How to make your property more energy efficient

LEADERS

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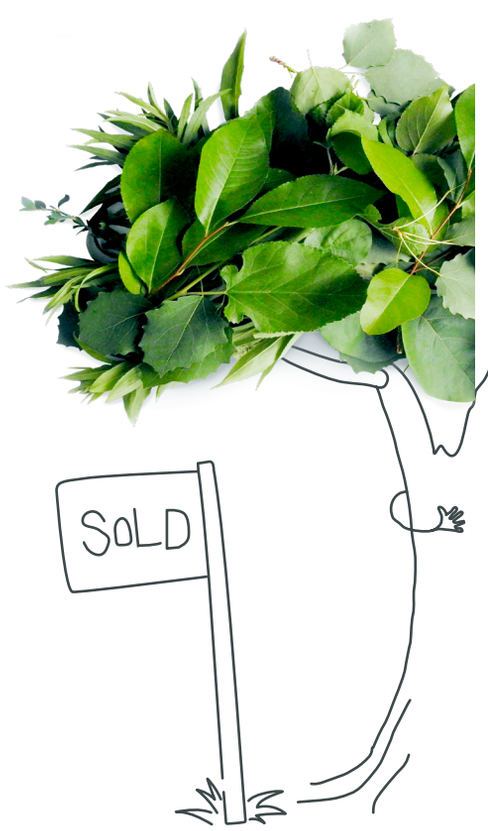

Introduction

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With the Government continuing to put more focus on reducing our carbon footprint, looking at our homes is a good place to start.

Encouragingly, this need is matched by demand. In a recent survey conducted by Leaders Romans Group (which Leaders is part of) results from 2,000 consumers showed that 70% of people would like their property to be more eco-friendly. 56% said they would specifically seek out a property to buy or rent that has eco-friendly features.

However many people aren't always clear how best to achieve this in their property, especially in the case of retrofitting which involves adding new technology or features to older buildings.

This guide has been specifically put together to help advise you on things you can do to make your property more energy efficient.

Answering common questions about Energy Performance Certificates (EPCs)

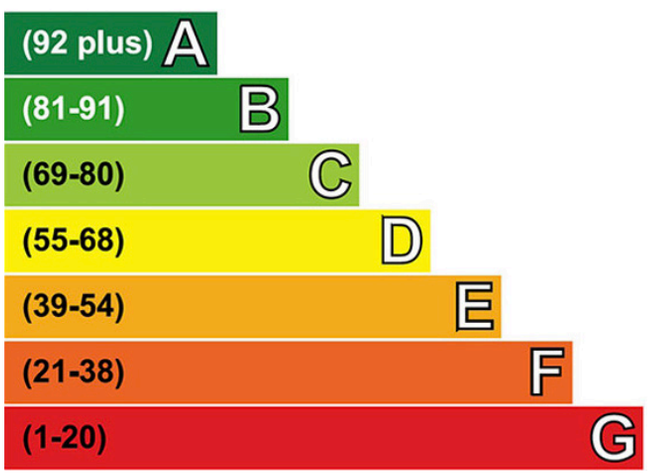
Firstly let's look at EPCs. This stands for Energy Performance Certificate. They were first introduced in England and Wales in 2007 and give details about your property's energy efficiency and carbon dioxide emissions.

Every property that is being sold or rented needs an EPC, and to receive one, a survey needs to be carried out by an assessor. They will inspect your property internally and externally, looking at a number of different things. These include:

- Windows
- Roofs, walls and insulation
- Boilers and heating systems
- Renewable energy devices (solar panels or wind turbines)
- Lighting
- Fireplaces
- The building measurements
- The year the property was built

What is the EPC scale?

Your property will receive a rating on the EPC scale from A to G – A being the best and most energy efficient, G being the least energy efficient. For context, the average EPC rating for a home in the UK is currently a D.



Do EPCs run out?

Once an EPC has been issued, it is valid for ten years. You don't need to get a new one when it runs out, unless you are selling your property or new tenants are moving in.

