



Grants of up to £5,000 are available as part of the government's £2 billion green package to help the UK reach emissions targets, create jobs and cut energy costs  
GETTY IMAGES

# Home makeover cash makes it easier to be green

The chancellor wants to cut emissions and create jobs — and is offering us cash to clean up our acts, writes **Katherine Denham**

Hundreds of thousands of homeowners will be eligible for government grants of up to £5,000 to make their homes more environmentally friendly.

British homes are among the

least energy efficient in Europe, with less than a third meeting the C standard that experts say is the minimum needed to bring emissions from property down to zero.

The grants are part of the government's £2 billion green package that was unveiled this week to help the UK to reach that emissions target as well to create new jobs and reduce energy costs for homeowners.

## How will the grant work?

The government says that the poorest households won't have to contribute anything, but most people will have to pay up to a third of the cost of improving the energy efficiency of their home.



**1 Solar panels**

Will cover roof space allowing homes to generate own power

**2 Loft insulation**

Should be up to 270mm thick and can last for up to 40 years

**3 Cavity walls**

Older houses built before the 1990s sometimes need insulation between gaps in the walls

**4 Modern boiler**

A newer boiler can recover more heat and is more efficient

**5 Radiator reflector panels**

Stop heat from being lost through the walls and pushes it back in to the house

**6 Insulation on pipes**

Prevents heat being lost

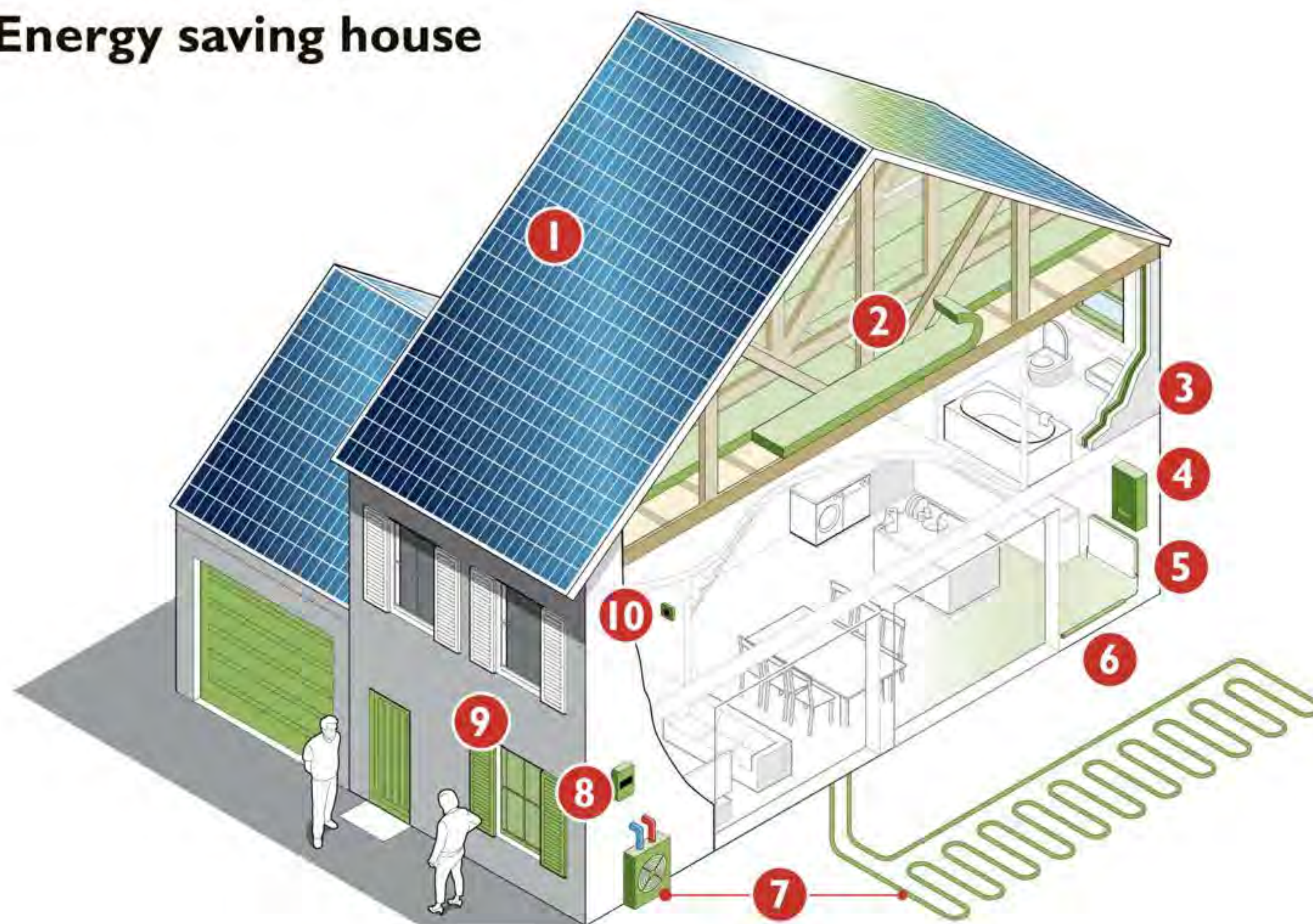
**7 Heat pump**

Heating via air source or ground source heat pump

**8 Smart meter**

Will not save you energy on its

**Energy saving house**



own, but does allow you to see how much energy you are using

**9 Windows and doors**

Insulated garage doors and triple-glazed windows

**10 Hi-tech thermostat**

Allows you to programme heating to come on only when you need it. Some can be controlled by smart phone

An approved list of home improvements will be released in September and you will be able to apply for work to be done with local suppliers. A voucher towards the cost will be issued once the work has been agreed. Here are some measures that could be eligible.

