

# actsmart<sup>®</sup>

## staying cool on less energy

With energy prices and summer temperatures on the rise, Canberrans are looking for ways to keep cool while minimising energy costs.

This factsheet provides handy tips to help you along. It covers shading, ventilation, generating less heat, improving your insulation and the pros and cons of different cooling appliances.



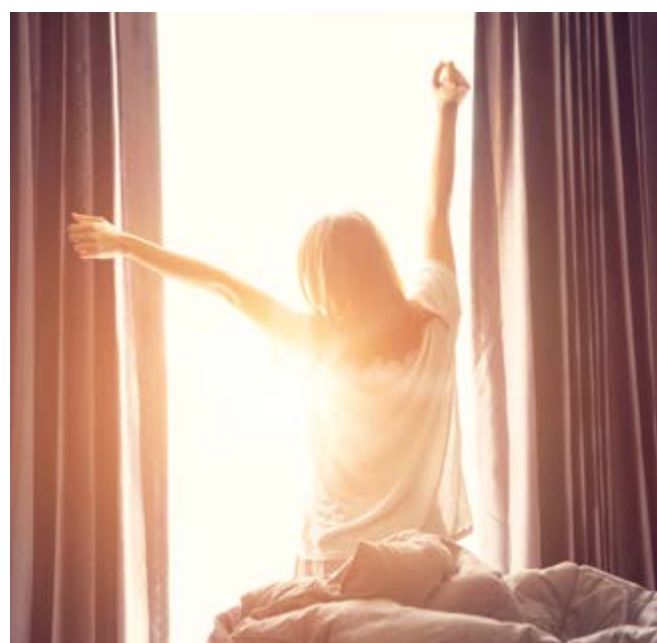
**TIP:**

The average Canberra household spends 30 times more on energy to heat their home each year than cooling it. It's therefore important to make sure that changes you make to be cooler in summer don't increase your winter energy bills.



## Shade your home

- ✓ Prevent the sun's rays from hitting your windows in summer. Up to 60 per cent of heat gain can be through your windows and glass doors. Good blinds and curtains on the inside makes a difference but keeping the sun off your windows with external shading is 4 to 5 times more effective.
- ✓ Install adjustable awnings, external blinds or shade sails that block summer sun, but allow winter sun in. East and West-facing windows usually need vertical shading because of the sun's low angle in mornings and late afternoons.
- ✓ Think carefully before installing permanent reflective or tinting films on windows. Depending on window orientation, these films might also block out valuable winter sun.
- ✓ Plant deciduous trees and vines that shade your home in summer but allow sunshine to flood in during winter. Leafy plants (and moist soil) also release water vapour into the air during hot weather which provides a cooling effect as it evaporates.
- ✓ Shade concrete or paving around your home, like driveways and patios, to keep them cool.



## Air your home

- ✓ Open windows on both sides of your house to let the cooler evening air flow through.
- ✓ Place a fan near an open window and turn exhaust fans on during still nights to draw cool air inside.
- ✓ Close doors, windows, curtains and blinds early in the morning to trap cold air in and keep hot air out.
- ✓ Draught proof your home so air can't flow in and out when you don't want it to.

## Generate less heat inside

- ✓ Put off jobs that create heat, like cooking and ironing until a cooler time of day.
- ✓ Barbecue outside or prepare meals that don't require cooking.



## Improve your insulation

- ✓ Install insulation. This could halve your heating and cooling costs. Insulation slows the transfer of heat between inside and outside. The temperature inside your home is therefore less affected by the outside temperature, and any cold air you put into your home will be trapped for longer.
- ✓ Cover your windows with heavy drapes, insulating blinds, and pelmets to slow heat transfer from outside.

## Minimise cooling appliance running costs

With increasing maximum and average summer temperatures due to climate change, more Canberrans are using cooling appliances. In addition to the tips above, minimise 'active' cooling running costs by:

- ✓ Using fans as your first choice. They don't change the temperature of the room, but the air passing across your skin makes you feel up to 4 degrees cooler.
- ✓ Cooling the smallest spaces possible when using air-conditioning.
- ✓ Closing doors to rooms that don't need cooling.
- ✓ Cooling to the warmest temperature that's still comfortable. We recommend between 25 and 27 degrees. If that's too warm, try using a fan as well.

