

be energy smart



Government of
South Australia

Winter heating guide 2023

How to efficiently stay warm and comfortable
in your home this winter

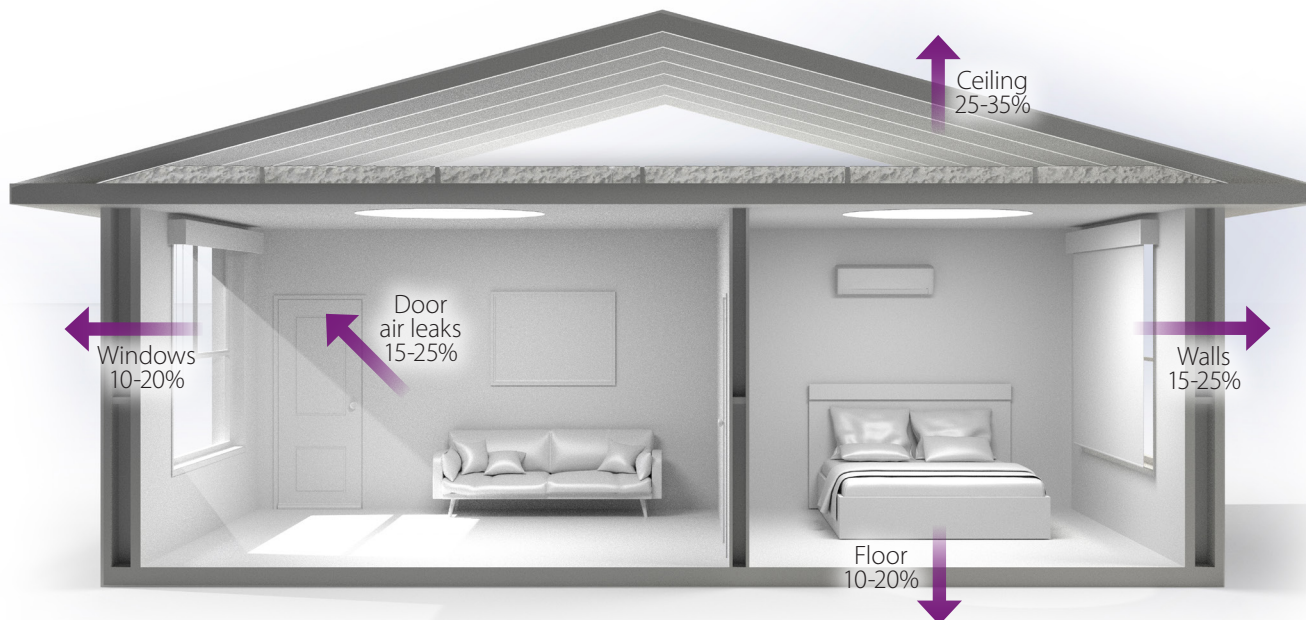


Prepare your home for winter

The following guide provides practical advice on how to efficiently keep your household warm and comfortable this winter.

Heat loss from the home

No one wants to spend more than they need to when heating their home. Make sure you look into where your house may be losing heat before turning on your heater this winter. The below diagram shows where heat is lost from a typical home.



Insulation

Effective insulation can help reduce up to 60% of the heat lost through your ceiling and walls.

Most houses should already have ceiling insulation as it's a requirement in all new homes and any additions to pre-existing homes. But keep in mind that insulation deteriorates over time and gradually becomes less effective. Topping up or replacing your old insulation can make a big difference to heat retention in your home.

If you don't have ceiling insulation, it's strongly recommended you have it installed. If you rent, ask your landlord to have it installed if it isn't already.

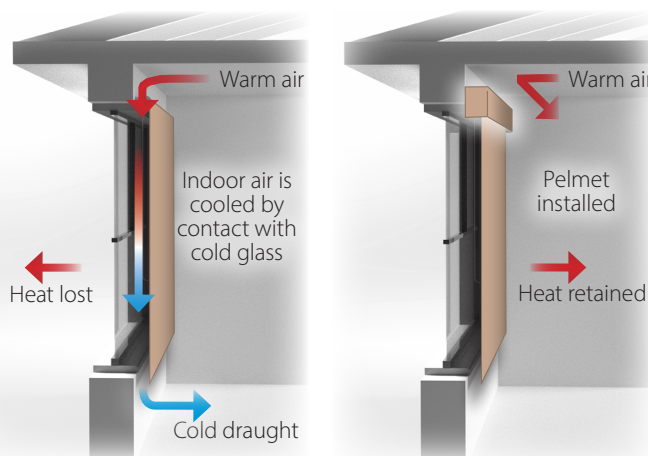
When choosing an insulation installer, make sure they have a South Australian builder's licence that permits them to install insulation. Insulation is measured by its R-value, so make sure to ask the installer about the best R-value for your home and specific needs. Visit sa.gov.au/energy for more information.

