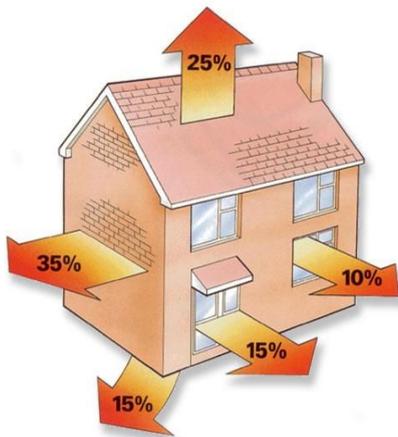


Tips for reducing heat loss in your home by saving energy

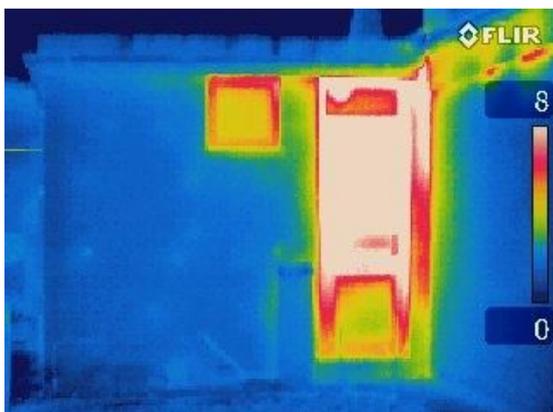
Heat loss and Energy Saving

The easiest escape route for heat (about 25-30%) is through the roof if it is uninsulated. Current recommendation is for 30 cms thick insulation. This can be a DIY job (using a good mask), but as it can be an unpleasant job, you might want to think about paying someone to do it for you (see below for builders and handymen who could do that) . Another large loss is through unfilled cavity walls (again about 30-35%). Dealing with this is not DIY. Solid walls can be insulated on the outside (costly but effective) or internally.



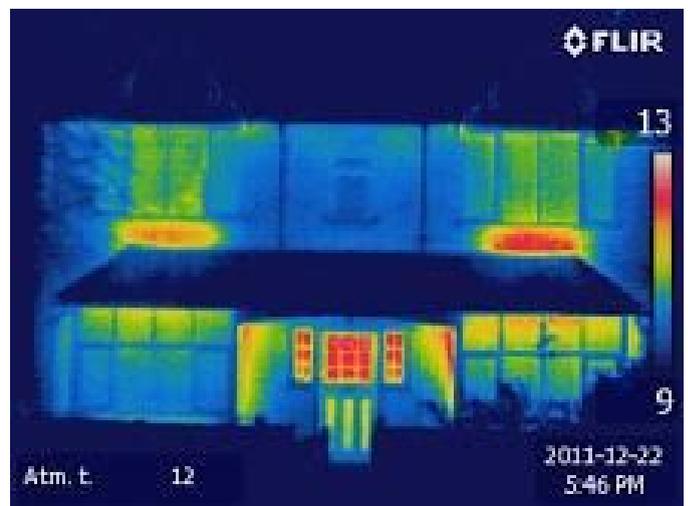
The smaller things you can do to improve comfort and efficiency like draught-proofing your windows, doors and letter boxes add up to make a big difference and mostly cost very little, especially if you are handy.

Wasteful areas are shown by a thermal image of the outside of your house. Radiators on outside walls often show up as warm areas of wall (see under the bedroom windows of this thermal image and advice note 1 below),



Heat can also be lost

through doors and windows as you can see in this picture (see advice note 2).



Indoors, anything you can do to reduce draughts will help keep the warmth where you want it and you will be more comfortable. There are often gaps along skirting boards, or where pipes and cables go through walls or floors (see advice note 3) and under doors (see advice note 2).

A few questions to help spot energy waste

- Have you a modern boiler with its timer set suitably?
- Do you have a room thermostat?
- Do you also have radiator thermostatic valves and match their settings to suit the use you make of each room?
- Is your hot water tank (if you have one) well insulated?
- Are all your light bulbs efficient (see 4)?
- Do you have double glazing (see 5)?
- Do you use curtains in the best possible way (see 6)?
- Do you keep internal doors shut? (This reduces draughts within the house and helps keep the warmth where you need it.)

Some useful advice

- 1. Radiators:** There is a range of products for reducing the heat loss through the wall behind a radiator. The simplest and cheapest is a sheet of aluminium cooking foil attached to the wall with adhesive tape. Next in cost is attaching the foil to sheets of cardboard that fit behind the radiator. Special radiator foil can be used (about £7 a roll) attached with wallpaper paste or there are versions which are suspended behind the radiator (good if you have stone walls) or (the most expensive option) you can buy light-weight contoured 'silver' panels at a cost of £5 - £10 a radiator. A shelf above the radiator helps to spread heat into the room.
- 2. Windows and doors:** A 1 mm gap all the way round a door adds up to the same area as an A4 piece of paper – like a massive ever open letter-box – so it is well worth paying attention to draught proofing. For sides and top, self-adhesive foam or rubber strips are effective. For the larger gaps, especially for outside doors, more robust rubber, plastic or part metal strips which need to be tacked into position are best. The bottom of the door can have a self-adhesive or tacked on plastic strip incorporating a brush. If you are keen to do the job as economically as possible, a strip of heavy felted material stapled into position works well. Letter box covers (or a bit of fabric hanging in front of the box) on the inside are helpful. Heat loss around windows, as in this picture, can be sealed with a commercial filler.
A thermal image showing heat loss around a window frame. The image is color-coded, with red and yellow indicating high heat loss and blue indicating low heat loss. The window frame and the area around it are shown in red and yellow, indicating significant heat loss. The text 'FLIR' is visible in the top right corner of the image. A temperature scale on the right side of the image shows values from 5 to 12.
- 3. Skirting boards, pipes and cables:** The gaps need filling. The cheapest method is to make papier mache with torn paper (newspaper is fine) and diluted PVA glue and press it into gaps. Alternatively use a commercial filler or an expanding foam. The foams are quite tricky to use but are ideal for large gaps.

