



The HEAT Project

Saving energy in the home

Climate Café 15 March





Background

- ▶ HEAT (Home Energy Advice Team) is a project that is here to help households have warmer homes, reduce their energy bills and to raise awareness of how our actions have an impact on Climate Change.
- ▶ Our services are free and offer independent advice to the local community of Blairgowrie, Rattray and the Mount Blair area (but we do stray occasionally). We are here to support by:
 - ❖ Helping families, schools and community groups increase the energy efficiency of their properties, save money on energy bills which will hopefully reduce their environmental impact too.
 - ❖ Raising local awareness about how our decisions and actions can all add together to have a negative impact on climate change - with negative impacts at global and at local levels.

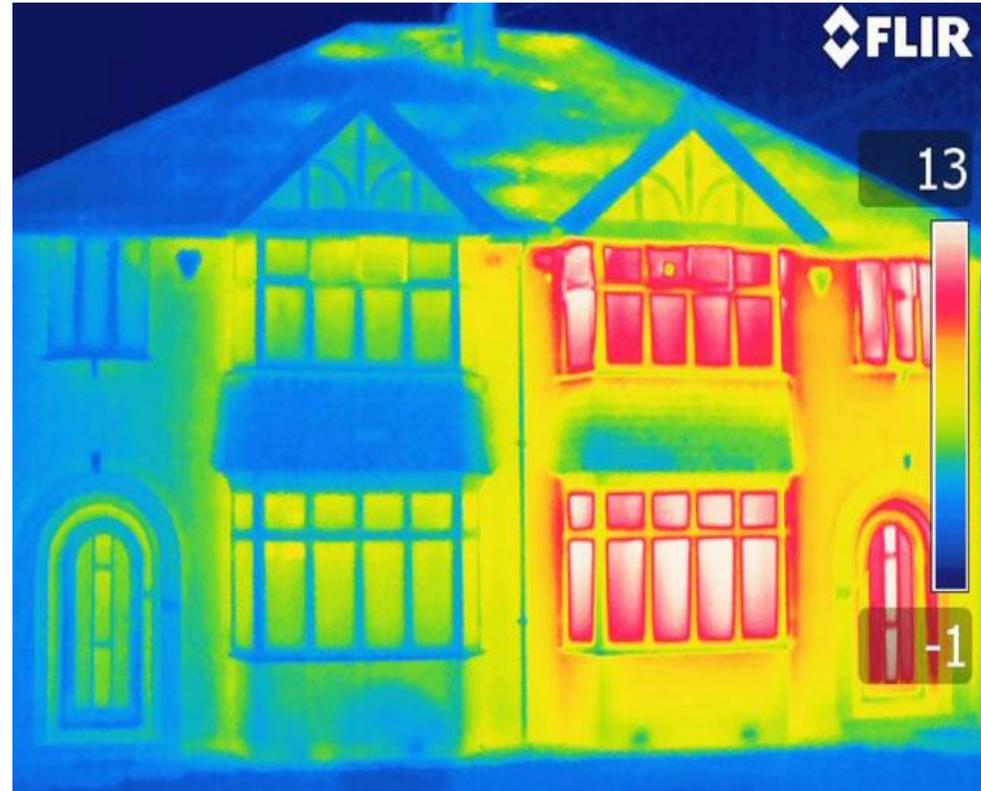




Quick Wins to save you money

Understand your home!

Where do we start - there are so many ways we can save on our energy bills just by making small changes to our behaviours.





Changes you can make that won't cost you anything!

Switching your Tariff

If you have not reviewed your energy bills recently, then do it now.

What to look out for:

- Your rate - Standard, Fixed, Economy 7
- How much is the standing charge

There are many websites out there but who do you trust!

Home Energy Scotland recommends

<http://citrusenergy.businesscatalyst.com/>

Or look for the Confidence Code Logo.

<https://energycompare.citizensadvice.org.uk/>

You could easily save up to £250 per year just by changing your tariff either with existing provider or switching to another provider!!



Changes you can make that won't cost you anything!

Kettles

Do you fill your kettle every time? Only putting in enough water for what you need can save on wasted energy.



Don't boil what you don't need.

Unplug/Turn off Appliances

We can easily **reduce** our electricity consumption by at least **10%** by understanding and controlling our appliances.

Do you leave your TV on standby? The average household does for 17 hours a day!



Do you change your smart phone over night?

A recent household that we visited saved £15 a year just by turning off their microwave at the socket. It doesn't seem a lot but if you can save £15 just by flicking a switch have a think about what else you could do?



Changes you can make that won't cost you anything!

Refrigerators

Decide what you want before you open the refrigerator. Gazing into the refrigerator can cost you up to a whopping £36 a year!

Do not have your fridge in direct sunlight as this makes your fridge work harder to stay cool.

Dishwashers

Always run a full load and allow to air-dry at the end

Washing and Drying Clothes

Washing your clothes at 30 degrees can use up to 40% less electricity than washing at a higher temperature.

It is difficult to dry your clothes outside living in Scotland and because of other demands on your lifestyle but where possible dry your clothes outside.



Changes you can make that won't cost you anything!

