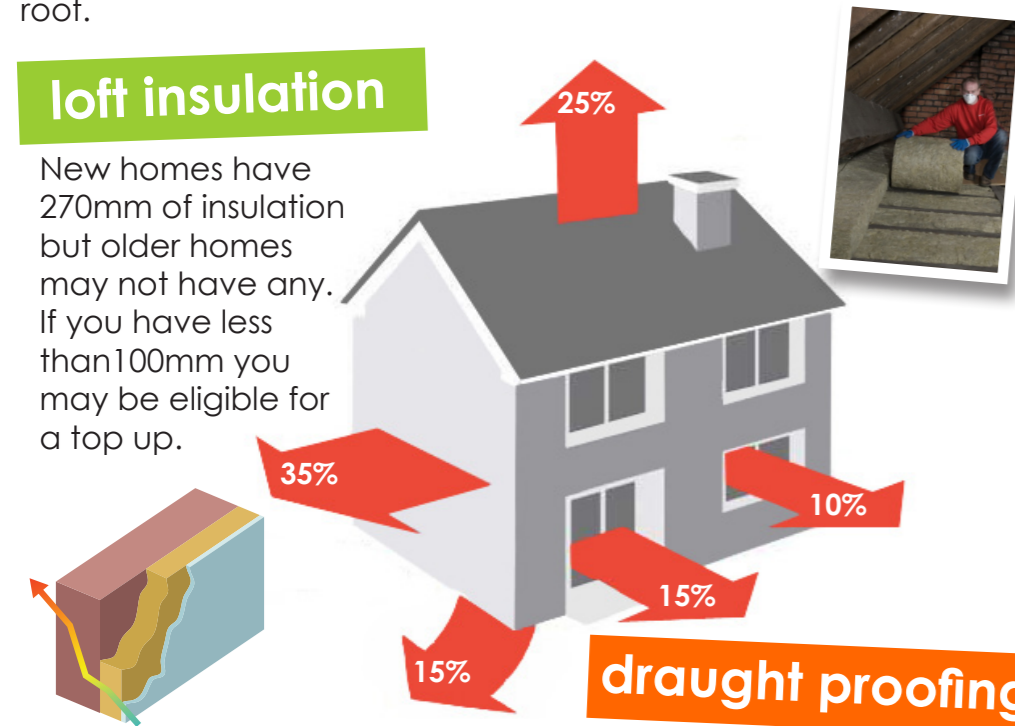


## insulation

Insulation is the most cost efficient way to save money on fuel bills, improve home comfort and reduce problems caused by condensation. Half the heat can be lost through the walls and roof.

### loft insulation

New homes have 270mm of insulation but older homes may not have any. If you have less than 100mm you may be eligible for a top up.



### cavity wall insulation

Houses built after the 1920s are likely to have cavity walls – two walls with a gap in between. This can be filled with insulation to reduce heat loss.



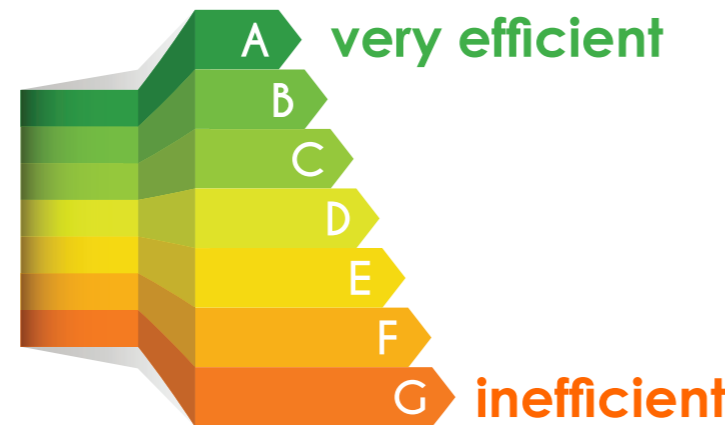
### draught proofing

You can lose up to 15% of heat through gaps around doors and windows.

## home energy survey

### Energy Performance Certificate (EPC)

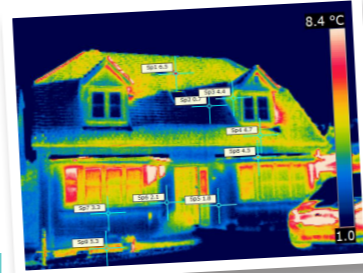
Gives your house an energy efficiency rating from A (very efficient) to G (inefficient) and tells you how much the energy bills are likely to be and what could be done to reduce them.



Energy Performance Certificate	
Property type: Detached house	Reference number: 1001-1001-1001-1001
Date of assessment: 27 July 2011	Type of assessment: Standard rating
Date of certificate: 10 August 11	Valid from date: 10/08/11

### thermal imaging survey

Uses an infrared camera to see where heat is lost. This can highlight problems with insulation and damp which cannot normally be seen.



### DIY home energy check

A way of doing your own energy survey. It's **FREE** and available online on most energy supplier websites and the Energy Saving Trust.

## about actonenergy

Act on Energy is an independent charitable organisation, dedicated to tackling fuel poverty and improving energy efficiency. Our team of qualified energy advisors put the householder at the centre of all that we do, supporting them through their energy journey with free, impartial advice.

Act on Energy works in partnership with the local authorities in Worcestershire, Warwickshire and Solihull; housing associations and other agencies including Public Health and Age UK. We advise on funding for improved heating systems, insulation, switching energy suppliers and general energy efficiency. We work with a network of recommended installers to provide heating system installations, servicing and repairs.

