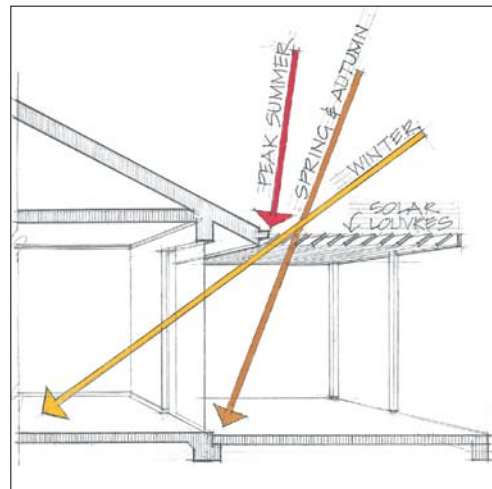




Achieve more savings by:

- Closing curtains or blinds inside the house to keep the summer sun out (opening them to let winter sun in).
- Replacing paving with a waterwise garden bed – plants provide natural air conditioning.
- Installing or upgrading roof insulation.

For more information on efficient home comfort go to www.yourhome.gov.au and look at the 'Technical manual', or call the Sustainable Energy Development Office Energy Smart Line on 1300 658 158.



Eaves protect north facing windows from the summer sun. A solar pergola can add shade for tall windows and paved areas.

How to shade your windows from the summer sun



TANYA HA, an expert in environmental living and the author of *Greeniology* and *The Australian Green Consumer Guide* provides advice on energy saving in your home.



JOSH BYRNE sustainable gardening specialist and popular media personality provides advice on energy saving in your home.

WHAT CAN I DO?

The sun is the main source of heat gain in your home. When the sun shines through windows, it has the same heating effect as a one bar electric heater for every square metre of window! This is good in winter, but a big problem in summer. Shading windows from the outside is the most effective way of preventing unwanted heat gain, an uncomfortable house and high air conditioning costs in the summer. Smart shading can let the winter sun in and keep the summer sun out.

WHY?

An unshaded window can increase room temperatures by 3°C. Closing curtains or blinds inside the house will help, but external shading is more than twice as effective. Around a quarter of the energy used in most WA households is on heating and cooling. This can cost you more than \$200 each year and generate one and half tonnes of greenhouse gases.

Shade 10m² of east/west facing windows and save (each year)



Based on *The Green Gardener* by Josh Byrne, illustration by John Burgess, based on a sketch by Josh Byrne © Penguin Group (Australia). The Living Smart brand has been developed by The Meeting Place Community Centre, the City of Fremantle, Murdoch University and Southern Metropolitan Regional Council to support a suite of programs developing capacity in community sustainability. Published by the Department for Planning and Infrastructure, Perth, Western Australia. February 2008. The information provided in this brochure is provided in good faith. However the accuracy or appropriateness of the information is not guaranteed



PRINTED ON RECYCLED PAPER



Department of Environment and Conservation
Department for Planning and Infrastructure



Exterior blinds or shade cloth can reduce heat gain by the equivalent of a 1 bar electric heater (per m²)

HOW DO I DO IT?

Shading windows to the east or west

Windows located in the east and west walls of your home are often the biggest problem because the morning and evening sun is low and cannot be blocked out by the eaves of the house. Shading for east or west windows needs to be low over the window and removable in the winter (to let the heat in). Simple shading options are:

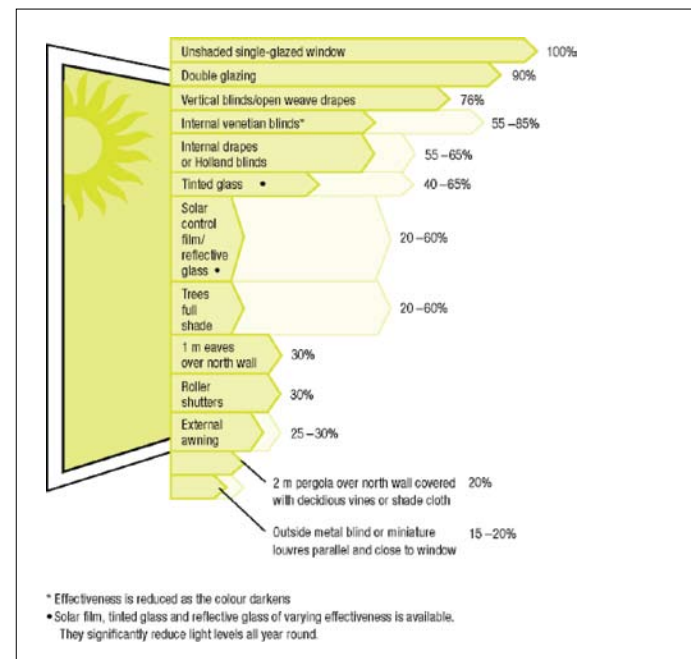
- Install an awning blind which pulls down over the window – these are available from major hardware stores for between \$100 and \$400 (for DIY installation) depending on size, and come in a variety of colours. They cut out about 70% of the heat and can easily be lifted up to enjoy natural light when the sun is off the window.
- Roller shutters can be professionally installed for between \$600 and \$900, providing insulation and noise control as well as shading – look in the Yellow Pages under ‘Window Roller Shutters’.

- Apply window tinting – this will cost around \$200 per square meter of window and will cut the heat by 50%, but reduces the light all year round.
- Grow a small tree, large shrub or a pergola with a vine outside of the window. Deciduous varieties will drop their leaves to let in the winter sun. Planting can cut 60% of the summer heat from a window, but requires plenty of garden space.
- Simply hanging shade cloth from the outside of the window frame or eaves is an effective and low cost solution.

Shading windows to the north

Most houses have eaves to shade windows to the north from the high summer sun. The lower winter sun can come in under the eaves to warm the house. More sophisticated solar-passive homes often have solar pergolas to shade the windows and alfresco areas to the north without cutting out winter warmth (the pergolas have angled slats to let in the winter sun). For north windows:

- Add fixed awnings where there are no eaves.
- Add shade sails to protect paved areas from the summer sun (paving heats up and continues to transfer heat to the house at night).



Source: Sustainable Energy Authority Victoria. External shading is the most efficient way of reducing unwanted heat gain.