

Homestar v5

The New Zealand Green Building Council (NZGBC) is launching the most ambitious update to Homestar ever. There's a range of changes coming, and for the first time, efforts to slash carbon pollution will be at its heart.

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THE NEW VERSION 5 of the Homestar rating tool comes at a time when it has never been more successful with over 4,000 New Zealand homes registered and certified under the green home rating scheme every year.

Regularly updated

Homestar is regularly updated and improved to make it both more straightforward and more robust. There is a need to raise Homestar standards progressively to make our homes greener and better.

Homestar isn't owned by the Green Building Council, although we oversee and administer it. Homestar is owned collectively, by all of us who want homes in Aotearoa to be greener, healthier, happier places.

With this in mind, an extensive consultation process was launched last year. It was, by some way, the most successful consultation the Green Building Council has ever run with the Homestar team happily swamped with feedback through submissions, presentations and focus group sessions with specific sector representatives.

Embedded carbon credit

Homestar needs to have carbon front and centre and play an important role in the journey



Homestar-rated housing.

PHOTOS - NZGBC

to a zero-carbon Aotearoa, we were told overwhelmingly. That's a key change from earlier versions of Homestar, which did encourage and reward reduced carbon pollution in both operational and embodied emissions but not to the extent in the new version.

This, for instance, has a specific embodied carbon credit and will be more explicitly looking at operational carbon and aligning this with the government's *Building for*

climate change programme. Our aim is that a 7 Star rating will be aligned with the first proposed cap, 8 Star aligned with the second cap and 9 Star aligned with government's final cap. This means project teams can now explore the implications of future Building Code changes.

There's a user-friendly embodied carbon calculator also included that we have developed in partnership with BRANZ.



Homestar will also have its own energy-modelling operational carbon calculator and overheating risk tool, called ECCHO, which stands for Energy and Carbon Calculator for Homes and is based on the Passive House Planning Package.

New categories

The other noticeable update is to the category names within Homestar, which have been changed to reflect the increased focus on outcomes. Out go category names like Density and Resource Efficiency, Management, and Site, and in come Healthy and Comfortable, Efficient, Liveable, and Environmentally Responsible, alongside the Innovation category.

The Healthy and Comfortable category is about improving winter comfort by making homes cosy and better insulated, improving summer comfort by reducing overheating, improving ventilation and making the home drier as well. It is to do with better natural light, decent acoustic performance so you

hear less of your neighbours and they hear less of you and reducing the quantity of unhealthy chemicals used in interior building materials and paints.

The Efficient category includes energy efficiency and water efficiency and encourages smaller homes with higher density to reduce the amount of land area.

A thriving, sustainable lifestyle is the outcome targeted in the Liveable category. The credits here are all about being able to walk to get everything you need, grow your own veggies, feel safe, use sustainable modes of transport and recycle and compost.

The Environmentally Responsible category promotes a home where you generate your own electricity, and stormwater can be managed on site, adding to natural ecological cycles without burdening already stressed council networks. It is one where you can regenerate land with native planting and where the house was built with responsibly sourced building materials with low embodied carbon.

Mandatory minimums

Another change to the new Homestar is in the mandatory minimums. The key areas that have been identified as being so important they must achieve a particular level to hit a Homestar rating aren't new to Homestar, but they have now been expanded and toughened. We want projects to target the core areas of energy and water efficiency, thermal comfort, ventilation, moisture control, health and sustainability of materials and construction waste.

So what does this mean for a 6 Homestar home? What are the actual requirements?

6 Homestar, the minimum standard we say all homes in Aotearoa should achieve, will require, for instance, continuous extract ventilation, maximum water consumption of 165 litres a person each day and a maximum of 8 kg of carbon emissions per square metre for space and water heating and refrigerants, and the home must not exceed 25°C for more than 7% of the year.

For a 10 Homestar home - the highest standard - space heating demand must be less than 15 kWh/m²/yr (equivalent to Passive House), water consumption must be under 90 litres per day for each person, the home must have commissioned balanced mechanical ventilation or balanced ventilation with heat recovery and a maximum of 2 kg of carbon emissions per square metre per year for space and water heating, and the home must not go above 25°C for more than 3% of the year.

Better homes for a healthier future

Right now, New Zealand homes aren't good enough. Far too often, they're cold, mouldy and send our children to hospital. They saddle families with expensive household bills, and they're incompatible with the journey to a zero-carbon nation. The new version of Homestar will, we truly hope, help to tackle all these and build not just better homes but a greener, healthier Aotearoa. ◀