

Winter heating guide

2014

How to stay warm and comfortable in your home this winter

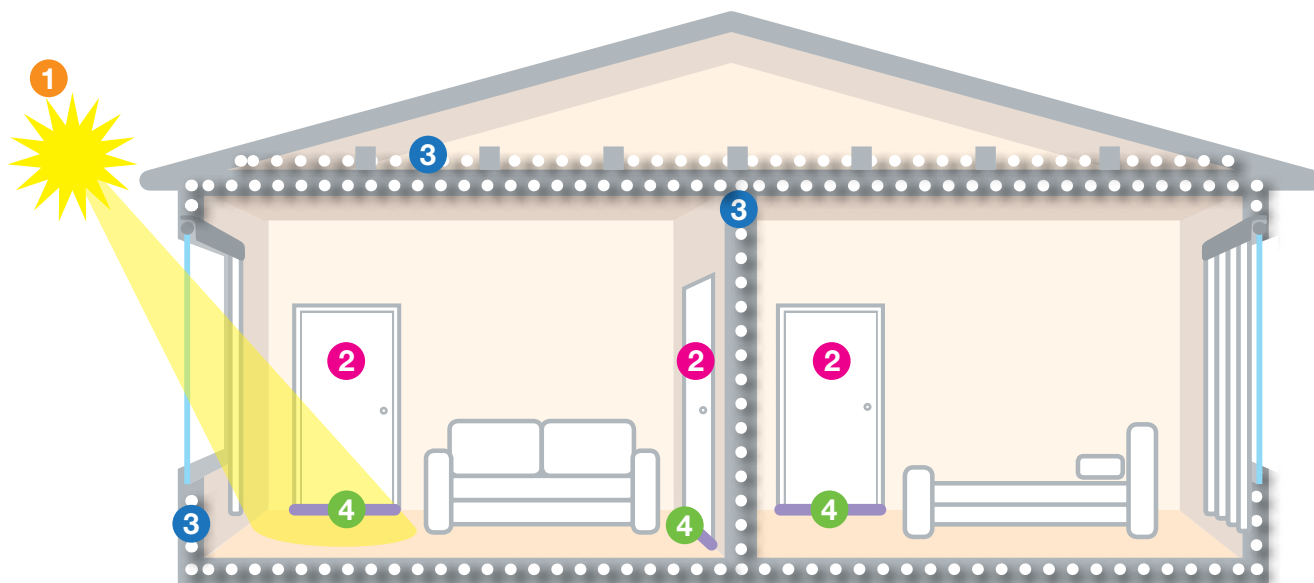
No one wants to spend more than they need to when heating their home. So before you turn on the heater this winter, make sure your home is well-insulated, draught-proofed and that you are only heating the areas you need.

Let the sun shine into your home 1

Use the sun to help heat your home for free. Open curtains and blinds during the day and move things blocking out light such as external shading. If the sunlight warms a tiled or concrete floor, some heat will be stored and released later warming your home into the evening.

Only heat the areas you need 2

The larger the area you heat, the more energy you will need to use and the higher your running costs will be. Dividing your home into sections, or zones, by closing doors allows you to only heat the areas you're using and reduce your heating costs.



Insulation 3

Insulation is any material that reduces the amount of heat transfer in to or out of your home through the ceiling, walls, windows, doors and floor. Insulation will help keep your home warmer in winter, reduce your need for heating appliances and lower your heating costs.

Draught proofing 4

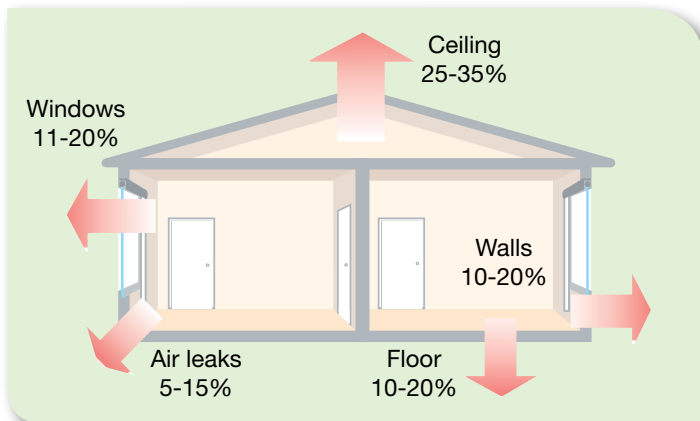
Cracks and gaps, for example around doors and windows, can cause draughts and lose large amounts of heat from your home. Simple changes like using draught excluders under doors, sealing strips around doors and window frames and filling gaps could help reduce your heating costs.

