



Energy Efficiency in Residential Buildings

Policy Background

- The introduction of minimum energy efficiency regulations in 2003, through the Building Code of Australia was supported on the basis that a clear net benefit was shown to be delivered to the community and the home owner.
- In 2005, the Federal Government endorsed an increase to 5-stars for all class 1a residential buildings and in 2009 supported a move to 6-stars. The case for increasing to 5-stars, and now 6-stars, was not adequately substantiated prior to its introduction. Indeed, the Regulatory Impact Statement for 6-stars showed a negative cost benefit to the community and the home owner.
- The benefit that may be derived by the home owner from changes to the building thermal performance has reached the point where costs for an increase in energy rating far exceed estimated savings to the home owner through reduced energy bills.
- The Productivity Commission in 2005 found that *“There is considerable uncertainty about the extent to which building standards have reduced energy consumption and emissions. In addition, it is doubtful that the net financial benefits predicted in regulation impact assessments have been achieved in practice. The limited available evidence suggests that the costs of current standards have been much higher than were predicted.”*¹
- The Council of Australian Governments endorsed the National Strategy on Energy Efficiency in July 2009, setting a 10 year road map for future initiatives in relation to energy efficiency in the building sector. This Strategy appears to no longer be a driver of the potential reforms to energy efficiency policy.

Policy Issues

- The housing industry is making significant progress in the delivery of energy efficient housing by incorporating energy efficient designs and technology innovations into new homes.
- Current building and planning regulations deliver a significantly higher level of energy efficiency in new homes than the nine million existing homes constructed prior to 2004.
- There is no national target for the reduction of emissions from the building sector, to allow the benefits of current and future regulations to be assessed for their effective delivery of the desired policy outcomes of government.
- HIA promotes voluntary, market-based solutions and the HIA GreenSmart program encourages designers and builders to voluntarily implement design and construction methods to conserve natural resources.
- The benefit of energy efficiency regulations aimed at the building fabric vary greatly due to the local climate, the selected fittings and fixtures in a home and the practices of the home owners.

¹ Pg XLIX, Finding 10.2, Productivity Commission Inquiry Report No. 36 “The Private Cost Effectiveness of Improving Energy Efficiency” 31 August 2005.

- The Federal Government continues to adopt a strategy of increasing the requirements for new homes without completing any review of the success and benefits and costs associated with the introduction of 4, 5 and now 6-stars.
- The current regulation of energy efficiency standards has no correlation with the intended reduction in greenhouse gas emissions.
- A single energy efficiency target for new homes is not necessarily the most sensible approach to the climatic conditions across Australia. The cost impacts across Australia are variable based on the climate zone and the common methods of construction in each state.

HIA's Policy Position on Energy Efficiency in Residential Buildings

Contribution of Residential Buildings

- The residential building industry acknowledges the need to build environmentally responsible housing to the extent that it does not negatively impact on housing affordability and housing supply.
- The residential building industry is well equipped and able to provide a range of sustainable housing solutions that meet consumer expectations and needs.

Objective of Energy Efficiency

- Based on the current Federal Government objective to reduce greenhouse gas emissions, the assessment tools used for residential buildings must include reference to the predicted reduction in greenhouse gas emissions.

Regulation of Energy Efficiency

- Where regulation is required to improve the energy efficiency of new housing, HIA supports minimum necessary regulations being applied through the National Construction Code (NCC), developed in consultation with industry and which deliver a positive net benefit to both the community and in particular to the individual home owner.
- The NCC must include a simple, deemed to satisfy (prescriptive) method for achieving minimum energy efficiency regulations, comparable to the outcomes achieved through computer simulation assessments.
- Building standards for energy efficiency should not be incorporated into planning regulations.
- Any state based energy efficiency regulations relating to the construction of a home should be pursued through a variation to the NCC, justified through a positive cost benefit analysis, and only be permitted where there is a proven difference due to geographical, geological or climatic conditions for such variation.

Future Standards

- Further increases in energy efficiency regulations for new homes or alterations and additions should be rejected until such time as:
 - a. governments have taken actions to improve the performance of existing housing stock to achieve an energy rating equivalent to BCA 2003 (4-stars);
 - b. a comprehensive post-construction review of the implementation of existing energy efficiency regulations, including gauging the actual costs and benefits achieved and comparing this to the predicted costs and benefits, has been completed;

- c. an assessment framework which provides a direct correlation between energy efficiency and greenhouse gas emissions reductions is developed; and
- d. the Federal and State governments commit to a revised, or new, strategy for energy efficiency which sets out a clear purpose (eg greenhouse gas reduction, lower peak power usage) and outcome to be achieved from any further changes.

Assessment and Rating Tools

- The use of computer rating tools to assess the thermal performance of residential buildings provides an important alternative assessment pathway for the housing industry. These rating tools should be based on an agreed set of transparent scientific principles and all programs should achieve a consistent outcome for the same building in the same location.
- The framework for computer rating tools should maintain the option for the private market to compete and develop alternative software programs that meet minimum standards and agreed outcomes. This framework should continue to be managed by the Federal Government.
- Residential building energy assessors must be appropriately qualified in residential building design or construction and the use of energy rating software recognised by the NCC.

Appliances and Fixtures

- HIA supports the use of Minimum Energy Performance Standards (MEPS) to manage the energy efficiency performance of fittings and fixtures, such as hot water services, air conditioners and lighting, to complement efficiencies gained through the improved building fabric in new homes and any regulations applying to existing homes.
- Any changes in the stringency of MEPS should be subject to a cost benefit analysis, developed in consultation with building product manufacturers and suppliers, which delivers a positive net benefit to both the community and to the individual home owner.

Incentives

- Federal and State Governments should support targeted rebate programs for energy efficiency measures to reduce the energy consumption in existing homes and to support new home owners who choose to exceed current regulation. Programs should be well targeted and implemented over a sufficient length of time to allow industry and consumers to take advantage of the rebates.
- Governments should introduce incentive schemes which promote and reward the inclusion of measures that exceed existing building standards.
- The inclusion of renewable energy systems that offset the minimum energy efficiency requirement for new homes should be supported through the assessment tools and incentive programs.

Government Promotion and Consumer Awareness

- Governments should support consumer awareness campaigns which highlight the benefits of a more energy efficient home and how to operate a home more efficiently.
- Voluntary, industry-led solutions (such as the HIA GreenSmart program) should be encouraged by all governments as an option to promote improvements in the energy efficiency of residential buildings and to facilitate innovation and new practices in energy efficient housing and land development;

- An expansion of the HIA GreenSmart program, with an emphasis on consumer education and awareness, including at school level, should be supported by governments, to provide unified sources of information on sustainable housing and connect consumers with builders who can deliver relevant solutions.
- Governments should promote the need for financial institutions to have regard to the energy efficiency of existing and new homes in providing valuations.