



Building newsflash number 423— revised edition

Queensland's implementation of energy efficiency requirements from 1 May 2010

Purpose

To advise of Queensland Development Code (QDC) modifications to the Building Code of Australia (BCA) energy efficiency requirements commencing 1 May 2010.

Background

Increased energy efficiency requirements for new building work are included in the 2010 update of the BCA. This includes the 6-star energy efficiency requirements for residential buildings and an increase in the stringency of energy efficiency requirements for commercial buildings.

On 25 March 2010, the Queensland Government confirmed it will adopt the 6-star energy equivalence housing standard from 1 May 2010. Following industry forums recently held in Cairns (2 March 2010) and Toowoomba (9 April 2010), some minor modifications to Queensland's implementation of the new energy efficiency provisions were included in a draft QDC. The draft QDC provisions were posted on the department's website on 13 April 2010. These provisions will take effect from 1 May 2010.

Legislation

Building Act 1975

Building Code of Australia

Building Regulation 2006

Queensland Development Code Mandatory Part 4.1

Queensland Plumbing and Wastewater Code

Interpretation

Subject to the operation of a discretion by building certifiers under section 37 of the *Building Act 1975*, building applications lodged on or after 1 May 2010 must comply with the new 6-star standard as set in the QDC and BCA 2010.

To assist with transitioning new code requirements, section 37 of the Building Act 1975 permits building certifiers to use discretion not to apply the new or amended provisions in some cases. Discretion under s37 (d) is available in cases such as where the certifier is satisfied that planning the work was underway (e.g. a contract to build is in place or substantial negotiations for planning the work have taken place) before 1 May 2010.

In such cases it would be appropriate for a certifier to approve the building against the earlier version of the building code where more than a minor change to the home's design is required



to meet new code. Certifiers should use this discretion by considering the practicality of meeting the new provisions in the context of the proposed building and nature of the new provisions. In the context of a home's design and an incremental increase in energy efficiency levels, relatively small design changes are more likely to be considered impractical than in a commercial building or health and safety context. Building design changes that may appropriately be considered more than a minor change include:

- substantial alterations to the building plans such as incorporating an outdoor living area; or
- substantial alterations to a major building component such as significant reduction in glazing or the roof construction to be changed from flat to pitched; or
- the need to incorporate a new component in the building design such as ceiling fans or different types of windows.

However, using a lighter colour shade for the roof would be considered a minor change for the purposes of section 37 of the *Building Act 1975*.

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From 1 May 2010, all new non-residential buildings (classes 3 and 5–9) are required to comply with Section J 0.2 of the BCA 2010 for energy equivalence. This requirement will also apply to new work done on these existing buildings, such as additions and alterations. Sole occupancy units in a class 4 building are required to achieve a rating of 6-stars for their energy equivalence.

The QDC requirement for all new unit buildings (class 2) and major renovations to achieve a minimum 5-star energy equivalence rating remains unchanged with the commencement of the BCA 2010. For sole occupancy units in multi-unit buildings (class 2), only the QDC energy efficient lighting provisions apply, which now includes calculating external areas of the dwelling, such as decks and balconies.

Building Code of Australia 2010—volume two

From 1 May 2010, all new houses and townhouse buildings (class 1) and enclosed garages (class 10a) attached to class 1 buildings are required to achieve a minimum 6-star energy equivalence rating. This requirement also applies to new work done on existing buildings, such as additions, alterations and re-locations.

The 6-star requirements can be achieved by using either the BCA 2010 elemental provisions (formerly deemed-to-satisfy) or the software assessment method with optional credits provided by the QDC.

Optional credits under the Queensland Development Code

For designers using the software assessment method, the QDC provides optional credits that can be used towards the 6-star energy equivalence requirement for houses and townhouse buildings (class 1). Buildings need to meet a minimum baseline star rating depending on their climate zone (in climate zones 1, 2, and 5 the baseline star rating is equal to 4.5 stars, and in climate zone 3 the baseline star rating is equal to 5 stars) and can use one or a combination of the following credits:



Outdoor living areas

- Since 1 March 2009, the QDC has provided up to 1 star credit for outdoor living areas included with houses and townhouses in tropical (climate zone 1) and subtropical (climate zone 2) areas. From 1 May 2010, the outdoor living area credits are extended statewide to include hot arid (climate zone 3) and warm temperate (climate zone 5) areas. The outdoor living area needs to meet minimum design specifications, such as 12 m² floor area, covered with at least two openable sides, R-1.5 insulation for downward heat flow and a ceiling fan.

Photovoltaic (solar) energy systems

- A new optional credit of 1 star will be available for houses and townhouses that include a solar photovoltaic (PV) system with a minimum of 1 kilowatt capacity.

Energy efficient lighting

To provide a flexible approach with energy efficient lighting requirements, either the QDC provisions (i.e. 80 per cent of fixed lighting is energy efficient) or the BCA 2010 (section 3.12.5.5– Artificial Lighting) can be used as compliance options for houses and townhouses (class 1 buildings) and enclosed garages (class 10a buildings) attached to class 1 buildings. The QDC provisions now include both the internal and external lighting fixtures, such as verandahs and balconies.

Hot water systems

In Queensland, the BCA 2010 provisions for hot water systems in class 1 buildings do not apply. Queensland has retained the hot water provisions of the [Queensland Plumbing and Wastewater Code](#) (Part 7), i.e. only gas, solar or heat pump systems that meet certain requirements can be installed.

Suspended flooring

The BCA 2010 elemental provisions (formerly deemed-to-satisfy) requiring houses with suspended flooring to be insulated and enclosed (section 3.12.1.5) will not apply in climate zones 1 (tropical) and 2 (subtropical). This exemption is outlined in the QDC.

Guidelines

An updated QDC MP 4.1–Sustainable buildings guideline along with a new guide on regional housing design features will be made available on the department's [website](#) in the near future.

Contact for further information

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