

actsmart[®]

staying warm on less energy

Want to save money, reduce your carbon footprint and be more comfortable in your home over Canberra's long winters?

With our planet facing the challenges of climate change, and energy prices on the rise, there are more reasons than ever to reduce your heating energy usage. This factsheet covers practical options for keeping your home warm on less energy.





TIP

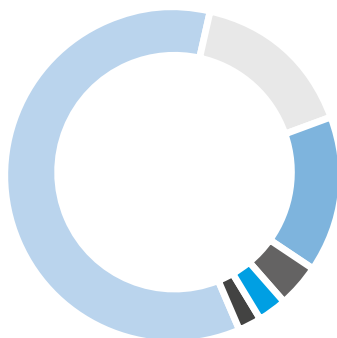
Any improvements to how you heat your home can lead to significant bill savings.

No-cost solutions

- ✓ Wear warm clothes, including slippers or thick socks, especially if you have concrete or tile floors, which suck heat from your feet.
- ✓ Open curtains and blinds on windows when they're getting direct sunlight during the day but close them as soon as the sun has moved to trap the heat. Efficient lights use very little energy so don't worry if you need to use them during the day.
- ✓ Try to minimise the area you're heating by closing internal doors and installing curtains in open doorways. This way, you won't waste energy on heating areas you're not using.
- ✓ Use a thermometer to help you decide when to turn a heater on, and to make sure you're not overheating your home. We recommend heating to between 18 and 20 degrees when you're awake and at home.
- ✓ Consider turning heaters off over night or turning your thermostat down even further. Every degree you lower the thermostat reduces your heating bill by as much as 10%.
- ✓ Turn off your heating system half an hour before you leave the house or go to bed.



As this chart shows, heating makes up 60% of the average household's annual energy bill, far more than any other area.



Annual energy usage in the average Canberra Home

- ◀ Heating 60%
- ◀ Water Heating 16%
- ◀ Electric Appliances 15%
- ◀ Lighting 4%
- ◀ Cooking 3%
- ◀ Cooling 2%



TIP

Thick curtains or blinds, backed with insulating material and pelmets, can reduce heat loss by more than 50%.



TIP

Compare your winter energy costs with your summer costs to get a rough idea of how much you're spending on heating. This will help you figure out how quickly you can pay back the cost of a split-system through your energy savings.

Low-to-moderate cost solutions

Heated throw rugs and electric blankets

Use heated throw rugs and electric blankets. They're great ways to keep warm and are much cheaper to run than room heaters. They may be enough on their own, or could allow you to set your room heater a few degrees cooler and still be comfortable.

Draught proofing

Draught proofing your home is the most cost-effective way to save energy and money. Up to 25% of heat loss in your home can come from leaks and draughts.

The materials for basic draught proofing can cost as little as \$50 and save you hundreds of dollars a year.

Seal internal doors between heated spaces and non-heated rooms, as well as external doors.

Read our draught-proofing factsheet and watch our DIY videos on the Actsmart website: www.actsmart.act.gov.au

Cover windows

Windows are a major source of heat loss in winter. Up to 40% of a home's heating can be lost through windows.

- ✓ Cover all windows, prioritising the rooms you heat most often. A well-covered, single-glazed window with a pelmet can be more effective at reducing heat loss than can a poorly covered double-glazed window.
- ✓ Ensure curtains or blinds reach the floor.
- ✓ Install pelmets.
- ✓ Minimise gaps between the window covering and window frame on either side of the window.



Moderate to high-cost solutions

Use an energy efficient heater

Reverse-cycle air-conditioners are the cheapest heating type to run. Switching could reduce your winter heating bill by up to 80% (compared to electric element heating).

Reverse-cycle systems can be ducted to heat and cool your whole house, or wall mounted to heat part of your house.

Wall-mounted, reverse-cycle air-conditioners, also known as split-systems, cost between \$500 and \$5000 depending on their size, quality and whether you include installation. A good-quality system to heat and cool a large living area should cost around \$2500 installed.

Visit the Actsmart website: www.actsmart.act.gov.au to see if there are any rebates to upgrade to more efficient electric appliances.



Improve your insulation

Insulation slows the transfer of heat between the inside and outside of your home. This means the temperature inside your home will be less affected by outside temperatures. It also means that any heat you put into your home will be trapped for longer. Installing insulation could halve your heating and cooling costs.

Most Canberra houses have some ceiling insulation. If yours is less than 20cm thick (R4) then consider upgrading it to 25cm thick (R5), which is recommended for Canberra. In most cases, insulation batts can be installed on top of existing ceiling insulation.

Insulation can be installed in walls (R2.8 recommended) and under floors (R2 recommended) in some situations depending on the construction type.

The cost of improving your insulation depends on the type of product and R rating, and whether you install it yourself or get a professional to do it. Upgrading your insulation will increase your home's Energy Efficiency Rating which often improves its sale value. If you go from uninsulated or very poorly insulated to well insulated, you could add 2 to 3 stars to your rating.

For more information about insulating your home: yourhome.gov.au/passive-design/insulation

TIP

Improving window coverings and external shading of windows can lead to significant energy savings at a far lower cost than double glazing. Even good-quality double-glazed windows are very poor insulators compared to an insulated wall, so they should still be well covered.



Double glazing

Installing good-quality double-glazed windows can significantly reduce your heating and cooling costs. It can also reduce noise and condensation.

If you're building a new house in Canberra, installing double-glazed windows is quite cost effective as the additional cost is relatively small. As a retrofit to an existing house, however, it's expensive compared to other energy efficiency improvements you could make.

Double glazing varies widely in quality, effectiveness and cost. Retrofitting a whole house could be anywhere between \$15,000 and \$50,000 plus. Secondary glazing, where an additional sheet of glass or Perspex is retrofitted to existing windows; can be a more affordable option. It can be quite effective, but is not suitable for all window types.

Other improvements, such as draught proofing, insulating, or installing an efficient heating system or solar panels, generally have much better financial returns in reduced energy costs than double glazing. However, if your existing windows don't seal well or are in poor condition and need replacing then installing double-glazed windows is the best option.

For more information on glazing: yourhome.gov.au/passive-design/glazing

Other resources

Draught proofing factsheet

Choosing a heating system factsheet

For more ideas, tips and information
visit: actsmart.act.gov.au
email: actsmart@act.gov.au
or call: 13 22 81

Some work in the ACT must only be carried out by a licensed person. For more information on licensing, technical standards and other regulations that may apply, visit www.environment.act.gov.au.
Produced by Environment, Planning and Sustainable Development Directorate.