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18 December 2009

Dr I Holland  
Secretary  
Senate Environment, Communications &  
the Arts References Committee  
Parliament House

Dear Dr Holland

### Inquiry into Energy Efficient Homes Package

I would like to provide the following comments in response to the Senate's inquiry into the Energy Efficient Homes Package on behalf of the Housing Industry Association (HIA).

HIA comments focus on Terms of Reference 1(i) and 1(iv) and are set out in Attachment A.

If you would like any additional information in relation to these comments please don't hesitate to contact me directly.

Yours sincerely  
HOUSING INDUSTRY ASSOCIATION LIMITED

Graham Wolfe  
Chief Executive - Association

## Attachment A

### ***Term of Reference 1(i)***

***The Federal Government's Energy Efficient Homes Package (ceiling insulation), with particular reference to:***

- (i) the level of ceiling and wall insulation in Australian residences, state by state, prior to the announcement of the Energy Efficient Homes Package and the adequacy of the Building Code to ensure comprehensive roll out in future.***

The Building Code of Australia (BCA), published by the Australian Building Codes Board, sets out the minimum acceptable standards for the construction of all new homes. The energy efficiency requirements are set out in Part 3.12 of the BCA (Volume 2). This Part makes reference to the insulation in the roof, ceiling and walls.

The BCA also applies to alterations or additions to existing homes. In the case of insulation, only building work involving the roof or wall construction would need to take consideration of the insulation requirements.

In relation to energy efficiency, the BCA's objective is "to reduce greenhouse gas emissions by efficiently using energy." (Part 2.6). The BCA then sets a performance requirement to meet this objective, which is:

### ***P2.6.1 Building***

*A building must have, to the degree necessary, a level of thermal performance to facilitate the efficient use of energy for artificial heating and cooling appropriate to—*

- a) the function and use of the building; and*
- b) the internal environment; and*
- c) the geographic location of the building; and*
- d) the effects of nearby permanent features such as topography, structures and buildings; and*
- e) solar radiation being—*
  - i. utilised for heating; and*
  - ii. controlled to minimise energy for cooling; and*
  - iii. the sealing of the building envelope against air leakage; and*
  - iv. the utilisation of air movement to assist cooling*

A building can be designed to meet this performance requirement through a small number of pathways. The majority of homes elect to use either an energy rating assessment or use the acceptable construction practice set out in the BCA.

Under an energy rating assessment (star rating) the inclusion of roof, ceiling and wall insulation will be an essential requirement. However, the physical R (resistance) value for each area of insulation will vary from location to location, based on the climatic conditions, the selected materials in the roof and wall construction, and the overall design of the home.

Currently homes seeking to comply using an energy rating assessment must achieve a minimum 5-star level in Queensland, Victoria, South Australia, Western Australia and the ACT. Tasmania currently meets a 4 star requirements, whilst the Northern Territory meets a 3.5 star requirement.

NSW relies on an alternative assessment model – BASIX, which achieves a similar outcome to an energy rating and can only be passed with the inclusion of roof, ceiling and wall insulation.

The second pathway under Part 3.12 is to design a home to comply with the acceptable construction practice (otherwise known as ‘deemed to satisfy’). Again based on the location of the home and the roof and wall materials to be used in construction, minimum insulation R-values are set.

HIA considers that the current minimum standards set out in Part 3.12 of the Building Code of Australia (BCA) are sufficient to provide an acceptable level of insulation in all States and Territories regardless of whether compliance is achieved using an energy rating assessment or the acceptable construction practice.

Going forward, HIA recognises that the Council of Australian Governments has endorsed the National Strategy on Energy Efficiency, which seeks to increase the current stringency of the energy efficiency provisions in the BCA over the next 10 years, commencing in 2010.

In separate submissions to the Australian Building Codes Board during 2009, HIA has outlined a range of significant concerns in relation to these future changes, including concerns that focusing solely on the building fabric, which does include the insulation component, is limited in its effect on reducing the operational energy consumption in a home, and hence the greenhouse gas emissions produced by new homes. HIA has called on the Government to recognise that there is a range of more cost-effective options for new homes to achieve improved energy efficiency.

***Terms of Reference 1(iv)***

***The Federal Government's Energy Efficient Homes Package (ceiling insulation), with particular reference to:***

***(iv) an analysis of the effectiveness of the package as a means to improve the efficiency of homes and reduce emissions of greenhouse gases, including comparison with alternative policy measures;***

Apart from renovations to existing homes which include the external walls or roof space, the BCA has no effect on existing homes. The BCA introduced minimum energy efficiency provisions in 1993. All new homes constructed since that time incorporate a minimum level of insulation appropriate to the location of the home and the construction materials.

HIA’s policy position on ‘Energy Efficiency of Residential Buildings’ states that

- *Federal and State governments should focus on the non-residential building sectors and existing buildings, including housing, to achieve improved energy efficiency outcomes across the whole community. Government should support consumer awareness campaigns which highlight the benefits of a more energy efficient home.*
- *Federal and State governments should provide support through the upgrading and development of new infrastructure which has the capacity to be more energy efficient and further reduce greenhouse gas emissions.*
- *Governments must review existing energy pricing policies to adequately address the impacts of energy generation and the real savings in greenhouse gas emissions that can be made through improved energy delivery infrastructure.*

98% of residential buildings exist today, therefore action on improving the energy efficiency and emissions impact of these buildings is essential. On this basis, HIA has been supportive of the Federal Government's commitment to take action on existing homes through the Energy Efficient Homes Package. The predicted benefits of the Package delivering improved insulation levels are well targeted and practical in terms of their real benefits to home owners from reduced heating and cooling costs.

In relation to alternative approaches, programs targeting the retrofitting of less efficient window fixtures, hot water replacement programs and other schemes provide equivalent opportunities for reduced energy use and emissions reductions.

Programs such as the Victorian Energy Efficiency Target and the South Australian Residential Energy Efficiency Scheme are also options worth of consideration as part of a targeted approach to reduce the overall energy consumed by energy utility providers.