

 **0800 840 4069** www.heatinghelpline.org.uk



The Heating and Ventilating Contractors' Association (HVCA)

– which was established in 1904 – represents the interests of firms active in the design, installation, commissioning and maintenance of heating, ventilating, air conditioning and refrigeration products, systems and equipment.

The **HVCA Heating Helpline** is designed to provide expert, impartial information, advice and guidance on all aspects of energy-efficient home heating.

Calls to the **HVCA Heating Helpline** on **0800 840 4069** are free when calling from a BT landline. However, charges may be incurred where calls are made from a mobile telephone or other telephone service.

HVCA

Heating and Ventilating Contractors' Association

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e-mail: contact@hvca.org.uk website: www.hvca.org.uk

To find a reputable tradesperson in your area, visit the HVCA website at www.heatinghelpline.org.uk or the TrustMark website at www.trustmark.org.uk.



Inside...

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- ✓ Gas safety
- ✓ Boiler maintenance
- ✓ Renewable energy
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- ✓ Energy performance
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your guide to home heating

HVCA and the Heating Helpline are here to help you.

With climate change, energy costs and the recession all dominating the news, getting the very best from what we have is essential – **and, at home, few things are as important as the safe operation and efficiency of your heating system.**

This booklet and the **HVCA Heating Helpline** will help to explain the importance of energy saving at home, and the need for regular heating maintenance. It also aims to offer money-saving solutions and to protect you from “rogue traders”.



What's inside...



HVCA Heating Helpline
For free impartial advice on every aspect of home heating, visit the heating helpline website at:
www.heatinghelpline.org.uk

or call free on
0800 840 4069

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“The HVCA Heating Helpline is a free advice service set up and managed by the Heating and Ventilating Contractors' Association. Established in 1904, HVCA is the main trade association for the heating sector, and can provide expert advice on every aspect of heating and cooling in the home.”

Robert Higgs OBE Chief Executive HVCA

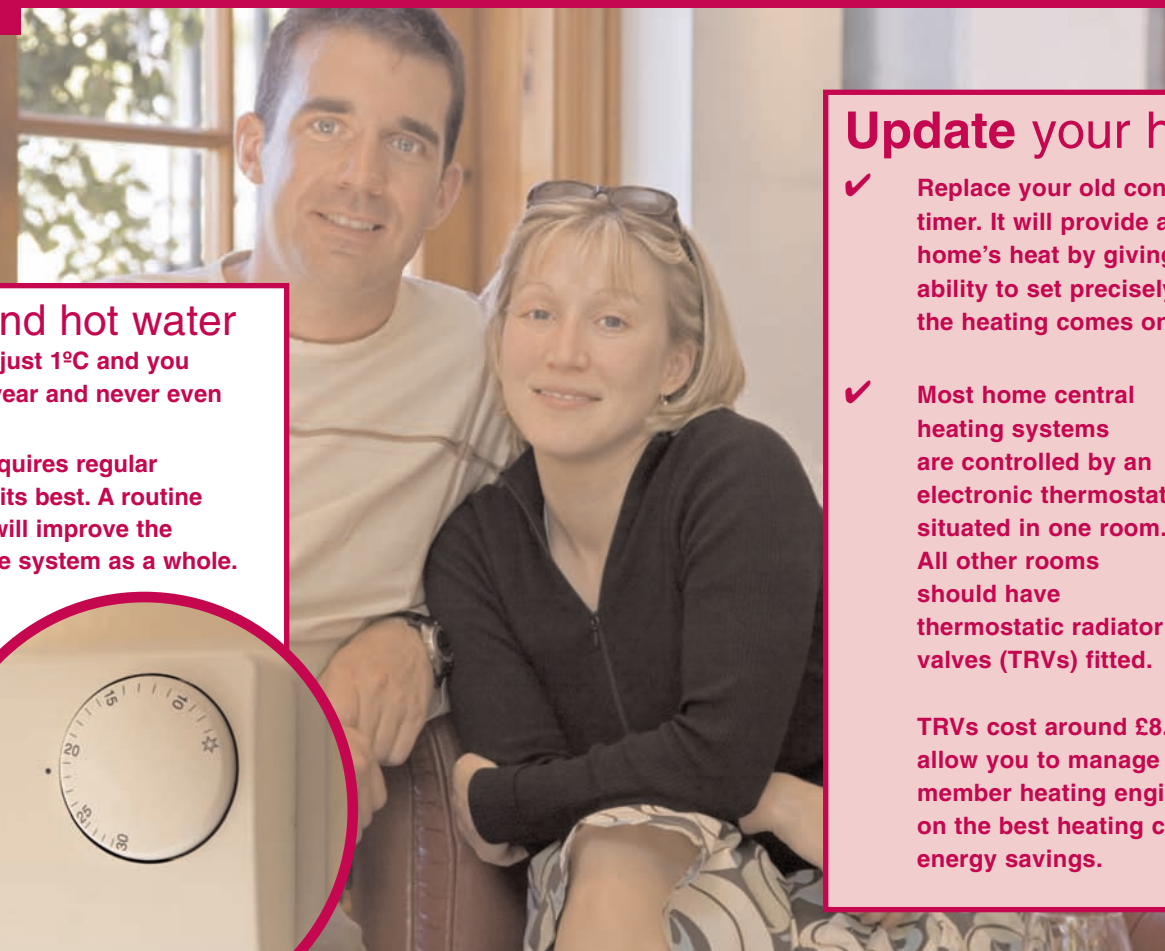
Some 70% of the emissions at home are generated through room and water heating.

