# Residential Buildings Mandatory Disclosure

## Consultation Regulatory Impact Statement – July 2011

**Written Submission**

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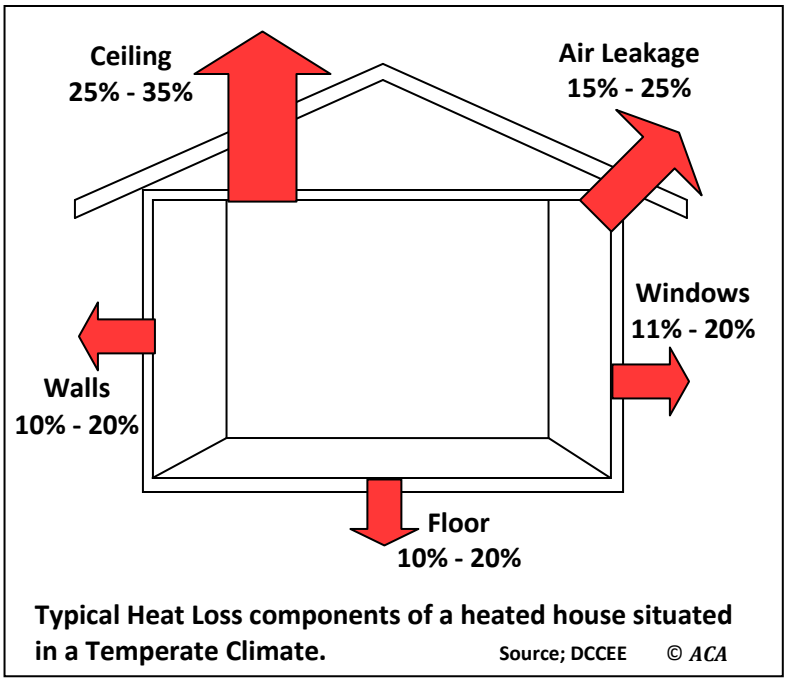
**Confidentiality:** this document is not requested to be treated as confidential

***The extent of the 'problem' in the residential building energy, greenhouse and water performance.***

Chapter 2.1 'Information in an efficient market' states " Markets require information in order to function effectively and efficiently." I would strongly contend that in this age of communication & information abundance, it is credible information which is going to achieve effective and efficient outcomes. As the Global Financial Crisis (GFC) has proven, markets do function on junk information if the spin is right.

Efforts in the past by governments through COAG to implement a performance based compliance framework to increase the energy efficiency of all new houses built in Australia since 2003 have now been shown for some time to be inadequate, inconsistent and largely unverifiable, thus being seen as non credible and falling well short of achieving the governments objectives.

Considering the building envelope alone, in a temperate climate where limiting house heat loss is the prime energy efficiency consideration, the heat loss picture is something like this;




**Typical Heat Loss components of a heated house situated in a Temperate Climate.** Source; DCCEE © *ACA*

Testing for the two main components of heat loss using simple techniques developed and widely adopted overseas, a suitably experienced and trained operator of an infrared camera and a blower door will quickly reveal how accurate the current building solutions are.

Within the insulation industry and building science circles it is generally accepted that up to 5% of missing ceiling insulation will result in a 40% reduction in the R value rating of the total ceiling of the conditioned spaces of the building. That equates to a 40% increase in energy required to achieve the same internal conditioned temperature for a building.

Testing of new houses completed in Australia since 2003 using the technique outlined above reveal that over 80% have extensive voids in their ceiling insulation cover. It appears that a 5% figure of missing ceiling insulation is not far off the national average for these houses.

With regard to heat loss via air leakage, results from performance based pressure tests, again reveal that the air exchange rates on average are 3 – 4 times greater than standards adopted in Europe and North America and bring into question the usefulness of the presumptive figures contained within current accepted building solutions.

The total heat loss occurring within the new housing stock built in Tasmania alone since 2003 is estimated by industry insiders to be around 30 - 40% greater than calculated under current building solutions adopted federally and supported through State legislation.

Any attempt to build a RBMD on an existing incomplete, misleading and misnamed "Performance based Compliance Framework" with no compliance checks currently required, is at best a flawed exercise.

If the objectives of government action, "…is to improve community wellbeing and environmental sustainability…" then verifiable results and compliance assessments need to be part of the equation. After all what use would our current drink/drive laws serve if random roadside breath and blood tests were not conducted on a regular basis?

***The adequacy of the options assessed in the Consultation RIS in addressing the problem***

As outlined above the majority of options presented in the CRIS appear to rely in varying degrees on using current building solutions as contained in Section J of the BCA which are now widely recognised to be incomplete and misleading.

Strengthening the current building solutions is a prerequisite before they can successfully be used as part of the proposed RBMD scheme. It is suggested that at the very least within temperate regions of Australia, insulation consistency and air leakage assessments using the techniques outlined above be immediately made part of a compliance assessment and part of the adopted building solutions.

One major problem with the options proposed is the lack of any reference to trialing the initial option or options adopted before rolling out the RBMD nationally. Australia's vast area encompasses many different climate zones. One size fits all may not necessarily be the wisest approach to tackling the problem identified.

It seems feasible to suggest that a carrot instead of the stick approach to addressing energy efficiency in the housing market could be achieved if a different approach were adopted by government. If the discrepancies within our current building solutions were recognized and addressed then many of us within the industry believe that energy savings achievable through investment in energy efficiency saving measures are potentially a powerful and convincing market component.

In all of the RIS the assumption seems to be made, that once assessed a house would carry that energy rating into perpetuity. This seems an unrealistic proposition as anyone in the industry knows, physical changes get made to properties regularly and building materials are subject to deterioration and disturbance over time e.g. bulk insulation efficiency is affected by such factors as moisture, wind, rodents and tradies. It seems appropriate to consider assessment intervals for rental and lease properties on this basis from anywhere between 5 – 10 years.

One of the more regular methods of determining older building envelope construction (walls especially) is through temporary removal of power point fittings. Has this been considered as part of options 1 & 2?

***The assessments of costs and benefits of options***

In general too little information is presented regarding the assessments methods envisaged for each option, especially the more complex ones. This makes specific comment difficult to make.

However on the surface it appears from my understanding of the building solutions being considered that the assessment costs associated with options 1 & 2 maybe a little biased in favour of option 2, the assessment cost of which is considered to be unrealistically low.

There is no reason to believe that the take up rates given for each option could not be achieved if the final designed scheme is creditable and well researched.

Having had a direct involvement in the HIP in Tasmania, I offer the following observation which I believe has relevance to the CRIS. The process of establishing a reputable, practicable process takes time. Developing theories in an office and on paper must also be accompanied by practical evaluated trials.

Unfortunately these principles which are applied in science seem to be lacking in most government initiated programs, (maybe because of the short political cycle). The initial concept of the HIP which was to have it as a long term government initiative was sacrificed by the government when it included it in its Stimulus Package in response to the first round of the GFC. The resultant rapid roll out of the HIP in conjunction with the Stimulus Package allowed issues of compliance to be compromised and the whole process to be politicised.

***Identified risks and uncertainties associated with each option.***

Shortcomings of option 1 with regards to the credibility problems of current building solutions have already been outlined. Any simplified option, namely options 2, 3 & 4 will also increasingly suffer from a lack of creditability as already demonstrated by way of articles appearing in the Queensland press headed “Farcical forms ignored” relating to that States Sustainability Declaration introduced in January of last year. Observations like this reaffirm my belief that anything but a rigorous option will end up being largely meaningless and will quickly become unpopular.

Kind Regards,

Martin Wohlgemuth