

UNDERSTANDING CENTRAL HEATING SYSTEMS

*How To Save Money & Stay Warm
In The Winter*



HomeAdviceGuide.com

Understanding Central Heating Systems

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Central Heating Systems

There are a variety of central heating systems. Each uses specific boiler technology in various ways. Combination, condensing and systems boilers are the most common types of heating systems and can run on a variety of fuels.

- **Gas** – condensing boilers typically use a gas such as propane to heat water, which is then pumped through a network of pipes throughout the building. This type of system is ideal for underfloor heating and be used in very large buildings
- **Electric** – these systems tend to be more expensive as electric energy is automatically converted to heat and distributed using air duct networks. This system is best suited to homes or buildings where all rooms need to be constantly heated.
- **Hydronic** – hydronic systems are using steam or hot water; its circuit is through a loop system which is closed that is using water alternatively to heating or cooling. These systems are ideal for heating in the winter and cooling in the summer.

Repairs and Maintenance

Any central heating system will only be energy efficient as long as it is well maintained. Most central heating installations come with maintenance plans to ensure that your boiler system is kept in perfect working condition all year round, even when not in use. The cost of central heating boiler maintenance is minimal compared to the cost of boiler repairs or even replacement due to lack of care. Boilers kept in good shape will provide years of energy efficient and money saving service.

Fuel Prices

Home central heating systems can be cost effective but this largely depends on the type of fuel being used. Most modern boilers tend to use natural gas, one of the most energy efficient fuels for any boiler system, while others use oil, wood or even solid fuels such as coal. Certain boiler systems

operate best are certain fuels, which is why you should always consult the professionals before deciding on which boiler system and fuel source is best for you.

Domestic and Commercial Central Heating Services

Our central heating professionals are specialised and able to take over both domestic and commercial central heating jobs. Whether you are interested in servicing or repairing the central heating of your home or of a rental property or social housing, our experts can handle with their experience all boilers and heating systems, diagnose the problems and provide highly effective solutions.

Central Heating Repair Costs

Average central heating repair prices vary based on the extent of the problem and what steps must be taken to adequately repair the heating system. The type of system can affect the price of repairs along with the local cost of labour, parts and materials. When a central heating repair job is not feasible due to extensive problems with the system, the experts in our database can install a new boiler or central heating system for a reasonable price.

What is the most cost effective way to heat a home

Home heating has advanced so much that there are many heating options to consider. To assist your heating system in functioning at its utmost efficiency one ought to consider using proper insulation, sealing any openings/leaks in the ceiling, on the floor or the walls that could allow cold air into the home from outside as well as other sealing options for doors and windows. Only once this has been completed can one look for a heating system such as Boilers, Solar Heating, Heat Pumps, Gas Heating, Wood Heating, Under Floor Heating or Renewable Heating Options.

There is a rising unease about the electrical price increases thus it would be best to look at heating options which will reduce the use of electricity. In the UK alone it is proven to be an endless battle fought by countless number of citizens. Providing sufficient heating to a home via the use of electrical heating has a high cost which is to rise every year thus we have listed some of the most cost-effective ways to achieve proper heating.

The cheapest heating system might not always be the best solution for your home because some heating systems require more maintenance than others and the fuel or oil consumption of these heating systems could be much more expensive to maintain in the end.

The decision now lies with you to decide whether your family will try to stay warm bundled closely together waiting for warmer weather to settle in or installing a new heating system that will ultimately save you a fortune!

BOILER HEATING SYSTEMS

Herewith a few handy tips before we get to the variety of heating systems!

During winter time it is recommended to hang thicker curtains in front of windows thus aiding in the insulation of a home. Also be sure to open them during the day time, allowing heat to penetrate the home. One may also find that adding curtains to the inside of doors leading out will keep some of the cold air out.

Radiators and boilers are some of the most economical heating systems on the market to provide cost effective heat in your home. If you are using a radiator try to keep the area in front of it clear of any furnishings as this will take in the heat being given off by your radiator. There is also the option of adding aluminium foil which repels the heat from your radiator back into a room if it is placed behind the radiator to keep the heat from escaping through the wall.