Curtains and pelmets

Up to 20% of your heating can also be lost through your windows.

Thick curtains with pelmets are an effective way to insulate windows, keeping rooms warmer in winter.

The diagrams to the right show how warm air is cooled when it meets a cold window. Pelmets closed at the top minimise air flowing between the curtains and the windows, reducing heat loss.



Passive heating techniques

A Let the sun shine into your home

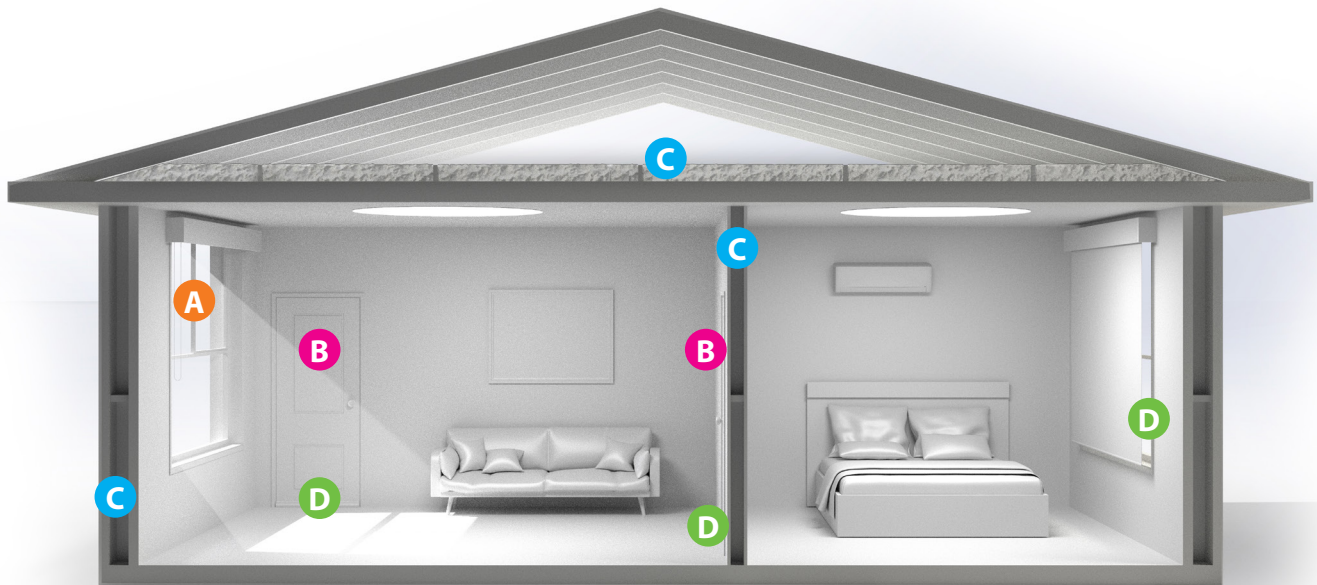
Use the sun to help heat your home for free. Open curtains and blinds during the day and move any large objects that may be blocking light from getting into the room.

If the sunlight warms a tiled or concrete floor, heat will be stored and released later, warming your home into the evening.

B Only heat the areas you need

The larger the area you heat, the more energy you will use and the higher your running costs will be.

Divide your home into sections (or zones) by closing doors to only heat the areas you're using to reduce your heating costs e.g. heat only your living areas during the day if you're not using your bedrooms.



C Insulation

Insulation is any material that reduces the amount of heat transferred 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.

