

# UNDERSTANDING RETROFIT AND ENERGY EFFICIENCY



**SMALL ENERGY EFFICIENCY  
MEASURES, BIG IMPACT**



# CONTENTS PAGE

---

Purpose of this resource .....	2
Energy efficient lighting .....	3
Draught proofing .....	5
Heating controls .....	8
Additional information and advice .....	9

# PURPOSE OF THIS RESOURCE

This digital resource will identify a range of smaller energy efficiency measures that you can install around your home for little cost and low effort.

Although these measures will not drastically reduce your domestic energy use overnight, they will have an impact – be it the smaller energy savings you will find, or the increase in comfort during winter months from reducing excess heat loss.

They are an important part of making your home as energy efficient as possible, and a great first step to retrofitting your home. If you wish to combine these smaller measures with more substantial energy efficiency measures, you can find out how by accessing a series of online resources found on [Ealing Council's website](#).

Many of the measures detailed in this resource feature in our [handy one-page leaflet](#) which sets out 10 simple steps we can all take to reduce our energy use at home. Take a look to find out what other easy, energy-saving, wins you can have around your home.

## GRANTS AND FUNDING

There may be grant funding available to assist you with the cost and installation of smaller energy efficiency measures.

To find out more about what support is available to you, visit [Ealing Council's website](#).



# ENERGY EFFICIENT LIGHTING

To introduce you to low energy lighting, it is important to note the four main types of lightbulbs:

- Traditional incandescent lightbulb
- Halogen lightbulb
- Compact fluorescent lamp (CFL)
- Light emitting diode (LED)

Of these four types of bulbs, CFLs and LEDs are the most energy efficient, with LEDs being more efficient than CFLs.

## Do you know your bulbs?

This is an image of a CFL lightbulb.



This is an image of an LED lightbulb.



In the home, you will find that LEDs are most common due to their versatility.

## Energy saving tip #1

**Always turn lights off when you leave a room**

The quickest way to start saving is simply remembering to turn lights off when you do not need them.

# ENERGY EFFICIENT LIGHTING

## Costs and savings

Both the CSE and Energy Saving Trust have estimated the average costs of LED bulbs to be around £6, with CFLs costing around £2.50, and halogens costing around £2.

LEDs, however, are expected to last around 10 - 14 years, making their average yearly purchase cost (AYPC) over 10 - 14 years to be around 60p - 42p. Whereas, CFLs are expected to have an AYPC of around 35p (as they tend to last around 10 years) and halogens having an AYPC of around £1 (as they only tend to last around 2 years).

Over a longer period of time, LED bulbs are the more cost friendly and energy efficient lightbulb available.

## Potential disruption

The installation process is simple and causes minimal disruption. This is down to the fact that it does not require a specialist, unless you need to rewire your lighting.

The main disruption from installing low energy lights bulbs is the range of different fittings. To avoid buying the wrong bulbs, you can take the old bulb shopping with you (or have it next to you if shopping online).

### Energy saving tip #2

#### Use sensors or timers on external lights

This means lights only come on when the room is occupied.

### Energy saving tip #3

#### Check the lumen value

Energy efficient lighting maintains high lumen levels (brightness) at lower wattage.

# DRAUGHT PROOFING

Draught proofing is one of the cheapest and easiest ways to help reduce heat loss. Small gaps in the home can allow cold air to seep in and hot air to escape.

Draught proofing prevents heat loss when you have your heating on.

Keeping the warm air inside and the cold air out means that your heating system will need to work less to keep your home at the desired temperature.

Areas to consider when draught proofing:

## Windows

- Draught proofing strips are stuck around the window frame to fill the gap between the window and the frame
- Replacing dry or cracked gasket seals in the frame itself can reduce air flow, as well as noise. Sample packs of gaskets can be ordered to ensure you order the correct type for your windows. These can be installed without tools
- There are self-adhesive foam, metal and plastic strips that have brushes/wipers attached
- For sliding sash windows, foam strips do not work as well, so it is best to fit brush strips or consult a professional
- For windows that do not open, it is best to use a silicone sealant or 'rope caulk', which is a bead of clay that can be pressed into place.

