

How to save £££ on your heating bills AND get warm and cosy (whilst helping Somerset to achieve net zero!)



Here in Somerset we have lots of old and draughty homes which look really beautiful but are really hard to heat. Luckily there are lots of fairly simple solutions available and many which you could do yourself without having to employ someone else.

Insulating your roof, wall, floor and windows will take a small investment but will very quickly more than pay for itself in the savings you can make on your heating bills. And now that energy prices have risen, this will be all the more crucial to many. Happily, insulating well also reduces the amount of fossil fuels we use, so that's an added bonus. Furthermore, with all the new adverts for heat pumps, it is worth remembering that these may be more costly to run if your house is not well insulated first. Insulate first and they can be a very green way forward.

The best time of year to carry out insulation work is when the weather is warmer, before the heating season starts. And if you start now, you'll also have the added benefit of keeping your home cool in the summer, combatting the ever soaring temperatures we are experiencing each year.

It's a good idea to get a Retrofit Assessment and report for a whole house retrofit plan so that you can get an overview and order of what needs doing. This will avoid any wasting of resources or having to redo any work.

There are a number of opportunities to get a discounted or free report. If you live in Mendip you can get this through Mendip District Council. Elsewhere in Somerset, there are 50 discounted reports available. Contact the Centre for Sustainable Energy for more information by calling their freephone number **0800 082 2234** or you can email their Home Energy team on home.energy@cse.org.uk.

Practical Tips to Reduce Your Energy Bills

Insulation has the largest impact on saving energy and these simple measures can bring the biggest savings to your wallet:

1. Top up your loft insulation to 270mm depth.
2. Draft proofing (foam strips, draft excluder brushes and chimney balloon).
3. Turning down your thermostat by even 1 degree can bring huge savings
4. Home furnishings; using thermal curtains and blinds.
5. Double glazing (or temporary secondary glazing film).
6. New boiler (if more than ten years old)
7. Wall insulation (cavity or solid wall).
8. Floor insulation (or underlay with thermal properties).

Depending on your DIY skills, most of these home improvements can be done without having to employ a tradesperson. We have included some videos below which should help. All the materials are widely available from DIY stores and do not require a huge investment. As with any home improvements, please check that all work complies with building regulations. If you live in a tenanted property, your landlord or landlady should at least help with the cost of materials. And for those who are unable to take these actions, for instance if you are elderly or disabled, some of our Somerset Climate Action Network groups are organising volunteers in your area who can come and help.

Please note: we are not promoting any particular products or businesses here. This is simply a compilation of very useful videos and information which is all publicly available but which we have brought together into one place for ease of access.

For those living in historic or listed buildings, there is some extra advice to be found [HERE](#). Somerset CAN may well be hosting a webinar in the near future to look specifically at this issue. If this is of interest, please sign up to our network using the link below

<https://somersetcan.org.uk/sign-up-network/>

1. Loft Insulation

Insulating your loft to a standard depth of 27cm, which is almost the length of a school ruler, is probably the easiest and most effective way to keep heat in your home and stop it escaping into thin air.

 [How to Lay and Fit Loft Insulation](#)

Useful info from Centre for Alternative Technology:

Loft insulation is ONLY of very breathable fibreglass, mineral wool or polyester fibre roll.

If joists are shallower, the insulation MUST be shallower and can ONLY be level flush with top of joists, and NO higher.

Insulation MUST NOT touch walls and have at least 10mm gap from inner edge of walls and must NOT touch rafters or sarking felt or roof underside surface. Fibreglass and mineral wool loft insulation batts or roll are ONLY for plasterboard loft ceilings and masonry walled buildings.

Timber loft ceilings have polyester fibre roll or batts ONLY.

There must NOT be polythene sheeting added in between plasterboard or timber loft ceiling and insulation.

Boards, planks must NOT be left permanently over loft insulation (i.e. only use them to create safe spaces for working while installing your 270mm insulation)

Ask the true CITY & GUILDS N.V.Q. BRICKWORK for advice.

2. Draught Proofing

Draughts can come from all sorts of places in the home and it's not always obvious.