More about insulation

The diagram below shows where heat is lost from a typical home. Up to 50% of your heating could be lost through your ceiling and walls.

If you don't have ceiling insulation consider having it installed. If you rent, ask your landlord if they will have it installed. Insulation can deteriorate over time so ensure it is replaced or topped up when it is no longer effective.

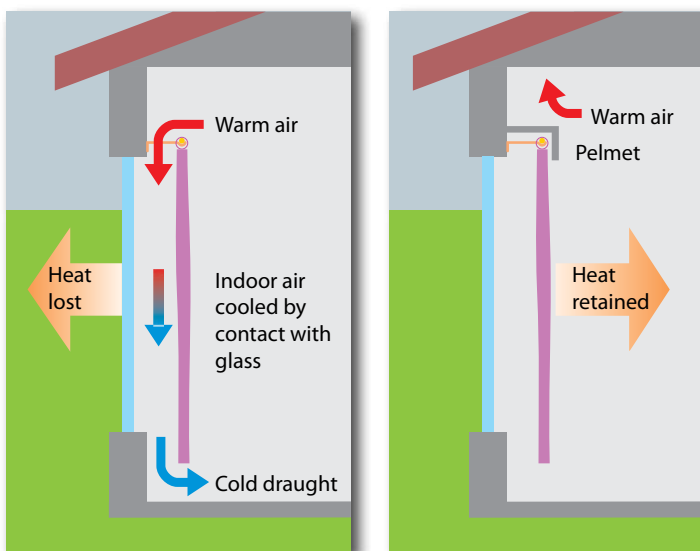
When choosing an installer, use a builder who is licensed to install insulation in South Australia. Visit sa.gov.au/energy for more information.



Typical heat loss in winter from an uninsulated home
source: yourhome.gov.au

Up to 20% of your heating could be lost through your windows. Thick curtains with pelmets are an effective way to insulate windows, keeping rooms warmer in winter.

Warm air is cooled when it comes into contact with a cool window. Pelmets closed at the top will stop air flowing between the curtains and the windows and reduce heat loss. See the diagram below.



Curtains without pelmets
in winter.

Curtains with pelmets
in winter.

Choosing a heater

Heaters work in different ways, so choosing the best heater will depend on what you want to heat.

'The best heater for your needs' section in this guide suggests the most effective heater types for different situations and provides estimated running costs.

The first row shows heater options for one or two people staying in one space, eg watching television. These are best if your home has large living areas and your only heating option is a small heater which may not be large enough to heat the whole area. Radiant heaters and electric rugs heat you directly, but not the whole room.

The other rows show heaters that heat different sized areas and are best if people are moving around.

Be aware that portable heaters, which may be low cost to purchase such as oil heaters, can be very expensive to run if used to heat larger rooms. This is because they have to work harder to produce the required temperature.

If a portable heater is your only option, you can lower running costs and make it more effective by reducing the size of the area you're heating, for example by closing doors.

Energy use and costs

Some heaters will have an energy rating label like the one shown below. You can use this to compare the energy use and efficiency of similar sized appliances. The more stars the better.



Energy rating labels allow you to compare the energy efficiency and energy consumption of some electric and gas appliances.


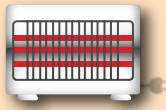




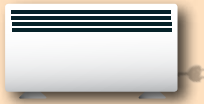




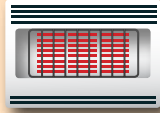





Knowing how much your appliance costs to run will help you keep track of your energy costs. 'The best heater for your needs' section also provides estimated running costs for different room sizes.

Find out more about running costs online at sa.gov.au/energy/runningcosts or call the South Australian government's Energy Advisory Service on 8204 1888.

The best heater for your needs

By choosing the best type of heater, you can reduce your energy costs and the amount of energy you need to heat your home. Think about what you want to heat, eg a person, a single room or the whole house and what size heater you need.

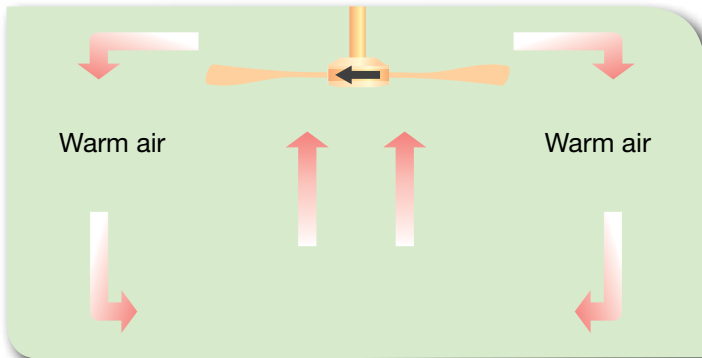
The heaters below will be most effective when used in a well-insulated, draught-proofed home (unflued gas heaters require good ventilation, see important safety advice for gas heaters in this guide). Where a range is shown the lower cost is for efficient heaters, and the higher cost will be for older less efficient heaters. You may also be able to lower your costs by looking for a cheaper energy deal, visit energymadeeasy.gov.au.