4. **Light bulbs:** The traditional tungsten filament bulbs give out most of their energy as heat. Modern compact fluorescent (CFLs) are much more efficient (and may be available free, e.g., from your electricity company). They are now reasonably quick to warm up, can be obtained in a large variety of fittings. The most efficient bulbs available are LEDs. At the moment they are more expensive but they light up instantly. They are particularly good as replacements for halogen bulbs (such as the ones often recessed into ceilings) because, for example, 4W replaces 50W which gives you a huge saving. CFL and LED bulbs are straightforward replacements except where dimmer switches are used.
5. **Glazing:** Double or triple glazing adds tremendously to the comfort of a house but is a major financial outlay - (worth considering if you need to replace a window). Secondary glazing is helpful and comes in many different forms, the cheapest being shrink wrap (like cling film) held in place with tape and smoothed by being gently warmed with a hair dryer. Martin Batts (see below) can make secondary glazing on a wooden frame with shrink wrap at £20 per window. Magnetic panels are also relatively cheap and easy to fix to most windows.
6. **Curtains:** The thicker the better. In addition, investing in curtains with thick thermal linings can cut heat loss through windows. Thermal curtains, as well as, separate thermal linings (that you can just hang behind your own curtains) can be purchased at Dunelm Stores, Oxford or online at <http://www.dunelm-mill.com/search/?query=Thermal+curtain+lining>. Make sure your curtains don't hang over a radiator preventing the heat from getting into the room, and remember to draw them at dusk.
7. **Hot water:** Give your hot water tank a cosy jacket, which should be at least 75mm thick. It could take less than a year to pay for itself. If they are accessible, it's also easy to lag your hot water pipes. Just check the dimensions before buying the lagging.
8. **Room thermostat:** You will save a lot of energy if you set your room thermostat to 18 - 19 celsius (64-66 fahrenheit) and put on a jumper or cardigan!!
9. **Chimneys:** If you have an open chimney you can reduce heat loss enormously with a chimney balloon. The balloon plugs your flue leaving a small flow of air required for ventilation. Available online at <http://www.chimneyballoon.com/>. Alternatively, make your own from a bin liner filled with scrunched newspaper (but don't forget to remove either of these if you have a fire!)

For more information, see <http://www.1010global.org/uk/2013/11/five-more-tricks-make-most-your-heating> and <http://www.charlburygreenhub.org.uk/energy/thermal-imaging.html>

Supplies

Most of the equipment needed and mentioned above is available from local suppliers, such as *Evenlode DIY*, Eynsham, *Robert Dyas*, Witney and Oxford, *Oxon Fastenings*, Eynsham Industrial Estate, *B&Q*, Witney and *Screwfix*, Witney.

Fitting

Local builders and handy people can help if you are not a confident DIY person. The following builders and a handyman are available to help you with small scale energy improvements like roof insulation and excluding draughts and filling gaps.

Ade King, Handyman Services: 07443 566154;

Steve Creasey: Builder, 07976 880 253; stevecreasey3@btinternet.com

Paul Hayes: Builder. 01993 878284; phayes.son@btinternet.com

Brian McCreadie: Builder. 01865 880892; brian.mccreadie1@ntlworld.com

Funding and further information

Useful information on energy saving recommendations, insulating your home and thermal imaging is available at <http://greenteaoxon.net/energy/> and on the National Energy Foundation website

(<http://www.nef.org.uk/service/programme-management/householder-support/affordable-warmth-helpline>).

Or phone the **Oxfordshire Affordable Warmth Network Helpline on 0800 107 00 44** for impartial expert advice on financial help, reducing energy bills, increasing energy efficiency of properties, switching energy supplier and how to stay warm over winter. The Helpline can also advise on wall insulation, claiming benefits and dealing with unpaid fuel bills and energy efficiency. **The Network has access to funds which, for some areas, can result in insulation being free of charge.** Otherwise, they can make an onward referral to others who might be able to help. The Network also works to **reduce the number of people in fuel poverty**, so improving health & wellbeing. There are **no eligibility criteria** for residents being able to access this service.

Many **big energy providers** are giving away boilers, plus loft and cavity wall insulation, to people who get tax credits and have an income of £15,860 or less, or are receiving certain benefits such as pension credit. **But British Gas is giving away free loft and cavity wall insulation to anyone with a suitable home - you don't need to meet the benefit criteria** ([Free Boilers & Insulation](#)). You don't need to be their customer.

The Green Deal, formerly offered by the Department of Energy and Climate Change, is no longer available.

For free advice about reducing fuel bills, contact:

- The **Energy Saving Advice Service** on 0300 123 1234
- **West Oxfordshire District Council**
<http://www.westoxon.gov.uk/residents/environment/climate-change-home-energy/>

Updated November 2017