If you make energy improvements to your home, you may want to get another one to see what your rating has changed to. EPCs can cost up to £120, although the price tends to be lower for most properties.

What EPC rating does a landlord need for rental properties?

For landlords, rental properties must currently have an EPC rating of an E or above. The changes currently being talked about in Government form part of the Minimum Energy Performance of Buildings Bill, which is not yet law.

As it stands, the proposals suggest that from 2025, all newly tenanted properties will be required to have a rating of C or above. Existing tenancies will have until 2028 to comply.

Answering common questions about Energy Performance Certificates (EPCs)

You cannot legally let a property without an EPC certificate, and tenants must be given a copy of the certificate when they move in too. You may not be able to evict a tenant if you can't evidence that you have supplied this.

The penalty for not having a valid EPC for a rental property is currently £5,000, this could drastically increase to £30,000 from 2025.

What EPC rating does a homeowner need for their property?

For homeowners, there is no current EPC requirement. However the changes currently being talked about in Government are for as many properties as possible to have an EPC rating of at least a C by 2035. Benefits to making eco-friendly changes sooner rather than later include potentially lower mortgage rates and improving your property's value when you decide to move on.

Are any homes exempt from needing an EPC?

Only listed buildings and those in conservation areas may be exempt, if "compliance with certain minimum energy performance requirements would unacceptably alter their character or appearance".

How can I find out what my EPC rating is?

To find out what your property's current EPC rating is, you can look this up for free by entering your postcode on GOV.UK. If you need to get a new EPC certificate, you can also find a qualified assessor on GOV.UK.

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At present the average EPC score in England and Wales is a D, so if the proposed Government changes go ahead as planned, there will be a lot of people that will need to make improvements on their property in the near future to reach the minimum C requirement.

Although the idea of making your property more energy efficient can sound daunting, there are plenty of different things you can do to achieve this. Some are more costly than others, but often reap more benefits in the long run.

1. Improve insulation

About a third of all the heat lost in an uninsulated home escapes through the walls. If you want to reduce your carbon emissions and keep your energy bills low, installing insulation will help a lot. Each property is built differently, so you'll need to see which type of insulation is most appropriate. Types of insulation include:

Cavity wall insulation

Cavity insulation needs to be done by a professional. It is achieved by either injecting insulation into your property's external walls, or blowing insulation into the internal walls using special equipment. If your property isn't a brick structure, you'll need to speak to a specialist about your options.

As a rule of thumb with brick structures, pre 1920s houses tend to be built from solid walls and therefore do not have cavity walls. 1920-1990s properties tend to have cavity walls. Post 1990s properties usually have wall insulation already included. However you can ask a qualified surveyor for an inspection if you're unsure.

Solid wall insulation

This is more expensive than cavity wall insulation, however will have a bigger impact on lowering the cost of energy bills and the efficiency of energy use.

It can be done internally by fitting rigid insulation boards to the wall, or by building a stud wall filled in with insulation material such as mineral wool fibre. It can get messy, so it is often worth doing this at a time you are also looking to make other home improvements, such as redecorating a room or fitting a new kitchen or bathroom. You don't have to do every room at once.

It can also be done externally, by fixing a layer of insulation material to the wall, then covering it with a special type of render (plasterwork) or cladding.

Floor insulation

This is best for ground floor, or floors above an unheated space (namely a garage) where heat can escape.

Many homes – especially newer ones – will have a ground floor made of solid concrete. This can be insulated when it needs to be replaced, or can have rigid insulation laid on top.

Older homes are most likely to have suspended timber floors. Timber floors can be insulated by lifting the floorboards and laying mineral wool insulation supported by netting between the joists.

Roof and loft insulation

A quarter of heat is lost through the roof in an uninsulated home. Insulating your loft, attic or flat roof is an effective way to reduce heat loss and reduce your heating bills. Installed correctly, loft insulation should pay for itself many times over in its 40-year lifetime.

If you can access your loft easily, and it doesn't have any damp problems, then you can save yourself money and fit insulation yourself. This would involve laying mineral wool insulation between the joists (the horizontal beams that make up the floor of the loft) and another layer at right angles to cover the joists and make the insulation up to the required depth.