D Draught proofing

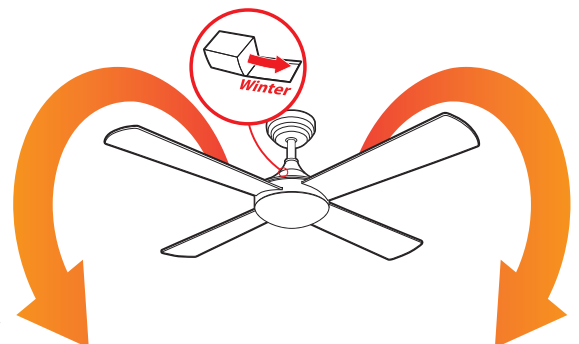
Cracks and gaps can cause draughts and lose large amounts of heat from your home.

Simple changes, like using draught excluders under doors, sealing strips around doors and window frames and filling gaps, could help reduce your heating costs.

Other tips and tricks

Below are some simpler steps to help keep you warm this winter:

- Adjust your heater's louvres towards the floor, as hot air rises.
- Set your heater's thermostat to 18°C – 21°C or as low as you feel comfortable with. Every degree lower may reduce the running costs by up to 10%.
- Follow the maintenance instructions for your heaters and have them serviced regularly. This may include regularly cleaning the filters, fan blades or vents.
- Dress appropriately for the cold. Keep your feet and head warm as best you can with socks and beanies.
- Invest in a wheat bag which you can heat in the microwave, or an electric heated rug which have very low running costs.
- Warm drinks and soups can help to keep you warm.
- Reversible ceiling fans assist with heating by moving warm air around a room. Warm air rises and collects in a layer just below the ceiling. If your ceiling fan has a reversing switch, change it to the 'winter' setting to circulate this warm air throughout the room.



Heating appliances

Shopping around for a heating appliance requires a number of considerations before making your purchase.

Choosing the best heater for your needs

Consider the area (person vs room vs house)

It is important to think about the size of the area you are trying to heat and how the area is used.

- If you're aiming to heat one or two people sitting around for long periods of time, watching television or reading for example, electric rugs or blankets which heat you directly are the most cost-effective option.
- For small to medium spaces where people will be frequently moving around, consider a small reverse cycle air conditioner. They're a cheaper investment long term if you can afford the upfront cost.
- To heat large areas or an entire home, consider a larger zoned heating system, but these can be costly depending on how many zones you use.

Choose a safe option

- Remember gas heaters require ventilation - see carbon monoxide safety on page 7.
- Small floor heaters may not be the safest option for homes with young children and/or pets.

Think through the specifics

- Compare the purchase, install and running costs of the appliances you're considering. Also consider the product lifespan and warranty.
- Look into convenience features such as timers, child lock and remote controllers.
- Consider gas connection costs if you want to purchase a gas heater but don't have a gas connection to your home. If you already have a gas connection, it may be more cost effective to install a gas heater rather than an electric one - see energy rating labels on page 7.
- If you're considering a heating system to heat your entire home, talk to a heating specialist about the best option for your needs and the associated costs.

Your billing plan impacts on the running costs

Some energy plans, specifically electricity plans, can include different charges depending on the time of day. It's worth knowing if you are charged a **flat rate** all day, or if your plan has charges for **time of use**.

Flat rate

Customers on a flat rate plan are charged at the same rate for electricity all day. For example, using your heater at 9 am for 30 minutes will cost exactly the same as using it at 11 pm for 30 minutes. Customers on a flat rate typically have an older type of electricity meter on their home (not a smart meter).

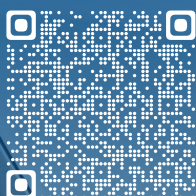
Time of use (ToU)

If you have a smart meter, it is likely that you will be on a time of use plan. This means that you are charged a different rate for your electricity depending on the time of day you are using it.

There are typically three usage periods which the retailer will charge you differing rates for. For example:

- Shoulder (10am to 3pm)
- Off-peak (1am-6am)
- Peak (6am-10am and 3pm-1am).











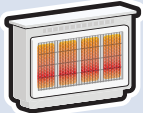

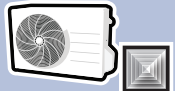


Your energy bill will detail which plan you are on, but if you are not sure then contact your energy retailer.