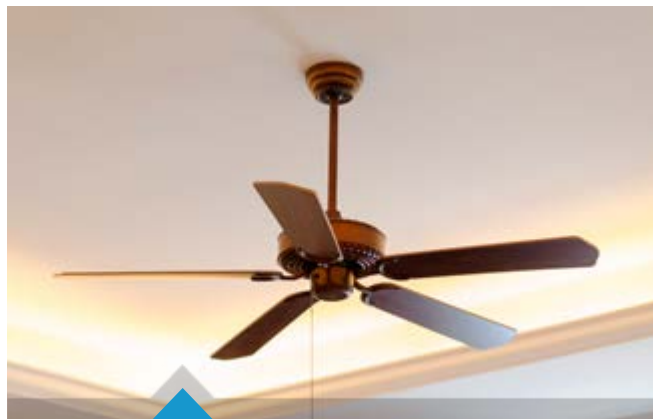
### TIP

Every degree you reduce the temperature adds about 10% to your air-conditioner's running costs.

## Cooling appliances—pros and cons

### Fans (ceiling or portable)

- ✓ Fans are cheap to run. They cost between 1 and 3 cents an hour.
- ✓ Ceiling fans with large blades move more air and are effective even at low speeds, which means they're quieter through the night.
- ✓ Fans help to bring cooler evening air into your home.



### TIP:

If you implement the strategies in this factsheet you may find you can live comfortably just using fans on all but the hottest days of the year.

## Evaporative air-conditioners

- ✓ Portable units (suitable for one or two rooms) cost between 2 and 5 cents an hour to run.
- ✓ Ducted systems cost around 20 cents an hour to cool a house.
- ✓ Evaporative air-conditions are reasonably effective for cooling in Canberra's hot, dry climate, but are less effective when it's humid.
- ✓ They work by sucking hot air through a wet sponge-like pad, blowing moist air into your home. As this moisture evaporates it has a cooling effect.
- ✓ A major downside is that each outlet vent requires a gap in ceiling insulation, and outlet vents are often poorly sealed. This causes significant heat loss in winter.
- ✓ Another downside is that these systems only cool, whereas reverse-cycle systems heat and cool meaning you only need one system.

### DID YOU KNOW?

For evaporative air-conditioners to work you need to open some windows or external doors. This allows hot air in and negates the benefits of draught proofing and insulation. It also limits the system's effectiveness in extreme heat.



**TIP:**

Heating with reverse-cycle air-conditioning instead of another heater type will usually save many times more than it will cost to use for cooling your home in summer.

**Reverse-cycle air-conditioners**

- ✓ Usually more expensive to run than evaporative air-conditioners, but are the most efficient form of space heating for winter (2 to 6 times cheaper than other heating types) so are the best system overall.
- ✓ Can be ducted or wall-mounted single units (known as split systems).
- ✓ Split systems cost between 15 and 50 cents an hour to run, depending on their size, efficiency and temperature setting.
- ✓ Ducted systems that cool a whole house generally cost more than \$1 an hour to run.
- ✓ Very effective because they can cool to very low temperatures if the room or house is well sealed (draught proofed) and the system is the right size.

**Portable air-conditioners**

- ✓ Cost around 25 cents an hour to run.
- ✓ Make you feel cool when you're sitting in front of them, but they often make the house warmer overall.
- ✓ Double ducted systems are more efficient and effective than single ducted systems.

**Other resources**

Draught proofing factsheet

**For more ideas, tips and information  
visit: [actsmart.act.gov.au](http://actsmart.act.gov.au)  
email: [actsmart@act.gov.au](mailto:actsmart@act.gov.au)  
or call: 13 22 81**

Some work in the ACT must only be carried out by a licensed person. For more information on licensing, technical standards and other regulations that may apply, visit [www.environment.act.gov.au](http://www.environment.act.gov.au).  
Produced by Environment, Planning and Sustainable Development Directorate.