



Submission by the
Housing Industry Association Ltd

**Productivity Commission
Draft Report
Energy Efficiency**

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Executive Summary

As Australia's peak residential building industry organisation the Housing Industry Association (HIA) supports the findings of the Productivity Commission relevant to the residential construction sector in their Draft Report on Energy Efficiency.

Energy efficiency is a critical issue for the residential sector, which is increasingly subject to rapid and disproportionate increases in costs associated with additional regulation. These increases in costs negatively impact on housing affordability.

The residential building industry is already highly regulated. Energy efficiency regulations not only add significantly to the cost of housing but do not necessarily provide public or private benefits. Housing is price sensitive, responding quickly to rising costs. First home owners are especially vulnerable to rising material and construction costs stemming from new regulation.

It is difficult to understand why new housing should be targeted for energy efficiency initiatives. Housing does not generate significant greenhouse gas emissions. HIA contests that substantially greater energy and cost efficiency gains can be achieved by focusing on larger energy use sectors and through the commissioning of infrastructure projects capable of generating more sustainable energy.

Governments are increasingly focused on regulating energy efficiency, however with little or no control over how people live, energy efficiency measures that affect housing are, in essence, playing at the margin.

HIA supports the key draft findings of the Productivity Commission regarding the residential sector, particularly in relation to:

- A moratorium on the implementation of the new energy efficiency standards for residential buildings until existing standards have been fully evaluated and can be shown to provide net industry, community and business benefits;
- Housing bears a disproportionate amount of regulatory burden with respect to energy efficiency and Government should focus on higher order greenhouse gas generators;
- The need to examine the process used to set the stringency of standards in States and Territories; and
- Reduction in the scope for local governments' erosion of uniformity of minimum energy efficiency standards.

The principle of good regulation requires that effective and efficient policy instruments need to be compatible with economic realities. The days of 'good ideas' with little basis in quantifiable net benefit are, rightly, past. New regulation must deliver a net public benefit.

Regulatory reform should be an integral part of government's wider micro-economic reform agenda to develop a healthy and productive business environment – through ensuring that regulations do not impose unnecessary costs. Governments stand to be widely condemned if they move to introduce regulation which is not efficient in cost benefit terms.



Housing and Greenhouse Emissions

It is difficult to understand why new detached housing should be such a priority for energy efficiency initiatives. Housing does not generate significant greenhouse gas emissions; the sector accounts for only 1.6 per cent of total greenhouse gas emissions¹. Squeezing diminishing efficiencies at ever higher costs from the residential sector will not have a significant impact on emissions.

These figures, of course, do not abrogate the residential industry from its responsibility to reduce greenhouse gas emissions. However it is clear there is a disproportionate burden being placed on the residential sector where far more substantial gains in greenhouse gas abatement may be achieved if policies were directed at major contributory sources and consumption. A whole of community response to energy efficiency rather than purely targeting the new home buyer is essential.

HIA notes that the most significant barriers to improving energy efficiency are:

- A lack of focus of regulatory efforts on higher order greenhouse gas generators;
- The uncoordinated nature of energy regulation and the confusion it creates for builders, manufacturers, suppliers and consumers;
- Pricing of energy which in many cases discourages efficiency measures; and
- The lack of public investment in infrastructure which could deliver more substantial environmental and economic gains.

The result is that new home owners are expected to bear a disproportionate share of the costs of emission reduction while more significant savings are not pursued. For instance, it appears that costly measures to reduce domestic consumption (at private cost) are preferred to public expenditure on greater efficiency of energy generation and distribution. A similar situation exists with water efficiency: governments are mandating minor but expensive efficiency measures for households as an alternative to more wholesale reforms (eg. better resource pricing) or public investment.

This compares to the major greenhouse contributions from electricity generation itself, the various transport modes and from the use of energy fuels in the manufacturing and construction industries.

Notwithstanding the relatively modest contribution from housing toward national greenhouse emissions, the focus of regulatory efforts to date has been on the residential sector, and not on higher order greenhouse gas generators. Substantially greater energy and cost efficiency gains can be achieved by targeting the larger energy use sectors.

¹ The AGO's National Greenhouse Gas Inventory 2002 (the latest one available) attributes 1.6% of national emissions to the 'residential sector'. The inventory however accounts for emissions from electricity from the point where emissions occur.