Find more information about running costs -

Online: Scan this QR code
or visit sa.gov.au/energy/runningcosts

Phone: Government of South Australia's Energy Advisory Service
(08) 8204 1888

Heating appliance	Hourly running costs ¹	Works best in/on
Electric heated rug 	Flat rate: 3-5c Time of Use: 2-3c (shoulder) 3-4c (off-peak) 4-5c (peak)	1 or 2 people in one place 
Electric blanket 	Flat rate: 4-5c Time of Use: 2-3c (shoulder) 3-4c (off-peak) 4-6c (peak)	
Electric radiant heater (1 kW) 	Flat rate: 31-42c Time of Use: 20-27c (shoulder) 23-32c (off-peak) 36-49c (peak)	
Small reverse cycle air conditioner 	Flat rate: 8-11c Time of Use: 5-7c (shoulder) 6-9c (off-peak) 10-13c (peak)	Small room floor space 12 m ² 
Electric panel heater 	Flat rate: 37-50c Time of Use: 24-33c (shoulder) 28-38c (off-peak) 43-58c (peak)	
Electric portable heater (2.4 kW) 	Flat rate: 75c-\$1.01 Time of Use: 48-65c (shoulder) 56-76c (off-peak) 86c-\$1.17 (peak)	
Reverse cycle air conditioner 	Flat rate: 29-39c Time of Use: 19-25c (shoulder) 22-29c (off-peak) 33-45c (peak)	Large room floor space 36 m ² 
Gas heater 	Flat rate: 42-80c	
Small combustion fire 	Flat rate: 58-79c	
Zoned ducted reverse cycle air conditioner 	Flat rate: \$1.17-\$1.58 Time of Use: 76c-\$1.02 (shoulder) 88c-\$1.19 (off-peak) \$1.35-\$1.82 (peak)	Whole of house floor space 200 m ² 
Zoned ducted gas heating 	Flat rate: \$2.44-\$2.70	

1. Running costs are a guide only. Calculations were made at time of publication, prior to the expected price increases in the upcoming 2023/24 financial year. Costs are based on AGL electricity and gas standing offer, which for electricity are generally aligned with the Default Market Offer (DMO). For more information, contact the Government of South Australia's Energy Advisory Service - email energyadvice@sa.gov.au

The Home Energy Toolkit

Audit how energy is used around your home with the tools and information available in our FREE Home Energy Toolkits.

Save energy, and money!

The toolkit includes:

- **Appliance meter** which measures appliance energy use, stand-by power, cost and greenhouse gas emissions.
- **Infrared thermometer** to measure the temperature of your hot water and pinpoint hot and cold spots in a room.
- **Spirit thermometer** to measure room and fridge and freezer temperatures.
- **Compass** to identify which direction your home faces to make the most of free heating from the sun.
- **Stopwatch** which is used to calculate the water flow rate from your showers and taps.
- **Home Energy Toolkit Audit Guide** with information, pictures and diagrams to help you carry out your audit.

Toolkits are available to borrow for free from most metropolitan and regional libraries in South Australia. Contact your local library to check availability.

Toolkits are not available for sale to individuals.

More information about how to conduct an energy audit at your home is available at sa.gov.au/energy



Are you getting the best energy deal?

Shop around and switch to save

Don't assume your energy retailer is giving you the best deal.

It's worth investigating other market offers to see if there is a better energy contract to suit your needs. You could lower your energy bills by choosing a plan that is better suited to the energy usage patterns of your home, or by switching retailers.

Ensure you are getting the best deal for you by:

1. Investigating other market offers using the Australian Energy Regulator's 'Energy Made Easy' service at energymadeeasy.gov.au
2. Using your findings from the Energy Made Easy service as a negotiating point with your current retailer
3. Switching to a new retailer if your current retailer can't provide the better deal.

Smart meters and Time of Use (ToU) plans

If you have a smart meter, you should also review offers with ToU or 'demand' tariffs. They encourage shifting your energy use to cheaper rates during the middle of the day.

The running costs table on page 5 shows how your costs can vary on a ToU contract depending on what time of day you use the appliance.

You could benefit from ToU pricing if you:

- Are often home during the middle of the day
- Can use, or set timers on, appliances to operate during cheaper tariff periods
- Have a home battery that can store solar power for use during higher tariff periods.

