



Influencing energy efficiency regulations to reduce carbon emissions

BRANZ provided research and expertise to help inform changes to the New Zealand Building Code minimum thermal performance requirements (H1). These new H1 requirements are a significant shift in the way buildings are designed and constructed, with the aim of making homes healthier and cheaper to run, and reducing carbon emissions.

Providing expert advice to MBIE, BRANZ research is helping the industry on its journey towards net-zero carbon emissions by 2050. The move to make residential buildings more energy efficient is an important step in preparing the industry for the government's *Building for climate change* programme to come.

BRANZ scientists played a key role in advising MBIE on the risks and benefits of proposed changes to the thermal performance requirements for windows, floors and roofs. Overall, our recommendations were reflected in the new requirements under the Acceptable Solutions and Verification Methods for New Zealand Building Code clause H1 *Energy efficiency*.

Together, these changes to thermal performance requirements are the most significant increase in residential energy efficiency regulations in over a decade. Windows will now have higher thermal efficiency – double what was previously required in some of our coldest climate zones.

For roofs, new guidance in the updated Code allows more accurate calculation of the thermal performance across all six climate zones. This guidance incorporates our scientists' innovative thinking on how to calculate thermal performance while allowing for the limited insulation space in the junction where a ceiling meets a sloping roof.

Floors also play a key role in a building's energy efficiency. A new calculation method will enable the industry to more accurately establish the thermal performance of slab-on-grade concrete flooring systems.

All these improvements in energy efficiency contribute towards new homes being warmer, drier, and healthier. They are also expected to reduce home heating costs by up to 40% in some parts of the country. And, of course, increased energy efficiency of new-build homes means lower carbon emissions from day-to-day living, which is a win for the environment.

READ MORE



BRANZ's submission to the Building Code update 2021 consultation – 31 May 2021.
branz.co.nz/news



H1 Energy efficiency support.
branz.co.nz/energy-efficiency/h1-support