If you do have damp problems, have a flat roof, or just don't feel comfortable doing it yourself, it is best to find a professional. If you do call out a surveyor, it is worth chatting to them as they can provide independent recommendations. The National Insulation Association (NIA) is a member organisation for the insulation industry in the UK and is also somewhere to find qualified professionals.

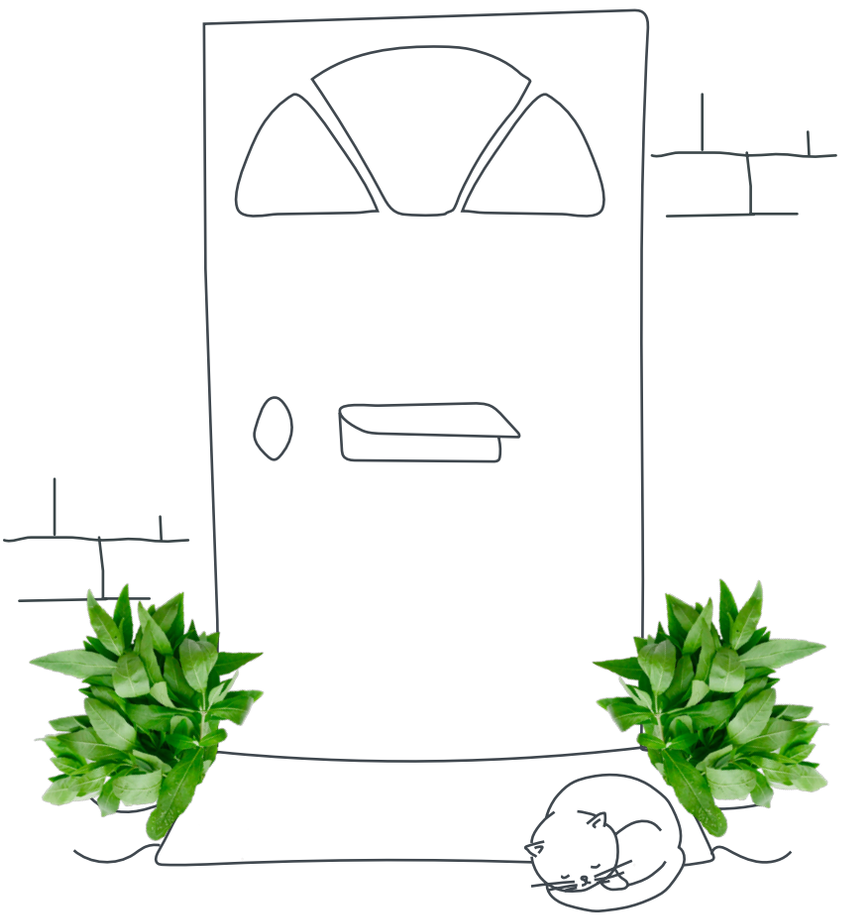
2. Install draught proofing

According to the Energy Saving Trust, if every home were to be drought proofed in the UK, the energy saved would heat nearly 400,000 homes!

This is an incredibly easy way to save energy. You just need to identify and block any gaps that might let cold air in or warm air out. These include gaps between windows/doors and the frames, letterboxes, keyholes, chimneys, loft hatches, and floorboards.

Solutions include self-adhesive strips for gaps between windows and doors, brushes for letterboxes or the bottom of front doors, and draught excluders or caps for chimney pots. Depending on how comfortable you feel, you can probably implement some of these yourself (perhaps not the chimney pot!) however there are also many professionals who will do this work inexpensively.

The key thing if you're doing draught proofing yourself is to not block any intentional ventilation such as extractor fans, wall vents, and trickle vents. A certain level of air flow is still needed to keep your property fresh and dry.



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3. Upgrade to an energy efficient heating system

The first thing to do is check how old your existing heating system is. Boilers typically last 10-15 years, some more, some less.

