HOME ENERGY ADVICE

This information has been put together to help you manage your energy bills and to keep your home warm and healthy.

STUDENTS ORGANISING FOR SUSTAINABILITY UNITED KINGDOM

Finding an energy efficient home

Check the Energy Performance Certificate (EPC)

All students renting a house or flat on a joint tenancy or renting a self-contained flat should be provided with an Energy Performance Certificate (EPC). The EPC provides information about the energy efficiency of a property, all properties being let must have a minimum Energy Efficient Rating of 'E' or above – the higher the Energy Efficient Rating, the lower your fuel bills are likely to be.

The EPC must be provided to prospective tenants free of charge. Alternatively, you can also find the EPC online here:

- https://find-energy-certificate.digital.communities.gov.uk/

EPC include estimated energy costs for the property which can be used to compare how expensive different properties will be to live in.

Things to look out for

Type of home:

- Newer homes are typically better at retaining heat and are less draughty, and should therefore have lower heating bills
- Bigger homes with lots of external walls (e.g. detached, end terrace houses) are typically more expensive to heat than smaller flats and mid-terraced properties

Building condition:

- Buildings in poor condition are often less energy efficient and can make for unhealthy places to live
- Look for homes that are well maintained with modern fixtures, fittings and systems e.g. central heating, insulation and double glazing. The EPC can help identify these features.
- Watch out for signs of damp in a house (which may have been painted over recently!) and, if possible, ask previous tenants about their experience of living in a property

Heating system:

- Properties with a 'wet' central heating system i.e. radiators filled with water are typically cheaper to run than individual electric heaters or radiators
- Ideally the central heating system should have a thermostat to control the boiler and maintain the desired internal temperatures
- Most properties with a gas connection are heated with gas fired combi boilers these days which provide hot water for radiators as well as instantaneous hot water for taps etc.
- Electric showers are more expensive to run than ones that use hot water from the gas boiler.
- Newer boilers should be more energy efficient than older models
- Some homes are heated with electric Air Source Heat Pumps (ASHPs), usually as part of a wet central heating system. These systems are more complex than gas boilers but can usually be controlled fairly easily with a programmer
- Well-insulated modern flats with Mechanical Heat Recovery Ventilation (MVHR) systems should benefit from low energy bills

Windows and doors:

- Look out for loose fitting windows in poor condition which could be draughty or even allow water to leak in
- Single glazed windows allow more heat to escape the building than double or triple glazed windows
- Modern well-fitted doors with effective draught seals are better at retaining heat than old ill-fitting doors
- Old doors can sometimes be improved with cheap draught seals or thick/heavy lined second-hand curtains to help them retain heat

Walls:

- Newer properties typically retain heat better as the walls provide better insulation
- Many older properties have been improved with cavity or solid wall insulation – you can check this on the EPC

Understanding your heating system

Programmers

A good programmer lets you efficiently control when your central heating and hot water go on/off. The best ones let you control each element individually and some are linked to a thermostat.

Room thermostat

A room thermostat will switch off your heating when your room gets to the right temperature.

Cylinder thermostat (if you have a separate hot water tank)

This will switch off your water heater when it gets to the temperature you set - we recommend 60°C. That's hot enough to kill off harmful bacteria, any hotter and you'll waste energy and be at risk of scalding.

Thermostatic radiator valves (TRVs)

These let you control the temperature of each room separately. They sense the air temperature and switch radiators on and off automatically.

Storage heaters

If you have electric storage heaters, it is important to experiment with setting them up correctly to ensure that you can keep your home warm enough when required, and to avoid high bills. This helpful video from the Energy Saving Trust shows you how to get the most out of them: https://www.youtube.com/watch?v=qUwXE8mlj-I

Heating and hot water tips

Just making a few changes can help you save energy and cash. Try these energy saving actions:

- When indoors try and keep the living room temperature at a maximum of 21°C (70°F) and other rooms at 18°C (64°F)
- 18°C is considered an ideal temperature to sleep for most people
- Leaving your gas central heating on low all day is not cheaper. Only put it on when you need it
- An Air Source Heat Pump should be set to run constantly to keep your home around 18°C, increasing to around 20-21°C at times when you would like it warmer.

- It takes time for your house to warm up and cool down. Keep this in mind when setting your controls
- TRVs can be set to keep main living spaces warmer than unused rooms
- Close curtains at dusk to keep the heat in - thermal linings for curtains can help reduce heat loss and can be bought for as little as £12
- Try and reduce the use of stand-alone electric heaters, they are expensive to run. Instead learn to use your heating controls effectively and only use electric heaters in emergencies
- Have showers instead of baths to cut water heating costs
- Fit a water efficient shower head to reduce your hot water usage while retaining the sensation of a powerful shower

Energy saving tips

How much could you save?