Heating with a Boiler System

This is one of the most used systems throughout the UK even though they do not last a life time and most should be replaced within ten years from installation. These heating systems provide homes with economical heating so the consumption of the world's natural resources are reduced dramatically. The good news though is that there are new boiler systems on the market which could prove to be **90%** more efficient than the one currently installed in your home. One could have a new boiler system fitted for approximately **£2,000** or less moreover this system is a true winner of long term heating. For some advice on tuning your boiler have a closer look [here](#).

Boiler systems can provide your home with central heating by installing radiators in all the rooms of your home. Radiators come in a wide range of shapes and sizes so you can properly heat from the smallest of rooms to the largest of dining areas at little extra effort to the boiler. Central heating is the best way of heating a house because it is an economical heating method that can be installed in any home at ease.

For more economical heating when using a boiler system, you should make your home draught proof and invest in double glazing windows that will keep the heat inside and the cold outside. It is important to have good ventilation in your home but try to keep the windows shut while your central heating system is on so your boiler won't run at full capacity the entire time.

Heating a home by means of fuel heating systems

Herewith a list of some of the most common Fuel Heating Systems available which one could also consider for home heating options. There is a wide range of Fuel Heating Systems and as technology advances so does the heating options we have to our disposal. Heating a house is much easier than it used to be and homes require fewer modifications for newer heating systems to fit.

Electric Heating System – Using these heating options is not recommended as it will ultimately become extremely costly to handle even for a small home unless the use of Renewable Energy is at hand like Wind Power Generating System or a Solar/Sun Power Generating System is utilized. Despite the high energy consumption, electrical heating systems are still commonly used in homes.

Oil Heating System – This system for heating could also be a costly one in addition to being unsafe if you live near gas mains. There are however many homes throughout the UK that still use this system for heating although it is not known to be environmentally friendly and the price increase for oil is likely to cause a reduction in the use of such systems.

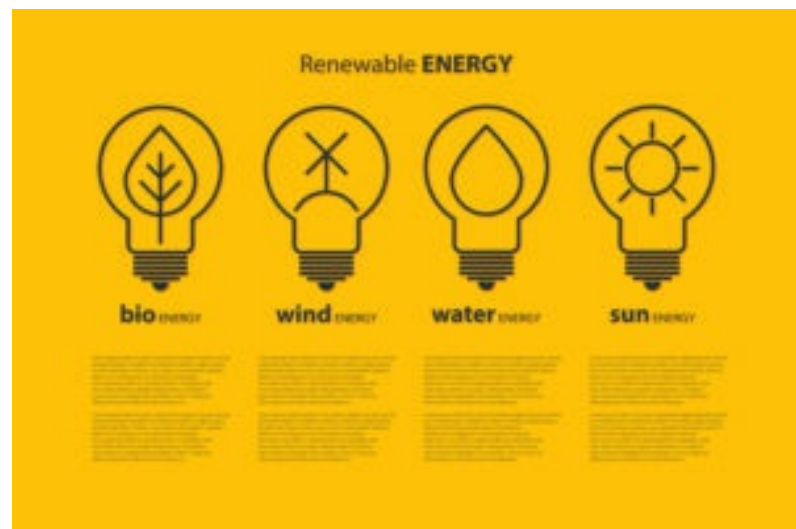
Wood Heating System – This option although not commonly used is environmentally friendly as well as providing a great cost saving way of generating heat for a home. Modern wood boilers/furnaces and woodstoves has become efficient in heating homes with very little air pollution if installed correctly in addition trees are abundant thus fuel for this system is most likely to be cheap and easily accessible.

Gas and electrical heating systems are the most cost effective heating methods because the cost of oil is incredibly high due to oils scarcity. Wood heating systems are also costly in the long run because you require a lot of wood to keep your boiler warm, it pollutes the air and requires constant maintenance to feed the flames.

