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Ways to winter warmth

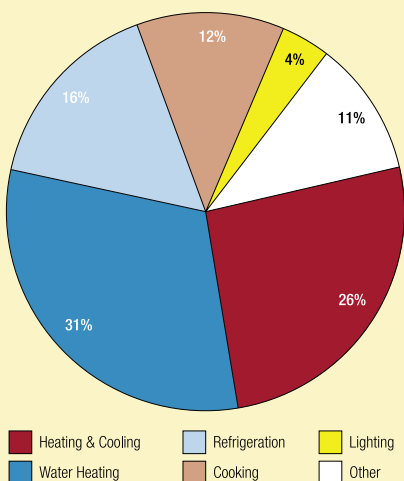
A number of simple steps can be taken to keep warm this winter, to reduce your heating bill and help protect the environment. Saving energy leads to less pollution and greenhouse gases, both at the power station and at home.

Heating costs

An average Western Australian home spends about a quarter of its home energy budget on heating and cooling. By applying a few simple principles this can easily be reduced, saving money and helping to reduce your impact on the environment.

Saving energy doesn't mean shivering through winter. Well-designed homes can maintain comfortable temperatures in winter with little and sometimes no artificial heating at all.

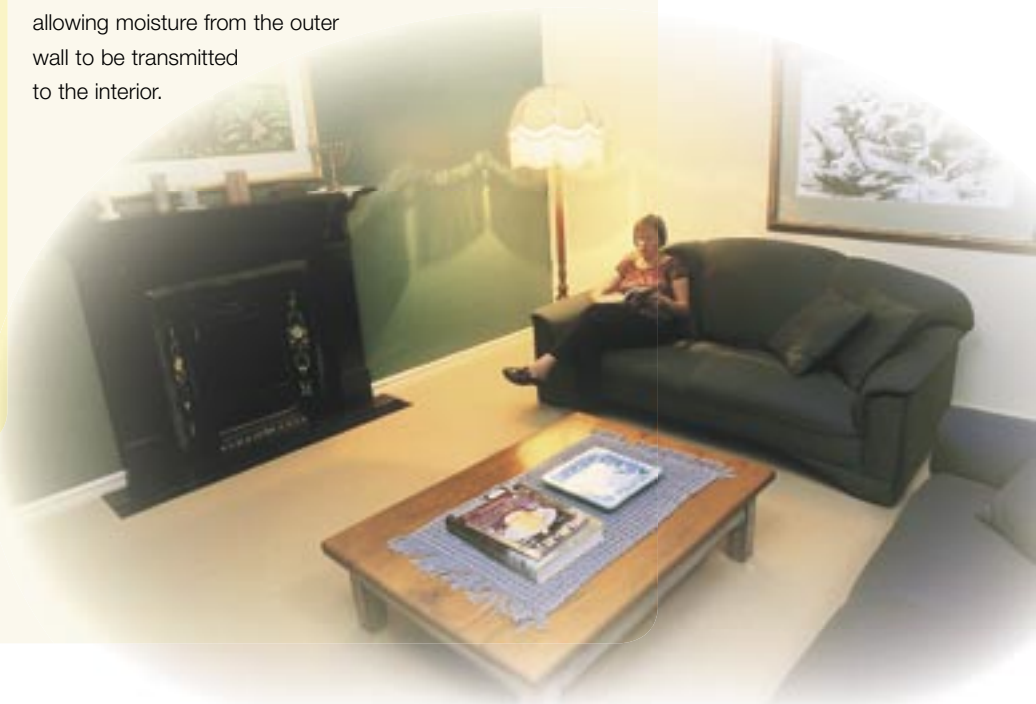
Energy use in a typical WA home



Insulate your home

Without insulation, your home quickly loses heat and soon becomes cold. Heat is lost through the ceiling, walls, windows and the floor. Together, these losses account for up to 70% of the heating bill for an uninsulated home. Since hot air rises, the greatest loss of heat is through the ceiling. Ceiling insulation is remarkably effective and can reduce your winter heating bill by up to 30%.

