

Home Heating and Cooling Guide

2026-27

Information to keep your home warmer in winter,
cooler in summer and lower your energy use.



**Government of
South Australia**



Prepare your home for summer

Heating and cooling appliances account for 30 to 40% of the energy used in a typical Australian home. There are many ways to keep cool in summer that can reduce your need for cooling appliances and lower your energy use.

Visit
yourhome.gov.au/insulation
for more information.

Shading to keep summer sun out

Shading your home from direct sunlight by using external blinds, deciduous leafy trees, or simply closing curtains and blinds, will keep your home cooler in summer. It is particularly important to shade windows on the north and west sides of your home.

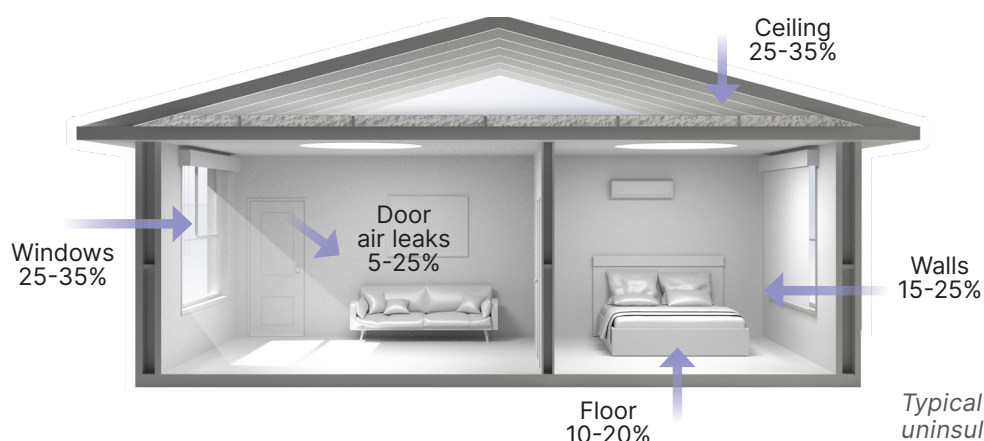


Leafy trees and external blinds can help prevent summer sun from shining directly through your windows and heating up your home.

Insulation

Ceiling and wall insulation can significantly reduce the amount of heat transferred into and out of your home. This diagram shows where a typical uninsulated home gains heat, with most heat gained through ceilings, walls and windows.

See page 7 for more information about choosing and maintaining insulation in your home.



Using cooling appliances effectively

Follow the manufacturer's instructions for your cooling appliances to ensure you are using them effectively and efficiently. Set your thermostat between 24°C and 27°C, or as high as is comfortable for you, to reduce running costs. Maintain your cooling appliances, for example by regularly cleaning the filters, fan blades or vents and have them serviced regularly.

Refrigerative air conditioners - only cool the areas you need by closing internal doors, or by using the zone controls. Sealing gaps around doors and windows and using draught excluders under doors will reduce wasted energy, and will properly insulate your home.

Evaporative coolers - work differently. Opening some doors or windows will increase air flow and improve the effectiveness of the system.

Ceiling fans – are very cheap to run and can increase the cooling effect of your cooling appliances.

If it is cooler outside in the evening, consider turning off your cooling and opening windows and doors to use breezes and cross ventilation to cool your home. Remember to always use window and screen door locks for security.



Using cross ventilation is an effective way to cool your home.

Staying safe in the heat

Everyone is at risk of heat-related illness in hot weather and heatwaves so always ensure you protect your health first by staying cool and drinking plenty of water.

If you are worried about your cooling energy costs, consider visiting air-conditioned public spaces such as libraries and shopping centers.

SA Health has a range of information about staying safe in heatwaves online at **www.sahealth.sa.gov.au**.

Vulnerable people, such as those living alone, can register for the Australian Red Cross TeliRedi service, where a volunteer will call and check on someone's health and wellbeing during extreme heat events.

To register visit **www.redcross.org.au/teliredi**



Choosing cooling appliances

The information below can help you to decide which cooling appliance would be best for your needs.

Fans

- cheapest cooling appliance to run
- create air movement that cools you and moves air through your home
- can be used at the same time as other cooling appliances.