Be sure to check the following:

- Windows
- Doors (including keyholes and letterboxes)
- Loft hatches
- Plug fittings on walls
- Floorboards and skirting boards
- Any pipe work that leads outside
- Chimneys

As a general rule, you should try to get rid of draughts from these places, but **be careful not to go overboard in areas that require ventilation**, such as rooms with fires or in kitchens and bathrooms, where lots of moisture is created.

Draught proofing windows

Old, single-glazed sash windows are particularly bad for draughts. The best thing you can do is replace them with double glazing, which could save you **£120 per year** on your heating bill. If you can't make that investment, or if you live in a listed building, there are other options available:

- Use foam strips around open casements. It's cheap and easy to install, but isn't long-lasting.
- Metallic or plastic brush strips are a little more expensive, but last much longer.
- Spray foam sealant or use putty around cracks between frames and walls.
- For windows that don't open, use a silicon sealant or add secondary film glazing

Here is a short video which we hope will be helpful: [How to draught-proof windows](#)

Draught-proofing doors

- Fit a brush strip or 'weather bar' to the bottom of the door.
- Foam strips can help prevent draughts creeping in around the sides of doors.
- Use a letter box flap or letterbox brush.
- Buy a purpose made keyhole cover to prevent draughts coming in this way (in a pinch some tape will work, providing you're taping up the side of the keyhole that's rarely used).

 [How to Install Draught Excluders](#)

Draught-proofing loft hatches

- People often forget about their loft hatch, but heat rises and can easily escape here! Use foam, metallic or plastic strips, as with doors and windows.

Draught-proofing plug fittings

- Check around any electrical sockets for gaps or holes, and use sealant or putty to put a stop to draughts.

Draught-proofing floorboards and skirting boards

Floorboards and skirting boards expand and contract over time, so make sure you use a product that can tolerate movement, such as:

- Flexible fillers
- Decorator's caulk
- Mastic-type products

There are fillers available for indoor and outdoor use, and come in a range of colours. They're designed to block gaps permanently, so apply with care!

Here's some more [HOW TO ADVICE](#) for floorboards and skirting boards.

Draught-proofing pipe work

- Gaps around pipes can be filled with the same product as floorboards and skirting boards, but if the gap is sizeable you may need to use expanding polyurethane foam, which sprays a bit like whipped cream, but sets hard.

 **How to fill awkward or large gaps around pipework or fixings**

Draught-proofing chimneys

- A chimney cap blocks draughts at the source, although working on a roof is probably best done by a professional! **Only consider this option if you never use the chimney.**
- A chimney balloon or sheep fits snugly inside the chimney breast and is fairly easy to install and remove yourself. They are also fairly cheap. However, **always leave a visible reminder note that it's up there as you might not be the person lighting the first fire!**
- Chimney draught-excluders sit around the fireplace and can look really pretty.

Make sure you don't seal up any intentional ventilation, which is important for keeping your home fresh and dry. This includes:

- Extractor fans
- Under-floor grilles and airbricks
- Wall vents
- Trickle vents (often placed above modern windows).

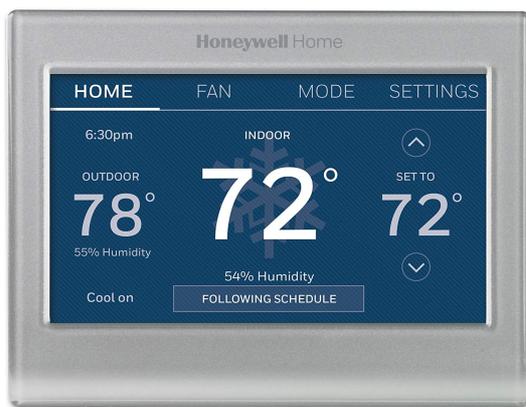
Each of these measures will have a noticeable impact on the temperature of your house. Keep it cosy in the winter and cool in the summer - just the way you want it.

3. Thermostats and Smart Meters

Thermostats

Whereas thermometers tell us the temperature in a room, thermostats set the temperature in a room. Thermostats are a more efficient and easier way to control the temperature of your house in winter; opening windows to cool a house down wastes fuel and will result in higher energy bills.

Turning your thermostat down, even just by 1 degree, can save you £80 a year (even more now that energy prices have gone up!)



The Energy Saving trust has a really useful [guide to heating controls](#).