Substitute Heating System Options

Herewith follows some more options for heating that could be used in a home. Some might be costly initially but will save you money in the long run whereas others could include grants (to apply for a grant contact your local council) but moreover the ecological impact is considerably less than the previous options. These mostly use Free Energy via the air, sun, water or even the ground to provide heat.

Renewable Energy System – According to studies done in 2011 it is predicted that within fifty years solar power will supply almost all of



the world's energy needs. There are a lot of boilers such as system boilers that already function on solar panels to provide effective heat in homes. Other natural resources will also contribute to the energy supply such as wind, waves and rain. The cost of effective heating when using a solar panel is much higher due to the increased price of these systems and the battery packs that is required for these systems to operate effectively. A reduction in costs is likely to be seen in the coming years making the use of Renewable Energy Systems easier for all.

Heat Pump Systems – These systems are quite cost-effective due to the use of wind or water for heat generation. They have a lifespan of approximately 25 years which makes it a great addition to any home. The bi-functionality only adds to the eco-friendly facet of heat pumps thus it can be used for heat during winter as well as air-conditioning during summer.

THERMAL HEATING SYSTEMS WITH SOLAR

Underfloor heating

There is a trend forming with home owners in the UK thru use of Solar Energy Systems which can only be attributed to the maintenance cost of such systems. These systems produce heating for a home plus hot water therefore the use of any other source for heating purposes has basically been eliminated. With a lifetime of twenty-five years in addition to the running costs which is a bare minimal these systems are quickly becoming the choice for many. The installation as well as design of such systems could also influence the effectiveness thus it is recommended to use skilled professionals for assistance.

Renewable Heat Incentives UK - RHI

During 2012 the first stage of RHI was introduced to the Non-Domestic sector in UK to encourage Businesses as well as Communities to commit to using heat sources other than electric by providing financial incentives to those who do. As of April 2014 the Domestic sector of RHI has been introduced to the citizens of the UK. For more details contact the Department of Energy and Climate Change (DECC) in regards to provisions for Domestic RHI.

Under Floor Heating Systems

Here we have another option for cost-effective heating of a home as this option proves to be highly effective in all homes but much more in smaller homes. As we all know warm air rises thus if the flooring of an area is heated the area itself will become warmer consequently providing heat to the entire room including furniture, objects and people. It is known to be the most stable form of heating a home from the floor to the ceiling.

Heating System Conclusions

Depending on the area within the UK your home is as well as the money you have available for heating systems will ultimately determines the Heating System installed. Gas and electrical boilers are the most commonly used heating systems used in the UK. They are preferred above other heating systems because the modern designs are compact and sleek in design. They fit into just about any home and have huge cost effective heating benefits to homes.

Between gas and electrical components, gas boilers are the cheapest of heating systems because they have lower fuel consumption costs. Gas boilers do however require a lot more maintenance to ensure the boiler is functioning well and to ensure the gas canisters don't run empty.

The main advantage of electrical boilers is the fact that it requires hardly any maintenance for effective heating and can provide your home with heat on a more stable level.

Average Cost of Central Heating Systems

Having a safe and efficient central heating system is an important part of your property, so if you need to replace or install a new system, find out the cost of a new central heating system here.

Central heating is less of a luxury and more of a fundamental necessity to UK home – and we have Mother Nature to thank for that one! The idea of going even a month without access to on-demand heating is pretty grim to say the least, but central heating systems are neither time nor bullet-proof.

Poor central heating means not only a cold, noisy and generally uncomfortable home, it could also be burning money like you wouldn't believe. Upgrading to a new 21st century standard can make the most incredible difference, though it's understandably crucial to establish what kinds of costs you're looking at first because how much central heating costs depends on a great many aspects such as boiler type, installations, fuels, flues, radiators, cylinders and much more.

The first question on everyone's minds when they consider central heating is; how much is central heating? Exactly how much you can expect to pay will of course be determined by the size, complexity and type of central heating installation you go for. Variables like the size of the home, the number of rooms in which to place radiators and other extras like under-floor heating will all make their respective marks on the overall costs. The cost of installing central heating depends many factors such as the remodeling requirements of your home so it will be suitable for central heating has a great effect on how much central heating is, the time it takes and how difficult the installation of added items that you will need for the system to function properly.