If it's likely that your boiler will need replacing within the next 10 years, you might want to start researching options for an efficient replacement heating system that would be suitable for your particular type of property.

Electric boilers

Electric boilers are significantly more eco-friendly than gas or oil boilers, on average they consume slightly less than half the energy and most will have an energy efficiency rating of 99%. New build homes will be required to fit a non-gas boiler from 2025 as part of the gas boiler ban. While there's currently no ban on gas boilers in existing homes, we may see this implemented in the future, so if you're looking to replace a boiler soon, it is best to avoid gas and look at electric if possible. Unfortunately some electricity produced in the UK still comes from burning fossil fuels but a lot of progress is being made with renewable energy and one day the entire electric grid could be powered by "green" electricity.

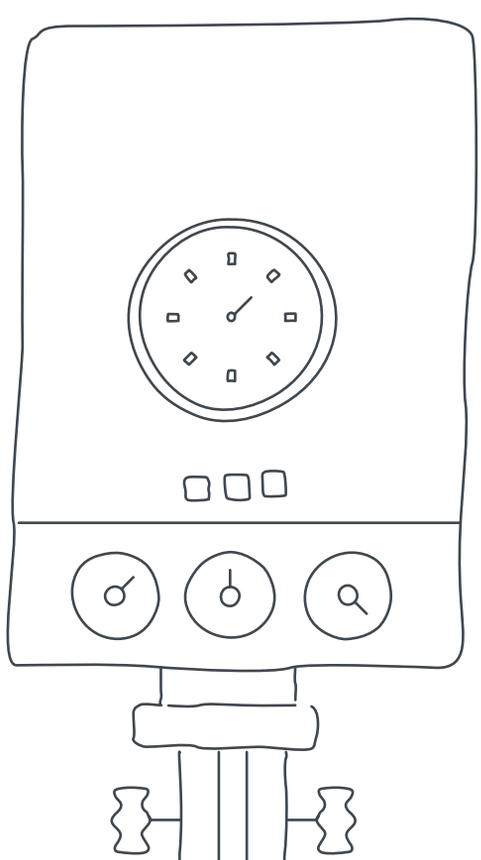
Condenser boilers

If you're unable to get an electric boiler and are looking at gas or oil, then a condenser boiler would be preferred as they have a type of technology that makes better use of the heat they generate and lowers the carbon footprint. Most new boilers nowadays are condensers, but it is worth checking when purchasing.

Biomass boilers

Biomass boilers use wood pellets or wood chips to function. They can be expensive and require you to manually top up the pellets or chips but are very eco-friendly and you can claim money for the Renewable Heat Incentive (mentioned further on in the funding section).

The Chartered Institute of Plumbing and Heating Engineering is a good place to find registered plumbers and heating professionals in your area.



> A well installed Ground Source Heat Pump can be 300-400% efficient in terms of its use of electricity.

4. Invest in a ground source heat pump

An alternative to a boiler is a ground source heat pump. This can be costly to install retrospectively but can limit the carbon footprint of your home greatly and will also last longer than the average boiler. It also costs less to operate once installed.

The way it works is that it extracts heat stored in the ground, and uses this to heat your property. A well installed Ground Source Heat Pump can be 300-400% efficient in terms of its use of electricity.

At this efficiency level there will be 70% lower carbon dioxide emissions than for a gas boiler heating system. If the electricity is provided by renewable energy, then carbon emissions can be reduced to zero.

An accredited Microgeneration Certificate Scheme (MCS) installer is required for this type of work. You would also need an MCS standards certificate if you wanted to apply for the Renewable Heat Incentive scheme mentioned in the funding section further on.

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5. Fit double or triple glazed windows

The energy efficiency of windows is measured with a 'U-value' and the lower this value is, the better. Single glazing has a U-value of 5, older double glazing about 3, new modern double glazing of 1.6, and triple glazing taking the U-value down to around 0.8.

The general consensus is that if you still have single glazing, you should absolutely upgrade to double or triple glazing. As well as helping minimise energy loss, it can reduce condensation and make the home quieter - especially valuable if it's on a busy road. If you have double glazing already, then upgrading to triple glazing will further help with energy efficiency but at a big cost so this is rarely done.

