



6. Space heating options

Space heating units, especially in southern states, use a significant amount of power. However, the efficiency of new heating options is improving all the time.

If you have old equipment that is reaching the end of its useful life, you may be able to pay for the cost of its replacement with the ongoing savings in energy consumption in a reasonable period of time.

If you are considering new heating or cooling appliances, if possible, combine them with improved insulation, draught sealing and keeping the doors and windows closed to reduce the energy required to heat or cool the space. Isolate only the rooms needing heating or cooling.



CHECK POINTS

- ▶ Ask a reputable technician for advice, especially for larger systems.
- ▶ Check the star ratings before buying heating appliances.
- ▶ Check if replacing a gas system if you would be better off with an electrical system.
- ▶ Close doors, close vents and isolate rooms that do not need heating.
- ▶ Put up signs that recommend the most efficient heating settings or set these on auto
- ▶ Insulate, seal gaps and draw curtains for greater efficiency.

A look at the options

The most efficient devices for space heating are reverse cycle air conditioners, run on electricity. The 'co-efficient of performance' or 'CoP' is the main indicator of appliance efficiency. A CoP tells you how much end-use energy is created from one unit of energy input.

Reverse cycle air conditioners

Reverse cycle air conditioners are reaching CoPs of over 5.0 – which means for every one unit of electrical energy consumed by the unit, five units of heat are created. This compares with electric radiant heaters with a CoP of 1.0 or gas-based heating systems, which have CoPs of less than 1.0.

Reverse cycle air conditioners have the added bonus of being able to provide cooling in summer. They are limited though in the size of room they can heat or cool and generally work well for small to medium rooms.

In very large open plan spaces, you may require too many units in order to heat and cool the space adequately. Check with an air conditioning specialist for appropriate sizes and configurations.

Gas heating units

A lot of space heating in Australia is done using gas heating units – typically ducted or wall mounted. These units are quite effective and can last a very long time – provided they are working well and do not need constant maintenance; there is generally no need to replace it.

Space heating

Space heating can be complex and it is always worth engaging a technical specialist who understands technology choices and their impact on energy bills.

Consider the costs

When choosing a heating system, allow for both the purchase cost and the running costs. To calculate your running costs, you need to know what your energy costs are. Check the tariff amounts listed on your gas and electricity bills. Then multiply your tariff amount by the likely amount of energy your new appliance will use each year over its lifetime (at least 10 years).

Quick tips

Turn it off

Don't leave heating / cooling appliances on overnight, when out or when on holiday.



Use a timer

If you must have the building comfortable in very cold areas when you arrive home or for early classes at a centre, set a timer to turn your system on about 15 minutes before you return or start the work day.

Monitor use

Each degree of extra heating in winter (or

cooling in summer) will increase energy consumption by about 5–10 per cent. Set the thermostat to 18°–20°C in winter and 24°–26°C in summer.

Dress right

Encourage everyone to dress appropriately for the weather. Putting on warmer clothing is better than turning the heater up.

Schedule maintenance

Maintain your heater. Keep reflectors shiny and free of dust. Clean air filters regularly. Service all heaters according to the manufacturer's instructions. Write dates into diaries ahead of time.

Contain heat

Close windows and doors in areas where a heater or air conditioner is on unless ventilation is required for unflued gas appliances. Put up clear signs about this.

Close curtains or blinds, especially in the evening when you are heating. Use closely woven, thick curtains and pelmets.

Further resources

Check out A Greenhouse Around the Corner website:

www.agreenhouse.net.au/helpful-resources

Related fact sheets

Fact sheet 3: Economics of energy efficiency

Fact sheet 4: Draught sealing

Fact sheet 5: Installing insulation

Fact sheet 12: Window treatments for energy efficiency

For more fact sheets, go to A Greenhouse Around the Corner website:

www.agreenhouse.net.au/fact-sheets