**Feeling the heat**

Heating your home accounts for more than half your energy costs, according to the Energy Saving Trust, a “profit for purpose” organisation that works to promote energy efficiency.

If you have an old boiler that was installed before 2005, it is probably less efficient than the more modern condensing version, so it could make financial

sense to replace it.

Combi boilers, which provide instant hot water by heating it as it comes from the mains, are the most common type, although that’s not to say that they are always the best option. The trust says that families that use lots of hot water might be better off with regular boilers, which heat water in a tank and so can supply multiple bathrooms at once.

Replacing a gas boiler typically costs about £2,300.

Radiator reflector panels are a cheap way of conserving energy. Rather than letting the heat escape through the external wall, these strips of foil sit behind the radiator to reflect heat back into the room. They are most effec-

tive when used against uninsulated solid walls. A pack costs from £17 on Amazon.

**Getting smart**

Smart meters are being installed across England, Scotland and Wales to replace 48.7 million traditional gas and electricity meters by the end of 2024.

These energy meters should help homeowners to keep track of their usage, potentially saving £36 a year. However, the devices aren’t always that smart because some of the functions have been found to stop working when customers switch to a different energy supplier. A newer generation of smart meters, Smets 2, can communicate between suppliers, so don’t let your energy



## Stop you energy costs from going through the roof

For many years installing solar panels on your roof was a good way of making money.

Homeowners could generate excess energy and sell it back to the grid, so not only would they benefit from not having to buy electricity, but they would also earn money from any excess supply too.

However, this scheme — known as a feed-in tariff — has slowly been lowered in value over the years and it recently finished. It still applies to some households who have already installed solar panels, but for anyone wanting them now, the deadline has passed.

Those who applied before March 2019 then needed to get a micro-generation certificate to be able to sell energy back to their supplier.

This allows you to claim 5.24p per unit of electricity that you sell, according to the

government. You can sell back half of the units you generate and will need a specialist export meter if your solar panels installation generates more than 30kWh.

Space is a key consideration if you do want to install panels. You need a roof that is larger than 10m<sup>2</sup>, and in general you could expect to generate about a third of your total energy needs.

Ideally the roof should face south, be unshaded, and at a pitch angle of about 30 or 40 degrees.

East or west-facing roofs could still be considered, but north-facing roofs are not recommended because they don't get enough sun.

Solar PV installations are classed as permitted developments, so you shouldn't need planning permission, but always check with your local

authority in case there are any limits or restrictions.

According to the Energy Saving Trust, the average cost of a household solar system is about £4,800, although you can pay up to £15,000. You could expect to generate about 3,000 to 4,000kWh of electricity, depending on where you are in the British Isles. Panels should last for about 25 years.

### Six things you can do today

**£6** saved a year by filling the kettle only with what you need

**£8** by spending one minute less in the shower

**£15** by turning off lights

**£35** by not having devices on standby

**£40** by replacing all bulbs with LEDs

**£60** by turning your thermostat down one degree

company fit an older one. Your energy supplier should be able to install a smart meter for free, but the cost is ultimately funded through all our bills.

### Turning it down

If you have a thermostat you can cut down on unnecessary heating because when a room reaches the right temperature, the heating will turn off.

The Energy Saving Trust says it's a good idea to replace a thermostat if it is more than 14 years old because modern ones are so much more accurate. You don't have to replace your boiler to

install one.

If you use a thermostat properly, it could save you about £60 a year and cut your carbon dioxide emissions.

### Not heating the street

A quarter of the heat lost from your home escapes through an uninsulated roof, while a third is lost through cavity walls, according to the Trust. Insulating your home could save you hundreds of pounds each year.

There are several methods you could consider for your roof, such as buying relatively cheap mineral wool, which you

might be able to lay out in the loft yourself. For other more complex insulating methods such as spraying foam between the rafters, it's recommended that you get a professional involved. Loft insulation should set you back between £230 and £400.

Cavity walls, where you have a gap between the internal and external walls, are usually found in houses built between 1920 and 1990. These walls can be insulated by filling in the hollow part, which is typically done by someone drilling holes from outside and injecting insulation



(again, best left to the professionals).

A mid-terrace house would be about £390 to insulate while a detached home should cost an average of £610.

Insulating water tanks and pipes reduces the amount of heat lost, so that you spend less money heating water. It also means the water stays hotter for longer. You can buy a jacket for a hot water tank for about £15, and it could save you £20 a year. If any of the hot water pipes are exposed between the cylinder and boiler, you can cover them with a foam tube to retain the heat.

Heat can also escape through gaps in doors and windows. You can buy draught-proofing strips to stick around the window frame, or get a brush to attach

to the bottom of doors or inside the letter box.

### Thinking clearly

If you live in a single-glazed property, which is common for older homes, replacing your windows with double or even triple-glazed glass can help to conserve heat and potentially save you about £100 a year.

If you live in a listed building or in a conservation area, you need to check with the local planning office before making any changes to the windows. You should use an installer approved by the government-authorised Fensa scheme and order a certificate, which costs about £25, to prove that your window installations comply with building regulations and use energy-efficient materials.

This could be important when it comes to selling your house because many solicitors will ask for copies of the certificate.

### Our generation

You can generate renewable energy to warm up your home or water through eco-friendly heat pumps. If you have a large garden, you could think about installing a ground-source heat pump, which extracts heat from the ground through pipes buried in your garden.

An air-source pump uses heat from outside. Neither is cheap to install, costing between £14,000 and £19,000 for a ground-source type, or £9,000 to £11,000 for an air-source one.

