



Your ultimate energy efficiency guide from your one-stop retrofit shop



Making your home more energy efficient can seem daunting but fear not, Furnow is here to offer you support. This step-by-step guide will take you through the basics of what making upgrades to your home involves before showing you how to implement the changes yourself, or with a trusted professional (like ourselves). We break it down into these four sections:

1. What energy efficiency upgrades are
2. What's involved in making energy efficiency upgrades ➡
3. What financial support is available
4. Kicking it off ⚽

If you're ever looking for advice or just want to chat through some ideas around energy efficiency then by all means send us an email to hello@furnow.com



I. What energy efficiency upgrades are there?

Home energy upgrades are a process for homeowners and landlords to reduce their property's bills, carbon emissions and improve their home's comfort. This involves upgrading aspects of the home; be it the home's structure and insulation; its heating and ventilation; or appliances around the house like lighting or washing machines and fridges.

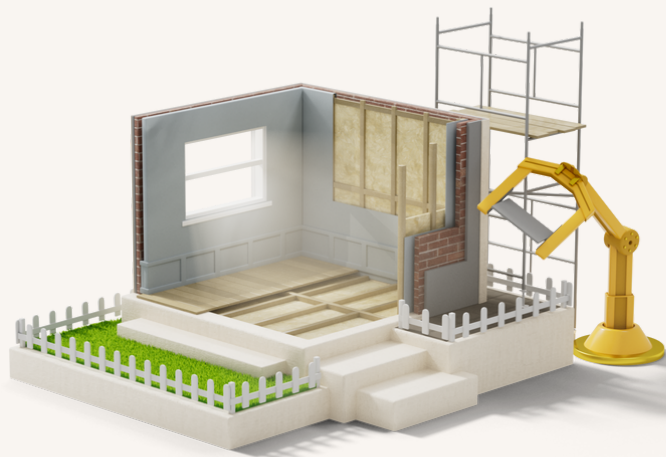
1. **Insulation:** Upgrading the insulation in the walls, attic and floors is one of the most effective ways of keeping the home warm, reducing the energy needed to heat it.

2. **Air sealing:** sealing gaps and cracks in the building's structure to reduce energy loss and improve indoor air quality. This has knock-on effects for your own health as you avoid aches and colds.

3. **Improved heating systems:** Generally it's worth getting your boiler checked by a professional or upgraded to a newer model. Inefficient systems can be significantly more expensive to run.

4. **Window upgrades:** Upgrading to double or triple glazed windows can significantly reduce heat loss in winter and heat gain in summer, not only avoiding discomfort for yourself but also contributing to lowering your energy bills.

5. **Renewable generation:** harnesses the natural energy from the sun, rain or wind. The energy you generate contributes to lowering your bills as you produce your own. It's also a clean source of energy meaning no emissions.



What are the benefits of home energy upgrades?

1. **Insulation:** According to the Energy Saving Trust, upgrading the insulation in an uninsulated loft can save a homeowner up to £215 per year on energy bills. Insulated upgrades can reduce carbon emissions by up to 1 tonne per year per household.

2. **Air sealing:** Sealing draughts and gaps around the doors and windows can save up to £50 per year on energy bills. It helps reduce heat loss and improve indoor comfort.

3. **Improved heating systems:** The Government's Green Homes Grant found that replacing your old inefficient boiler with a modern efficient one can save you up to £205 per year on your energy bills. A smart thermostat can save you another £75 per year.

4. **Window upgrades:** The Energy Saving Trust also found that upgrading your windows from single glazed to double or triple glazed can save you £115 per year as well as improving the comfort of your home with better retained heat and ventilation.

5. **Renewable generation:** Renewable Energy Association claims installing solar can provide significant savings on energy bills. A typical 4kWp can save a homeowner ~£260 per year on bills and reduce carbon emissions by up to 1.3 tonnes each year.



II. What's involved in energy efficiency upgrades?

Upgrading your home to make it more energy efficient involves a range of measures from the big, like getting your floors raised and installing underfloor heating, to the small, like replacing your LED light bulbs with energy efficient ones. Here are some common jobs:

DIY retrofit upgrades

Lighting:

- Upgrade your lighting to more energy efficient options such as LED or CFL bulbs
- Cost: £5-£12 and saves you around £55 p/year
- Time: It usually takes a few minutes per bulb to switch them round.

