# Your plan

You have added 6 recommendations to your plan. You'll find all the steps and things you need to consider to implement those measures.

TOTAL INVESTMENT REQUIRED **£9725**

TOTAL SAVINGS PER YEAR **£460 - £675**

## Green Homes Grant

To continue, print your plan. Contact installers and get quotes for your selected measures. Keep a record of these quotes - you will need them for the voucher application process.

# Add loft insulation

Fitting an extra layer of insulation in your loft is a quick and easy way to cut your heating bills and make your home warmer.

INVESTMENT REQUIRED **£225**

SAVINGS PER YEAR UP TO **£110 - £230**

NEARBY INSTALLERS

- Climate Insulation Limited - 0161 6371460
- Installeasy Ltd - 0800 024 8505
- Improveasy Limited - 0800 0248505

YOUR QUOTE

GHG ELIGIBLE (PRIMARY)

## STEP 01 Is it right for me?

If you have an unheated loft with less than 200mm (8 inches) of insulation at the floor level, then it is probably worth adding an additional layer to help keep the heat in.
If you have a standard loft with a pitched roof, and no heated rooms in the loft space, then it is best to insulate it by laying rolls of flexible insulation material at the floor level.
If you already have some insulation, check the depth. If it is 150 mm (6 inches) or less then you may want to add another layer to bring it up to the recommended depth (270mm or more). If you only have 100mm or less, then it is definitely worth adding some more.

If you have a flat roof, or a room built into your loft, then adding more insulation may be a bit more difficult.

If you have a standard loft but it is difficult to get into or has very limited headroom, then you may need to use a different approach. A specialist company may be able to blow loose insulation material into your loft.

Room in roof insulation https://www.simpleenergyadvice.org.uk/measures/meta_room_in_roof_insulation

Flat roof insulation https://www.simpleenergyadvice.org.uk/measures/meta_flat_roof_insulation

## STEP 02 How to insulate your loft

Insulating a standard loft can be a fairly simple job if you are confident with DIY, but there are plenty of professional companies who can do the work for you.
You can insulate a standard loft by laying mineral wall between the joists. These are the horizontal beams that make up the floor of the loft. A second layer of insulation should then be added at right angles to cover the joists, bringing the insulation up to the recommended depth of 270mm. Other flexible materials, such as sheep's wool insulation, can be used instead of mineral wool.

If you want to store anything in your insulated loft, you will need to fit a raised floor to put your boxes on – you shouldn't rest anything on the insulation itself. You can raise the floor level by fitting timber battens or plastic legs on the joists to support the new floor. You can then insulate between the joists with mineral wool, and fit the new floor boards on top.

If you are confident with DIY, then insulating your loft is often a fairly easy job to take on, but there are plenty of experienced professionals who can do the job for you. Some households may get some financial help towards the cost of a professional installation through ECO Help to Heat or through a local support scheme. If this is the case then the scheme operator will arrange for a company to fit the insulation.

Insulating your loft https://www.simpleenergyadvice.org.uk/pages/insulating-your-loft

## STEP 03 Where to get it

Where you get your insulation from will depend on who is going to fit it
If you are fitting the insulation yourself then you can buy rolls of mineral wool in any DIY store, or you can order a wide range of materials online.

If you are looking for financial help towards the cost, then you should apply for the support first. If you are successful, then the scheme operator will arrange for an installer to supply and fit the material.

If you are going to pay for a professional company to insulate your loft, then they will supply the material.

Search for installers https://www.simpleenergyadvice.org.uk/installer-search/A

## STEP 04 Are there any grants?

Some households may get help towards the cost of fitting loft insulation, through a scheme called ECO: Help to Heat.

More Information https://www.simpleenergyadvice.org.uk/pages/energy-company-obligation

## STEP 05 Things to look out for

Insulating a standard loft should be easy and risk free provided some simple guidelines are followed.
If a professional is insulating your loft, then they should make sure that there is no risk of frozen pipes or condensation problems. If you are doing the work yourself, you will need to take care of this:

Ensure that any pipework or water tanks in the loft are well insulated, and do not fit loft insulation underneath water tanks. The loft will get colder after it is insulated, so uninsulated pipes could freeze.

Ensure that the loft is well ventilated and that existing ventilation is not blocked by the new insulation.

Make sure that the roof is weatherproof before you insulate. Any rain getting into the insulation will damage it permanently, and the insulation may prevent the water from drying out.

Mineral wool is perfectly safe once fitted, but can irritate during fitting.

Always wear goggles, a mask and gloves when handling it.

