



Press Release

CONSTRUCTING NEW BUILDINGS COULD PUMP OUT ANNUAL CLIMATE POLLUTION EQUIVALENT TO ONE MILLION CARS: NEW REPORT

Constructing and renovating New Zealand buildings between now and 2050 could pump out climate change pollution equivalent to one million cars on the road every year, a new report has revealed today (19 August).

This figure – around three million tonnes of carbon – only includes what's known as 'embodied carbon'. Embodied carbon refers to the climate change pollution emitted during the manufacture and construction of a building and its materials, and is separate from the carbon emitted during the buildings' operation for heating and lighting.

However the report, written by international sustainability experts thinkstep, and based on publicly available data and information provided by concrete, steel, timber and other sectors, suggests that the construction industry could slash emissions by around 1.2 million tonnes of carbon every year – the equivalent of taking almost 500,000 cars off the road.

The year 2050 is significant as it's the year the New Zealand government is striving to make the country net zero carbon, in line with international agreements to tackle climate change.

The report, called *Under Construction: Hidden emissions and untapped potential of buildings for New Zealand's 2050 zero carbon goal* is the first to explore the impact that constructing new buildings will have on these efforts at the national level.

Commissioned by the not-for-profit Green Building Council, the report will form part of a submission to a Parliamentary Select Committee this afternoon (19 August) on the Government's Zero Carbon Bill.

The just-published findings, combined with [earlier research](#) revealing that New Zealand's built environment is responsible for belching out approximately 20 percent of the country's carbon emissions, strongly suggest that the Climate Change Commission, who will monitor and review climate pollution reduction efforts, should contain a building and construction industry expert, the Green Building Council will say in their select committee appearance this afternoon.

The report found that the "key materials contributing to embodied GHG emissions in New Zealand were found to be steel and concrete, which contribute more than 50% of the carbon footprint of both residential and non-residential construction...A collaborative effort will enable us to achieve or exceed the 40% decarbonisation potential identified in this report."

Andrew Eagles, head of the Green Building Council, said: "The findings of this report clearly show that buildings and construction have to form a key part of New Zealand's efforts to tackle climate change pollution. We simply can't achieve our zero carbon goals without making progress on this hidden pollution.

"There is growing pressure, internationally and here in New Zealand, for construction to be cleaner and less polluting. And this report will surely only increase that pressure.

"We need to construct healthy, efficient buildings, and warm, dry homes, and slash carbon emissions too. And these go hand in hand.

"It's now absolutely essential for the government to take a lead on decarbonising our buildings.

"They can do this in two clear ways. Firstly by ensuring there's a building expert on the Climate Change Commission. Secondly, as the largest and most significant building occupier in Aotearoa the government can clean up their own house, and ensure that all their buildings are climate-friendly, clean and efficient places."

Dr Jeff Vickers, Technical Director at thinkstep ANZ, said: "We all sit in the same boat and we won't achieve New Zealand's net-zero carbon goal by 2050 if we don't collaborate. There are opportunities within each material stream to decarbonise and if everyone does their bit it will add up to something great.

"The cumulative impact of all industries working together would take 460,000 fossil-fuelled cars off the road. Even greater savings are possible if we add 'better design' and strong market demand for low-impact products.

"Supporting local industry to decarbonise will have several positive flow-on effects.

"It will help to address many aspects of the Living Standards Framework, including creating and protecting local jobs, and creating a more resilient society through high-quality buildings that are less dependent on imported products."

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For more information, and a copy of *Under Construction*, and an infographic, contact:

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About the report's authors

Dr Jeff Vickers is Technical Director of thinkstep, based in Auckland. He has more than 10 years' experience in carbon footprinting and life cycle assessment. Jeff has previously calculated the carbon footprint of the European Union's built environment for the European Commission. He holds a PhD in Civil & Environmental Engineering from the University of Auckland.

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About thinkstep ANZ

thinkstep's mission is to enable organisations worldwide to succeed sustainably, by developing strategies, delivering roadmaps and projects, and implementing leading software solutions. We help large organisations such as Fletcher Building, Downer, New Zealand Steel and Lendlease to embed life cycle thinking into the design of building

products, buildings and infrastructure. thinkstep ANZ is headquartered in Wellington and part of the global thinkstep group, with 300 sustainability experts worldwide.

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