



Working Together

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## *Retrofitting your home for lower energy use*

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The South Australian Murray-Darling Basin Natural Resources Management (SA MDB NRM) Board is working towards creating a clean and healthy atmosphere with effective adaptation to climate change. Retrofitting existing buildings with energy efficient features is an effective way of making homes more environmentally sustainable. For more information on being energy efficient visit the Department for Transport, Energy and Infrastructure website: [www.energy.sa.gov.au](http://www.energy.sa.gov.au).

### GETTING STARTED

Deciding to make your home more energy efficient need not be expensive. Start with low cost measures and take gradual steps to creating a sustainable home.

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### REDUCE THE COST OF HEATING OR COOLING YOUR HOME

**Stop draughts and seal leaks:** Reduce draughts by plugging all gaps around door frames. Easy to install draught strips are available from hardware stores.

**Insulation:** Walls and ceilings require insulation. Some building materials provide this insulation, but in most cases will need to be supplemented by foil or insulation batts. Insulation batts are easily installed between timbers in the roof space, but retrofitting walls is more difficult. Talk to a tradesman about what best suits your home.

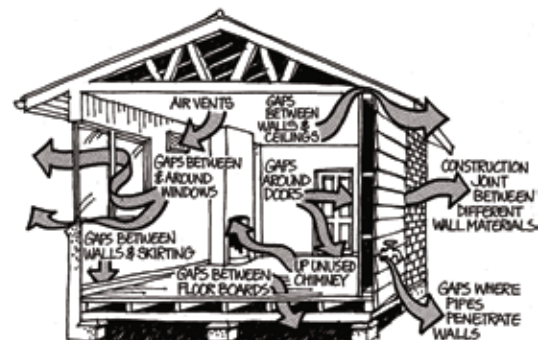
**Window treatments:** Heavy, full length curtains can both prevent heat entering a room during summer and heat escaping during winter.

**External Shading:** Northern and western facing windows should be covered with blinds, shutters or deciduous trees or vines. Deciduous trees drop their leaves in autumn to allow sun into a room during the cooler months, but shade the room in summer.



### MORE INFORMATION

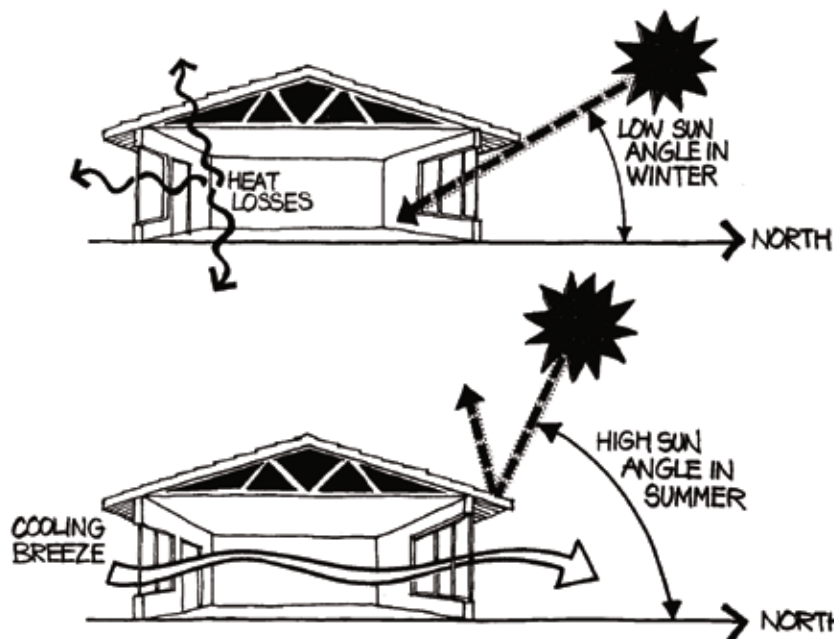
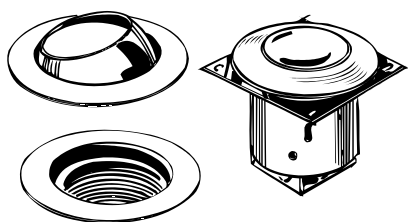
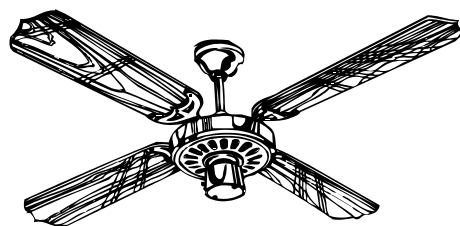
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Gaps in housing leading to higher energy costs.

**Cooling:** Using a fan rather than turning on air conditioning or tolerating higher temperatures can create significant power savings. Refrigerated air conditioners use power even when turned off by the remote control with some units drawing as much as 30 watts to remain on standby. When not in use, turn the air conditioner off at the wall to create a power saving. Cooling strategies can also be designed into your home to eliminate the need for an air conditioner.

**Heating:** Space heating has a big impact on energy use with blow heaters drawing up to 2400 watts. Winter heating costs can be reduced by wearing warmer clothes and tolerating temperatures down to 19°C before turning on an appliance or lighting a fire.



Maximise the benefits of the elements – housing orientation and window eaves design.

## OTHER WAYS OF IMPROVING ENERGY EFFICIENCY

**Lighting:** Replace incandescent globes with compact fluorescent (CF) globes. CF globes produce the same amount of light but use one fifth of the electricity. CF globes send out light from the sides of the tube so the curly designs are better for ceiling applications. Halogen downlights use a lot of power, so replacing the existing 50 watt globes with 35 watt units will result in the generation of 90% of light using 70% of the power. If renovating, consider replacing halogen globes with 11 watt CF units or 6 watt LED units.

**Skylights:** Strategically placed skylights let light in to illuminate darker parts of your house. In summer consider covering them to limit sun entering the room or enquire about newer styles that let in less heat.

**Refrigerators:** Choose a refrigerator that is a suitable size for your everyday use as it is potentially the highest user of energy because it is on constantly. Position the fridge carefully to allow air circulation and place it away from heat sources.

**Pool Pumps:** Consider putting pool pumps on a timer that switches off for a few hours everyday, especially over winter when the pool is less frequently used.

**Appliances:** All major appliances for sale in Australia are marked with a star rating noting the expected annual power use. The lower the power use the higher the number of stars. Behaviours such as turning off appliances when not in use can also reduce home energy consumption.

**Grid Return Solar Power:** Photovoltaic panels on your roof can generate electricity and provide a rebate when the amount of power generated exceeds the amount used. Government subsidies have made this option more affordable in recent years.

**Council Kits:** Some local councils and town libraries have a Home Energy Tool Kit. The pack contains an easy to read manual and all the necessary features for measuring temperature and power use.

**Note:** Building work needs to comply with state and federal regulations. Tradesmen can often provide information on new products that can help you achieve a higher efficiency.

Use of the information and data contained is at your sole risk. Graph, house air flow and eaves overhang images courtesy of Department of Transport, Energy & Infrastructure.