Infrastructure Investment

Energy efficiency has become a profile issue with many government agencies reporting “triple bottom line” (economic, social, environmental) outcomes. Energy efficiency is now a “race to the top”, with all levels of government competing to have the best, most environmentally sound regulations. This race is being run on ideological grounds with governments progressively adding layers of regulation under the banner of “energy efficiency” with little thought to the cost impact.

Government regulations are imposing costly obligations on the private sector but deliver modest environmental gains. The cost-shift approach from the public purse to the private individual has resulted in under investment in the public sector while raising the cost of essential services.

State/Territory governments continue to use energy and in a wider context, sustainability to hide their lack of investment in critical infrastructure and avoid the politically unsavoury task of setting realistic prices for water and energy.

HIA is not aware of any national reviews of infrastructure that would have a significant influence on energy efficiency, such as a national electricity distribution grid. Such a study would be of benefit in evaluating the contribution that a nationally coordinated approach to energy infrastructure could achieve. Such a study could be undertaken through COAG.

Government borrowing is the most efficient and equitable means of financing long-lived social infrastructure assets and should be used more widely to finance sustainable infrastructure projects. Public borrowing would spread the repayment burden further across time and generation.

Housing, and households, should not be considered to be an easier target for government to tackle than other sectors. The cost-effectiveness of various energy efficiency measures must have regard for the overall ability of households to absorb additional charges related to their choice of housing. The Commission is well aware that an appreciable decline in housing affordability has become a feature of residential markets across the country and that an increasing number of Australians are now “locked out” of home ownership.

Recent regulatory efforts have concentrated on addressing the thermal performance of the residential building fabric. HIA maintains, however, that far greater cost and energy efficiency gains can be achieved through the commissioning of larger sustainable energy infrastructure projects than through regulating the way that buildings are constructed or occupied. Relevant policy targets would include, for instance, the efficiency of electricity generation and the various transport contributors.

Governments should seek to finance sustainable infrastructure projects and deliver least-cost per household options for the uptake of energy efficiency. Public investment in appropriate infrastructure projects is a major key to this outcome. Australia’s housing industry can build sustainably, but greater infrastructure investment is vital to enable Australians to live sustainably.



Costs

HIA agrees with the observation by the Productivity Commission that energy costs account for a very small part of expenditure by most households.

Governments are increasingly focused on regulating to build energy efficiently rather than ways to live in an energy efficient manner. With little or no control over how people live, energy efficiency that affects housing is in essence, playing at the margin.

Energy efficiency requirements are being placed on individual households without any consideration of efficiency, cost or practicality.

The cost-effectiveness of various energy efficiency measures must have regard for the overall ability of households to absorb additional charges related to their choice of housing.

HIA agrees with the Productivity Commission's observation that there is little in the way of quantifiable analysis to substantiate that costs outweigh the benefits necessary to support new energy efficiency regulation. Indeed there is some question regarding the basis for existing energy efficiency regulation.

Recent surveys of residential builders indicate that the costs associated with compliance with the current Victorian 5 Star requirements are approximately 6% of the cost of a home. This equates to \$12,000 for a typical \$200,000 house. This is in stark contrast to earlier survey by the Victorian Building Commission which indicated a cost increase of \$5600 ($\$28/\text{m}^2$) utilised in support of the introduction of the 5 Star Regulation in that State.

Additionally, as energy efficiency regulations become more stringent, the technical means of achieving outcomes become more expensive because the more readily applied measures will already have been adopted under the initial requirements. Similarly, any future proposals to increase stringency levels will become more difficult and costly to achieve. Clearly, increases in stringency will reduce affordability.

Another emerging regulatory tool is the mandatory requirement for existing homes to disclose their energy rating at the time of sale. HIA agrees with the Productivity Commission's comment that such systems impose administrative and compliance costs that inevitably get passed on, negatively impacting on housing affordability and that it is questionable whether energy ratings are effective in increasing the adoption of energy measures.

Regulatory Approach

HIA agrees with the observation by the Productivity Commission that building standards are not the most effective mechanism to address energy efficiency objectives. Energy efficiency in the Building Code is simulated rather than measured directly and defined in terms of a variable which is not an indicator of energy consumption.



HIA supports the Productivity Commission's key observations regarding energy efficiency relating to the residential sector such as:

- It is not clear that energy-rating schemes for existing dwellings deliver a net benefit;
- There is little in the way of quantifiable analysis to substantiate costs;
- The data used to develop energy efficiency standards for buildings are arguably inadequate, bringing into question the energy efficiency standards in the Building Code;
- The minimum five-star rating under the Building Code has been driven in large part by a desire to match the most stringent State or Territory standards;
- There is no evidence to support the claim that the ACT system of mandatory energy efficiency audits before the sale of residential property influences buyers (States intend to roll-out this flawed model in other jurisdictions); and
- Energy efficiency under the Building Code is simulated rather than measured and therefore is not a good determinant of actual energy efficiency.