In smart homes, electronic devices communicate with each other to activate gadgets, appliances. A smart thermostat can be controlled remotely via an app on your mobile phone or other device, so they save energy as they optimise your heating. For example, if you are away for the weekend, your heating and hot water are switched off, yet you still return to a warm home. Similarly, your

home can be zoned so if you work from home, the heating is only in areas of the house you are using during the day.

Smart thermostats are a great energy efficiency and money saving initiative. They cost around £200 including installation and are available from all main household or DIY stores.

Heating Controls Using Thermostatic Radiator Valves



Thermostatic radiator valves (TRV) on the side of each radiator are really useful for controlling the temperature in individual rooms. Bedrooms upstairs or unused rooms don't need to be heated to the same temperature as living rooms, try adjusting the radiator controls to a lower setting in these rooms or switching them off altogether. If you don't have TRVs, or if they have worn out, it is a simple job to replace them. The savings you make will pay for the call out fee for a heating engineer.

4. Home Furnishings



Using thick, thermal curtains or wooden shutters is another excellent way to keep heat in the room. Drawing curtains at dusk or closing window shutters is the best way to prevent heat escaping out the window.

You can also put curtains over doorways to prevent draughts or use them in large open plan spaces to create smaller warm zones which are quicker to heat. Heat rises, so using curtains to stop heat from escaping up stairwells can save considerably on heating bills.

Similarly, an easy way to improve [floor insulation](#) is to fit carpets with an underlay with excellent thermal properties.

5. Double Glazing



A lot of heat escapes through the glass in windows, which is why double, or better still, triple glazing as a recommended energy conservation measure. Double glazing is filled with an inert gas such as argon or has a vacuum between the glass panes to reduce heat transfer from your home. The glass and glazing federation provide a directory of members who have signed up to their [consumer code](#).

Replacement windows for an entire house are expensive. If your home is a listed building or in a conservation area there may be restrictions regarding double glazing, so it is worth discussing options with your local council planning officer.

Secondary Glazing

A cheaper and temporary alternative to double glazing is [secondary glazing](#). This is a pane of glass, plastic or even film fitted in parallel to the window. Whilst not as efficient, secondary glazing retains the original character of the windows and is considerably cheaper. You can even fix it using magnetic strips.

▶ [Magnetic-strip secondary glazing](#)

Secondary glazing film can be purchased from most DIY stores and fitted in a few minutes. The only tool required is a hairdryer to remove any creases.

How to fit secondary glazing film

▶ [Fit Stormguard Secondary Glazing Film Draught Excluder](#)

This solution is ideal for people in rented properties as it offers a [quick fix](#) to draughty windows!

6. A New Boiler

If you have an old boiler, especially one that is more than 10-15 years old, replacing it with a modern condensing boiler, could make a huge difference to your heating bills. There are still 9 million inefficient boilers in UK homes that are wasting around half of the fuel that is consumed. A new system will save you lots of money. You could even consider one of the many [renewable energy options](#) available.



There are plenty of finance options available from energy companies and other providers. If you take out an agreement, please be sure to check the details of the repayment scheme. For low-income households and those in receipt of certain benefits, [help is available](#). Qualified Gas Safe installers are required for boiler and heating system upgrades.

Taking the time to shop around for a replacement boiler in the summer could save you a lot of money. A panic purchase, due to a broken boiler in the middle of winter, is likely to end up being more expensive and there may only be a limited choice. Keeping your boiler serviced regularly is always a good idea.

7. Wall Insulation

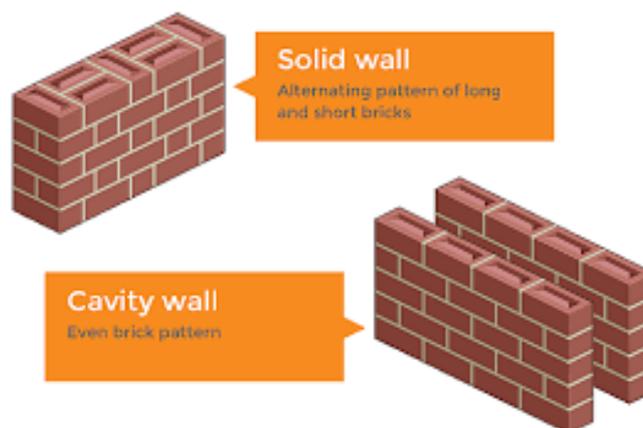
Regardless of how old your house is, the structure or materials used, it is possible to insulate walls to prevent heat loss.