Air sealing:

- Seal up air leaks around your window with caulking or weatherstripping
- Cost: ~£15 to purchase a caulking gun and £10 per pack of caulking silicone
- Time: A few hours to complete all the windows in the average 3 bedroom house

Loft insulation:

- Cut insulation around the joists of your loft and layer it on top of itself to the ceiling.
- Time: This takes a few hours to half a day to complete
- Cost: ~£500 if you get someone else to do it.

Partial home retrofit (More complicated than DIY - you might need a contractor):

Cavity wall insulation:

- Fill the gap between your inner and outer cavity walls with mineral wool or foam
- Time: This job takes between half a day and a few days depending on the the job
- Cost: This job usually costs between £350 and £750

Water-saving measures:

- Install low-flow shower heads, faucets, and toilets to reduce your water consumption
- Time: This retrofit typically takes a few hours to a day to complete
- Cost: These changes cost between £50-£500 depending on the number of fixtures

Windows and doors:

- Replace old windows and doors with energy-efficient ones to increase heat retention.
- Time: This retrofit typically takes a few days to a week to complete.
- Cost: Between £3,000-£10,000 depending on the size of your home.



Deep retrofit work:

Heating and cooling systems:

Involves replacing installing a new boiler, a heat-pump or smart thermostats. Can save you up to £205 per year on your energy bills

- Time: This work typically takes a few days to a week to complete
- Cost: Between £3,000-£10,000, depending on the size of your home

Renewable energy systems:

Solar panels or wind turbines can provide significant savings on energy bills. A typical 4kWp can save a homeowner up to £260 per year on energy bills

- Time: This retrofit typically takes several days to a few weeks to complete
- Cost: Between £5,000-£20,000 depending on your system

Internal/External Wall insulation:

Internal/external wall insulation is done by adding a layer of panelling onto the wall and then filling the gap between the outer layer and the wall with insulation

- Time: Internal insulation: up to a week, external insulation: up to 2 months
- Cost: Internal = £4,000-£10,000 / External = £8,000-£20,000

Underfloor heating:

Underfloor heating requires installing water or electric heating under your floor. This means the room's warmth is at its peak at body height rather than ceiling height

- Time: A week or more to install and connect up your heating system
- Cost: ~£75 per square metre, installation costs ~£10,000 for a whole house



III. What financial support is available?

Whether you're looking to install underfloor heating, a new boiler or just want some insulation, these things are going to cost you money. But there is financial support out there, here we list a few options available to homeowners who want to make their homes more comfortable and more cost effective to run.

Financing

Green Home Mortgages

You can have a better mortgage as a result of the changes you make. Remortgaging to a green mortgage can free up cash initially and give you a better fixed deal.

[Barclays green mortgage](#) offers discounts on their standard mortgage rates if you buy a property with an EPC rating of B or above. Natwest offers [a 2 and 5 year fixed rate mortgage](#) for customers who remortgage to Natwest with an EPC rating of A or B.

Ecology also offers what they call [C-Change Discounts](#). They'll reduce your interest rates based on the energy efficiency of your property. If you upgrade your EPC from D, you'd see discounts of 0.25%-1.5% in your interest rate. To be eligible you need to be:

- constructing an energy-efficient self-build
- converting a redundant building
- renovating a dilapidated property
- purchasing an energy-efficient new build

Product Specific Financing

There are a number of energy suppliers offering interest free loans for installing a more energy efficient boiler with a payback period of about 3 years. To give you an example:

- E.on offers a 0% finance option on their boilers. Either pay £0 upfront or 50% upfront and pay the rest in instalments for up to 35 months. For a Worcester Bosch boiler at ~£2,500, if you pay nothing upfront you'd pay about £70 per month for 3 years.

Interest Free Credit Card

The 0% APR period lasts between 18 and 31 months, allowing time to pay it off, and the card's allowance can be in the thousands. So for large purchases these can help spread the cost. If you want to find out more, then [MoneySavingExpert](#) has some great advice.

