

73 per cent of Australian homes now have an air conditioner or evaporative cooler and most of us reach straight for the remote control on hot or even warm days. Air conditioners can be expensive to run and our energy distributors have to build additional infrastructure to cope with the few hot afternoons each year we all run our air conditioners. Here are a few ideas to beat the heat, so you can be comfortable at home or the office and still have reasonable electricity bills.

1. Dress for the weather and look after yourself.

Melbourne is renowned for its “four seasons in one day”, so dressing with layers enables comfort whatever the day may bring. Light-weight cotton breathes and light colours will reflect some heat. A small scarf or face washer wrapped around a small ice pack and placed on the back of the neck is great for instant relief.

Drink plenty of cool water and take rest breaks if you are active on a hot day.

If the day is expected to be really hot, consider a day out at a shopping centre or go to the movies.

2. Keep the heat out of your home.

It is more comfortable and cost-effective to prevent heat from entering a home than to cool it after it becomes hot. The two most effective ways to reduce the amount of heat entering a house are:

- (i) To insulate, particularly the roof, but also walls exposed to direct sun. Most ceilings and some walls can be retrofitted for insulation. There are several new foam board products available for flat roofs and a wool mix product can be blown into weatherboard structures.
- (ii) To shade windows from the outside. Untreated, single glazing offers very little resistance to heat flow. Having the hot summer sun hitting a small window can be roughly equivalent to having a radiator on in the room! Typically north-facing windows can be managed with a horizontal shade structure, whereas east- and west-facing windows will need a vertical shading device. An external awning or blind will reduce the amount of heat coming through the glass by up to 80%, compared to an internal window covering which will only reduce the heat by up to 20% and once it's in the room, you need to find a way to remove it! Trees, vines and shrubs can help shade windows, but these also need to be balanced with the bushfire risk. Window films and coatings are becoming more sophisticated and some can improve window performance dramatically. Look for a product that has been rated under the Window Energy Rating Scheme (WERS) that is suitable for your situation [WERS For Film - Residential](#). You should be looking for a product that has a relatively low U-value and a high SHGC.

3. Removing heat from your home.

Heat will always move to cooler areas (through walls, doors and windows) and rises (upstairs or into the roof space). Put your hand up towards the ceiling and you will probably feel it is much warmer than floor level. You can use this to your advantage.

Melbourne has a good diurnal temperature range in that most of the time our nights are much cooler than our days. Invest \$12-15 in an inside/outside thermometer that will show you when the temperature outside is lower than inside. This is the time to open the windows to allow cool breezes through the house.

In two storey homes or those with clerestory windows, high windows can be opened to create a thermal chimney. Heat will rise, move out through the window and draw cooler air throughout the house. This will work even on very hot days, but you might need to experiment with which windows work best in your home.

Extractor fans mounted on the roof will mainly help reduce the temperature in the roof cavity which will have a small effect on the temperature inside the house. If you decide to install one of these, ensure it is able to be sealed off in winter to help keep the house warm.

4. Cooling.

If you need some cooling, the cheapest method is to use a pedestal or ceiling fan. A fan works by helping to evaporate sweat from the skin, so we feel cooler rather than reducing the temperature of the room. A little spray bottle with water can be used to create a mist that will enhance the effect.

Evaporative cooling is the next most cost-effective way to cool. The main cost is to run the fan motor. This type of cooler also uses some water, so if it runs for many hours each day, you will see a slight increase in the water bill.

Air conditioning is the most expensive way to cool a home. New air conditioners must have an energy rating, so choose a model that has a high rating and it will save on running costs over its entire life. Make sure the unit is the right size for the space you want to cool. Ideally the thermostat should be set to 23-27 degrees. Each degree cooler will increase the running cost by around 10%.

Compare the costs:

Type of Cooling	Power	Hourly Running Cost*	Cost Over Summer*
Pedestal or ceiling fan	30 – 75 Watts	1 – 2 cents	\$0.68 - \$1.70
Evaporative cooler	800 Watts	23 cents	\$18.17
Air conditioner	1500 – 3000 Watts*	43 – 85 cents	\$34.08 - \$68.16

*Based upon a cost of 28.4 cents/kWh and for 80 hours over summer. Air conditioners vary in size and this is a relatively small unit. Larger units will cost more to run.

5. Don't forget your pets.

Keep animals inside in a cool environment on really hot days and long haired animals should be clipped.

Provide a shady area and lots of cold water (you can place a really large ice block in the bowl before you leave for work). You can try freezing a small piece of food or a treat inside an iceblock and let your animal chew on it to keep cool.

Some dogs love water and will happily play in a shallow pool. Make sure it's placed in the shade. Our native birds will also appreciate a bowl or two of fresh water on really hot days. Make sure it is placed up and out of reach of other animals.

Further information is available from Council's Sustainability Officer on 9433 3211.