Notwithstanding that it is currently progressing with regulation on a similar basis (5 Star Energy Efficiency for Houses) the ABCB in its submission to the Productivity Commission review expressed concern that the data used to develop energy efficiency standards for buildings were inadequate:

...in developing the BCA energy efficiency measures, some technical and policy decisions have had to be made on limited or anecdotal evidence due to the lack of energy data....From a government perspective, better co-ordination and targeting of funding is essential to ensure that reliable data is available for informed policy decisions to be made.

These comments go to the heart of questioning the rationale for higher energy efficiency standards and raises questions regarding the marginal benefits of further ratcheting up standards.

HIA strongly support the Productivity Commission's draft recommendation 7.3:

'New or more stringent energy efficiency standards for residential buildings should not be introduced until existing standards have been fully evaluated. The evaluation should be commissioned by the Australian Building Codes Board to:

- *Consider whether defining building standards in terms of simulated heating and cooling loads is an effective way to raise actual energy efficiency;*
- *Investigate whether weaknesses in energy-rating software distort the housing market in favour of particular building designs that are not necessarily the most cost-effective, particularly over the longer term as innovations are made in building design;*



- *Evaluate costs and benefits in a way that takes account of the diverse preferences and financial circumstances of individual home buyers;*
- *Assess the distributional impacts of standards on different socio-economic groups, including first home buyers and less-affluent groups; and*
- *Examine the process used to set the stringency of standards in the Building Code of Australia, including the impact of any increase in stringency by individual States and Territories.*

In light of these factors, HIA believes that the position of the Productivity Commission is correct and new energy efficiency standards should not proceed until independent research has resolved these problems. It is timely that a review of the existing standards be undertaken through the Australian Building Codes Board to establish that they provide net benefit. If this is not the case, there should be a review of the regulatory impact of moving to a five star rating for housing or the introduction of other measures for buildings based on the outcomes of the evaluation.

There is a need to evaluate sustainability software programs and assess their role in regulation. Computer and web-based assessment tools are often driven by inaccurate or outdated data which significantly affects the environmental “score” they produce.

One such example is the Victorian Government’s First Rate software to assess 5 star compliance. Despite assurances from the Victorian Government regarding the suitability of the software, it has been the subject of ongoing development due to various anomalies. This defective software has impacted on the industry’s ability to adapt and has directly affected the cost of housing.

It is for similar reasons that HIA supports the Productivity Commission Draft Recommendation 8.2:

Draft Recommendation 8.2 – Energy efficiency standards for commercial buildings should not be introduced without a more thorough evaluation of the costs and benefits of such a policy and a comprehensive analysis of the other policy options. In such an evaluation the Australian Building Codes Board should give greater consideration to:

- *the sensitivity of regulatory impact statement estimates of cost savings to the assumptions used;*
- *the cost of introducing energy efficiency standards, including administration and compliance costs; and*
- *the effectiveness of standards in achieving higher actual energy efficiency.*

HIA supports the comment by the Productivity Commission regarding the maintenance of the Building Codes deemed-to-satisfy approach to design and approval of energy efficiency building solutions. This will minimise the costs associated with industry moving to an entirely IT based assessment platform or being reliant on third party assessments – which erode housing affordability and arguably contravene National Competition Policy principles.



It is noted that the ABCB indicated in their submission that most building designers use the prescriptive deemed-to-satisfy provisions rather than the performance-based provisions of the Building Code and viewed the performance provisions as more costly.

Multiple layers of regulation

Inconsistency in building regulations has a significant cost impost and the community is forced to pay a premium to compensate for the inefficiencies that multiple regulatory regimes produce. In order for the industry to cost-effectively transform regulatory requirements into built product, mandatory requirements must be consistent across the range of regulatory regimes within which the industry operates.

HIA is concerned that conflicting State, Territory and local government regulations are damaging the capacity of the industry to deliver compliant homes. The competitiveness of local manufacturing is being damaged by regulations which fragment the Australian market into small niche markets. Australian manufacturing cannot achieve economies of scale if it has to tailor production to comply with different regulatory regimes nor does this represent an environment in which it can pursue innovative solutions. This has both investment and employment implications.