Act on Energy deliver community based projects through exhibitions, advice surgeries, training sessions and talks to local groups and schools. We also work with large companies to encourage energy efficiency.

save money

and the environment

contact us now!

0800 988 2881

advice@actonenergy.org.uk

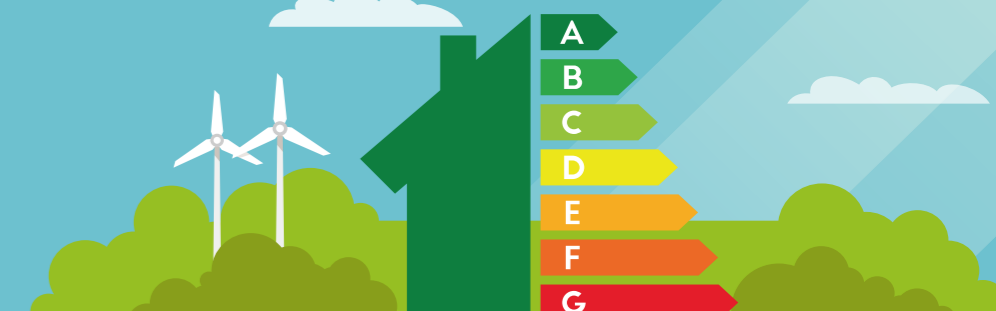
www.actonenergy.org.uk

#### What is fuel poverty?

A household is in fuel poverty if they have fuel costs that are above the national average, and were they to spend that amount they would be left with a residual income below the national poverty line.

Department for Business, Energy & Industrial Strategy (BEIS)

## your guide to an energy efficient home



FREE advice line

0800 988 2881

## why actonenergy?

A third of the UK's energy is used in our homes and half of this energy is wasted through inefficiency. Improving efficiency will save you money, save fuel and reduce our impact on climate change, so now is the time to act on energy!

## quick tips that will save you money!

### no cost

- Turning down the thermostat by 1°C can save 10%
- Don't overheat hot water. 60° is right for most homes
- Wash clothes at 30°C
- Dry clothes outside
- Only run dishwasher when it's full
- Don't cover radiators with furniture or overhanging curtains
- Close internal doors at night and close all curtains
- Switch things off if you are not using them

### low cost

- Insulate your hot water cylinder
- Replace old style light bulbs with CFL or LED bulbs
- Draught proof your windows and doors
- Insulate your loft
- Insulate your walls with cavity wall insulation

## how do you heat your home?

A central heating system is best for whole house heating. Most homes have a gas or oil fired boiler and radiators, but there are other types of heating.

## which fuel?



### • Natural gas (mains gas)

One of the cheapest and most common fuels for central heating. It also has the lowest carbon emissions.



### • LPG (liquid petroleum gas)

Often used in rural areas where no mains gas connection is available. Stored in cylinders or a tank outside. Can be expensive.



### • Oil

Often used in rural areas where no mains gas connection is available. Stored in a large tank outside. Users sometimes join an oil club to buy oil more cheaply.



### • Solid fuel

Coal can be burned in an open fire or in a solid fuel heater. Open fires are very inefficient, as 60% of the heat goes up the chimney!



### • Electricity

Generated from a mix of nuclear, gas, coal and renewable energy. Used for heating with plug-in heaters or night storage heaters using an Economy 7 tariff. Expensive to use for heating.

### emissions

184g CO<sub>2</sub>e per kWh

215g CO<sub>2</sub>e per kWh

267g CO<sub>2</sub>e per kWh

332g CO<sub>2</sub>e per kWh

525g CO<sub>2</sub>e per kWh

## which boiler?

A boiler burns fuel to heat water which is pumped through radiators. It can also heat water in a cylinder. There are different types of boilers and heating systems:

• **Standard boiler** (non-condensing) - heats radiators and water in a separate cylinder, usually in an airing cupboard.

• **Condensing boiler** - recycles heat from exhaust gases to achieve very high efficiency. All boilers installed since 2005 must be condensing.

• **Combination boiler** (combi) - heats radiators and provides instant hot water with no need for a separate cylinder.

• **Back-boiler** - behind a gas or solid fuel fire. Popular in the 1970s and 80s. Can be expensive to repair or replace.

• **Solid fuel** - coal, wood or oil burning stove. For space heating or central heating. Can be expensive to run if operated 24 hours a day.



## heating controls

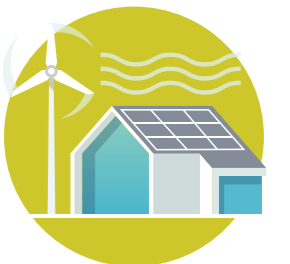


For maximum efficiency, the heating system needs controls for time and temperature.

- **Programmer** - sets the time periods your heating and hot water is on.
- **Room thermostat** - turns the heating off when the set temperature is reached.
- **Thermostatic radiator valves (TRVs)** - control the temperature of individual rooms.
- **Cylinder thermostat** - controls the temperature of your hot water. Ideally should be set at 60°C.

For advice on setting your heating controls see the videos at [www.actonenergy.org.uk](http://www.actonenergy.org.uk) or call us **FREE** on **0800 988 2881**

## what about renewable energy?



Renewable energy is a naturally replenished source of energy such as solar, wind, waves, tidal and geothermal. Renewable energy can **generate electricity** and **heat** without producing ANY greenhouse gas emissions.

You can use the electricity from **solar pv panels** for free and sell any surplus electricity back to the grid using the **Feed-in-Tariff (FIT)**. If you generate heat from your own **solar thermal panels** or a **ground** or **air source heat pump** you can receive payments from the government's **Renewable Heat Incentive (RHI)** scheme.