Reverse cycle air conditioners

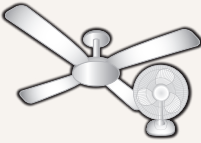
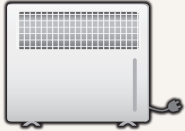
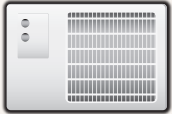
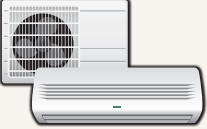
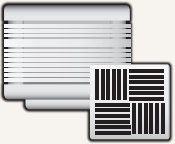
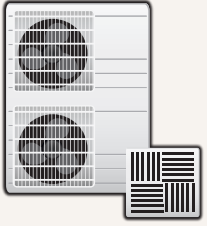
- cool the air to a set temperature by removing heat from the room
- effective in humidity or higher summer temperatures, but typically cost more to run than evaporative coolers
- can be used for both heating and cooling.
- work best in well-insulated and draught-proofed homes with closed windows
- more efficient when zoning controls are used, or doors are closed to unused rooms or spaces
- Available in split or whole of home ducted systems.

Evaporative coolers

- use water and a fan to blow cool, humidified air into your home
- use small amounts of energy but also have a small water cost
- work well in dry weather but can be less effective when it's humid
- good if you like to have some doors or windows open as they need good ventilation
- can also be operated as a large fan without the water cooling.

Ducting for evaporative and refrigerative coolers

- ducting that is poor quality or has deteriorated, loses cool air into your roof and wastes energy
- a qualified professional can help reduce air loss by sealing, insulating or replacing your ducting
- when purchasing a system or replacing ducting, look for an R-value of at least 1.5 for the ducting, and 0.6 for the fittings

Cooling appliance		Hourly running costs ¹		Works best in
Ceiling and portable fans		Flat rate 3-4c	Time of Use 1-2c (shoulder) 2-3c (off-peak) 4-5c (peak)	Models available for all room sizes and spaces
Portable evaporative		Flat rate <i>Includes water costs</i> 4-6c	Time of Use <i>Includes water costs</i> 2-3c (shoulder) 3-5c (off-peak) 6-8c (peak)	Rooms up to 20 m ² 
Portable refrigerative		Flat rate 49-67c	Time of Use 20-27c (shoulder) 38-52c (off-peak) 69-90c (peak)	
Medium split window refrigerative system		Flat rate 40-54c	Time of Use 16-22c (shoulder) 31-42c (off-peak) 53-72c (peak)	Rooms up to 36 m ² 
Large split refrigerative system		Flat rate 62-84c	Time of Use: 25-34c (shoulder) 48-65c (off-peak) 83-112c (peak)	Rooms up to 75 m ² 
Ducted evaporative system		Flat rate <i>Includes water costs</i> 39-54c	Time of Use <i>Includes water costs</i> 16-22c (shoulder) 30- 41c (off-peak) 53-71c (peak)	Whole-of-house (200 m ² home with 125 m ² cooled)
Zoned ducted reverse cycle air conditioner		Flat rate \$1.60-\$2.17	Time of Use 65-88c (shoulder) \$1.24-\$1.68 (off-peak) \$2.15-\$2.91 (peak)	

¹ Running costs are a guide only and include heating and cooling cost ranges, where applicable. Contact your appliance manufacturer for specific running costs. Calculations are based on AGL electricity and gas standing offers, which are generally aligned with the Default Market Offer (DMO) – and average firewood costs. Account for usage of solar generation or battery storage in your home, if applicable. For more information, contact the Government of South Australia's Energy Advisory Service.



Keeping your home warm in winter

Heating and cooling appliances account for 30 to 40% of the energy used in a typical Australian home. There are many ways to keep warm in winter that can reduce your need for heating appliances and lower your energy costs.

Maximising your heating effectiveness

Reducing heat loss from home can help your heater run more effectively and lower your energy costs. The diagram below shows where heat is lost from a typical home.

Let winter sun warm your home

A In winter let sun shine into your windows 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.