The residential sector's recent experience with the proliferation of energy efficiency requirements in local government planning schemes and through separate and uncoordinated State Government initiatives demonstrates the inefficiency and inadequacies of the current regulatory approach to energy efficiency in building construction.

The principles underlying the production of buildings are similar to other forms of production, in that efficiencies may be derived from standardisation of process and minimising design variations during the manufacture of the product. The application of these principles is, in part, responsible for the current levels of efficiency inherent within the project home market. It will be near impossible for the industry to become more efficient and continue to maintain cost-effective built products while building regulation systems differ from state to state and between local government areas.

Notwithstanding the relatively modest contribution from housing toward national greenhouse emissions and the primary objective of most regulatory provisions to reduce environmental harm, the focus of regulatory efforts to date has been on the residential sector. Increasingly this is occurring through planning regulation where legislators are pursuing greater sustainability outcomes in the absence of economic cost-benefit analysis and public debate.

The current ad hoc approach that has been allowed to develop under various planning jurisdictions has caused substantial confusion about policy purpose and responsibilities. For instance, infrastructure capacity has been now raised as an object of [planning] regulation, leaving industry and consumers confused as to whether the primary purpose of energy regulation applying to the residential sector is to reduce greenhouse emissions or to save governments from funding new infrastructure. The message is further confused, once the plethora of local government planning policies is taken into account.



HIA holds the view that local government should not have a role in setting energy standards when these can be established through a nationally consistent BCA approach. Also state government regulation relating to energy efficiency should be coordinated with and based on a national model policy. HIA therefore supports the Productivity Commission draft recommendation 11.1 that:

'The Australian Building Codes Board should examine the ways to reduce the scope for local governments to erode the uniformity of minimum energy efficiency standards for new houses'.

Incentives and Rebates

Governments should also provide financial rewards and incentives to assist in balancing public and private costs. Incentives result in industry moving beyond minimum mandatory standards towards a focus on minimising the environmental impact of the building process and of the homes they construct.

Industry initiatives and incentives represent a bona fide option for governments in terms of consideration of non-regulatory alternatives.

Governments should also encourage initiatives such as HIA's *GreenSmart*. The *GreenSmart* initiative is an example of how an industry can develop programs that encourage the uptake of environmentally sustainable practices in a manner that makes commercial sense. *GreenSmart* focuses on educating builders, designers, product manufacturers and consumers about the benefits of environmentally responsible housing. *GreenSmart* aims to encourage a mainstream application of its principles to today's housing. As a voluntary initiative, it provides appropriate market recognition for environmental endeavours in the residential construction industry.

The HIA *GreenSmart* initiative entails:

- Environmental training and accreditation for the industry;
- Promotion of *GreenSmart* via the world wide web – www.greensmart.com.au;
- Recognition of the environmental efforts of the industry through the *GreenSmart* Awards; and
- The demonstration of *GreenSmart* to consumers through *GreenSmart* Villages and the *GreenSmart* consumer magazine.

HIA advocates further government partnering in and funding of its *GreenSmart* initiatives and other industry programs as a means of improving consumer and industry knowledge about energy efficiency.



Conclusion

HIA strongly supports the Productivity Commission's position regarding the residential sector detailed in their Draft Report on Energy Efficiency.

In particular HIA supports Draft Recommendations 7.2, 7.3, 8.2 and 11.1 and draft findings 7.2 and 7.3 on the basis that the principle of good regulation requires that effective and efficient policy instruments need to be compatible with economic realities.

It is timely given the potential cost associated with the impending impact of energy efficiency regulation on a national basis (ABCB 5 Star RIS) that current and proposed regulatory reforms be validated as delivering quantifiable net benefit.

Substantially greater energy and cost efficiency gains can be achieved by targeting the larger energy use sectors, through development of relevant infrastructure investment and pricing regimes for natural resources including water, energy, natural gas, native vegetation, etc. rather than through regulating the way that buildings are constructed or occupied.

The housing industry is not seeking to evade making a fair contribution to the national effort however squeezing diminishing efficiencies at ever higher costs from the residential sector will not have a significant impact on emissions.

Regulatory reform should be an integral part of government's wider micro-economic reform agenda to develop a healthy and productive business environment – through ensuring that regulations do not impose unnecessary costs. Governments stand to be widely condemned if they move to introduce regulation which is neither efficient in cost benefit terms nor defensible in political terms.

Future policy development needs to consider balance energy efficiency with housing affordability.