The heating, cooling and lighting of buildings causes 60% of UK carbon emissions. Learning the best ways to control, conserve and reduce the amount of energy used in the home can produce major savings and significantly reduce the carbon footprint of your property.

Whether you rent or own your home, the HVCA has hints, tips and eco-solutions of direct value to you.

Understand heating and hot water

- ✓ Turn your thermostat down by just 1°C and you could save £40.00 to £70.00 a year and never even notice the difference.
- ✓ Your central heating system requires regular servicing to keep it working at its best. A routine check by a qualified engineer will improve the efficiency of your boiler and the system as a whole.
- ✓ If you have an adjustable thermostat for your hot water, you should set it to no hotter than 60°C. Any higher is a waste of energy and could scald. Much lower and there may be a risk of harmful bacteria forming.



Update your heating controls

- ✓ Replace your old controls with a modern electronic timer. It will provide accurate control over your home's heat by giving you the ability to set precisely when the heating comes on.
- ✓ Most home central heating systems are controlled by an electronic thermostat situated in one room. All other rooms should have thermostatic radiator valves (TRVs) fitted.

TRVs cost around £8.00 each and allow you to manage the heat in each room. HVCA member heating engineers can give you advice on the best heating controls to maximise your energy savings.



Time for a new boiler?

Today's boilers are about 45% more efficient than they were in the 1980s. A modern condensing boiler converts up to 100% of the fuel it uses into useful heat in the house, making it much kinder to the environment.

It is also kinder on the wallet.

By installing a condensing boiler and modern heating controls, you could save up to £200.00 a year on your fuel bill – even more if you are replacing an electric system.

Since changes to the Building Regulations in 2005, anyone installing a new domestic gas boiler in the United Kingdom has been required by law to use a high-efficiency option.

IT'S A FACT *If everyone in the UK had a condensing boiler in their home, we'd save £1.3bn on our energy bills and 17.5 million tonnes of CO₂ each year.*

Ancient appliances

Replacing your old (ie, ten-years plus) appliances with energy efficient A or A+ models could very well save you as much as £150.00 per year.

Appliances guzzle about 20% of a typical home's total energy bill, but a new A-rated fridge-freezer could save you £39.00 a year on running costs. It has been estimated that, if everyone in the UK upgraded their fridges and freezers to modern energy - saving models, nearly £800m in energy and the equivalent of CO₂ emissions from 500,000 homes would be saved.



IT'S A FACT *Since the 1930s, most houses have been built with an air cavity between two outer walls. Get this gap filled with insulating foam and you'll save a tonne of CO₂ and up to £160.00 a year on bills.*



Insulate, insulate, insulate!

If you have less than 10cm of insulation in your loft, you'll be losing almost a quarter of your home's heat through the roof. Top it up to 27cm, save £50.00 to £150.00 a year and slash 1.5 tonnes of CO₂ from your carbon footprint.