If in doubt, get a professional to advise or to carry out the work.

## STEP 06 ECO - What it is

ECO is the main scheme for supporting energy efficiency improvements in British homes. All the larger energy supply companies are required to support a certain number of energy improvements in houses and flats, including insulation and some heating improvements.

## STEP 07 ECO - How do I get it

When you click on the following link you'll see a list of energy supply companies who offer ECO support. You can click on each company name to find more details on what help they can provide. You may need to look at a few to decide which companies are most likely to be able to help you.

Find out more https://www.simpleenergyadvice.org.uk/eco-suppliers

# Floor insulation (for a suspended floor)

Adding insulation to a suspended wooden floor is an effective way to reduce the heat loss of your home, especially if you have already installed loft and wall insulation. It is advisable to seek professional advice and you must use an approved installer.

INVESTMENT REQUIRED **£1000**

SAVINGS PER YEAR UP TO **£60 - £80**

NEARBY INSTALLERS

- Climate Insulation Limited - 0161 6371460
- Installeasy Ltd - 0800 024 8505
- Improveasy Limited - 0800 0248505

YOUR QUOTE

GHG ELIGIBLE (PRIMARY)

## STEP 01 What it is

If your house has a suspended timber floor on the ground floor, then a layer of insulation can be held in place under the floor between the joists. This is called Under Floor Insulation (UFI).
The first step is to remove any carpet or floor covering so that you can access and lift the floorboards to see if your home could have UFI. Before carrying out any work, a thorough inspection of all the joists and underfloor timbers should be carried out by an approved professional for signs of damp, rot or insect damage, and appropriate repairs carried out if required.

There are several different insulation materials and products which can be used, including mineral wool, rigid boards and foam and professional advice should be obtained on the appropriate thickness of each of these to be installed in your home. Regardless of which product is selected it is important to ensure that no gaps are left in the insulation coverage, especially between the end joists and the floor perimeter wall.

If you have an unheated cellar beneath your house, you can fit the insulation from underneath without removing the floor covering and floorboards.

## STEP 02 Is it right for me?

If the ground floor of your house is built on wooden joists with a gap underneath, then floor insulation is possible. If there are any damp problems affecting the floor, or any signs of rot or insect damage, then you will need to get the underlying problem solved and any repair work carried out before you can insulate your floor safely.
The gap beneath a suspended floor should always be well ventilated, and this becomes particularly important when you insulate the floor. Usually there will be a number of air bricks fitted in the outside walls beneath the floor level, and these should never be blocked off. If you do not have any air bricks supplying ventilation to the void below your floor, these will need to be added at the same time as the insulation and professional advice should be obtained on the appropriate location and number of these. If these are not installed there is a risk that moisture can build up and condense on timbers in the floor, increasing the risk of damp and rot.

Having UFI usually means that the room contents will need to be removed to provide access. You may want to consider doing this at a time when the room is empty for other reasons, such as when you are replacing the carpet, fitting a new kitchen etc.

You should usually fit insulation on the ground floor only, plus any other floor that is over an unheated space, such as a garage, or a walk way. There is no need to insulate any floor that is immediately above another heated space, such as the intermediate floor, which is the floor between the ground and first floors of a house.

If your ground floor is a concrete slab with no gap underneath, then you have what is known as a solid floor. This can be insulated, but the process is completely different and can be a lot more disruptive.

For solid floor instead https://www.simpleenergyadvice.org.uk/measures/meta_floor_insulation_solid_floor

## STEP 03 How to get it

You should use an approved professional installer to fit suspended floor insulation. You can find professional installers to insulate your suspended floor by using the following link.

The installer will generally provide all the materials.

Search for installers https://www.simpleenergyadvice.org.uk/installer-search/W1

## STEP 04 Other things you may want to know

UFI is not currently very common in UK houses. However, because it is an effective way to reduce heat loss from your house and reduce your fuel bills, all modern houses must now be built with floor insulation. UFI is therefore a good improvement option for most existing homes.
Installing UFI will reduce the air temperature in the void under your home. This will not be a problem unless you have existing damp issues in the floor or if you do not have adequate ventilation under the floor. Professional advice should be obtained to check if you have any existing damp issues and also identify if you require any additional ventilation (air bricks) adding to the floor void.

