

Building Regulation News Updates are issued as and when necessary, to keep the Tasmanian Building Industry informed of developments occurring in the industry, Building Code of Australia (BCA) and its referenced documents and legislation.

COMMERCIAL AND PUBLIC BUILDING ENERGY EFFICIENCY PROVISIONS IN THE BUILDING CODE OF AUSTRALIA.

Purpose

This *News Update* is to inform building practitioners, permit authorities and building owners of the changes, and of an information session to be held on new energy-efficiency provisions for commercial and public buildings that will be introduced into the Building Code of Australia (BCA 2006), from **1 May 2006**.

Background

The Australian Greenhouse Office projects that greenhouse gas emissions from the operation of commercial buildings will increase by a staggering 94 per cent during the period 1990-2010. The new energy-efficiency provisions, to be included in BCA 2006, form a key feature of the federal and state governments' commitment to reducing greenhouse gas emissions in Australia. The changes will provide benefits to the environment through reduced greenhouse gas emissions and to owner/occupiers through reduced energy costs.

Application of the provisions in Tasmania

The provisions will apply to all classes of commercial and public buildings in Tasmania, including new buildings and certain alterations to existing buildings.

The provisions will apply to:

- Class 5 buildings – Commercial office building
- Class 6 buildings – Shop or other retail building
- Class 7 buildings – Car park or wholesale goods facility
- Class 8 buildings – Laboratory or industrial building
- Class 9 buildings – Public building: health care facility, school, assembly building.

The application of the energy efficiency provisions to alterations to existing buildings will be dealt with similar to the application to the Class 1 to 4 buildings.

What are the provisions?

The new provisions require commercial and public buildings to achieve minimum levels of energy-efficiency through compliance with performance-based or deemed to satisfy provisions. The provisions are designed to reduce the use of artificial heating and cooling, improve the energy performance of lighting, conditioning and ventilation, and reduce energy loss through air leakage. Provisions include:

- **Building fabric** – includes requirements for roof, wall and floor insulation, and area and thermal performance of roof lights.
- **External glazing** – provides a maximum glazing allowance under different circumstances related to climate, orientation of the building, type of glazing and amount of shading.
- **Building sealing** – includes requirements for sealing chimneys and flues, roof lights, external windows and doors, exhaust fans and during construction of roofs, walls and floors. Requirements apply only in certain circumstances.

- **Air movement** – includes requirements intended to increase natural ventilation and reduce the need for mechanical cooling.
- **Air-conditioning and ventilating systems** – requirements for minimum levels of energy-efficiency for heating, ventilation and air conditioning equipment installed.
- **Artificial lighting and power** – requirements limit the illumination density of artificial lighting systems. The maximum limits vary by building type, allowing more lighting for retail spaces, car park entries and health-care examination areas.
- **Access for maintenance** – requires adequate space and access to facilitate maintenance of equipment.

The building fabric, glazing and building sealing measures do not apply to Class 7, 8 and 9b buildings that are not conditioned, i.e. heated or cooled.

What are the benefits?

The energy-efficiency provisions will result in commercial and public buildings that have greater levels of comfort and reduced reliance on artificial heating and cooling. Within the first year of operation, the anticipated environmental benefits of more energy-efficient buildings will include annual savings of around 300,000 tonnes of greenhouse gas emissions. There are also significant non-environmental benefits including financial savings associated with reduced energy use and the reduced size of the air conditioning plant required for more energy-efficient buildings.

Compliance with the BCA

As with any change to the provisions in the BCA their needs to be some practical and appropriate transitional provision that provide for building work that has already been issued with a Building Permit, or has been designed or the design commenced but not completed prior to the adoption of the new BCA provisions. Subsection 55 (4) of the *Building Act 2000* provides for a provision of the BCA to not apply to building work –

- (a) for which a permit has been granted before the provision was adopted by the State; or
- (b) if the building surveyor certifies in writing that substantial progress had been made on the design of the building before the provision was adopted by the State.

The aim of this subsection is to ensure that a designer who develops a building design under the BCA in force at the time is not unreasonably required to redesign at a later stage because of a change in the BCA and thereby create an unreasonable cost burden on the industry.

Compliance with the BCA can be achieved by complying with the deemed-to-satisfy requirements in the BCA or by developing an alternative solution, which demonstrates that the proposal meets the relevant BCA performance requirements.

Further information

The Australian Building Codes Board (ABCB), in conjunction with the Australian Greenhouse Office (AGO) and the Australian Institute of Building Surveyors (AIBS) will be running a one day information seminar and workshop in Hobart on **10 March 2006** at the Hotel Grand Chancellor to provide further information on the new provisions. Information on the seminars is available on the ABCB website www.abcb.gov.au

For further information contact the Workplace Standards Tasmania Helpline 1300 366 322.

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