43. ECO-INFO
ENERGY EFFICIENCY IN DWELLING-HOUSES

INTRODUCTION

Energy efficient dwelling-houses are homes that, through their design, construction and choice of materials and appliances, maximise use of renewable energy sources (such as sunshine) and use less energy more efficiently. They are 'smart' because they simultaneously help preserve scarce resources, reduce the level of greenhouse gas emissions and provide significant savings to the occupants.

An energy efficient dwelling works with the climate in Wyong Shire, and minimises the effects of extreme temperature. When it is cool, the house uses the sun for heating and its materials will ensure minimum heat loss. When it is hot; however, the energy efficient house reduces the heat taken in while maximising the use of cooling breezes and lower outside temperatures when the sun is not at its peak.

The temperate climate of Wyong Shire may require some heating and cooling to maintain comfort, but most, if not all, can be achieved through design and construction. Dwellings can also be designed so that artificial lighting is unnecessary during daylight hours

In summary, Council seeks a dwelling that is sited, designed and constructed so as to minimise the energy resources required to build, maintain and operate it.

CHANGES TO REQUIREMENTS

Council's DCP 100-Quality Housing is currently structured to require a National House Energy Rating Software (NatHERS) Certificate for Alterations and Additions exceeding 50% of the existing dwelling-house, indicating that the proposal achieves a 3.5 star House Energy Rating. However it has been determined by the House Energy Rating Management Board (HMB) that Alterations and Additions cannot be appropriately modelled using the current version of NatHERS and that there is no longer a distinction drawn between minor and major Alterations and Additions.

The HMB has therefore recommended to Council, HMB Accredited Assessors and SEDA that NatHERS Certification should not be used to determine compliance for Alterations and Additions. Reasons relevant to this decision can be found at www.hmb.net.au/councils.htm.

It has been recommended that Council replace its House Energy Rating requirement with a set of appropriate Deemed-To-Satisfy conditions. These will only include measures relevant to thermal performance, such as minimum insulation requirements and appropriate shading of glazed areas.

DEEMED-TO-SATISFY CRITERIA

In the short term, Council will apply its current criteria for additions less than 50% of the existing structure to all proposals for additions and alterations. These requirements are:

- Double-sided reflective foil under tile roof or foil laminated bulk insulation blanket under metal roof; &
- Bulk insulation rated at R2.5 or greater in the entire ceiling adjacent to roof space; &
- Double-sided reflective foil or bulk insulation R1.5 or greater in the external walls; &
- The use of structural rather than mechanical means to control solar access, temperature and ventilation and to provide weather protection to openings are required. Eaves, roofed verandas, upper level decks, awnings, pergolas and similar control devices should be used and be integrated into the design of the dwelling, over north, east and west facing glazing to living and bedrooms.

The Development Applicant will need to meet the Deemed-To-Satisfy requirements for Alterations and Additions by specifying the insulation levels and appropriate physical shading elements on the plans and specifications.

FURTHER INFORMATION

Further enquiries regarding Council's energy efficiency requirements for dwelling-houses can be directed to Council's Customer Services Centre on ph: 43 505555.