Sustainable House
Sandringham
VIC 3191
Completed 2006

Case Study
Sustainable House

uPVC Windows ALLIANCE
AN INITIATIVE OF VINYL COUNCIL OF AUSTRALIA

Project Type:
Single house, new build project

Window Styles:
Awning, Sliding

Window Quantity:
20+ units

Window Colour:
White

Winner of a Bayside Council Sustainable Design title in 2006, and a National HIA Greensmart award in 2008, this attractive, contemporary home was designed by its owners, in conjunction with Solar Solutions Design. Their brief was simple, create a home that takes advantage of active and passive energy savings in an urban environment.

Combining common building materials, including energy-efficient uPVC windows with double glazing, with energy-efficient design principles has delivered a comfortable family home all year round.

Wide eaves shade the windows in summer but allow the winter sun to warm the dark tiles over the concrete-slab floor minimising heating bills in winter and cooling bills in summer.

Insulation and attention to minimising gaps, including using expandable foam around the uPVC window frames, and an airlock and door at the foot of the stairs, means that additional heating and cooling is required only in times of extreme temperature. An air circulator maintains fresh air when the house is sealed.

Architect:

Solar Solutions

Potter House

The comfort of the internal environment is maintained through smart construction that includes insulation to minimise heat gain/loss through ceilings and external walls and windows.

uPVC frames were selected because of their inherently low thermal conductance and low maintenance requirements.

Other sustainability features include, a 330litre solar hot-water system, a 1,600 Watt solar energy system and utilisation of harvested rainwater for all non-potable water usage.

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