Top 10 Energy Saving Tips

Choosing what to do to improve the energy efficiency of your house can be a bit daunting. The following tips give you some idea of the cost involved as well as the likely savings.

Remember, the numbers quoted are for an 'average' house. Many different factors will affect the savings possible and the priorities for your home. If you are unsure, please contact our consultant for more information (contact details at end of factsheet) or you can also arrange to have an ACT Energy Wise home audit, (conditions apply).

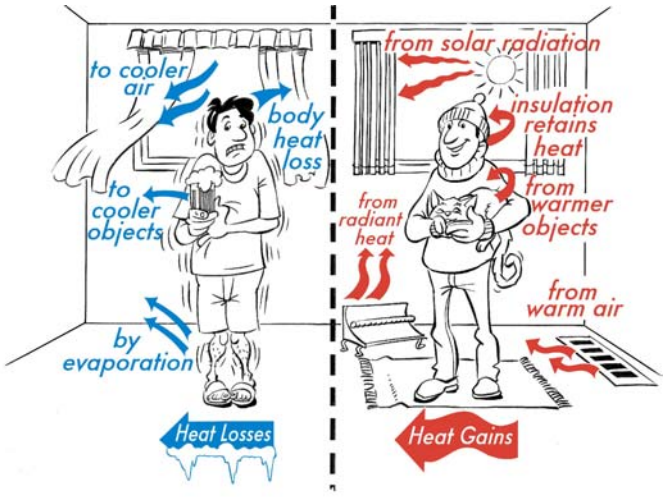
Tip 1: Seal cracks and gaps.

Simple and cheap, these measures can save 10% of your heating bill.

Price: $100-$600

Savings: up to $150/year

Cracks and gaps in houses account for 10-15% of heat loss and the drafts created make you 'feel' cold. Installing draught excluders under doors, foam strips around windows and sealing around skirtings and architraves is often the most cost effective way to improve how warm your home feels.



- The smoke from an incense stick held near your doors and windows on a windy day can quickly show up any gaps that need filling
- Double brick homes in Canberra commonly have large gaps between the skirting boards and the floor. This gap is much more noticeable on polished floors, it creates a draft at floor level making the floor 'feel' cold.
- Replace any open exhaust fans with the self-closing type.
- Seal up any unnecessary permanent vents (often found in the walls and ceilings of old homes).

Tip 2: Insulate yourself from the cold.

Price: *Ceiling* $1000 for 15 squares/140 square metres

Saving: up to $300/year

***Walls:* retrofit $1800 for 15 squares**

Saving: up to $250/year

***Wooden Floor:* $1200 for 15 squares**

Savings: up to $100/year

Good insulation in your roof, walls and floors will keep you warmer in winter and cooler in summer, saving you money year in and year out, whilst also improving your home's resale value. In an uninsulated home in Canberra, up to 30-40% of all heat lost is through the ceiling, with up to 20-30% through the walls and around 10% through the floor. To stop the bulk of this heat loss from your home, insulate your ceiling to R4, walls to R2 or better, and floor to R1.5.

- For the greatest savings, improve your ceiling first then your walls, then floor.
- Rockwool cavity wall insulation can be retro-fitted to most brick veneer and double brick homes.
- When building and renovating, avoid penetrations through your insulation layer. Recessed downlights, extraction fans and skylights are all 'holes cut in the doona' of your ceiling insulation.
- It's not the type of insulation you use that matters, it's the 'R-value' that really counts.

Tip 3: Windows

1. Double glazing or Clear Comfort
2. Lined Curtains with pelmets, or well fitted, air-tight blinds.

Price: Highly Variable
Savings: up to $200/year

Once you have insulated your ceiling and walls, and sealed up the cracks, most of the remaining heat loss will probably occur through your windows. Installing good curtains or blinds, and box pelmets can more than halve this loss, saving 10% on your heating bills.

- Double glazing reduces heat losses through windows by 40-60%
- Clear Comfort is an after market DIY plastic double glazing product. It's very inexpensive and works really well, especially for wood framed windows.
- Ensure your curtains go all the way to the floor and wrap to the wall on either side of your window.
- Install box pelmets to reduce the air circulation around your windows.

OR

- Pelmets don't need to be 'boxed' pelmets, anything placed on top of the curtain track that stops air circulating between the curtains and the glass is sufficient.
- Line your curtains with 'blockout' backing to prevent radiant loss (and reduce summer gain).
- Use tightly woven materials, trapping air in as many layers as possible.
- To be effective, blinds must be airtight. Vertical and Venetian blinds do not prevent heat loss. Instead consider blinds with built-in air cavities or Roman or Holland blinds and ensure blinds fit snugly to the window frame (within the reveal).
- And, if you have some northerly windows, open your curtains as wide as possible during the day on cold days in winter to let in the warming sunshine.
- Don't forget to close all windows and coverings on hot summer days and open them when it cools off outside.
- Good curtains with pelmets in combination with double-glazing will give you an even greater benefit.

Tip 4: Reduce your hot water consumption.

One of the simplest energy saving measures, it can be achieved through changing appliances and being more water aware.

