

White roofs to make for cooler Melbourne buildings

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The research assesses the benefits of white roofs and aims to help residential, commercial and industrial building owners determine if white roofs are suitable for their buildings and guide them through the best materials to use.

Lord Mayor Robert Doyle said Council had already put the research into practice by trialling a white roof on its ArtPlay building.

"There has been a lot of talk about the [energy consumption](#) benefits of white roofs and we commissioned the University of Melbourne to undertake this research so we could get a local perspective on how white roofs can work in our city," the Lord Mayor said.

Councillor Cathy Oke, Chair of the Future Melbourne (Eco-City) Committee said commercial buildings in the City of Melbourne would benefit most from this tool.

"White roofs can cool commercial buildings by three per cent on hot days, which helps reduce the [urban heat island](#) effect and improve the health of city users," Cr Oke said.

Dr Dominique Hes, a senior lecturer at the University of Melbourne in [sustainable architecture](#) and lead author of the research explained that when painted white, roofs are able to reflect heat away from the building rather than absorbing it.

"Reflective white paint on commercial building roofs reduces the energy used to cool the building. Melbourne's CBD has over 3,500,000m² of lettable commercial space. If the roofs of these buildings were painted white, the city could in theory reduce its CO₂ emissions by 4.5 million MJ per year, 1.5 million kilos of CO₂ or 3 million black balloons," Dr Hes said.

"White roofs are a low cost solution in making buildings more sustainable, particularly for our older buildings. And if our air conditioners are not working as hard, there are financial benefits for buildings owners as well."

The research monitored the temperatures of five test buildings at the University of Melbourne's Burnley Campus for their performance with and without white coatings. The buildings with [white roofs](#) experienced significantly cooler temperatures, both on the exterior and interior.

To access information about white roof benefits and available products, visit www.1200buildings.com.au or talk to your local paint provider.

Provided by University of Melbourne

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