If everyone in the UK did this, we'd save around £560m per year, and millions of tonnes of CO₂.

SMALL STEPS BIG difference

1. Air-dry dishes instead of using your dishwasher's drying cycle.
2. Turn down the radiators in any spare rooms – why pay for a warm space with nobody in it?
3. Keep your doors and windows closed when the heating is on and save £15.00 a year.
4. Use a microwave instead of your oven – it will use less energy and take a fraction of the time.
5. Switch off standby. Gadgets and appliances left on standby waste the equivalent CO₂ of 1.4 million long-haul flights. Turn off at home and save around £50.00 a year on your bills.
6. Turn down both your heating and your hot water when you are going to be away from home for any length of time.



Energy-efficient lighting

Filament bulbs have hardly changed since they were invented in 1879 – and 95% of the energy they use is wasted as heat. They are soon to become unavailable, as they are not energy efficient.

Compact fluorescent lamp (CFL) bulbs use 80% less energy and can last 12 times longer. Each bulb you swap can save you £7.00 a year, and £60.00 before it needs replacing.



IT'S A FACT CFL bulbs can cost under 50p each. Look out for deals at your local supermarket or DIY store.

★ Top tips! ★

- ✓ Insulate the hot water cylinder. Fit a jacket 75mm thick for just £20.00 and you could save more than £50.00 each year.
- ✓ Set room thermostats at no more than 21°C. Each degree below this can save up to 5% of the energy you consume.
- ✓ Lag your hot water pipes and you could save up to £25.00 a year.
- ✓ Washing machines use huge amounts of energy. Some machines have low-energy programmes – if you reduce the wash temperature from 40°C to 30°C, it can save 40% more energy.
- ✓ Take care filling the kettle. If we only boiled the water we needed, we'd save enough power to light every street lamp in the country.
- ✓ Bleed your radiators at least once a year – when hot water can flow into every part of the radiator, it is much more efficient.
- ✓ Set your heating controls to match your lifestyle and to go off before you leave the house in the morning. You'll save energy and never even notice the difference.
- ✓ Have your heating system serviced annually to ensure safety and continued savings.

✓ Gas safety

Essential information to keep your home and family out of harm's way.

If the gas appliances in your home are unsafe, you could be at risk from fire, explosion or carbon monoxide poisoning. By choosing a qualified Gas Safe Register engineer you can be sure your gas appliances are installed and maintained according to the strictest possible safety laws.

Tragically, around 50 people die each year in the UK from gas-related carbon monoxide poisoning. These deaths are almost always occasioned by poorly installed, badly maintained or defective gas appliances.

Gas Safe – the registration scheme for gas heating engineers

With effect from 1 April 2009, the **Gas Safe Register** replaced CORGI as the Government-authorized scheme for gas safety in Great Britain. To guarantee that the gas installer you employ is of the very highest standard, look out for the *Gas Safe* logo – or visit the website at



www.gassaferegister.co.uk for a list of approved installers. All HVCA members that undertake gas installations, as well as being members of the Government-backed *TrustMark* scheme, transferred to the new *Gas Safe* regime in April 2009, so you can be assured they meet the very best industry standards.

Here's how to spot the danger signs

You can neither see nor smell carbon monoxide but there are vital signs to look out for:

- ✓ sooting or staining on or around your boiler or appliance;
- ✓ excessive condensation in the room where a gas appliance is installed;
- ✓ lazy, yellow-orange gas flames instead of blue.



If you can smell gas – or suspect you may have a gas leak – call **0800 111 999**

Be alarmed

Fitting a European Standard certified audible carbon monoxide alarm is an essential second line of defence after having your appliances safety checked.

- ✓ Only buy alarms marked with the EN50291 safety standard – this may be written as BSEN 50291 or EN50291 – and with the CE mark.
- ✓ Follow the manufacturer's fitting instructions.
- ✓ Avoid the older "black spot" detectors as they give no audible warning.



Research suggests that 23% of homes have one or more defective gas appliance – and almost one in ten are judged to be at risk of dangerous levels of carbon monoxide (CO) simply because people are relying on old, inefficient boilers that have rarely, if ever, been serviced.

