

Reducing the cost of heating your home

By Nicola Field, *Money Magazine*, July 2007

There are plenty of ways to stay cosy at home without spending a fortune and a bit of up-front planning goes a long way towards trimming the cost. A good starting point is to insulate your home. The heater output required per square metre of floor area plummets dramatically as the level of insulation rises, potentially reducing heating costs by around 40 percent.

Insulating walls can be a major job unless you're building or renovating, but adding insulation to your roof space is a relatively simple process which can make a significant difference in both winter and summer. Prices start from around \$7 a square metre for fibreglass bundles called batts.

If the budget doesn't extend to insulation, or if you're renting, there are still ways to retain heat within your home. According to Country Energy, air "leaks" can account for 15 to 25 percent of heat loss from your home. Simple measures such as rubber stripping on the base of doors or hanging well-fitting curtains will help reduce heating costs.

Zoning your home

One of the best ways to keep your power bills under control is to "zone" your home, closing off different areas when they are not used. This lets you heat only those areas in use at any one time.

With different zones mapped out, it's important to choose the heating method best suited to each area. Environmental body Sustainability Victoria recommends looking at a range of factors including the size of the space to be heated, plus the purchase price and ongoing maintenance costs of the appliance.

Heating appliances with higher initial outlays can be cheaper to run and often last longer than their budget-priced counterparts. Let's look first at a range of heating options suitable for larger spaces such as living areas.

Underfloor heating

If you're in the process of constructing or renovating your home, underfloor (or in-slab) heating may be worth considering. Heating coils are laid in a concrete slab which can then be polished or tiled, providing safe, gentle heat.

Carpet is a natural insulator and floor heating won't be as effective if you intend to lay it or even rugs over the slab. A do-it-yourself kit costing around \$636 from Sydney Floor Heating will heat a 12 square metre floor (a bathroom); or pay around \$712 for a professionally installed kit.

On the downside, Country Energy advises that in-slab heating systems can have a slow response time, so look for a system featuring a thermostat timer.

Wood-fired heating

When it comes to creating a cosy atmosphere, and a focal point for living areas, it's hard to go past a wood-fired heater. Several well-known brands including Norseman, Austwood and Saxon are available through the Barbeques Galore chain, with prices starting at around \$800.

Extending your budget to around \$2000 will afford some key pluses including a thicker firebox casing plus a convection fan to help disperse the heat. The flue (or chimney) comes at additional cost, usually around \$300. Unless you're happy to install the fire yourself, be prepared to pay extra for professional installation.

As for the timber, Hunter Valley (NSW) resident Melissa Morgan runs her wood-fired heater continuously during the chillier months and estimates it costs the family around \$240 for a winter's worth of fuel.

Modern wood-fired heaters are required to meet stringent emission requirements.

According to the Australian Home Heating Association, today's clean-burn systems are very efficient, losing only around 15 percent of their heat via the chimney compared to around 80 percent with an open fireplace. Of course someone in the house will have to tackle the often messy job of cleaning the ash out of the fireplace.

An alternative to traditional wood-fired heaters is a pellet heater. Popular in North America, pellet heaters look similar to standard wood-fired heaters but, rather than burning felled timber, they use pellets created from sawmill by-products.

According to Pellet Fires Australia the exhaust emission is very low. Expect to pay around \$3000 for a pellet heater and around \$11.50 for enough pellets to provide up to 30 hours of heating.

The look of logs

If you want the look of a wood fire without the chores of buying timber, cleaning the fireplace and stacking firewood around the house (which can attract termites), an electric "log flame effect" heater is an easy option.

The Dimplex range starts from about \$300. Many duplicate the appearance of a wood-fired heater, but operate using a radiant bar and convection fan concealed within the casing. At the top end of the range, Dimplex's Mozart, costing around \$800, features a marble-look mantelpiece surround.

Air conditioning

If you're looking to maximise value it can be hard to go past a reverse-cycle air conditioner which heats in winter and cools in summer. Today's split systems are slimline and can be discreetly mounted. However they have a major upfront cost.

Brands such as LG start at about \$1000; paying around \$2000 will buy a system that is quieter and with more features. Split systems require professional installation, usually costing an extra \$500. They are one of the safest heating options, making them a compelling choice for families.

Environmentally conscious Julie Newton uses her reverse-cycle air conditioner about 50 percent of the time throughout winter, restricting its use in order to minimise the family's contribution to greenhouse gas emissions. By adopting this approach, Julie says she doesn't notice a significant difference in her power bill.

While any sort of electric heater will add to your power bill, opting for the highest star-rated model you can afford will keep your energy costs down. If you are concerned about the additional carbon emissions created by keeping your home snug, think about swapping to renewable energy. According to the federal government's Greenpower website (www.greenpower.gov.au) using alternate energy sources (solar, hydro or wind) can add as little as \$5 to your weekly power bill.

Natural gas

A cheaper and more environmentally friendly option is natural gas, which produces around 30 percent less greenhouse gas emissions than fossil-fuel electricity.

The energy requirements of gas heaters are measured in joules rather than watts, and if you're looking to compare between the two, a heater with a rating of 1 kWh (1 kilowatt of electricity per hour) is roughly equal to a gas heater using 3.6 MJ (megajoules) over the same period. Like electric heaters, gas heaters come with an energy efficiency rating.

The downside of gas heaters is that they can be more expensive upfront and gas is not as widely available as electricity, so check that it's offered in your area. According to AGL it can cost around \$595 to have gas connected to your home (assuming it is available in your street).

There are plenty of gas heaters priced at around \$1000; the Rinnai brand has a large range of low to mid-priced heaters. But if you're looking to add value as well as warmth to your home, it's hard to go past the "Ferrari" of gas heaters, a Jetmaster.

A drawback of gas heating is that it can raise the level of carbon dioxide in the room, potentially leaving occupants feeling drowsy. This is especially the case with unflued heaters. The NSW Department of Health recommends good ventilation for areas heated by gas.

Smaller spaces

If you're looking to heat small rooms, or you want a portable heater that can be moved between different living zones, it is hard to go past electric heaters. A wide range is available, with prices starting at less than \$30.

While these heaters may come with a cheap-as-chips price tag, their running costs can be high and the higher the wattage, the bigger the impact on your power bill. A portable 2400-watt heater can cost about the same to run as a 50-litre home hot water system.

In addition to using electric heaters sparingly, a good way to save is to use the thermostat correctly. Country Energy says the optimum room temperature is between 18°C and 20°C. For every degree you increase the thermostat setting, your power bill can rise by up to 15 percent.

One final word on heating. Don't forget to budget for your ongoing bill. Whether you use gas, electricity or wood, resorting to your credit card to meet the regular running cost could add the extra impost of interest charges; something that could really send a chill through your hip pocket.

For the complete story see Money Magazine's July 2007 issue.