A cheaper alternative is secondary glazing, which is quicker and cleaner to install. It's particularly useful for listed buildings or in conservation areas when you want to keep the external look of your windows unchanged. It's also handy when you need to reduce draughts or noise but don't want to fully replace your existing windows.

Secondary glazing is installed internally, with an extra windowpane added in front of the property's original windows. You can then pull or slide this pane open to get to your original windows if you want to let some air in.

The Glass and Glazing Federation are a membership body promoting the highest standards for glass installation and have a long list of companies to reach out to.

6. Install solar panels

Even though we don't always get the amount of sunshine we'd like in the UK, we do get enough to generate free hot water via a solar water heating system. Typically, the heat is provided by solar panels fitted to roofs and the system can also be linked to existing boilers or immersion heaters, so that if there are any problems, the conventional heating system can step in.

If you're thinking of installing solar panels, there are some key things to consider:

1. Can your roof structure cope with the additional weight of the panels?
2. Is your roof area big enough for the panels?
3. Do you need planning permission for the size of installation?
4. What way (North, East, South, West) does your roof face and will it get the sun required to be worthwhile?
5. Are there other buildings or trees that cast a lot of shade on your roof?
6. Will your current heating system link in?

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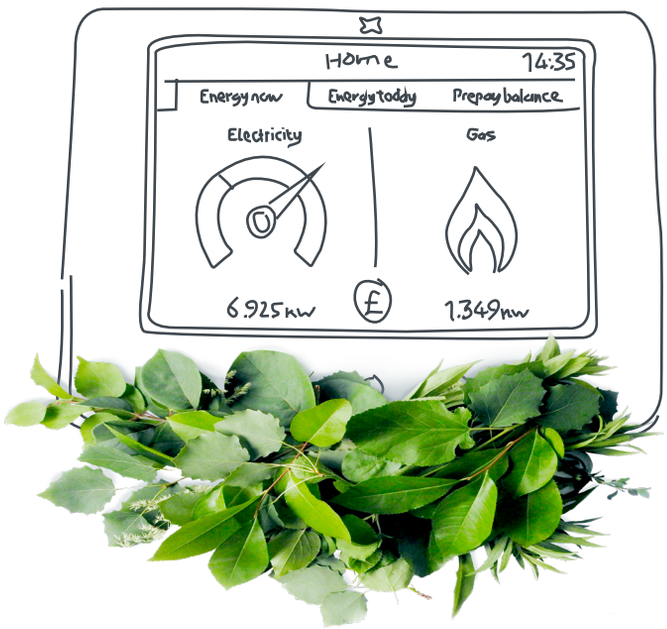

7. Get a smart meter installed

A smart meter is the next generation of a gas and electricity meter. Instead of estimated billing, a smart meter automatically sends your readings to your energy supplier at least once a month (daily or half-hourly sends are optional). This means you or your tenants will receive accurate, not estimated bills.

Due to the digital screen on the meter, it is easy to see how much energy is being used in pounds and pence, and you can adjust your usage if you feel it's required. If you see a sudden spike in energy usage, it can also alert you to an appliance that may be faulty.

It is free to get a smart meter, which can be supplied and installed by your energy supplier so really is worth doing. It's worth noting that from a rental perspective, it's the bill payers right to fit a smart meter so if you're a landlord, doing this for your tenants instead of waiting for them to request it will help lower their bills and keep them happy! Smart Energy GB estimate a 24% decrease in emissions from homes and businesses by 2030 through the use of smart meters.

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8. Switch to LED lighting

LED lighting comes in all formats including ceiling lights, downlights, striplights, floodlights, bathroom lights, outdoor lights… the list is endless. You can easily replace all the lighting in and outside your property with LEDs.

LED lights are typically more expensive to buy (around £5, compared to £1-£2 for incandescent or halogen bulbs) however the cost savings are far greater in the long run. There is a helpful table by Electrical Counter that compares purchase prices, running prices per year, and the lifespan of each type of bulb.