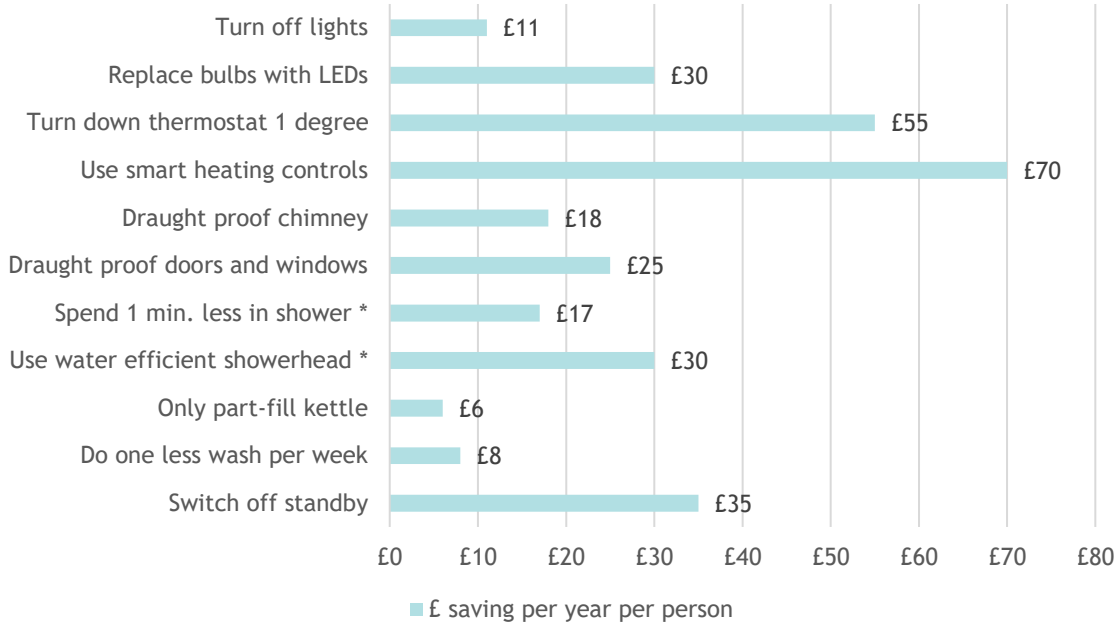

*figure for four-person household

Source: Energy Saving Trust

Lighting

- Switch any old incandescent light bulbs or halogen spotlights to LED - you can take the new energy efficient bulbs with you when you move out
- Swapping to LED lighting can save around £30 per year on electricity bills
- Switch lights off when not in use

Use appliances efficiently

- Turn off appliances when not in use and avoid using the stand-by facility as this wastes energy
- The small surge in energy created when any electrical product is turned on is much smaller than the energy used in standby when it's not needed, especially with older devices.
- Only boil the water you need in your kettle

- A microwave uses less energy than an electric oven on full power
- Defrost your freezer regularly, as ice makes it less efficient
- If your fridge freezer is not filled with food, keep containers filled with water in it to help it run efficiently
- When you are replacing appliances look for the highest energy rating you can afford, further information can be found at https://energylabel.org.uk/
- Reduce the temperature of your washing machine, many detergents now work well at 30°C
- Cut back your dishwasher and washing machine use by just one cycle per week and save £8 a year on energy for each appliance
- Plan your meals so you can defrost food throughout the day ready for your tea and not have to use a microwave to defrost food

Energy consumption of appliances

You can reduce your energy usage by cutting back on how much you use certain appliances. But first you need to understand how energy usage is measured and how different appliances compare.

All household appliances are given a **power** rating in Watts (W) or kilowatts (kW) (1kW = 1000 Watts). The higher this number, the more electricity the appliance will use.

The amount of **energy** used by an appliance is measured in kilowatt hours (kWh). For example, an electric heater with a 1kW power rating will use one kWh of electricity in one hour. This is what you are charged for on your energy bill.

You should focus on reducing usage of the most energy hungry appliances first, here are approximate energy usages of various home appliances:

Appliance / item	Usage	kWh
Fluorescent strip light (40W)	25 hours	1
Incandescent light bulb (60W)	16.5 hours	1
LED light bulb (8W)	125 hours	1
42" LCD TV	6.5 hours	1
Games Console	8 hours	1
Microwave (800W)	1.25 hours	1
Cooker	1 week's meals for a family of 4	15
Conventional oven	Tray of oven chips	1
Fan oven	1.45 kg chicken	3
Toaster	60 slices of toast	1
Kettle	6 litres of boiling water	1
Dishwasher (cold fill)	1 full load	2-3
Automatic washing machine	Weekly wash for a family of 4	8-9
Tumble dryer	3.6-5.4kg of sheets and towels	4
Fridge-freezer	24 hours	2
Curling tongs/hair straighteners	1 hour	0.5

Hair dryer (500W)	2 hours	1
Shower (9kW)	5 minutes every day for a week	5.25
Vacuum cleaner (upright)	2 hours	1
PC	3-6 hours	1
Mobile phone charger	100 charges	1

Source: SSE / Energy Saving Trust

Energy supply

It is important to understand what energy tariff you are on and what your energy costs you.

