



### Solar thermal

Solar thermal is a fully renewable heating system. Panels are usually sited on a south-facing roof and use the sun's heat to warm water. In Britain, solar thermal water heating isn't suitable for use as a stand-alone system, but it's a great way to pre-heat water. This helps to save fuel costs and reduce your carbon emissions. This water warming capability is particularly useful in the summer because it avoids the need to use your main heating system or an electric immersion heater whilst room heating is not required.

### Electric night storage heaters

Night storage heaters are cheap and easy to install, making them a popular choice for rental properties in particular. Compared to liquid fuel they have significant disadvantages because they are expensive to use and offer limited control – the owner has little flexibility over the heat output and adjusting the temperature can only be achieved through a crude form of trial and error. They can work quite well if you plan to be home during the day, but their heat output usually declines in the evening, just when many homeowners need it most.

### Why use an OFTEC registered technician?

OFTEC registered technicians are trained and assessed to ensure they work competently and safely to recognised industry standards for oil, solid fuel and/or renewable heating systems.

OFTEC provides an official photo ID card for each technician and checks that registered businesses hold appropriate public liability insurance for working in customer premises. In England and Wales they can self-certify new installations without the need for local building control inspections and a similar optional scheme is available in Scotland and the Republic of Ireland.

### Find a local OFTEC registered technician

Visit [www.oftec.org](http://www.oftec.org) to use our search function or to check whether a business is currently registered. Or call our enquiries line (below) and one of our team will be happy to help.

### About OFTEC

OFTEC leads the way in the off-gas grid heating sector and aims to ensure that consumers have safe and efficient heating. Over 9,000 technicians across UK and Republic of Ireland are registered on our UKAS accredited registration schemes, which include liquid fuels, heat pumps, solar thermal, biomass and solid fuel.

Our trade association represents training providers and liquid fuel heating equipment manufacturers, promoting high standards and supporting the development of a renewable liquid fuel.

For further information please see [www.oftec.org](http://www.oftec.org).



OFTEC  
Tel: 01473 626 298 (UK) or 01 864 5771 (RoI)  
Email: [enquiries@oftec.org](mailto:enquiries@oftec.org) | [www.oftec.org](http://www.oftec.org)

# Home guide to off the grid heating





# Home guide to 'off the grid' heating



For homeowners who live off the mains gas network there are a wide range of heating options including liquid fuel heating, liquid petroleum gas (LPG), electric storage heaters, wood burning stoves and a new breed of renewable heating systems.

Many homeowners worry about which heating system offers the best combination of value for money, energy efficiency and overall convenience. Finding reliable advice can be difficult and this guide is designed to unravel some of the complexity.

## Liquid fuel

Liquid fuel heating is the fuel of choice for around one million homes in Great Britain and a similar number in Ireland. It can be used for both heating and cooking and offers similar advantages to mains gas in terms of convenience and ease of use. The latest liquid fuel-fired condensing boilers have efficiency ratings of over 90% - equal to gas boilers - and liquid fuel is one of the cheapest fuel options available. Another advantage is that it's easy to shop around for the cheapest deal because homeowners are not tied to using one supplier. You can also choose when to fill your tank, enabling you to buy when prices are low. The latest heating controls offer

excellent flexibility and control, enabling you to heat your home precisely as you want.

## Liquid petroleum gas (LPG)

From a user perspective, LPG works in a similar way to mains gas and, rather like liquid fuel heating, LPG is usually stored in a tank in the garden. However, unlike liquid fuel tanks, the tank is usually owned by the company that supplies the gas, which can make a new installation cheaper, but means an ongoing annual rental charge will apply. This can also cause difficulties when customers want to change fuel supplier. The biggest disadvantage of LPG is that it is one of the most expensive heating fuels plus homeowners are usually tied into long contracts, which limits your options when it comes to finding a better deal. On a more positive note, the carbon emissions from LPG are slightly lower than oil and LPG systems offer the same convenience as liquid fuel and mains gas.

## Heat pumps

Heat pumps, like biomass boilers, are usually thought of as renewable heating systems, although the electricity they run on is still generated mainly from fossil fuels. Heat pumps extract heat from the outside air or ground which can then be used to heat radiators, underfloor heating systems or provide hot water in your home. Warm air systems are also available. In hot weather some can be used in reverse to cool your home, making them very versatile. Heat pumps work most efficiently when producing heat at lower temperatures than conventional boilers. For this reason, when installed as a replacement for gas or liquid fuel heating, to be at their most efficient heat pumps will usually need more or larger heat emitters (radiators), or substantially improved building insulation, adding to the already high installation cost. They may be no

cheaper to run than a conventional liquid fuel-fired appliance or gas appliance.

## Solid fuel heating and biomass

Solid fuel heating can range from simple open fires and stoves – useful as secondary heating - to more sophisticated biomass boilers that heat radiators and run on specially-prepared pellets. This latter type is usually considered to be a form of renewable heating and is often fitted as a replacement to a liquid fuel or gas-fired boiler, although running costs may be higher. Biomass boilers tend to be large appliances and their fuel can also take up a lot of space, so they are best suited to larger properties. An automatic fuel feed, such as an auger, is also required unless you are happy to undertake the refuelling task yourself.

By contrast, room heating using an open fire or stove is a great way to supplement an existing central heating system, and nothing quite beats the pleasures of a real fire.