They are also highly energy efficient producing less heat, more light, and being far more environmentally friendly whilst having a much longer lifespan too.

9. Reduce water usage

In a report by the Energy Saving Trust, showers are the biggest water user in the house (25%), followed by toilets (22%). Over 740 billion litres of water are flushed down our toilets annually in the UK, meanwhile heating water is the second largest source of energy use in the home. Reducing water usage can make a big difference to your property's energy efficiency.

Dual flush cistern

Installing a toilet with a dual flush means you have two buttons, one of the buttons being a 'lighter' flush which uses less water. Some water companies also offer their customers free water displacement devices that can be placed in cisterns that currently flush between 6 and 9 litres. They should be able to advise if you're unsure.

Low flow showerheads

They do as the name suggests, reduce the flow of water so that less is used during a shower and not as much energy is required to heat it. Aerated showerheads are another way to cut consumption as they draw air into the flowing water.

Eco appliances

If you need to invest in a new dishwasher or washing machine, check to find the most energy efficient models. All white goods normally have a label with a rating from A+++, which is the most efficient, down to G. It's also worth noting if the appliance has an eco-setting, so when you use them you can go for the cycle that is shorter or cooler in temperature, reducing energy usage.

Water butts

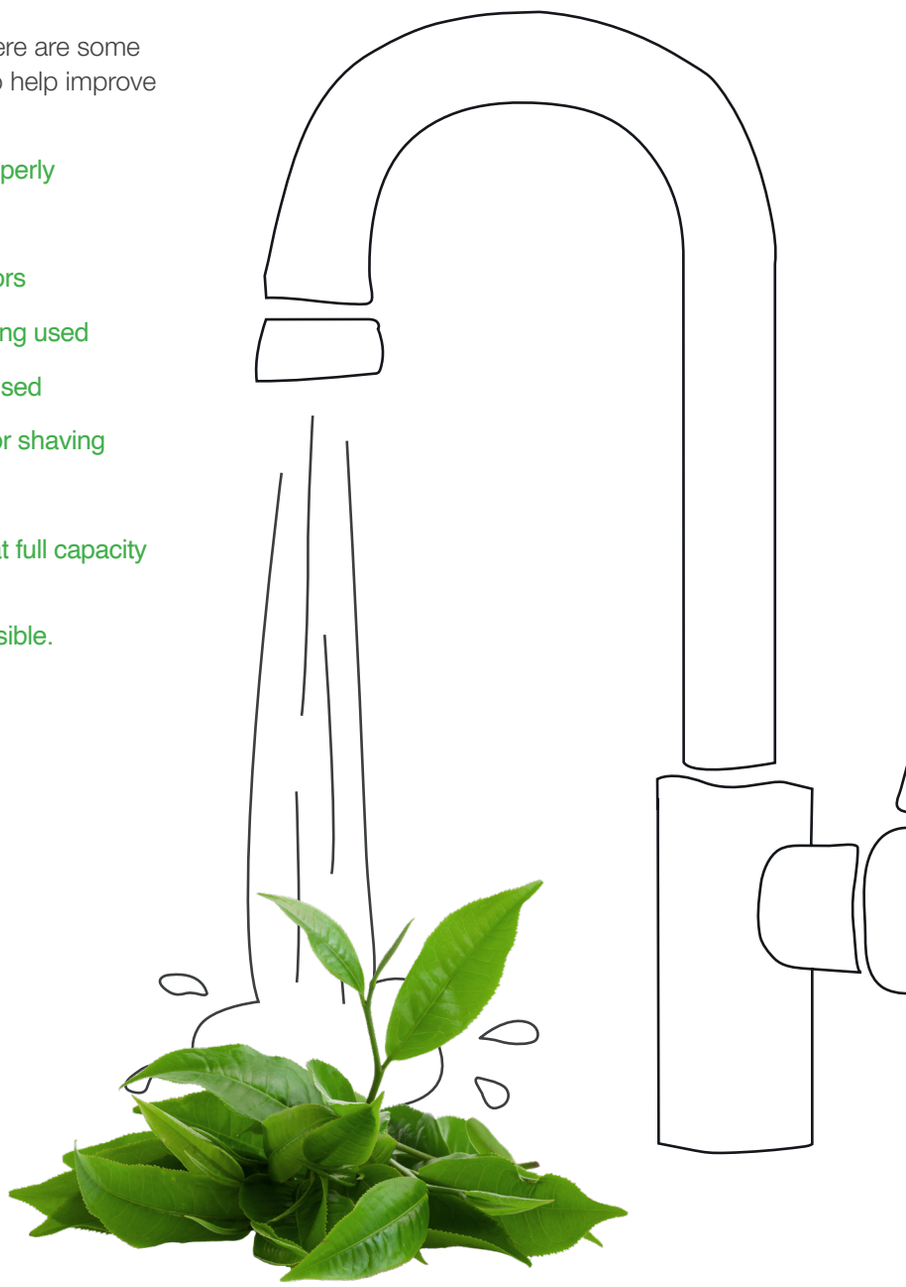
Using a water butt in the garden helps collect rainwater that can be used to water the garden without having to waste clean water through a hose. If you don't have much space outside for a water butt, you can also use old bathwater on plants instead of draining it away.