In uninsulated floors heat loss is relatively uniform and so usually there tends not to be any cold spots or condensation risks. However, if UFI is added and gaps in the insulation layer are left, i.e. an area is left uninsulated for some reason then you will create new cold spots in these gaps. This may occur if for instance there was some built in furniture or bathroom or kitchen units and so access to these areas was limited. There is a risk that these new cold spots will pose a condensation risk, especially if they are in areas of high humidity, such as under baths, showers and sinks. It is therefore advisable to always insulate 100% of the floor.

A similar problem occurs around the perimeter of floors especially if floor joists are located very close to the wall and there is very little room available in which to place insulation. Missing out these areas will cause a cold strip at the floor perimeter which can again become a condensation risk, especially as corners are always the coldest parts of rooms.

In summary, UFI can be an effective means to improve the efficiency of homes. However, unless UFI is installed carefully by an approved installer it could cause condensation and increase the risk of rot in floors.

# Fit new heating controls

Upgrading your heating controls could help you save money, while also making sure that your home is always comfortable.

INVESTMENT REQUIRED **£400**

SAVINGS PER YEAR UP TO **£30 - £95**

NEARBY INSTALLERS

- Climate Insulation Limited - 0161 6371460
- Installeasy Ltd - 0800 024 8505
- DDS Energy LTD - 07552944182

YOUR QUOTE

GHG ELIGIBLE (SECONDARY)

## STEP 01 What it is

Upgrading your heating controls could help you save money, while also making sure that your home is always comfortable.
All heating control systems essentially do two things – they control when you want the heating on, and how warm you want your home to get when the heating is on. They may also do the same for your hot water.

There are lots of types of controls available to do this, but a fully controlled heating system should include at least:
• A thermostat on the heating source (e.g. a boiler thermostat that sets the temperature of the water that will be pumped from the boiler through the radiators and, for a combination boiler, the hot water)
• A timer or programmer function – this sets the time for when the heating comes on and when it goes off
• A room thermostat – this sets the temperature for that room, and turns the heating off when the room gets warmer than this. Thermostatic Radiator Valves (TRVs) should NOT be fitted in this room.
• Thermostatic radiator valves – these are fitted to all of the radiators elsewhere in the house, and they control the temperature in each room

Sometimes the programmer and room thermostat are combined in one unit – a programmable thermostat. You can use this to set different temperatures for different times of day.

You can also add other, more advanced, control functions such as:

Smart heating controls:
Smart heating controls allow you to manage your heating system remotely from a computer, tablet or smart phone, and many incorporate other advanced features to control your heating in a more sophisticated way.

Smart thermostats, such as:
• Programmable room thermostats, which allow you to set different room temperatures at different times of the day.
• Intelligent delayed start thermostats. These thermostats sense the temperature in the room and delay the start-up of heating your home until the latest possible time. This can result in potential energy savings by allowing you to control when and how long the heating is on during the day.

Zone controls:
Zone controls allow you to heat different rooms at different times of the day by having separate heating circuits for different parts of the house, with a separate programmer for each circuit. If you're fitting a new heating system, then you may want to consider zone controls to help you keep heating costs down.

## STEP 02 Is it right for me?

If you can't control the time your heating turns on or off, and the temperature throughout the house, then you should consider fitting new heating controls.
If you can't control the time your heating turns on or off, and the temperature throughout the house, then you should consider fitting new heating controls.
For any central heating system, you should be able to control:
• When the heating turns on and off
• What temperature a key room or space should be at, e.g. living room or hall
• What temperature each remaining room or space should be at

If you can't do all of these with your current controls, then you should look at upgrading them.

If you live in England and you're getting a new boiler fitted, then you will need to meet new standards for heating controls at the same time, and so you may have to upgrade your existing controls.

If you're having any other work carried out on your heating system, this is the perfect time to consider upgrading your controls. It's often easier and cheaper to have different improvements fitted at the same time.

## STEP 03 How to get it

You will generally need to get your heating engineer to fit new controls for you, and they will usually supply the controls themselves.

Search for installers https://www.simpleenergyadvice.org.uk/installer-search/G

## STEP 04 Using it

Make sure you understand how your new controls work, so that you can use them to save money and stay warm.
Every heating control system looks different, and has a different selection of buttons and dials, but they're all trying to do the same thing. There are two things you need to do:

- Work out your strategy for keeping warm without wasting fuel
- Understand how the heating controls in your house can make this happen

Generally, your strategy should be to set thermostats so that you are warm enough, but not too warm, when the heating is on. You should set your programmer so that your heating comes on shortly before you get up or come home, and goes off shortly before you go out or go to bed.

If everyone is out during the day, then the heating should be off for this time. If you're at home during the day, you may find you're comfortable with a lower temperature at this time.

