Cooling and heating your home

There are environmentally friendly ways you can cool or heat your home that will improve your comfort and reduce your energy bills. Before looking at fans, air conditioners, and heaters consider other options, such as insulation and passive design.

Insulation

Insulating your walls, floor and ceiling is a passive design principle that will help to keep your home cool in summer and warm in winter. Passive design principles are ways of designing your home to avoid or reduce the need for mechanical cooling or heating. For more information on insulation and its benefits, view the insulation fact sheet..

Cooling your home using passive design

As well as wall, floor and ceiling insulation, there are other passive-design principles that you can use to help cool your home, such as ventilating roof space and using window tinting and coverings.

Tips

- if you insulate your ceiling, ensure your roof cavity is ventilated to allow warm air to escape
- shade windows from the sun
- create cross ventilation in your home to increase your comfort in summer
- open windows and doors to let in breezes
- consider louvred windows to increase ventilation through your home

Heating your home using passive design

As well as wall, floor and ceiling insulation, there are other passive-design ideas that you can use to help warm your home, such as sealing off draughts, letting in the winter sun and drawing curtains at night. In Brisbane, you may only need mechanical heating for a short time during winter. Before buying a heater, consider the following questions:

- does the room need to be heated or will eliminating cold draughts and improving insulation be enough?
- how many rooms need to be heated?
- how big are the rooms?
- how often and for how long will your home need heating?

Fans, air conditioners and heaters

Cooling tips

- if you decide to use mechanical cooling, fans are inexpensive alternative to air conditioners
- don’t leave cooling appliances on in areas you're not using or while you’re out
- place thermostats in the most used rooms, away from sources of heat and cold
- ideal summer thermostat temperatures are between 25 °C and 27 °C — each degree of extra cooling in summer increases energy consumption by about 5% to 10%
- install ceiling fans and vents
- insulate your home before installing an air conditioner
- close windows and doors when using an air conditioner
- increase the size of awnings for better shading (greater than 700 mm)
- install heavy curtains or blinds to reduce cooling costs
- open doors and windows for ventilation and natural light; close blinds and curtains to shut out the western sun
- install insulated skylights to let in natural light — this also benefits indoor plants

Heating tips

If you decide to use mechanical heating, think about buying a gas heater or reverse cycle air conditioner. Gas heaters produce one third of the amount of greenhouse emissions that standard electric heaters release. Gas heaters and air conditioners have energy labels to help you choose the most efficient model. Wood heaters aren’t recommended due to the wood smoke air pollutants that they produce. If you like the look of wood heaters, consider a gas imitation wood heater or gas fireplace.

- don’t leave heating appliances on in areas you’re not using or while you’re out

- place thermostats in the most used rooms, away from sources of heat and cold
- ideal winter thermostat temperatures are between 18°C and 20°C — each degree of extra heating increases energy consumption by about 5% to 10%
- gas heaters should be flued to the outside to remove indoor air pollutants that can contribute to health problems
- if you have a wood heater, make sure you clean and maintain your chimney regularly to reduce air pollution
- install heavy curtains or blinds to reduce heating bills
- install insulated skylights to let in natural light – this also benefits indoor plants
- in winter, seal off draughts and close curtains to stop heat being lost through windows
- let the winter sun in during the day