Cavity Wall Insulation

If your home was built between 1930 and 2000 it is likely the construction method used was two brick walls built with a gap in between. This cavity wall structure originally had no insulation. Currently approximately 16 million homes in the UK have uninsulated cavity walls - so it's worth checking if your walls are insulated or not. It's easy to check if your house already has wall insulation, you can look around the brick work for signs of circular holes where someone has drilled into the cavity or ask an installer to visit.

Filling a cavity wall is quick and easy and there may be a [Government grant](#) available. Installers take about two hours to fill the cavity before they seal up the tiny holes they drilled. They use polystyrene beads that don't absorb water so there are no damp problems. The insulation retains heat in your home and stops it from escaping outside. Therefore, with next to no hassle, your home will be warmer and cosier without any change in its appearance. Just cheaper bills and less emissions. A real win win!

If you are not sure if your home is suitable for cavity wall insulation, ask a registered installer to come and review your property. Before going ahead with cavity wall insulation, get three written quotes from companies approved by the [Cavity Insulation Guarantee Agency](#). The national cavity wall insulation guarantee provides a 25-year independent assurance on the work on your home when using a registered installer.



Solid Wall Insulation

Nearly half of all heat produced in a home escapes through solid walls. Older homes (pre-1920) are likely to be built using a single solid wall of bricks or stone. If your brickwork is a mixture of long and short bricks then it is likely of solid wall construction.

It is still possible to insulate these walls by adding a layer of insulating material either on the inside or the outside of the house. The choice is very much up to your individual preference and budget.

It may be worth getting the opinion of an RICS surveyor before deciding to invest in solid wall insulation. The cost of a surveyor's report is not high in comparison with the cost of external or internal insulation and is independent and covered by professional indemnity insurance.

Internal Insulation

Internal insulation entails adding insulation boards or lining to the solid walls, resulting in a slight loss of internal space in each room. Internal insulation is cheaper than external insulation, and there may be grants available through Government schemes. Please follow this link to find out more about [available grants](#).

The Centre for Sustainable Energy has more info on [internal wall insulation](#)

External Insulation

[External solid wall insulation](#) adds an extra thermal layer onto the outside wall, which is then finished off with a protective render or cladding. This process is less disruptive and retains the original room sizes. However, it is more expensive due to the materials required and will change the look of your property. If your home is in a listed or conservation area, this option may not be suitable.

Again, there may be [grants available](#).



8. Floor Insulation

If you are planning to lay new flooring or have a particular problem with draughts from ground level, floor insulation is a good idea.

Draughty gaps between floor boards or skirting boards can easily be plugged using filler from DIY stores. For wooden floors, the easiest method is to attach solid insulation boards or rolls of mineral wool between the timber joists from a basement below the room. For many homes this is not possible, as floor boards will need to be lifted.

[Doing this yourself](#) will always be much cheaper than using a professional. Here also is some handy [DIY advice on insulating your floors](#).

Rigid insulation boards can be fitted over concrete floors as well, but doors may need to be adjusted and a damp proof membrane added.

If all this seems too complex to tackle, then thermal underlay is effective and cheap. You will find a good guide to floor insulation materials via the [Which? website](#).

Grant Funding and Free Advice

Help, in the form of free grant funding under the [Energy Company Obligation \(ECO2t\)](#) scheme, is available for many low-income households and those in receipt of certain types of benefits. You may be eligible to have your home insulated for free.

Please visit [the Centre for Sustainable Energy](#) or [the Energy Saving Trust](#) for further free advice on energy efficiency measures.

Visit your [energy supplier website](#).

If you wish to use professionals to save time and hassle then the National Insulation Association (NIA) has a list of approved installers. Use the NIA postcode locator tool is at the top of their website to [find your local installers](#).

📄 15112021-TrustMark-retrofit-brochure-FINAL-WEB.pdf

📄 advice-leaflet-whole-house-approach2.pdf