There are around four million old, inefficient boilers operating in UK homes. If you're still running one, you could be putting your family at risk from CO poisoning – not to mention wasting hundreds of pounds' worth of energy each year.

CO is a silent killer and failure to properly care for a boiler puts lives at risk. It is essential that gas appliances are maintained in good condition and subject to annual safety checks by a Gas Safe Register engineer.

IT'S A FACT *Don't fall victim to the silent killer – carbon monoxide (CO) is a highly poisonous gas that has no colour, taste or smell. It can be produced by any appliance burning gas, wood, oil or coal, and can kill without warning in just a matter of hours.*

Rented property rules

If you are a tenant, your landlord must make sure all gas appliances and equipment are safe and that the property receives an annual safety check and a gas safety certificate issued by a qualified engineer.

Landlords who fail to ensure the safety of gas appliances in their properties will be in breach of Regulation 36 of the Gas Safety (Installation and Use) Regulations 1998, and can face a substantial fine.

LANDLORDS! Don't put lives at risk – poorly maintained gas appliances can leak lethal quantities of carbon monoxide (CO). To learn more about your legal responsibilities, visit www.hse.gov.uk and download the booklet, *A Guide to Landlords' Duties: Gas Safety (Installation and Use) Regulations 1998*, or call the Gas Safety Advice Line on 0800 300 363.

TENANTS! Don't put yourself at risk – insist that your landlord provides you with copies of a valid gas safety certificate before you move in, and after each annual safety check. If he refuses, you should contact your local Health and Safety Executive (HSE) area office on 0845 3450055.



DON'T PUT LIVES AT RISK. Always choose a Gas Safe Register engineer. Visit www.gassaferegister.co.uk, call 0800 408 5577, or look for the Gas Safe logo before you employ a gas engineer. And ask to see the engineer's official Gas Safe Register photo-ID card.



Carbon monoxide is a poisonous gas that has no colour, taste or smell and can be produced by appliances that use gas, wood, oil or coal. Carbon monoxide can also be present in smoke from solid fuel or oil appliances. More information about this silent killer can be obtained from the Carbon Monoxide Consumer Awareness Alliance (COCAA). Visit COCAA's website at www.becarbonmonoxideaware.com.



TENANT CHECKLIST – your landlord must ensure that:

- ✓ all heating appliances and installations are maintained in good order;
- ✓ gas appliances have an annual safety check carried out by a Gas Safe Register engineer;
- ✓ a record of the safety checks is kept and issued to you within 28 days of each annual check.

✓ Boiler maintenance

Heating health check

Having your whole home heating system serviced – not just your boiler – will save money and energy, and could save lives.

- ✓ A well-maintained boiler burns up to 10% less fuel than a poorly maintained one.
- ✓ Estimates suggest that one in four homes has at least one faulty gas appliance – so don't risk living with a death trap.
- ✓ Around 50 people die every year in the UK from carbon monoxide poisoning caused by defective domestic gas appliances and poorly ventilated systems. In most cases, a boiler health check would have prevented these deaths.
- ✓ Servicing greatly reduces the risk of a breakdown and prolongs the life of a boiler. It could cost far more to fix your boiler in an emergency than the price of a regular service.



What to expect from your boiler service

- ✓ A visual check to ensure your boiler continues to meet current standards.
- ✓ Boiler fired to identify any working faults.
- ✓ Casing removed to check the main components.
- ✓ A check that flue terminals are unobstructed and internal flue components are sealed properly.
- ✓ Gas controls adjusted to ensure the burner is working efficiently.
- ✓ Boiler internals cleaned.
- ✓ Gas tightness tested to ensure there are no leaks.
- ✓ Water samples taken to ensure quality.
- ✓ A system flush.
- ✓ A report highlighting what your engineer has done to maintain your boiler.

BENEFITS OF A NEW BOILER

Since changes to the Building Regulations in 2005, anyone installing a new domestic gas boiler in the UK has been required by law to choose a high-efficiency A+, A or B rated condensing boiler.

If you think you could benefit from investing in a new gas boiler, always use a reputable Gas Safe Register engineer.