> In a report by the Energy Saving Trust, heating water was the second largest source of energy use in the home.

10. A little change can make a lot of difference

As well as making improvements to your property, there are some free, simple things you (or your tenants) can do too to help improve energy efficiency and save money on bills.

- Keep radiators clear so that heat can circulate properly
- Turn off radiators in rooms that aren't being used
- Get a regular boiler service and bleed your radiators
- Unplug laptops, chargers etc when they're not being used
- Turn off lights and lamps when they're not being used
- Turn the tap off whilst you're brushing your teeth or shaving
- Take shorter showers and limit baths
- Ensure dishwashers and washing machines are at full capacity when they are used
- Use the eco settings on appliances wherever possible.



Grants and funding to make your home more energy efficient

Finding what grants and funding may be available to you for property improvements can be difficult. This is why we have added some of the main schemes into this guide that are running at the time of publication.

We also advise you periodically check the Simple Energy Advice website. This is run in conjunction with the UK Government. By inputting your property's postcode, you can easily see if any more funding options have become available to you.

- ***Energy Company Obligation -*** this is the main scheme for supporting energy efficiency improvements including insulation and some heating improvements in low income and vulnerable households. ECO is not a Government grant, it is an obligation placed on the largest energy suppliers to support households install energy improvements.
- ***Renewable Heat Incentive -*** this is a Government scheme to support renewable heating systems like heat pumps and wood boilers. If you install a system that meets all the scheme requirements, you can be paid for every unit of renewable heat you produce for a number of years. This will be closing to new applicants at the end of March 2022.
- ***Clean Heat Grant –*** to replace the Renewable Heat Incentive, the Clean Heat Grant, otherwise known as the Boiler Upgrade Scheme (BUS), is a Government scheme due to launch in Spring 2022. It will help to fund a transition from gas boilers to low-carbon alternatives such as air source heat pumps, ground source heat pumps and biomass boilers, offering an upfront payment to help cover the capital cost.
- ***Smart Export Guarantee -*** if you have installed solar panels or other renewable electricity generation in your home, you may be able to get money through the SEG. You can be paid for every unit of electricity that you feed back into the grid from your renewable system. You won't be paid for any electricity that you use yourself.
- ***Green Mortgages –*** Taking steps to improve your property's energy efficiency could help you access more mortgage deals, with lower interest rates or a higher loan-to-value ratio. For landlords especially, the Green Further Advance mortgages will give you a lower initial interest rate but you must spend 100% of the new advance on energy efficient home improvements.

At Leaders, we are always here to help and hope you find this guide useful. Whether you're looking to buy, sell, let or rent a property, please don't hesitate to contact us. Leaders has almost 120 branches across England, you can find your local branch here.

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