

Hi team,

I'd appreciate if you can feed this into the official feedback for the draft Climate Action Plan following my participation in the online workshop last week to provide a bit more information and noting that consultation closes tomorrow.

As the grid decarbonises, embodied carbon is expected to make up 85 per cent of emissions in the built environment by 2050. To reach net zero, Australia must deal with this contributor, which currently makes up 16 per cent of emissions in Australia's built environment. Given Tasmania's grid mix and the amount of building underway across Tasmania, our State proportion is most likely much higher. Therefore it is imperative that embodied carbon be a focus in the Climate Action Plan under mitigation.

There are opportunities within the Tasmania Climate Action Plan to address this 'hidden' emission source, including joining the Materials and Embodied Carbon Leaders Alliance (MECLA) <https://mecla.org.au/>, which is an alliance of more than 140 government bodies, private companies, and research institutions dedicated to unravelling the complexities of the embodied carbon opportunity. Recently MECLA released a synopsis of the best international policies and programs for low emissions building materials (LEBM) implemented in the US, Europe, and the Asia Pacific region. Government policy to cut embodied carbon emissions is a new field and one that Tasmania could enter as a leader. MECLA also provides an international review of policies and program for low emissions building materials research, funded by the federal government Department of Climate Change, Energy, the Environment and Water, that provides best practice ideas and policies for policy makers in Australia to analyse and adapt when addressing embodied carbon.

The University of Tasmania has done significant work in this space over the past four years, with excellent case studies for building projects in both Launceston and Hobart. As Tasmania has one of the lowest carbon intensive electricity grids in the world, the University of Tasmania has determined the most impactful pathway for our contribution to decarbonisation is to reduce the upfront embodied carbon within our building program. Focus on embodied carbon is also playing a role in driving transformative change of the construction industry. We are achieving this through the use of low embodied carbon construction materials in new construction and adaptive reuse of existing buildings, where appropriate, as part of our campus transformation. We have worked extensively with a range of local designers, construction companies and materials suppliers to advance our efforts at having local impact.

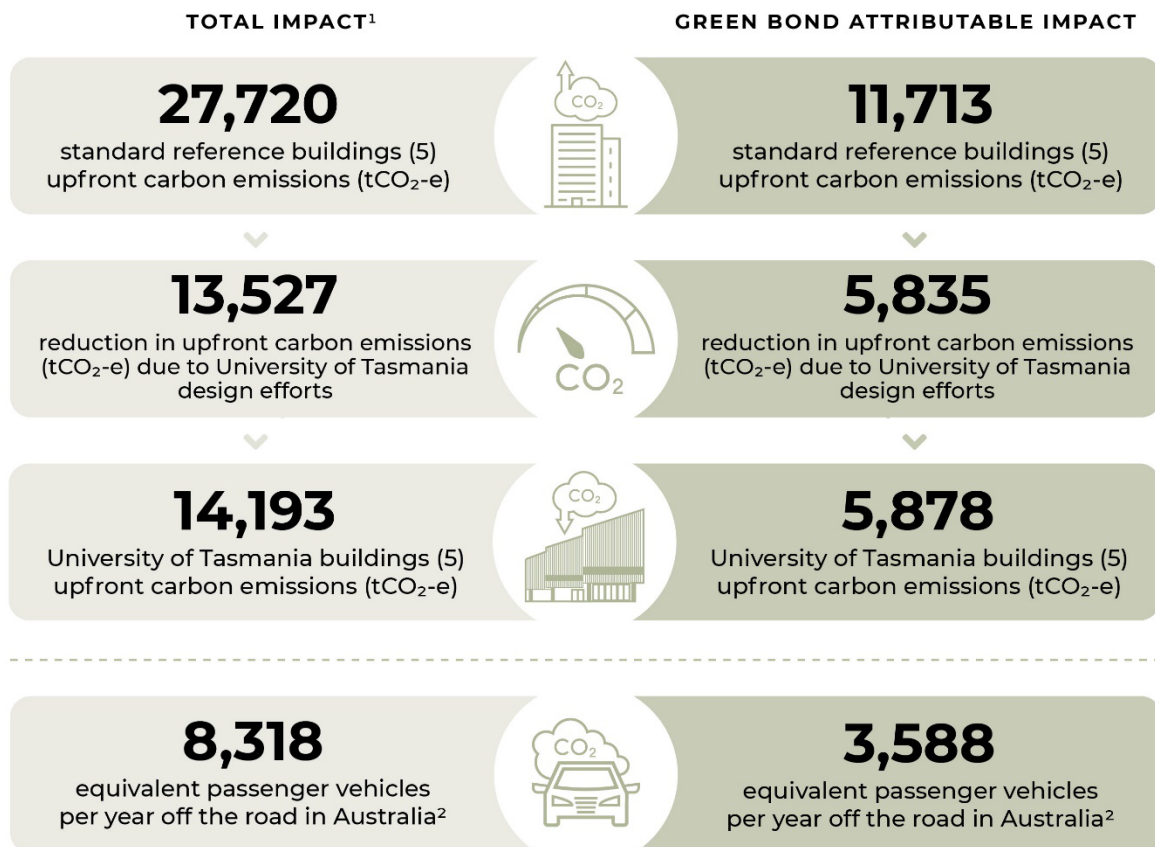
We have a minimum 20% reduction target in our Green Bond Framework and have achieved greater than 32% reduction in new construction and over 60% in refurbishment and reuse projects. Specific numbers for upfront carbon emissions for five buildings are presented in the infographic below.

Specifics about our efforts are available as part of our Green Bond reporting and is available at <https://www.utas.edu.au/sustainability/green-bond>.

Additional information on our Northern Transformation Program at Inveresk is available at <https://www.utas.edu.au/about/campuses/inveresk-transformation>, including around 6.5 km of surplus gas pipelines repurposed into more than 366, 18-metre length piles for the building foundations, while low carbon concrete, water-efficient fittings, a high-performance insulating façade system, and maximised daylight coupled with sensor-driven lighting to reduce energy consumption have been included. Tasmanian timber is also used extensively throughout both the structure and internal finishes, lowering the carbon footprint of each build because of low emissions associated with its production and sequestering of carbon. Our circular economy focus is also on display with multi-waste stream bins incorporated into each new building at key entry spaces to gather and sort waste, food organics, and recyclables with interactive monitoring and display for

users to help reduce contamination. The building designs also focussed on ‘deconstructability’ for the re-use of materials in the future when buildings are decommissioned or refurbished, such as carpets throughout being recycled and recyclable.

Upfront carbon emissions reduction under the Green Bond Framework



¹ Total impact includes eligible Northern Transformation campus buildings, which are co-funded by the Australian Federal Government, Tasmanian State Government and the University of Tasmania.

² The average annual emissions from a car is calculated to be 1.63 tonnes of tCO₂-e. This is calculated from the National Transport Commission of CO₂ emissions for a new passenger cars and light SUVs vehicle sold in Australia in 2022, and the average kilometres travelled by a passenger vehicle for the 12 months ending 30 June 2020 by the Australian Bureau of Statistics.

Thank you for your consideration of this submission. I am happy to discuss or provide more information.

Regards,
Corey

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