- ✓ For every £1.00 you spend on operating a 15-year-old boiler, you could be wasting as much as £0.50.
- ✓ A modern condensing boiler wastes as little as 3% of the heat generated – potentially saving £200.00 a year compared to an older gas or oil-fired system.
- ✓ Modern boilers produce far less CO₂ – and could cut your carbon footprint by 0.5 to 1 tonne. If everyone in the country converted, we could save 17.5 million tonnes of CO₂ every year.

TOP TIPS

Get it checked! Don't leave your family's safety to chance – call a Gas Safe Register central heating engineer once a year to give your system a safety health check. He will be able to spot potential problems, maintain boiler efficiency and solve any issues before it's too late.

Avoid the rush! Arrange your boiler service for the summer when Gas Safe Register companies are less busy. That way, you'll be ready for winter and won't get stuck in the cold if there's a problem.



KNOW YOUR BOILERS

The HVCA does not recommend that you shop around for your own heating products – leave it to an engineer to make recommendations. But being aware of the products best suited to your home will help you understand the jargon, recognise the “cowboys” and get the very best heating system for your home.

COMBINATION They are small, don't require a separate water tank and produce instant and limitless hot water. Heat will be interrupted if anyone else runs a hot tap at the same time.

BEST FOR... smaller houses and flats with only one main bathroom, and homes short on space.

SEALED SYSTEM (UNVENTED) Rely on stored water, so you will need space for a hot water cylinder. Water pressure will be good as it uses mains water pressure. More than one hot tap can be run at once. *BEST FOR... family homes that need more hot water than a combination boiler can provide, but don't have the space for two large water tanks. It takes time to heat water, so it can run out.*

OPEN VENT AND OPEN VENT SEALED SYSTEM A traditional system that requires

a cold storage water tank in the loft and a hot water storage cylinder in an airing cupboard. Because water is stored, you'll have less water pressure and only have drinking-quality water from one tap.

BEST FOR... family homes that need more hot water than a combination boiler can provide; a water storage tank is needed in the loft. It takes time to heat water, so it can run out.

BACK BOILERS Often hidden behind a chimney and a fire front, they can be inefficient, but if you upgrade to new components you will save on your bills. They can also be teamed up with wood burning stoves to provide eco-friendly heating and hot water. *BEST FOR... people who already have the system in place, don't need the extra room or are thinking about using alternative fuels such as wood.*

Generating your own heat and power is the ultimate in eco-living – and with technology improving and energy prices rocketing, this could be the perfect time to invest for the future.

Solar hot water heating. Solar thermal panels can provide around 70% of your hot water for free. Water flows through tubes (arranged in panels) mounted on a south-facing roof. The sun warms the water in the pipes to around 60°C and it is then stored in a hot water cylinder ready for use.

Cost: £3,000 to £4,000, but Government grants can help.

CO2 saving: 350kg/year.

Potential cost saving: up to £300.00 a year, depending on fuel replaced.

Solar photovoltaic (PV) panels. PV panels convert sunlight into clean electricity and a 2.5kWp system (the peak output of the solar system) will provide around half a household's electricity needs. It only needs daylight, so can still generate power on a cloudy day. Depending on the system, if you generate more power than you use, you could be sending the electricity company a bill!

Cost: from £5,000 per kWp, but

Government grants can help with outlay.

CO2 saving: 645kg to 1.2 tonnes a year.

Potential cost saving: £250.00 a year.



Wind turbine. Although the technology is improving, roof-mounted turbines are not big enough to generate significant amounts of power, and urban wind speed simply isn't consistent enough – but they are useful for boats and sheds that need just a small amount of power. You will also require planning permission, which may be difficult to obtain.

To make real savings, you'll need a 2.5kW to 6kW mast-mounted turbine. If you've got the space and sufficient wind speed, this can generate enough electricity to power the whole house – and any you don't use, you can sell back to the National Grid.

Cost: £11,000 to £19,000 installed, but Government grants are available.

CO2 saving: 1 to 5 tonnes per year, depending on size and location.

Potential cost saving: With enough wind, you may never have to pay another electricity bill.

Ground source heat pump. Pipes buried underground have liquids pumped along them at pressure. An electric heat pump converts the constant temperature (around 11°C) of the earth to 55 °C – perfect for use with underfloor heating. It's disruptive to install but, if you have the space, it can be much more efficient than a traditional boiler.