Generally speaking, you'll be looking at an installation bill of between **£350** and **£1,000**, which comes on top of the costs of the parts.

GAS OR ELECTRIC CENTRAL HEATING?

Where available, gas central heating is by far the UK's most popular and highly-recommended choice for central heating. The reason is that when considering how much it is to install central heating and how much the running costs are for gas and electric units are gas central heating almost always works out cheaper than electric.

Other options include LPG and Oil central heating systems, though in both cases are again less efficient financially speaking than gas. Gas units are also the most reliable in remote destinations because residents can enjoy warm water and homes even when there is no electricity available.

In terms of annual running costs, fuel bill will of course vary massively with usage and property size, though for the average UK home come out around:

- Electric – £1,700
- Gas – £770
- Oil – £1,100
- Gas LPG – £1,300

A tailored tariff from an electricity supplier could of course bring the seemingly excessive costs of electric central heating down a degree, though gas remains the most cost-effective by far.

How much it is to install gas central heating depends greatly on the size of the unit, the complexity of your home, the time it takes to install the units and your personal preference regarding where and how the installation should take place.

Installing a new gas central heating system could be far more cost effective then using an old system because it will save you a lot of money on repairs in the long run and many companies will offer installation discounts if you purchase new units.

Looking for central heating professionals? We can help!

A FULL CENTRAL HEATING SYSTEM REPLACEMENT COST?

If an outright refit of the whole job lot is called for, central heating cost to install will again be determined by both equipment required and the installation labor costs. There is however certain independent guidelines that can help give a rough idea, which includes the following:

- New Boiler Supplied and Fitted – **£1,600 to £2,000**
- New Radiator Supplied and Fitted – **£180** Each
- New Boiler Pump Fitted – **£150**
- Power Flush on Existing System – **£375**
- Upgrade from Oil to Gas Central Heating – **£2,500**

These are of course rough estimates and will vary in accordance with the job and the provider and the cost to fit central heating is mostly determined by your own preferences of brand, size and home renovation requirements so the units will have a good appearance in your home.

WHAT IS THE COST OF NEW CENTRAL HEATING?

So, how much does **new central heating** really cost? Well of course the price will depend on the size of your property and whether you already have central heating installed. The total cost is made up of the price of the parts needed to replace or install and the labour it will take for installation.

According to WhatPrice:

- **Open vent central heating** on average will cost **£2800 to £3000**
- **Sealed central heating** will cost **£2900 to £3200**

Added to this will be the price for fitting that can vary between **£500** and **£1200**.

Gas central heating installation costs

Gas is the most popular fuel used to heat in the UK, whether from mains or from LPG in cylinders. The cost of course will depend on the size of your property and the number of radiators but an average price from WhatPrice is:

- A **single story** building with 3 radiators is around **£2000**
- A **two story** building with six radiators is around **£2800**

Price of central heating radiators

The cost of radiators will depend on the size and the number you need. At HomeBase radiators vary in price such as:

- **Delta T50** single panel radiator 600 x 500 x 47 is **£25.99**
- **Delta T50** single panel radiator 600 x 800 x 47 is **£36.99**
- **Colonna 2 column** radiator 602 x 609 is **£139.99**

Plumbworld UK have radiators from £23.94 to designer panels from **£79.78**

Price of central heating pumps

The central heating pump is a vital part of the system and it will need to be replaced eventually. Of course the price will depend on the size of pump and some prices are listed below from Plumbworld and HomeBase UK. Changing a pump can cost between **£90** and **£150** in labour according to WhatPrice.

- **Grundfos Alpha 2L** is **£109.88** from Plumbworld
- **Grundfos UPS2** full pump is **£117.40** from Plumbworld

- Other brand pumps start at around £40

Central heating running costs

The **cost of heating buildings** will depend on the fuel that you use to run it. The following prices are based on a three bedroom semi-detached property that is well insulated:

Electricity £1850

Gas £800

Oil £1250

LPG £1450 +

Price includes heating and hot water supply

Electric central heating running costs

Electric central heating costs depend on the tariff charged and the electricity company you are with. The most economical tariff is a 7 or 10 that use storage heaters that come on at night for cheaper prices. Electric central heating is cheaper to install as there are no pipes and flues to worry about and there is less servicing needed.