Only heat the areas you need

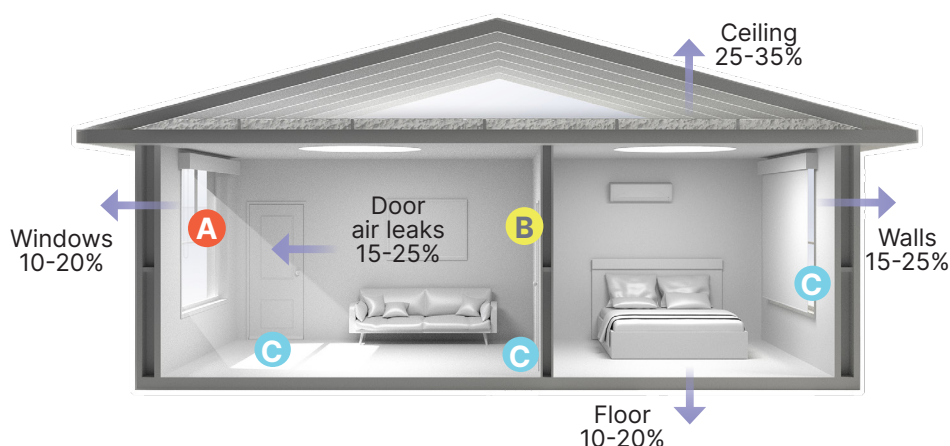
B The larger the area you heat, the more energy you will use and the higher your running costs will be.

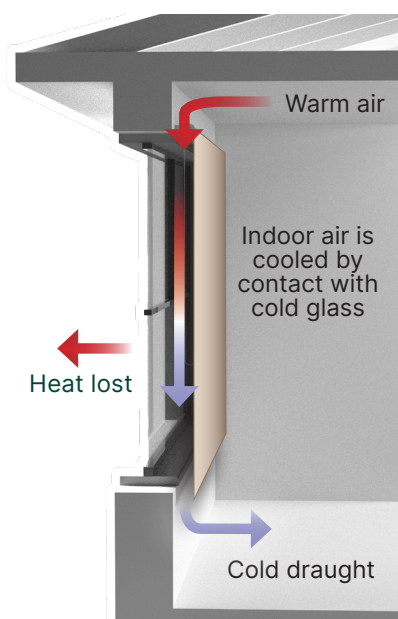
Divide your home into sections (or zones) by closing doors to only heat the areas you're using to reduce your heating costs e.g. heat only your living areas during the day if you're not using your bedrooms.

Draught proofing

C 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.





Insulation

Effective insulation can reduce the heat lost through your ceiling and walls in winter by up to 60%.

Ceiling insulation is a requirement in all new homes and additions but deteriorates over time becomes less effective. Topping up or replacing your old insulation can make a big difference to heat retention in your home.

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. For ceiling insulation the minimum R value recommended for Adelaide is R4, cooler climate zones will need a higher R value.

Visit yourhome.gov.au/insulation for more information.

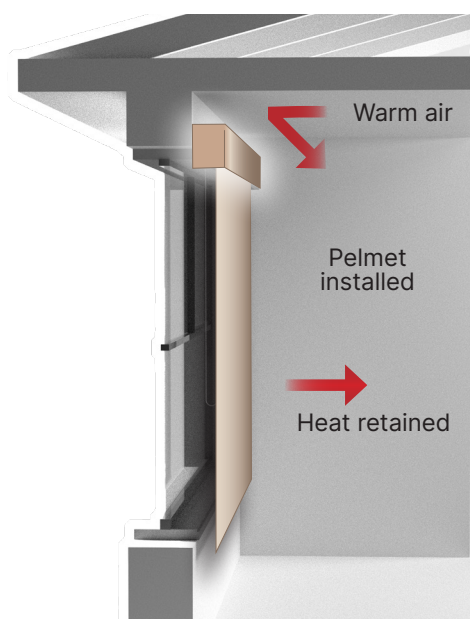
Curtains and pelmets

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.

You can also use honeycomb blinds or secondary glazing.

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.





Heating appliances

Shopping around for a heating appliance requires a number of considerations.