Cost: 8 to 12kW systems cost £6,000 to £12,000. Grants are available.

CO2 saving: 1.2 to 7 tonnes.

Potential cost saving: £400.00 to £1,000.00 a year.

Air source heat pump. Air source heat pumps extract the warmth in the air and convert it ready to be used in the home – either as warm air pumped through vents or in underfloor heating. They are best suited to off-grid properties and are much easier to install than the ground source option.

Cost: a 6kW system will cost £7,000 to £10,000.

CO2 saving: around 1 to 5 tonnes.

Potential cost saving: £300.00 to £800.00 a year.



Underfloor heating. A hot water underfloor heating system is more efficient to run than radiators, provides invisible warmth and frees up wall space. If you're renovating a room, this could be the perfect heating solution for a greener home.



Unlike traditional radiators that just heat the air, pipes under the floor concentrate the warmth where you sit or stand, leaving your feet toasty and your head slightly cooler – ideal conditions for genuine comfort.

Radiators also require significantly higher temperatures to heat a room, while underfloor heating needs around 45°C to work. This means the boiler needs to work less, reducing running costs and cutting CO₂ emissions. It also makes the system ideal for use with renewable technology such as ground or air source heat pumps.

Installation can be disruptive, but next time you're renovating a room, consider underfloor heating.

It works under almost all floor surfaces and, because it takes up no wall space, your furniture can be positioned anywhere you want.



THE NEXT BIG THING?

Micro CHP (combined heat and power). Micro CHP appliances replace a standard gas or liquefied petroleum gas (lpg) boiler and generate both electricity and heat – it's rather like having a mini power station in your own home. Generating electricity at a creaky old power station is less than 50% efficient, but electricity generated through a micro CHP boiler is 80% to 90% efficient, saving money and fossil fuels. It's even possible to feed power back into the National Grid *and* get paid for it.

CHP has been used successfully in schools and hospitals and new domestic units are currently being brought to market.

Cost: from £3,000.

CO₂ saving: 500kg.

Potential cost saving: £150.00 to £400.00 per year.

The Government has millions of pounds available to help you cut your energy costs and “green” your home. Most grants are awarded through accredited installers rather than for do-it-yourself installation.

Warm Front Scheme

Contact: 0800 3162805 www.warmfront.co.uk

Funded by the Government, *Warm Front** aims to help households improve their heating and energy efficiency by offering grants of up to £2,700.

Depending on your circumstances, you could be offered the following improvements to help cut your energy costs:

- ✓ **loft insulation;**
- ✓ **draughtproofing;**
- ✓ **cavity wall insulation;**
- ✓ **hot water tank insulation;**
- ✓ **energy-efficient light bulbs;**
- ✓ **combination boiler or repair to your existing system;**
- ✓ **conversion of your solid fuel open fire to a glass-fronted fire;**
- ✓ **renewable technology if beyond the mains gas supply.**

Even if you don't qualify for a *Warm Front* grant, if you're over 60 and own your own home, you may be eligible for a £300.00 rebate.

*In Northern Ireland, the scheme is called *Warm Homes*. In Scotland, it is called *Warm Deal*. In Wales, it is called the *Home Energy Efficiency Scheme*.

Insulation grants

Contact: 0800 512 012 www.energysavingtrust.gov.org

In order for utility companies to meet the Government's carbon emissions reduction target, they are required to subsidise the cost of installing loft and cavity insulation in domestic properties.

As a result, most homes in the UK are currently eligible to receive grants of 40% to 70% of the cost of loft or cavity wall insulation, while many households could receive it all free.

Low Carbon Buildings Programme

Contact: 0800 915 0990 www.lowcarbonbuildings.org.uk

To encourage homeowners to invest in renewable technologies such as solar heating, wind turbines, solar PV and ground source heat pumps, grants of up to £2,500 per property are available.

IT'S A FACT *You don't have to be receiving benefits or be on a low income to get a grant. Contact the Energy Saving Trust on 0800 512 012 or visit the website at www.energysavingtrust.org.uk to find out if you could be eligible.*



Which would you buy?

The average cost of heating an E-rated home is £1,173 compared to just £475 for a C-rated property.

EPCs are measured using the same calculations for all homes, so you can easily compare the energy efficiency of different properties.