Shower v's Bath

• Showering is much more efficient than filling a bath with hot water! In-fact you can use only 14% of the water you would use when bathing

Room Layout

- Open your blinds and curtains in the morning. It's easy to just switch the main light on and not open the blinds or curtains. This not only wastes electricity, it also stops the sunlight getting into your house which is a way of warming up your house
- Close blinds and curtains an hour before dark - you can retain up to 5% more heat in your room by closing the curtains before dark
- Relocate objects away from windows where possible as this blocks the sunlight from entering your room
- Do not place sofas in front of radiators as this blocks the heat from reaching the rest of your room





Low cost, guaranteed pay back solutions

LED Lightbulbs

Lighting is accountable for about 15% of your energy bills. Replacing your standard lightbulbs with LEDs can reduce this by 80%

LEDs are available to fit most fittings and are particularly good for replacing spotlights and dimmable lights, they are more efficient than CFLs and will save you more money in the long term. They can last up to 10 years. When buying your new bulbs, think lumens, not watts. The brightness, or lumen levels, of the lights in your home may vary widely, so here's a rule of thumb:

To replace a 100-watt incandescent bulb, look for a bulb that gives you about 1600 lumens.

A house that we surveyed changed their standard lighting to LEDs. When all the lights are lit in the house the demand has reduced from 1400KW to 140W.



Low cost, guaranteed pay back solutions - Draft Proofing

Insulate pipe gaps/holes and around fixtures & fittings

Do you feel a draft everytime you stand at the kitchen sink? Open your cupboards and see if there are gaps around the pipes? Place some insulation in the gaps to stop the draft.

Also look to see if there are any gaps around your fixtures and fittings and fill these in too



Skirting boards and flooring

Look along your skirting boards and see if there are any gaps. Fill these with Decorators Caulk

For old wooden floorboards use stopgap or rubber inlay between the boards to prevent drafts from coming up from under the floorboards.



Low cost, guaranteed pay back solutions

Doors and Windows

Can you see any gaps around the edge of your external doors or your windows? If so, buy a draft excluder roll and attach this around the edges.

Buy some draft excluders and put them on the end of your doors or simply buy a draft excluder cushion and lay it against the door.





Low cost, guaranteed pay back solutions

Insulating Underlay

Using rugs on wooden floors can help you save between 4%-6% on your energy bills .

You can also lay these on top of a layer of insulation.

It is also worth using insulating underlay underneath your carpets.



Low cost, guaranteed pay back solutions

Open Chimneys/Stoves

Do you have an open fire that you only light a few times a year or not at all?

Up to 75% of heat loss in a room can be down to an open chimney.

Use a chimney balloon or similar to seal the flue. You will be amazed at the difference this makes and it is easy to take out if you want to light your fire, just remember to get it swept before using.



Low cost, guaranteed pay back solutions

If you have a stove and don't have it lit make sure that all the vents are closed as heat will also escape up the flue if they are open.



Eco fans / Stove top fans improves the dispersion of warm area around the room or around your house. These really do make a big difference.



Low cost, guaranteed pay back solutions

Radiators

Heat Reflectors - These are simple to apply to the back of your radiators and bounce the hot air back in to the room. They are particularly useful for radiators that are mounted on external walls.

Radiator Fans - As like Stove Top fans they improve the dispersion of warm area around the room.

Thermostatic Radiator Control Values - TRV's

These reduce the flow of water through the radiator which they are fitted to when the temperature goes above a certain setting. Set them to the level you want for the room; a lower setting uses less energy and so will save you money.



Low cost, guaranteed pay back solutions



Insulating your Loft Hatches

We are all pretty good at insulating our loft but have insulated your hatch and around the edges to prevent drafts.

One way of doing this is by using old carpet and flooring underlay.



Moving on up

Loft insulation

Accepted practice for loft insulation has changed over time
Only a few years ago, 150mm of insulation (between the ceiling joists) was good practice.

The current recommendation is to put another layer of insulation across the tip of your joists - 170 or 200mm is enough



Look through any window

Glazing

By far the most common energy efficiency improvement is to fit **double glazing**. This does save energy but perhaps not as much as you might think. The Energy Saving Trust estimates that an average house would save £120 per year by replacing single glazing with double glazing. BUT it would cost perhaps £5000 - a payback period of OVER 40 YEARS.

However, if your windows are in poor condition, this the sensible thing to do.

Secondary glazing and draught proofing the same house will only produce savings of about £75 per year. But at perhaps only £1500 per house, the payback can be half that of full double glazing.

And don't forget draught proofing and thick curtains!



Going deeper

This presentation has concentrated on the easier and more common options - but the list is almost endless -

- Internal wall insulation
- External wall insulation
- Underfloor insulation
- New build “Passivhaus”

And of course zero or low carbon energy sources

- Solar (air heating, water heating and PV)
- Biomass
- Hydro
- Air Source Heat Pump
- Ground Source Heat Pump



We hope you have found this useful but it may have left you wanting to ask further questions. Need some help applying this to your or would you like us to use our thermal camera to help you identify where drafts are in your home?

Just get in touch with us to arrange a no obligations home survey
The HEAT Project

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