## Doors

- A purpose-made cover that drops a metal disc over the keyhole prevents heat loss through this area of your door
- You can use a letterbox flap or brush to prevent warm air escaping through your letterbox but remember to measure your letterbox before you buy
- To prevent gaps at the bottom of external doors from letting heat escape, it is best to use a brush or hinged flap draught excluder
- For internal doors you can buy a draught excluder or make your own with spare materials, such as old clothing or sheets.

# DRAUGHT PROOFING

## Chimneys

- If you have a fireplace but do not use it, it is more than likely going to act as a source of unnecessary draughts
- You can either fit a cap over the chimney pot (which might need to be done by a professional) or buy a chimney draught excluder, also called a chimney balloon, which are usually fitted inside the chimney or around the fireplace.

## Floorboards and skirting boards

- Not all homes, nor all floors, will need to be draught proofed, and it is usually most useful on the ground floor
- To draught proof your floors you need to fill in the cracks/gaps between the boards by applying a filler
- Wooden flooring can often contract, expand, or move slightly with everyday use, so it is best to use a filler that can tolerate such movement. Silicone-based fillers are therefore the best ones to look at.

## Loft hatches

- Hot air rises and gets lost in the cold space of your loft or attic, so using strip insulation will help
- A layer of insulation can also be adhered to the loft hatch if it will not interfere with loft ladders
- Even small cracks in your walls can let in a draught, so it is best to fill these in using cement or hard-setting fillers.

# DRAUGHTPROOFING

## Costs and savings

You can draught proof yourself or hire a professional to do your draught proofing. An installer will know the right materials to use and where to use them, however the table below shows the approximate costs for different types of materials if you are installing them yourself.

Type	Typical Cost (£)
Window Draught Excluders	Less than £10
Door Draught Excluders	Less than £10
Keyhole Covers	Less than £4
Letterbox Brush	Around £10
Chimney Draught Excluder	Less than £25
Door Compression Strips for Loft Hatches	Less than £10

## Potential disruption

There is minimal disruption when it comes to draught proofing, the main thing to look out for is the time it will take to install.

The time it takes to draught proof will depend on the size, and type, of the fixture you are draughtproofing, and whether you hire a professional or DIY.

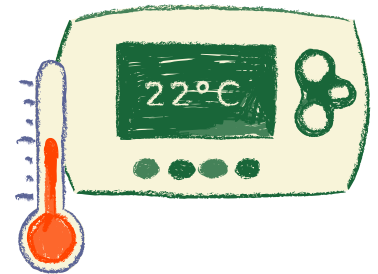


# HEATING CONTROLS

Heating controls help us to manage our home heating systems.

They allow you to set automatic “on and off” schedules as well as increase and decrease the temperature your system is set to. Heating controls range from smart to traditional controls, including:

- **Programmable:** These help to control the timing of your heating and hot water, turning them on and off at pre-set times, and allow you to skip settings if your schedule changes or you are away from home
- **Room thermostats:** These sense the temperature of the air around them and communicates this with the central heating system, turning it on when the house is too cold and off when the house is at the desired temperature
- **Time switches:** These are central heating and water control mechanisms that control when heating units are turned on or off. These products are ideal when the user has different heating needs from day to day
- **Thermostatic radiator valves:** These allow you to adjust the temperature of individual radiators and turn them off completely
- **Smart thermostats:** These allow you to control the temperature in your home from your smartphone or tablet, even when you're away.



## Costs and savings

Heating controls tend to vary in cost, depending on the control itself, its size, the brand/make, and whether it's a smart device or not.

## Potential disruption

Installing heating controls are relatively disruption free, no matter the measure you are having put in place.



Additional information and advice can be found at the following websites.

[Energy Saving Trust](#)

[UK Government - Department for Energy Security and Net Zero](#)

[Climate Change Committee](#)

[Simple Energy Advice](#)