✓ **Energy performance certificates**

Buildings produce around half of all carbon emissions across the UK – but, thanks to the introduction of energy performance certificates (EPCs), buyers can now tell exactly how energy-efficient – or otherwise – a property really is.

Since October 2008, every building built, rented or sold must be assessed to show how energy-efficient it is and what its carbon emissions are. The EPC will rate the building (from A to G) and will also list energy-saving recommendations to demonstrate just how much more efficient the house could be and how much you could save on your bills.

Just as with buying a washing machine or new car, homes now come with a rating from A (the most efficient) to G (the least). The average rating across the UK is D.

Renting

Since 1 October 2008, a landlord needs to provide an EPC whenever a home in the social or private sector is let to a new tenant.

The EPC is only required for a property which is self-contained – it is not required when a tenant rents a room and shares facilities.



EPCs are valid for ten years and can be re-used as many times as required within that period.

How can I obtain an EPC for my property?

EPCs can only be provided by accredited energy assessors. As 90% of people in England use an estate agent to sell their property, it's likely that most will leave it to the agent to arrange the EPC as part of the Home Information Pack.

Whoever you employ must be affiliated with an accreditation scheme, as this ensures that he or she is operating to professional standards.

For a list of approved accreditation schemes in England and Wales, visit www.direct.gov.uk, or contact your local authority.

Don't get ripped-off by a "rogue trader". This essential guide shows you where to find the most reputable installers, how to employ them – and what to do if things do go wrong.

TRUSTMARK

By choosing the services of a *TrustMark*-registered firm, you can be confident that it operates according to the very highest industry standards set out by the Government.



WHY YOU can rely on the TrustMark logo

- ✓ The company you choose is operating to standards endorsed by Government.
- ✓ The firm has signed up to a code of practice that includes insurance, good health and safety practices and customer care.
- ✓ Deposits are protected, should the business fail.
- ✓ A standard or optional warranty is available to guarantee satisfactory workmanship.
- ✓ If you have a problem or disagreement with the firm, there is a clear and user-friendly complaints procedure to help resolve the issue.

IT'S A FACT *The HVCA was one of the first trade associations to join the TrustMark scheme. All HVCA members that undertake gas work are also members of the Gas Safe Register.*

To find a reputable tradesperson in your area, visit the HVCA website at www.heatinghelpline.org.uk or the TrustMark website at www.trustmark.org.uk.



How to get the best from your installer

- ✓ Obtain estimates from at least three different firms.
- ✓ Be clear about what you want and request written details and quotations. If there is a large variation in the quotations received, ask why.
- ✓ Ask for references and inspect previous work.
- ✓ Use members of recognised trade associations such as the HVCA. Third-party independent inspection and assessment ensures that all HVCA members keep standards high. Check membership details carefully, as rogue traders will often falsely claim membership of reputable organisations.
- ✓ Ask about guarantees, particularly if the job is relatively large and expensive. Ask for work to be covered by an insurance-backed warranty and check that the relevant trade association independently verifies its members' competence.
- ✓ Use a written contract that specifies the work to be carried out, start and finish dates, the total cost and how payments are to be made.
- ✓ Keep a record of the progress of the work, making a note of all instructions given and all payments already made.

Protect yourself from rogue traders

Avoid dealing in cash. If this is unavoidable, make sure you get a receipt for every payment.
Never pay for your work in full before it has been carried out.
Once you have handed over your payment, it will be difficult to put things right if they go wrong.
Only make the final payment when you are satisfied with the work.

BE SURE TO GET WHAT YOU'VE PAID FOR

If work isn't up to scratch, here's how to get it put right:

- ✓ Discuss any problems with your installer, so that he has the chance to put it right.
- ✓ If this does not work, put your complaint in writing.
- ✓ Keep copies of any letters or e-mails sent, and notes of conversations.
- ✓ Take your complaint to Trading Standards, to a relevant trade association or to a solicitor.
- ✓ If the installer you have selected is a member of the HVCA, go directly to the HVCA or to *TrustMark* – a free-of-charge complaints procedure is available in both cases.

✓ *Essential contacts*

Keep this list handy for all your home heating, energy efficiency and consumer queries.