I want to heat	Suggested heater options and indicative hourly running costs ^{A, B}		
<p>1 or 2 people in one place</p> 	<p>electric radiant heater (1kW)</p>  <p>33¢</p>	<p>electric heated rug</p>  <p>4¢</p>	<p>electric blanket</p>  <p>4¢</p>
<p>Small room floor space 12m²</p> 	<p>small reverse cycle air conditioner</p>  <p>11 - 15¢</p>	<p>electric panel heater</p>  <p>40¢</p>	<p>electric portable heater</p>  <p>40¢</p>
<p>Large room floor space 36m²</p> 	<p>reverse cycle air conditioner</p>  <p>33 - 44¢</p> <p>small combustion fire^E</p>  <p>47¢</p>	<p>gas heater</p>  <p>47 - 52¢</p>	<p>electric heat bank^C (off-peak)</p>  <p>54¢</p>
<p>Whole of house^D floor space 200m²</p> 	<p>zoned ducted reverse cycle air conditioner</p>  <p>\$1.48 - \$1.94</p>	<p>zoned ducted gas heating</p>  <p>\$2.40 - \$2.72</p>	<p>large combustion fire^E</p>  <p>\$2.60</p>

A. Estimated running costs are based on 33¢ per kWh for electricity (peak) or 3¢ per MJ for natural gas unless otherwise stated.
 B. Estimated running costs have been based on 0.36MJ/h (100w) of heating per m². C. Based on off-peak electricity tariff of 15¢ per kWh. D. Based on a 200m² home with 150m² heated (this excludes bathrooms and garages etc). E. Based on a tonne of firewood costing \$350 and generating 4500 kWh of heat.

Fans can help with heating too

Reversible ceiling fans can complement your heating by helping to disperse hot air around a room. Warm air rises and collects in a layer just underneath the ceiling. If your ceiling fan has a reversing switch, use it to circulate this warm air throughout the room.



Reversible ceiling fans can be used to improve the effectiveness of heating by moving warm air down into the room.

Tips to make your heating more effective

Saving energy by reducing the amount of heating you need can be as easy as making some simple and practical changes. This includes:

- Setting your heater's thermostat to 18-21°C or as low as you feel comfortable with. Every degree lower can reduce the running costs by around 10%.
- Choosing the best heater for your needs based on the size of the area you need to heat. A heating specialist can help you with this decision.
- Adjusting your heater's louvres towards the floor because hot air rises. Also keep any reflectors dust free and clean filters regularly.
- Dressing appropriately for the weather. A jumper in winter will allow you to set your heater's thermostat to a lower temperature, saving energy.



Home heating safety

Heaters can be dangerous if they are not used safely. Following a few simple heating safety tips can keep your home and the people in it safe:

- Don't leave heaters unattended as they can cause fires. Keep flammable materials at least one metre away from heaters.
- Never plug a heater into a powerboard, double adaptor or extension cord with other appliances as the powerboard may overload and cause a fire.
- Regularly service and maintain your heater according to the manufacturer's instructions. Check that your heater's power cords and plugs are in a good condition before using it.

Important safety advice for gas heaters

Carbon monoxide is a colourless, odourless and tasteless poisonous gas. It is produced when gas doesn't burn properly and is very hard to detect so it is often called the silent killer.



If you are using an unflued type of gas room heater in your home, ensure the room has fixed permanent ventilation to avoid the production and build up of dangerous combustion gases.

It is important that you always have gas heaters installed by a licensed gas fitter and be sure to get a certificate of compliance on completion of the work.

Never use outdoor gas heaters including camping heaters inside as they release dangerous combustion gases and are a high fire risk.

LPG cylinders should not be used inside. Where LPG appliances are used, the gas cylinder should be located outside with the gas supply piped inside by a licensed gas fitter.

The **Energy Advisory Service** offers free independent home energy saving advice

Online sa.gov.au/energysmart

Email energyadvice@sa.gov.au

Phone 8204 1888 or 1800 671 907*

*Freecall™ from fixed lines only



**Government of
South Australia**