If there is anyone at home who is old or infirm, you may need to keep the thermostat a little higher.

Use our link to watch videos on how to control your heating.

Make sure you ask your installer how to use the controls – they should be happy to do this, as well as giving you the instruction manuals.

Watch our videos https://www.simpleenergyadvice.org.uk/pages/using-your-heating-controls

# Solar thermal

Solar thermal panels provide hot water for your taps and showers when the sun shines

INVESTMENT REQUIRED **£5000**

SAVINGS PER YEAR UP TO **£250 - £260**

NEARBY INSTALLERS

- Renewable Planet Ltd - 01614863390
- Haus Cube Ltd - 1618207016
- Haus Cube Ltd - 01618207016

YOUR QUOTE

GHG ELIGIBLE (PRIMARY)

## STEP 01 What it is

Solar thermal panels provide hot water for your taps and showers when the sun shines. Solar thermal panels are usually fitted to your roof and connected to your hot water cylinder, or to a new hot water cylinder. When the sun shines, water is heated up in the panel, which is pumped round a circuit of pipes. Heat from the pipes is used to heat the water in the hot water cylinder. Sometimes this is enough on its own to get the hot water up to temperature – at other times you will still need your central heating or electric immersion heater to get the water fully hot.

There are two common types of solar thermal panels:

Flat plat collectors are the simpler technology – they're cheaper per square metre, but you need more to get the same amount of heat.

Evacuated tubes can be more efficient – they're useful if you only have room for a small panel, but you'll pay just as much for the same output.

Most solar thermal panel systems are designed to provide about half your hot water demand from the sun, whichever technology you use, with the rest coming from your

existing central heating or immersion heater. They are not normally designed to provide any space heating, as they provide most output at times when space heating isn't needed.

## STEP 02 Is it right for me?

Solar thermal panels are usually installed in homes with a central heating system such as a boiler and hot water cylinder. It can be possible to fit solar thermal panels with a combi boiler, but this is not always straightforward – ask an installer for advice on this. If possible, you should obtain independent expert advice about whether a solar thermal system is the right technology for you and your home.

If you are thinking about participating in both the Green Homes Grant scheme and the domestic Renewable Heat Incentive (RHI), you should be aware that they have different eligibility criteria, so qualifying for one scheme does not automatically mean that you qualify for both.

Ofgem are the scheme administrator for the RHI and produce guidance about the scheme which can be found using the link above.

Information about RHI https://www.ofgem.gov.uk/environmental-programmes/domestic-rhi

## STEP 03 How to get it

You will need a certified installer for your Solar Thermal installation. They must be certified by TrustMark and the Microgeneration Certification Scheme (MCS) if you want to claim a Green Homes Grant voucher. Installers must be certified by MCS for the Domestic Renewable Heat Initiative.

Visit MCS website https://mcscertified.com/

Find installers https://www.simpleenergyadvice.org.uk/installer-search/N

## STEP 04 Permission

You may not need planning permission to fit solar thermal panels to your roof.

## STEP 05 RHI - What it is

The RHI is a government scheme to support renewable heating systems like heat pumps, wood boilers and solar water heating. 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. There are two RHI schemes – the domestic RHI is for households with a renewable heating system just for the one home.

## STEP 06 RHI - Am I eligible?

The domestic RHI can support five technologies: Air source heat pumps, ground source heat pumps, wood boilers, wood pellet stoves with back boiler, solar water heating. You have to own the property to apply. Click on the Ofgem website link to see more details and all the eligibility requirements. The system must be installed by a certified installer.

Ofgem website https://www.ofgem.gov.uk/environmental-programmes/domestic-rhi

Find an installer http://www.microgenerationcertification.org/consumers/installer-search

## STEP 07 RHI - How much would I receive?

The Domestic RHI pays an amount (the tariff) for every unit of renewable heat you are considered, for a period of seven years. The tariffs are published on the Ofgem site. The amount you generate is usually worked out from the energy requirements of your home, though sometimes it is measured directly by a heat meter.

Get an estimate https://renewable-heat-calculator.service.gov.uk/

# Fit new outside doors

Replacing your outside doors with highly insulated and well draught-proofed doors will help keep your home warm in general, and particularly the room that the door opens into.