Things to do when you move in

- Find your existing energy supplier, these websites can help:
  - Gas - https://www.findmysupplier.energy/webapp/index.html
  - Electricity - https://www.energynetworks.org/operating-the-networks/whos-my-network-operator
- Take meter readings

Check to see if you are getting the best deal for your energy

You could save hundreds of pounds a year on your bills by switching supplier or changing tariffs with your current supplier. Use an Ofgem-accredited price comparison site listed on Ofgem's website (ofgem.gov.uk). These suppliers should all display the Ofgem Confidence Code logo.

Estimate annual energy usage

If you have a copy of a previous energy bill or annual statement for your home this will tell you how much energy you have used in the past year. You can use this information to compare various energy tariffs online. Alternatively, you could use the following estimates[1] or consult your EPC[2]

- Annual electricity use- 4,300 kWh
- Annual gas use - 17,000 kWh

Make sure you compare all energy suppliers

Be aware that comparison sites often do not show you the whole market, they only show you the tariffs for suppliers they can switch you to directly. To make sure the other (potentially cheaper) results are not being excluded check the filter settings on the comparison results. You can switch to these suppliers by contacting them directly.

Smart Meters

If you have an old smart meter you should still be able to switch but you may lose the 'smart' functions of your meter temporarily. This means you may have to read the meters yourself for a little while. With the latest generation of smart meters, your readings should switch over as soon as you switch energy provider.

[1] Ofgem Typical Domestic Consumption Values (TDCVs) as of January 2020 for 'high' consumption households with gas heating

[2] But this will be for a typical family occupying the property

If your home does not have a smart meter with an in-home display, you could write to your landlord to request one – these are provided free of charge by energy suppliers.

Understand your energy bill

Energy bills can be confusing, but understanding them can help you get to grips with your energy usage at home. This video from Home Energy Scotland provides a helpful guide.

If you receive a bill and it has an 'E' marked against the meter reading then this means it is 'estimated' by your supplier and you may not be paying the right amount for your energy. Having several estimated readings can sometimes lead to large unexpected bills. Be sure to check the accuracy of the estimated reading and submit accurate readings to the supplier regularly.

Budgeting

Supply regular meter readings to your supplier if you do not have a smart meter, this ensures you are being billed accurately for the energy you use. If you pay by direct debit, ensure your payments are set high enough to cover your winter heating energy use.

If you fall behind on your energy bill payments then get advice asap. Suppliers should agree an affordable repayment plan with you. The "ability to pay" under this plan refers to what you the customer can afford not what the supplier deems affordable.

You can also get advice on energy debt from Citizens Advice Consumer Helpline on **03454 040506** or your local Citizens Advice. TextPhone users should use **18001 03454 040506** (call charges may apply).

Ventilation and condensation

Adequate ventilation is vitally important to control moisture and air pollutants. Inadequate ventilation can lead to poor indoor air quality, condensation and mould growth which in turn can affect occupants' health and damage your belongings or even the building itself.

During the colder months condensation becomes a major problem in many British homes. It is caused when warm moist air hits a cold surface such as a window or external wall and condenses, forming water droplets. It is exacerbated by poor air movement in areas such as the corners of rooms and behind wardrobes and furnishings.

Condensation can cause peeling wallpaper and stained wall surfaces, rotting window frames, and can damage furniture and clothing. It can also encourage mould growth and dust mites and increase the risk of illnesses like asthma and bronchitis.

It is important to remember that as a tenant you are responsible for any damage you cause to a property you are renting. Any repair costs could be taken from your security deposit – this could include damage caused by inadequate ventilation or heating.

Condensation is caused by four things:

- Producing a lot of moisture – steam in the kitchen and bathroom, drying laundry
- Inadequate ventilation – the moist air can't escape from the home
- Inadequate insulation – the home can't retain heat and has cold surfaces
- Inadequate heating – cold air cannot hold as much water vapour

Tips and advice for condensation and damp reduction

Areas prone to condensation

- Cold surfaces such as mirrors, windows and window frames;
- Kitchens and bathrooms.
- Outside walls, walls of unheated rooms and cold corners of rooms.
- Wardrobes/cupboards and behind furniture against an outside wall.

Reduce the moisture

- Keep bathroom and kitchen doors closed when cooking and bathing, to stop moisture spreading to the rest of the house
- Dry laundry outside if possible.
- If drying clothes indoors use an airer, close the door and open a window.
- Avoid putting wet items directly on radiators as it prevents the heat from circulating making the boiler work harder, increases energy costs.
- Non-condensing tumble driers should be vented to the outside.
- Keep lids on saucepans while cooking.

Let the moisture out

- Leave 'trickle' vents open at all times – these are small vents built into the frames of modern windows.
- Air rooms that people use regularly, especially bedrooms, by opening your windows wide for 10 mins per day. A lot of moisture is produced by breathing.
- Use extractor fans in bathrooms and kitchens when cooking or drying laundry, and open windows when they steam up.
- Air cupboards and wardrobes, and avoid putting too much in them as this stops air circulating.
- Move furniture away from the walls and leave a gap.

Heat your home

- Try to keep temperatures in all rooms above 15°C. This will cut down the risk of condensation forming on walls and fabrics (it may still form on windows)