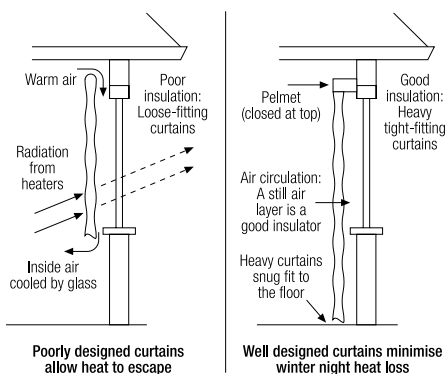
Insulation for external walls is also recommended for houses in Perth. However, it may be difficult to retrofit and care needs to be taken to ensure that the insulation does not form a moisture bridge, allowing moisture from the outer wall to be transmitted to the interior.



Windows

A window can lose heat five to ten times faster than an equivalent area of a wall. This heat loss can be minimised by keeping warm air inside the room away from cold windows. Closed curtains are effective insulators and, for maximum effectiveness, they should be made from a heavy fabric with insulating backing. They need to be long enough to reach the floor and should include a pelmet. Some snug fitting blinds and window coverings can achieve a similar result.

Keeping curtains and blinds on north-facing windows open during the day takes advantage of the free heating energy provided by the sun. This can let in up to 3 kWh of heat per day, per square metre of window - which is equivalent to a single bar radiator running for 3 hours. At night the curtains should be kept closed to keep the heat in.



Double Glazing

Two panes of glass separated by at least 10 mm can reduce winter heat loss. However, this is generally only cost effective in situations with high heating requirements.

Heating zones

Closing off areas of your home enables you to heat only those areas you are using. Two rooms cost twice as much to heat as one room.

Consider fitting automatic closers to doors that lead from heated rooms to unheated rooms.

More Information

If you want to know more about designing an energy efficient home, installing insulation, choosing energy efficient appliances, or any other matters relating to home energy use, simply phone the **Sustainable Energy Development Office's Energy Smart Line on 1300 658 158** or visit the Sustainable Energy Development Office's web site at **www.sedo.energy.wa.gov.au**

Eight Ways To Keep Warm

- ✓ Install ceiling insulation.
- ✓ Don't overheat your house. Set the heater controls correctly.
- ✓ Run a ceiling fan on low speed to help circulate warm air.
- ✓ Fit curtains or blinds. Open curtains on north-facing windows to let the sun in.
- ✓ Block unused fireplaces.
- ✓ Wear warm clothing or cover up with a rug.
- ✓ Fit draught excluders to external and internal doors to stop draughts.
- ✓ Close doors to unused rooms to stop cold air from entering.

Stop draughts

Draughts can be a significant source of heat loss in your home - warm air leaks out at the same time as cold air enters. A lit candle can be a simple way to find draughts. These drafts can usually be dealt with easily and cheaply.

For example, a 'draught excluder' stops draughts coming in under external doors. They are easy to fit and are available from a range of stores. Rugs reduce draughts coming up between floorboards. Check for spaces between walls and skirtings and block off any unused fireplaces. Note that houses with heaters that burn a fuel inside are required by law to have ventilation for safety reasons.

Size your heating system

Choosing the correct size of heater is essential for comfort and economy. It should be big enough to keep your room or house comfortably warm on a cold, winter's day.

Gathering information on the room's size, its level of insulation, window area, orientation, coverings and how draughty it is helps determine the correct size of heater.

Room size is the most important factor.



Ceiling fans

Reversible ceiling fans can be an effective and energy efficient way to save on heating costs.

Set on low speed, a fan will move warm air at ceiling level back to the floor level. This is especially beneficial for homes with high or raked ceilings.

Ceiling fans are cheap to run. They only cost a few cents an hour to run on low speed and can easily be installed by an electrician. They can also double as useful summer coolers.

Watch the thermostat

For every degree increase in temperature, your heating bill increases by around 10%. Heating just that little bit more will use a lot more energy and cost more money. You could wear warmer clothing instead. If you are buying a portable or space heater, choose one with a thermostat and/or variable heat settings so you can control the heat output.

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