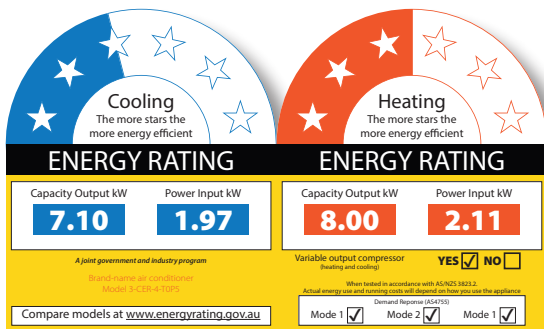


Energy rating labels

Most heaters and coolers have an energy rating label like the ones pictured below.

You can use these to compare the energy use and efficiency of similar sized appliances - the more stars the better.

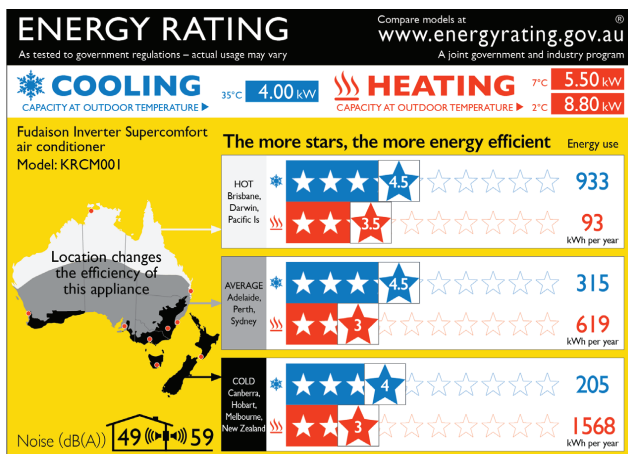
Knowing how much your appliance costs to run will help you keep track of your energy costs.



Zoned energy rating labels

These labels feature different energy efficiency ratings depending on which of the three climate zones (hot, average or cold) an air conditioner is used in.

This helps you make meaningful comparisons when shopping, and also enables retailers to promote different air conditioners better suited to different regions.



Find out more about energy rating labels at energyrating.gov.au

Heat your home safely

Heaters can be dangerous if they are not used safely.

Keep your home and the people in it safe by following a few simple safety tips.

- Don't leave children or pets unattended around any heater that is within their reach.
- Heaters should not be left unattended.
- Don't place portable heaters next to curtains, tablecloths, or wet laundry etc as this can cause fires.
- Keep any flammable liquids and materials at least one metre away from heaters.
- Never plug a heater into a power board, double adaptor or extension cord with other appliances, as these may overload and cause a fire.
- Regularly service and maintain your heater according to the manufacturer's instructions.
- Check that your heater's power cord and plug are in a good condition before using it.
- Always ensure you have a licensed professional install heating systems in your home.

Carbon monoxide safety

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 a gas room heater, always check with a licensed gas fitter that the room has enough ventilation to avoid the build up of carbon monoxide or other dangerous gases.

Always have gas heaters installed and regularly serviced by a licensed gas fitter. Be sure to get a certificate of compliance for any installation work.

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

LPG cylinders should never 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.



More energy information

Energy Saving Advice

The Energy Advisory Service offers free independent information about saving energy in your home.

See below for contact details.

Environmentally sustainable building, buying or renovating homes

Your Home offers guidance for building, buying or renovating a home. It shows how to create a comfortable home with low impact on the environment – economical to run, healthier to live in and adaptable to your changing needs.

Visit the website at yourhome.gov.au

Are you eligible for a concession?

Call the Concessions Hotline on 1800 307 758 or visit sa.gov.au/concessions to find out if you can get financial help with your energy bills.

Help to resolve a dispute with your energy retailer

Energy and Water Ombudsman South Australia offers a free independent service to all South Australian residential and business customers, and can help resolve disputes with gas and electricity retailers.

Call 1800 665 565 or visit ewosa.com.au

Get your organisation involved to help others save energy

The Energy Partners Program works with organisations across the state to help South Australians manage their energy use and costs, and improve energy efficiency.

Visit the website at sa.gov.au/energypartners



Contact the Energy Advisory Service for free energy advice

Online: sa.gov.au/energy

Email: energyadvice@sa.gov.au

Phone: 8204 1888 or 1800 671 907 (free call from fixed lines)



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South Australia**