Price: Generally $30+
Saving: Up to $100/year

- AAA showerheads reduce the water you use in your shower by up to 60% and can be bought from $20. They can generally be installed easily without a plumber. (Note: a small number of hot water systems cannot use AAA showerheads – check with the retailer before you buy one.)
- Use cold water in the washing machine with a suitable detergent. To save water and energy only wash full loads.
- Take shorter showers, use a timer. Treat yourself to a massage with the money you save, a much more environmentally friendly option.

- Stop the drip: dripping taps waste huge amounts of water and if your hot water tap is the one that is dripping, it will have a big impact on your bill. New washers generally cost $4-5.

More water-saving tips at the ACT Government's website http://www.thinkwater.act.gov.au/

Tip 5: In the summer, don't let the sun strike the glass.

Price: Highly variable $10+
Savings: up to $100/year

Before you think of turning on the air conditioner this summer, turn off the sun! Block the sun before it strikes your glass. Once the radiant energy from the

sun has entered your house it heats up the things it strikes. Heated objects pass on heat to the air around them. Warm air doesn't shed heat through your window as quickly as the radiant heat comes in, so the room gets hotter and hotter. The best solution is don't

let the radiant heat in in the first place. In Canberra, it is the East and West glazing that needs most attention. Some form of vertical external blind, sail cloths, pergolas, or climbing plants will radically reduce the heat gain to your house – the less sun able to get through the blind the cooler your house will be.

Tip 6: Reduce your heating bill – thermostat control and efficient zoning.

Price: small, may involve some minor interior alterations, addition of draft stoppers, adding doors

Saving: variable

Perhaps the most effective way to save money on heating is to heat less space. Why heat rooms you're not using? When installing a new heating system, it is important to choose one that is highly efficient (5- or 6-star rated) and allows you to easily isolate areas that aren't in use.

- Create separate zones for areas such as formal living, family rooms, bedrooms, guest rooms and studies (using separate smaller heaters or a controllable ducted system).
- Insist on well insulated ducts (R1.0) on new central heating systems.
- Improve the efficiency of your ducted system by using vent deflectors on floor vents to redirect heated air into the centre of your room and out from under furniture.
- Install a reversible ceiling fan to keep the heat where you need it in winter; it will also assist you in low cost cooling in the summer.

Keep your thermostat down whilst staying warm:

- Every degree you lower your thermostat, you can save up to 10% of your heating cost. It is much cheaper to put on a jumper and keep the heating low than to have a huge heating bill!!

Tip 7: Lighting.

Price: $10 extra per light bulb up front

Saving: up to $90/lightbulb over the lifetime of the bulb

- Using compact fluorescent light bulbs requires a small initial investment but pays for itself in only a few months.
- Turn off lights when you leave the room, even if it's only for 5 minutes.
- Consider installing a motion sensor for outdoor lights.

Tip 8: Replace your electric hot water Tank

Price: typically from $1500-$3500

Saving: $50-$400/year depending on consumption habits and system chosen

- Electricity is expensive and has high greenhouse gas emissions. Replacing your electric hot water system with a solar unit, instantaneous gas, or heat pumps will all radically lower costs and emissions. With later model hot water services, it is often possible to retrofit a solar system rather than having to install a whole new system.
- See our *Solar Hot Water* Fact Sheet for more details about solar hot water systems

Other Hot Water Tips

- Lagging (insulating) hot water pipes reduces heat loss.

- Where appropriate, reduce the thermostat on your hot water tank and for electric storage hot water systems only, insulate with a "Storage Tank Blanket".

Tip 9: Human Comfort

Price: free to low cost

Saving: variable, small to medium

Air temperature is only one of the factors that affect our comfort. Before you turn up the thermostat consider: level of clothing, the amount of radiant heat available, and air movement. Minimising air movement, dressing more warmly, and making use of a radiant heat source, including the sun, can all make you feel warmer while using less energy.

Tip 10: Buy Green Power

Price: Buy green power for a premium of approx $180/year

Saving: reduce your greenhouse gas emissions by up to 3.2 tonnes of CO_2 /year

Finally, for those who want to make a personal contribution to a cleaner future, buying green power from your energy retailer will radically reduce your greenhouse gas emissions while not breaking the bank. Green Power is independently audited and guaranteed to come from approved, renewable energy sources such as wind, solar, micro-hydro and biomass.

- Even when paying the premium for green power you will still be paying less per kWh than consumers in places such as rural South Australia, Japan, and Denmark.

For more information on Green Power, visit: http://www.greenpower.com.au/

More information

This fact sheet is produced by the Home Energy Advice Team (HEAT) to provide you with some basic information on making your household more energy efficience. If after reading it you'd like more free information about this or any other topic to do with saving energy in your home, don't hesitate to contact us:

A range of other fact sheets on saving energy and money in your home are available from HEAT

HOME ENERGY ADVICE TEAM

Home Energy Advice Team

Ph: (02) 6260 6165

email: info@heat.net.au

PO Box 3142, Manuka ACT 2603

web: www.heat.net.au