

For immediate release

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BRANZ delivering low carbon solutions for New Zealand buildings

Low carbon water heating systems and energy performance certificates for homes are two of the solutions BRANZ researchers are investigating to help reduce New Zealand's greenhouse gas emissions.

They are part of an on-going BRANZ research programme which is leading the drive for a successful transition to a zero-carbon built environment.

Programme leader, Dr Casimir MacGregor, says that water heating contributes about 30 percent of a typical household's energy output.

"We're looking at some promising new residential water heating technologies with potentially much lower carbon and energy costs than traditional systems. The results of our work will help homeowners, suppliers, specifiers and developers wanting to reduce their energy and carbon footprint.

"Our study on energy performance certificates (EPCs) is looking at overseas schemes to provide the groundwork for the introduction of EPCs to New Zealand," says Dr MacGregor.

EPCs rate the energy efficiency of buildings by measuring their heating and cooling requirements, and (depending on the scheme) water heating and lighting needs. They allow people to make informed decisions about the properties they buy or rent and they provide building owners with information to improve their properties. They also provide data on the country's building stock which can be used to guide government policy.

Other BRANZ zero-carbon research includes a recently completed carbon budget for New Zealand buildings. A carbon budget is the maximum total quantity of greenhouse gas emissions allowable to meet climate change targets, over a specified timeframe. The results will help guide the industry and provide a baseline for measuring the carbon emissions from buildings.

Around sixteen percent of New Zealand's greenhouse gas emissions come from the built environment - from materials, the construction process and the operation of buildings over lifetimes of more than 50 years.

Dr Chris Litten, BRANZ General Manager Research, says the BRANZ zero-carbon programme supports the government's target of net-zero greenhouse gas emissions by 2050. Dr Litten says the wider building and construction industry, backed up by high quality research, must be at the forefront of change if New Zealand is to meet its international climate change commitments.

BRANZ is engaging with key stakeholders, and collaborating with researchers, government and industry on the national programme of research.

"We believe this work will make a real difference for New Zealand, helping reduce greenhouse gas emissions and delivering a sustainable built environment."

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About the BRANZ *Transition to a Zero-Carbon Built Environment (TZ-CBE)* Research Programme

The TZ-CBE research programme aims to support industry, government and the public so that by 2050 the building and construction industry is delivering net zero-carbon buildings in an affordable way.

Key objectives:

- cost-effective, low carbon solutions developed to decarbonise new and existing dwellings and non-residential buildings by 2030; and
- cost-effective, low carbon solutions routinely implemented to inform design, maintenance and construction of dwellings and non-residential buildings from 2025.

For more information about the programme [click here](#)

About BRANZ

BRANZ is an independent research organisation providing impartial, evidence-based advice to industry and government on critical issues in building and construction in New Zealand.