

# Sustainable and eco-friendly housing

Advertising feature

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## Rating exceeds expectations

**A** New South Wales development called Eco-Challenge is being lauded for its up to 8-star rating in thermal comfort.

Four families and four architects were challenged to create the most sustainable new houses that they possibly could, on a block of land in Strickland Street, Rose Bay.

Australian Living acted as the project manager and consultant bringing the families, architects, consultants and suppliers together to ensure that everyone was on the same sustainable page.

One of the four homes managed to achieve an 8-star thermal rating (the others were six and seven) — way above that set by the NSW Government. Australian Living director Cameron Rosen said government regulations were lagging well behind industry initiatives, but even this home had exceeded everyone's expectations.

"Designed by Caroline Pidcock,

intelligent passive design was a key element," Mr Rosen said. "Another key element was the fact that each room was assessed individually for thermal comfort by independent assessor Graham Hunt."

The home contains a prefabricated walling system filled with green concrete and used as a thermal mass — which was then positioned and protected with insulation as required to achieve thermal comfort levels. No bricks were used in the home's construction.

A three-kilowatt solar PV system has been installed on the roof to provide 90 per cent of the power required and, if operated correctly, should result in power going back into the main grid.

The house does not need air conditioning or artificial heating because it has been designed to sit between 18 and 23 degrees year round.

Double glazing was used where required to comply with the thermal



Architect drawings of the Rose Bay home which was given an 8-star thermal rating.

comfort assessment. Timber was used instead of aluminium for window frames because it prevents thermal conductivity.

Three water tanks have been installed and grey water used to feed lawn and plants selected to handle the phosphoric element.

Where timber was required, only certified plantation timber was used. Even the supporting columns around the internal courtyard are from recycled timber — a former Coffs Harbour truss bridge that has been dismantled.

Mr Rosen, a builder of 15 years,

established Australian Living 18 months ago as a sustainable home project management and consultancy firm. He believes the building industry can do a lot more to improve energy efficiency in housing.

"This project is a good model for others to follow," he said.