INVESTMENT REQUIRED **£1000**

SAVINGS PER YEAR UP TO **£10**

NEARBY INSTALLERS

- Installeasy Ltd - 0800 024 8505
- Nexgen Energy Ltd - 3333443091
- Clean Energy 365 Ltd - 07976 717654

YOUR QUOTE

GHG ELIGIBLE (SECONDARY)

## STEP 01 What it is

Replacing your outside doors with highly insulated and well draught-proofed doors will help keep your home warm in general, and particularly the room that the door opens into.
Many older external doors fit poorly in their frames, letting cold draughts in. Also, the door itself will often be made of material that lets heat escape even if the draughts are sealed effectively.

A modern, high performance door will fit snugly and securely in its frame to keep the weather out in general, and the wind in particular. It will also be a good insulator, stopping heat escaping through the door itself. The door may be made of wood, metal or PVC, often with insulation built into the structure. It may be partially or fully glazed, in which case this will be double or even triple glazing.

## STEP 02 Is it right for me?

If you have old or poor quality outside doors, then you could benefit from replacing them with something more effective at keeping the heat in.

If your front door, or any other door that opens to the outside air, doesn't fit well, is old or is made of cheap material, then it could be losing a lot of heat to the outside. You could cut that heat loss significantly by replacing it with a high-performance door.

How much difference you notice will depend on how bad your existing door is – you can probably get some idea from how cold the room is, and how much colder it feels when you approach the door.

If you have a porch on the outside of the door, then this will already be helping a bit. You won't get quite as much benefit from replacing the door, but you should still feel some improvement.

Many people won't want to change their doors for energy reasons alone, but if you're thinking it's time for a new door it could be worth spending a bit more on a high performance one.

Internal doors that lead from one room to another are not so important for keeping the heat in. You'll still want to keep them shut to minimise draughts, especially if one of the rooms isn't being heated, but there's no need to replace an internal door with a high performance alternative.

## STEP 03 How to get it

High performance doors are available online and from some DIY stores, but you will usually want an installer to fit it correctly, and they will usually get the door for you.

Search for installers https://www.simpleenergyadvice.org.uk/installer-search/X

## STEP 04 Do I need permission?

You won't usually need permission to change your front door unless you live in a conservation area or a listed building.
Check with your local planning office to be sure.

# Roof room insulation

Adding insulation to the room in your roof will make the room warmer and more comfortable, and could cut your energy bills too.

INVESTMENT REQUIRED **£1500 - £2700**

SAVINGS PER YEAR UP TO **-**

NEARBY INSTALLERS

- Climate Insulation Limited - 0161 6371460
- Improveasy Limited - 0800 0248505
- Installeasy Ltd - 0800 024 8505

YOUR QUOTE

GHG ELIGIBLE (PRIMARY)

## STEP 01 What it is

If you have had your loft converted into a room, or if your house was built with a room in the loft, with at least some sloping ceilings, then you have a roof room or “room in the roof”. If this roof room is not insulated then you will find it very difficult to heat. You will be losing heat to the outside world through all the walls and ceilings, and you could be losing heat from the rooms below as well. Insulating your loft room could make a real difference to your comfort and energy bills.

## STEP 02 How a room in the roof can be insulated

Roof rooms lose heat in lots of different ways. You will need to insulate every part of the walls and ceilings to help keep the heat in and avoid cold spots.
To insulate a roof room properly you have to make sure there is a layer of insulation covering every surface between the heated parts of the building and the unheated outside or remaining loft spaces. There will usually be a flat surface above the room, like a mini loft, and one or more flat surfaces in the voids beside the room – the remaining floor of the original loft. These can generally be insulated with mineral wool just like a standard loft, though you may need a firm to blow the material in if access is limited.

The vertical and sloping surfaces will need to be insulated with rigid material that won't sag – usually high performance foam insulation board is used to avoid taking up too much space and making the room smaller. The board is fitted between and behind the studs that make up the vertical walls, and between and below the sloping rafters.

The plasterboard will need to be removed first, and new plasterboard fitted over the insulation before re-plastering and redecorating.

If your room has an external gable wall, or one shared with next door's loft, then this will need to insulated. This usually involves fitting rigid insulation board to the internal surface of the wall and re-finishing.

## STEP 03 How to get it

Insulating an existing roof room is not a DIY job. You will need a specialist company to carry out the work, and they will specify and supply the materials.

Search for installers https://www.simpleenergyadvice.org.uk/installer-search/A3

## STEP 04 Things to look out for

It is important to make sure that the unheated loft voids are well ventilated. Insulating the roof room will make the loft voids colder, which will increase the risk of condensation occurring in the loft. Adequate ventilation at the eaves and the ridge, and a good air gap between the sloping insulation and the roof layer, will help ensure that this isn't a problem.