \$900 million benefit to Option 1) indicates that Option 1 would be at worst a small cost and may become a positive benefit, and that Option 2 stands out as having the greatest benefit far more than in the RIS.
- Mandatory Disclosure offers an opportunity to collect field data on actual conditions in Australian homes which is not currently available. Collection of this data should allow much better policy design and planning. Again this makes national consistency in all jurisdictions an imperative.



5. References

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