Consider the area (person vs room vs whole house)

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

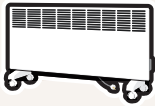
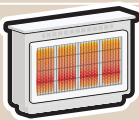
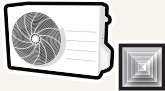
- If you're aiming to heat one or two people sitting around for long periods of time, watching television or reading for example, electric rugs or blankets which heat you directly are the most cost-effective option.
- For small to medium spaces where people will be frequently moving around, consider 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

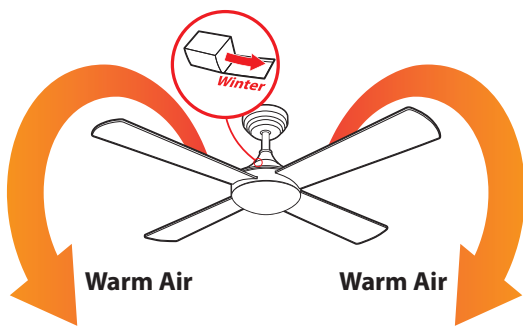
- Remember gas heaters require ventilation - see carbon monoxide safety in this guide.
- Small floor heaters may not be the safest option for homes with young children and/or pets.

Consider costs and features

- Compare the purchase, install and ongoing 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.
- 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.

Heating appliance		Hourly running costs ¹		Works best in/on
Electric heated rug		Flat rate: 5-5c	Time of Use: 2c (shoulder) 3-4c (off-peak) 5-7c (peak)	1 or 2 people in one place 
Electric blanket		Flat rate: 4-6c	Time of Use: 2c (shoulder) 3-5c (off-peak) 6-8c (peak)	
Electric radiant heater (1 kW)		Flat rate: 36-48c	Time of Use: 15-20c (shoulder) 28-37c (off-peak) 48-65c (peak)	
Small reverse cycle air conditioner		Flat rate: 10-13c	Time of Use: 4-5c (shoulder) 7-10c (off-peak) 13-17c (peak)	Small room floor space 12 m ² 
Electric panel heater		Flat rate: 53-72c	Time of Use: 22-29c (shoulder) 41-56c (off-peak) 72-97c (peak)	
Electric portable heater (2.4 kW)		Flat rate: 86c-\$1.16	Time of Use: 22-30c (shoulder) 66-90c (off-peak) \$1.15-\$1.55 (peak)	
Reverse cycle air conditioner		Flat rate: 33-48c	Time of Use: 13-18c (shoulder) 26-34c (off-peak) 44-60c (peak)	Large room floor space 36 m ² 
Gas heater		Flat rate: 50-\$1.07		
Small combustion fire		Flat rate: 69-94c		
Zoned ducted reverse cycle air conditioner		Flat rate: \$1.34-\$1.81	Time of Use: 54-73c (shoulder) \$1.04-\$1.40 (off-peak) \$1.80-\$2.43 (peak)	Whole of house floor space 200 m ² 
Zoned ducted gas heating		Flat rate: \$2.92-\$3.20		

1. Running costs are a guide only. Calculations made at the time of publication. 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



Other ways to reduce heating costs

Below are some simpler steps to help keep you warm this winter and lower your heating costs.

- Adjust your heater's louvres towards the floor, as hot air rises.
- Set your heater's thermostat to 18°C to 21°C or as low as you're comfortable with, to lower your running costs. One degree lower can save about 10% in running costs.
- Follow the maintenance instructions for your heaters and have them serviced regularly. This may include regularly cleaning the filters and vents.
- 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.
- In some circumstances you may find it more efficient to heat yourself directly rather than the whole house or whole rooms. Use hot water bottles, wheat bags or inexpensive electric throw rugs or blankets as low cost ways to stay warm.
- Warm clothing, slippers, socks, becomes and thick dressing gowns can go a long way to keeping you warm, Hot food and drinks can also help.

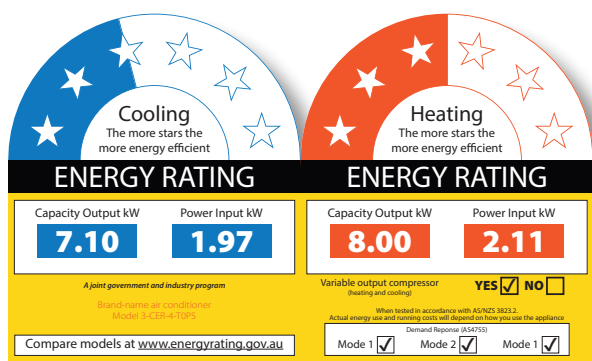


Energy rating labels

Most heaters and cooling appliances 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.