- Electric central heating from British Gas average costs per year around **£1100**
- Electric central heating from Npower average costs per year around **£1050**
- Electric central heating from EDF average costs per year around **£1150**

SYSTEM COMPONENTS AND DESIGN

Central Heating

Central heating solutions facilitate to have a central unit that generates heat which can be used for various other sub-systems which would be in need of heating solutions. There are widespread applications of central heating systems and it is in huge demand, which enables you to enjoy warm and cozy temperatures at your place during chilly winters. Read on to know more about the usage of central heating in different areas and what it costs to install central heating and all the components that you will require for an effective heating system.

Boilers

A central heating boiler supplies hot water throughout, never having you to wait for the same. A

single boiler can have several outlets which can supply hot water to kitchens, bathrooms etc. There



Combination Boiler

are various types of boilers available in the market such as combination boiler, open vent boiler and system boiler. By having this installed, one can enjoy hot water at all times from a single centralized heating boiler.

The size and type of your boiler has the greatest effect on the cost of new central heating systems because it is by far the biggest component that is required for effective central heating.

Fuels

There are various types of fuels which can be made use of for central heating facilities. Natural gas, electricity, oil, charcoal and renewable fuel sources can be used as fuels for central heating solutions, depending upon the requirements of the user.

These fuels could also have an effect on the cost of central heating installation because extras such as gas canisters or charcoal containers should also be installed at your home, especially if you want your home to have a neat and tidy appearance.

Flues

Flues are chimneys that serve as a vent for the fumes to move out which produced during the operation of central heating boilers. It is essential to have a good quality and efficient flue in place for the boiler, as the fumes might prove to be hazardous, if not vented out properly, by causing overheating and explosion of the boiler. The flues may be concealed or visible openly, based on the installation approach followed. However, regular servicing and maintenance of the flue has to be carried enable the smooth functioning of the boiler; thereby avoiding any untoward incidents. The flue you decide upon will greatly affect how much it is to fit central heating, especially if you want a concealed flue that is built into the walls.

Hot Water Cylinders

Hot water cylinders are used to store the water heated from a boiler and it stays insulated; thereby keeping the water hot for several days. Also, water present in the hot water cylinder can also be heated by subjecting it to different heat sources. There are two types of hot water cylinders available: Vented hot water cylinders; which are connected using a vent pipe to a cold water tank

and unvented hot water cylinders; which are pressurized to maintain water pressure which can be used to supply hot water at a high pressure. The size of hot water cylinders vary for different boilers and increasing the size of your hot water cylinder will result in an increased fee of installing central heating but might be worth the extra amount if your household requires a lot of hot water or heating.

Radiators

Radiators are useful in central heating systems as they provide flexible heating solutions; i.e. they heat up quickly and cool down quickly too. The advantages of using radiators are tremendous, as they are healthy, responsive and controllable as per the requirements of the user, which ends up saving time, owing to their heat dissipating capabilities. They are also safe to use as their surfaces remain warm, without causing any damage to things that are in contact with it or are in the close proximity. How much a new central heating system and effective radiators costs are nothing compared to how much you will save on time efficiency and medical bills if you don't have a central heating system.

CAN I GET FINANCIAL HELP?

If you want to know how much to get to install central heating then you will have to discuss the matter with the suppliers so they will understand your unique needs and can provide you with an effective quote. The UK's central heating grants initiative has now been replaced by the 'Affordable Warmth' program though the principles remain largely the same. Grants are frequently awarded to those who aren't able to afford an essential upgrade to an old, inefficient or in any way dangerous central heating system – full guidelines and the application process can be found at affordablewarmthgrants.co.uk. You will also receive guidelines as to which installing central heating costs are to be claimed and which you will be liable for.

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