



Building Newsflash

NEW ENERGY EFFICIENCY STANDARDS FOR HOMES

What is the new energy efficiency standard?

The new national standard on energy efficiency aims to create ecologically sustainable development that meets the needs of Australians today, whilst conserving our environment for the benefit of future generations.

The standard applies to new homes only and to significant additions to existing homes. It takes effect across Queensland from 1 September 2003.

Why do we need a new standard?

Queensland is well-known as the Sunshine State, but with this sunshine comes the increased need for energy efficient housing. By demanding designs that are more energy efficient, we can reduce the need for air-conditioning, thereby reducing the pressure on our electricity networks and lowering the resulting greenhouse gas emissions.

The new standard will bring about a 1.32 million tonne reduction in national greenhouse gas emissions over the next seven years.

The value of the proposed operational energy savings over the coming 30 years is estimated at \$1.2 billion nationally.

What does the new standard involve?

The standard details requirements for insulation, shading, glazing and ventilation. It aims to eliminate some of the practices that have crept into housing design and building over the years. However, it still allows designers and builders flexibility and suitable alternative methods of meeting the standard.

The national standard provides flexibility for house designers and builders by allowing designs to be assessed using computer simulation methods, or assessed against a set of prescriptive 'deemed-to-satisfy' measures. The prescriptive measures are based on four different climate zones in Queensland: the coastal zone north of Mackay, the coastal zone south of Mackay, inland Queensland, and the range areas from Toowoomba to Stanthorpe.

Is the standard the same throughout Australia?

No, the requirements in the standard vary according to the different climate zones around the country. The standard has been slightly modified to better suit Queensland's building practices and to keep costs increases down as much as possible.

For example, it is very costly to insulate single skin concrete block walls. As concrete block is the common form of construction in north Queensland, the standard has been modified to allow certain walls of this construction to not need further insulation. Other forms of wall construction will only need reflective foil insulation and not bulk insulation.

Another modification in Queensland is to remove a concession in the standard for energy efficient hot water systems. This means that energy efficient hot water systems are not considered when a house in Queensland is being assessed for its energy efficient rating.

The reason for this exclusion is that although energy efficient hot water systems can have significant benefits, it is more important for the house itself to be as energy efficient as possible. Hence, in Queensland there is more of an emphasis on insulation, shading, glazing and ventilation. It is considered that these variables have more impact in reducing the long-term need for air-conditioning in the summer and heating in the winter.

What will it mean to the cost of my house?

It is not expected that the cost of new houses will increase significantly as a result of the new energy efficiency requirements. This is because many designers and builders already meet the requirements of the standard and therefore it will have little or no impact for these people and their clients.

For those designers and builders who don't currently ensure houses are energy efficient, they could face cost increases of about 1 per cent. For a \$120,000 new home, this would equate to a cost increase of about \$1200.

However, the cost increases will be more than offset by the benefits. Firstly, the standard will reduce the energy consumption and greenhouse gas emissions of the building sector, which accounts for about 20 percent of Australia's greenhouse gas emissions. Secondly, energy efficient homes will also deliver cost savings to consumers through reduced electricity and gas bills. Making houses more energy efficient will also enable occupiers to enjoy an improved quality of living regardless of the season.

Where to from here?

While the standard is a significant achievement, it is only a first step in making Queensland houses more energy efficient. Over the next year, the Department of Local Government and Planning will continue to work with other departments, the housing industry and the Local Government Association of Queensland to progressively improve the standard to further reduce greenhouse gas emissions.

Over time it is also expected that the climate zones will be refined and climatic differences between areas in the same region will be recognised and further developed in the standard.

Not only will these improvements benefit our environment, but it is also a great advantage for Queensland householders, as houses that meet this standard will need less energy for heating and cooling. There are significant savings to be had, which will save the consumer money in the long term, as well as help reduce impacts on our environment.

Will my builder and architect know about this new standard?

The Department of Local Government and Planning in conjunction with industry has presented a series of workshops on the new standard throughout the state before the standard commenced. The workshops targeted at building certifiers, councils, designers and builders and were supported by the Australian Building Codes Board. The Queensland Master Builders Association and the Housing Industry Association have also presented training workshops and prepared advisory material for builders and other practitioners.

Ongoing information about the standard is also available.

To what does the new energy efficiency standard not apply?

The new national standard on energy efficiency only relates in Queensland to new homes and to significant additions to existing homes. It does not apply to existing homes that are not being added to, minor renovations, other residential, industrial, public or commercial buildings.

How do I get more information about the new standard?

More information about the standard is available on the Department of Local Government and Planning's website:

http://www.dlgp.qld.gov.au/corporate/publications/building_codes/newsflash/2003/pdf/131.pdf

Alternatively, you can call the Department of Local Government and Planning on 07 3237 1714, or email buildingcodes@dlgp.qld.gov.au.

Copies of the standards are currently available and can be purchased on line at <http://www.abcb.gov.au/content/products/>. They are available as part of the Building Code of Australia.

Other links

Environmental Protection Agency

<http://www.epa.qld.gov.au/cgi-bin/w3-mysql/environment/business/development/mysqlwelcome.html?page=main.html>

Queensland Department of Public Works

<http://www.build.qld.gov.au/research/research02.asp>

The Australian Greenhouse Office

<http://www.greenhouse.gov.au/index.html>

Environment Australia

<http://www.ea.gov.au/index.html>