

Insulating Your Home

EARTH FIRST

By Brian Phillips

Rising Power Costs

With evening temperatures expected to plummet in the next few days, give some thought to whether your home can be better insulated against the winter cold.

The Independent Pricing Tribunal annual review has forecast electricity price increases of over eighteen percent from July 1 this year. This price rise and further predicted increases should motivate consumers to economise on electricity use, and ensure homes are well insulated against the elements.

Improving insulation in your home will help to reduce energy costs through reduced consumption. So, wrap up your home for winter warmth, just as you dress for each season.

Insulation

Insulation acts as a barrier to heat flow and is essential to keep your home warm in winter and cool in summer. A well insulated and well designed home will provide year round comfort, and can cut cooling and heating bills by up to 50 percent.

In Orange's climate, winter heat losses typically occur in ceilings (25-30%), walls (10-20%), windows (11-20%), air leakage (15-20%), floor (10-20%).

Draught sealing is important, as draughts can account for up to 25% of heat loss from a home in winter. Insulation can assist with weatherproofing and eliminate moisture problems such as condensation, and some types of insulation also have soundproofing qualities.

Choosing insulation

The most economical time to install insulation is during construction or renovation. There is little insulating value in most common construction materials, but there are some exceptions where little or no insulation may be required. Suitable materials include aerated concrete blocks, hollow expanded concrete polystyrene blocks, straw bales and rendered extruded polystyrene sheets. Check with your Council for details.

Insulation comes in two main categories-bulk and reflective. These are sometimes combined to produce a composite material. To compare the insulating quality of the available products, look at their R value. The R value measures the product's resistance to heat flow, and should be displayed on the product. The higher the R value, the higher the level of insulation.

The minimum R values for the cool temperate climate of Orange are 4.3 for roof or ceiling and 2.4 for walls. Increasing insulation thickness above the minimum can further improve energy savings.

Where to install insulation

The roof and the ceiling work together to produce effective insulation. Radiant heat gain is reduced through installation of insulation under roofing material. Installation of insulation in the ceiling reduces both heat gain and heat loss. In most cases insulation is installed between the joists.

External walls should also be insulated to reduce heat transfer. Wall insulation can be installed within cavities, stud frames, on the outside of stud frames, and on the inside and outside of solid walls. Savings of up to 20% on heating and cooling energy can be achieved through wall insulation alone.

For a cool temperate climate such as that which is enjoyed by Orange, insulation under suspended floors is worthwhile, as is the practice of insulating the edges of on ground concrete slabs. Save up to 10% on winter energy costs with appropriate floor insulation.

To find out more energy tips consult
<http://www.yourhome.gov.au/technical/index.html>

Green dates for the calendar:

International Composting Awareness Week (May 3-9)

Reminder: The ECCO and OCAN Autumn Local Environmental Awards close on May 1- collect an entry form from Book City, Mitre 10, Windyhill Nursery, Central Western Daily or Orange City Council.