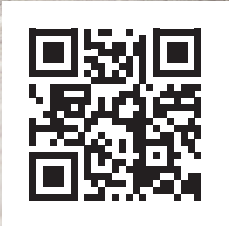
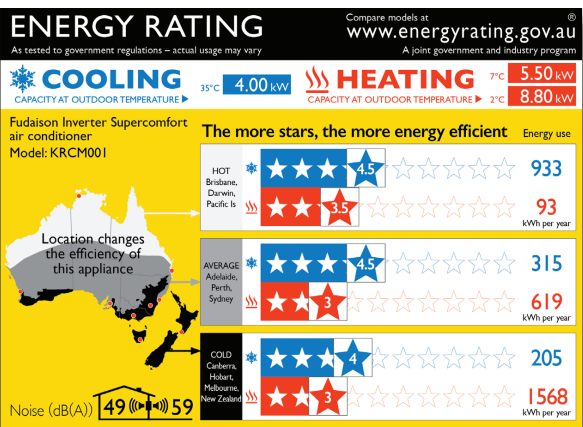
Knowing how much your appliance costs to run will help you keep track of your energy costs.



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

Electricity Pricing and Plans

Electricity plans can include different charges depending on the time of day and/or amount of energy you use. It's worth knowing if you are on a flat rate or time of use plan and adjust your usage accordingly.

Flat rate

Customers on a flat rate are charged the same rate for electricity all day. Some flat rate plans may be tiered depending on the amount of electricity you use.

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 are on a time of use plan. This means you are charged different rates for your electricity depending on the time of day you use it. Your energy retailer sets the prices for each usage period. Typically, these are cheapest in the day and most expensive in the evening and overnight.

You could benefit from ToU pricing if you:

- are home during the cheaper tariff period (middle of the day) and shift using your appliances to this time
- can set timers on appliances to operate during the cheaper tariff period (middle of the day) while you're not home
- have a home battery that can store solar power for use in the more expensive tariff periods (morning, late afternoon and night), or you can charge your battery when your tariff is lowest.

Gas plans generally have tiered charges. Tiered charges mean you get charged different rates depending on how much gas you use over your billing period.

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

Always read the terms and conditions of your contract!

Energy plans can vary significantly and it is crucial for you to understand what you are signing up for. If you have questions contact the energy retailer directly for further information.



Are you getting the best energy deal?

Don't assume your energy retailer is offering you the best deal. Shop around and switch to save!

It's worth investigating other offers to see if there is a better energy plan 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, by switching energy retailers, or by changing how and when you use energy.

Ensure you are getting the best deal for you:

1. Check plans available to your area on the Australian Energy Regulator's 'Energy Made Easy' website at **energymadeeasy.gov.au**
2. Use other energy retailers plans as a negotiating point with your current retailer.
3. Switch to a new retailer if your current retailer can't provide the better deal.

It is important to understand that eligibility for different plan types (e.g. flat rate or time of use) will vary depending on your location and meter type. To confirm eligibility you need to contact the energy retailer directly.

Free energy plan comparison

If you aren't satisfied with your current energy plan or retailer consider looking for a better deal on the Commonwealth Government website Energy Made Easy at energymadeeasy.gov.au



The Home Energy Toolkit

Find out how energy is used around your home with the tools and information available in our free Home Energy Toolkits available from most public libraries.

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, fridge and freezer temperatures.
- Compass to identify which direction your home faces to make the most of free heating from the sun in winter, or areas to shade in summer.
- Stopwatch 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.



Contact your local library to check availability. More information on how to conduct an energy audit at your home is available at energyadvice.sa.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

Your Home website

The Commonwealth Government's Your Home website 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**

Rebates and Assistance

For all other Rebates and Assistance that may assist you in your home, including REPS, The Cheaper Home Battery Scheme and the SA Gov VPP – please refer to: **www.energy.gov.au/rebates**

Acknowledgement of Country

We acknowledge and respect Aboriginal people as the state's first peoples and nations, and recognise them as traditional owners and occupants of land and waters in South Australia. Further, we acknowledge that the spiritual, social, cultural and economic practices of Aboriginal people come from their traditional lands and waters, that they maintain their cultural and heritage beliefs, languages and laws which are of ongoing importance, and that they have made and continue to make a unique and irreplaceable contribution to the state.

We acknowledge that Aboriginal people have endured past injustice and dispossession of their traditional lands and waters.

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)