- ✓ **HVCA**
☎ 020 7313 4900 www.hvca.org.uk
To identify qualified heating installers in your area.
- ✓ **HVCA Heating Helpline**
☎ 0800 840 4069 www.heatinghelpline.org.uk
Impartial advice on home heating and energy saving.
- ✓ **Gas Safe Register**
☎ 0800 408 5577 www.gassaferegister.co.uk
The gas safety “watchdog” for Great Britain.
- ✓ **Carbon Monoxide Consumer Awareness Alliance**
www.becarbonmonoxideaware.com
Network of organisations committed to raising awareness of the dangers of carbon monoxide.
- ✓ **Energy Saving Trust**
☎ 0800 512 012 www.energysavingtrust.org.uk
Essential advice on home energy-saving.



www.heatinghelpline.org.uk ☎ 0800 840 4069

- ✓ **TrustMark**
☎ 0800 652 7868 <http://trustmark.hvca.org.uk>
Government-endorsed register of reliable, competent tradespeople.
- ✓ **Home Information Packs (and Energy Performance Certificates)**
www.homeinformationpacks.gov.uk
- ✓ **Microgeneration in the Home**
☎ 0800 915 0990 www.lowcarbonbuildings.org
- ✓ **Renewable Energy Association**
☎ 020 7747 1830 www.r-e-a.net
- ✓ **Public Services for the Home**
www.direct.gov.uk
- ✓ **Gas Emergencies**
☎ 0800 111 999
- ✓ **Act on CO2**
www.actonCO2.co.uk
Guidance on how to reduce your carbon footprint.
- ✓ **Warm Front**
☎ 0800 3162805 www.warmfront.co.uk
Information on grants to help with home energy-saving measures.

Heating and energy efficiency jargon explained

Carbon monoxide A highly poisonous gas that has no colour, taste or smell. It can be produced by any appliances burning gas, wood, oil or coal, and can kill without warning in just a matter of hours.

CHP Micro CHP (combined heat and power) units generate heat using gas like a standard boiler, but the waste energy is converted into electricity.

Combination boiler Boilers that heat water immediately, with no need for a hot water cylinder.

Condensing boiler A highly efficient boiler that extracts heat from flue gases instead of wasting it. It can be up to 95% efficient, the remaining flue emissions being released as steam.

Energy efficiency The ratio between the amount of useful heat produced and the energy required to produce it.

Energy performance certificate (EPC) Legal document required in relation to all houses rented or sold, which rates the property's energy efficiency.

Energy Saving Trust (EST) Government-funded organisation which promotes energy efficiency across the UK.

Gas Safe Register The national "watchdog" for gas safety in Great Britain.

Ground source heat pump Renewable technology that transfers heat from the ground – via a buried pipe, into a building to provide heat (as part of an underfloor system) and, in some cases, hot water.

Heat loss calculation A measure of how well a building holds on to heat, and how much heat/energy must be put into a home to keep it warm.

Insulation Materials used to reduce the rate of heat transfer.

Kilowatt (kW) Unit of measurement of boiler power.



Microgeneration The generation of zero or low-carbon heat and power by individuals, small businesses or communities to meet their own needs. (Examples include solar heating, photovoltaics and wind turbines.)

Programmable thermostat Central heating controller that can adjust a room's conditions according to temperature and time of day.

Renewable energy Energy generated from natural resources – such as sunlight, wind, tides and geothermal heat – which are "renewable" (ie, naturally replenished).

R-value A measure of thermal resistance commonly used to characterise thermal insulation materials in buildings.

Storage heaters A heater that works by taking an energy charge during off peak energy times (usually overnight), converting it to heat and releasing that heat throughout the day.

Solar photovoltaic Renewable technology that converts energy from the sun into electricity.

Solar thermal heating Renewable technology that uses the heat from the sun to warm water for use in domestic and commercial central heating systems and hot water supplies.

Thermostat A device used for regulating the temperature of a heating system.

Thermostatic radiator valve (TRV) An individual thermostat fitted to a radiator to regulate the temperature of the room in which it is installed.

U value Used to measure the thermal performance of a building – the lower the U value, the greater the thermal insulation.

Underfloor heating Efficient space heating system that uses either buried hot water pipes or electrical element to provide radiant heat.