Equity release

You need to be over 55, instead of paying back your mortgage you pay it off after you die or sell the property. You can take a lump payment or payments in instalments according to the value of your property, so it can be useful for paying for big jobs.

Grants

Grants help with specific upgrades for your home. Here's a few that might be interesting:

Boiler upgrade scheme (BUS):

BUS reduces the upfront cost of installing a low carbon heating system. You can get:

- £5,000 off the cost of installing an air source heat pump
- £5,000 off the cost of installing a biomass boiler
- £6,000 off the cost of installing a ground source heat pump
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You're eligible for the grant if you live in England or Wales and you own your property.

Energy Company Obligation (ECO):

Grants are given out to medium and large energy suppliers who then distribute the money based on OFGEM targets. The benefits range from having insulation installed in your loft to getting a smart thermostat. To be considered eligible you need to either:

- Receive certain benefits and live in private housing
- Live in social housing

You can [read more about the criteria here](#).

Home Upgrade Grant (HUG).

HUG is funding for local authorities to improve the energy performance and heating systems of houses that have electric or oil heating. The grant covers:

- Most insulation - loft, cavity wall and room-in-roof insulation
- Installation of low carbon heating solutions
- Installation of ventilation systems

The grant is based on a max of £25,000 of upgrades per property. You need to have a household income of less than £20,000 per year after tax, national insurance, mortgage or rent costs and council tax. This applies to homeowners and renters.

Local Authority Delivery Scheme (LAD).

Aimed at low income, low energy performance homes. £500 million was given to national hubs which work with councils to invest the money in households. Investments include:

- Cavity wall insulation
- Loft insulation
- New boiler
- Ventilation systems
- Double glazing

This is for households with energy performance ratings of E, F or G.

You can get in touch with your Local Net Zero Hub, which [you can find here](#).



IV. How to kick off your home upgrades?

The biggest hurdle to retrofitting your home with energy efficiency measures is knowing where to begin. This is why we created Furbnow, to give clear unbiased advice on what your property actually needs. Here's a run through to get your started:

Understand what your home needs

- Identify areas of energy waste: walk around your home and note any draughts coming through doors or windows. Check old appliances too.
- Analyse your energy bills: Compare month on month rises and work back to see what might cause peaks and troughs in usage.
- Test your electric and gas meters: Switch all your appliances off, then turn them on one at a time for about 90 seconds to see how much the meter jumps up by.

At Furbnow we use thermographic imaging, ventilation reports and examine how much energy your home's using so you can take your property forward. [Book an assessment here.](#)

Reaching out to contractors (Or to us)

Here are some things to consider when employing contractors:

- Licensing and insurance: In most cases the people you'll talk with are experienced in their line of business but ensure their insurance and licences cover the work.
- Reputation: It's always worth looking at online reviews and asking for references.
- Experience: Investigate the amount of experience each contractor has in the specific jobs they're carrying out. Have they installed underfloor heating for example?
- Written contract: to avoid any disputes and set clear expectations from the beginning, outline payment schedules and deadlines in it.
- Timelines: Make sure you have a clear set of timelines agreed between you. You can have these stipulated in the contract, with compensation for any delays.

Managing the work being carried out

Managing contractors can be a challenging task. Here's our top tips for managing the work:

- Establish clear expectations: Before starting work discuss timelines and details.
- Communicate: Establish regular communication and contact information.
- Set up a contract: Make sure the details of the project; timeline, costs, and responsibilities, are outlined in the contract. Read the contract before signing it.
- Regular site visits: Regular site visits will help you monitor the progress of the project and address any issues that arise.
- Make timely payments: Paying the contractor on time is essential to maintaining a good working relationship. Make sure that you adhere to the payment schedule outlined in the contract. If there are delays in payment, communicate this as possible.
- Be respectful: Respect the contractor's time and space while they are working on your home. Be available, but also give them the space they need to work.
- Address any issues immediately: If you have any concerns or issues with the work being done, address them immediately with the contractor. This will prevent any further problems from occurring and allow the contractor to rectify the situation.

Of course the other option is to use Furbnow's project management service to take on all elements of the work. You can talk to us at hello@furbnow.com or follow the QR code below.

