



Bio-liquid to replace heating oil

OFTEC has worked with some of the industry's leading manufacturers to field-test blends of bio-fuel mixed with kerosene. These trials have proven that blended fuels work well in existing oil boilers with relatively few modifications. They have much lower greenhouse gas emissions than pure fossil fuels and one of the blends (30% bio-fuel and 70% kerosene) is recognised as a domestic heating fuel option. Bio-fuel supplies are currently limited but OFTEC is working with distributors to expand its availability. A heating system comprising a condensing oil boiler running bio-liquid, combined with other renewable technologies would provide an excellent way for rural homes to dramatically reduce carbon emissions from heating, whilst retaining their oil boiler system.

Financial support for renewables

Renewable heating technologies can be expensive to purchase and install. In recognition of this, and in an effort to reduce carbon emissions associated with space and water heating, various government-funded schemes are available. These include the Renewable Heat Incentive - see our separate OFTEC Home Guide for details. In all cases there is likely to be an application process and eligibility criteria will have to be met. Funding will also vary according to the technology employed. Eligibility criteria is likely to include having an energy assessment done on the property while the technology chosen may have to be accredited under the Microgeneration Certification Scheme (MCS) and the installer may also have to be MCS registered.

For information on what funding is available in your region, visit the Energy Saving Trust website at:



www.energysavingtrust.org.uk



OFTEC are the leading trade association for the Oil Heating and Cooking Industry.

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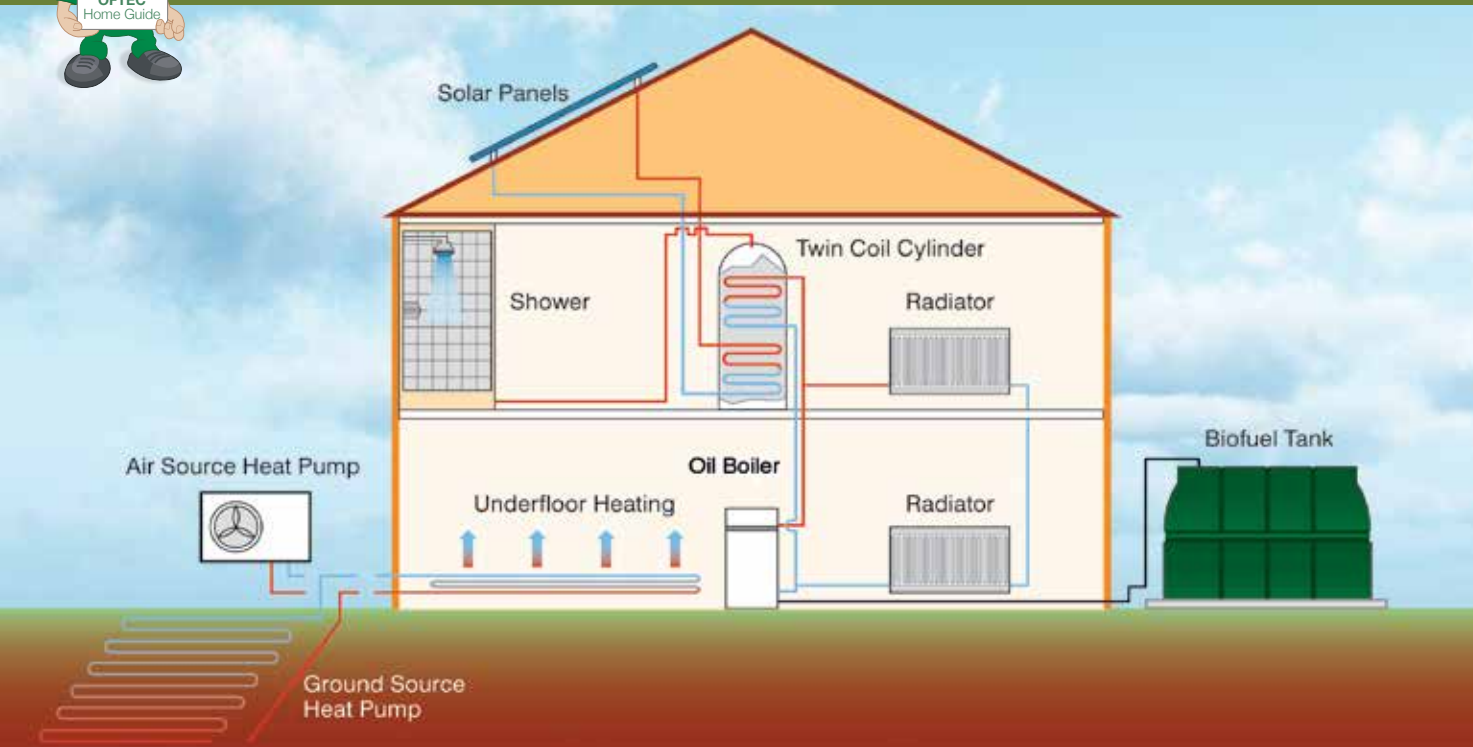
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system. The heat pump takes the lead during milder weather, while the oil boiler does the hard work when temperatures begin to fall. This provides an efficient year-round heating system, reducing fuel costs and carbon emissions. In some regions, funding is available to assist with the installation and running cost of heat pumps. (see overleaf)

Heat recovery systems

Heated air leaving a building through windows and ventilators is considered to be an uncontrolled path of wasted energy. Buildings need to have frequent air changes to replenish oxygen, expel odours and moisture from cooking and other hot water uses, and for the general well-being of the occupants. Heat recovery systems use fans and ducts to distribute fresh air around a building. Cool air entering the building typically passes through a heat exchanger which contains pipes carrying warm air to outside. As the cool air passes over the pipes, the heat is transferred and effectively preheats the incoming air. This means that less fuel is required to heat rooms to the desired temperature, which helps with reducing fuel costs and carbon emissions.

integrating your oil heating system with a renewable technology can help to bring down the cost of your fuel bill even more

Integrating your heating system

If you've already upgraded to a modern condensing oil boiler, integrating renewable technologies into your home to assist with heating demand can help to bring down the cost of your fuel bills even more. There are several options and some of the best are listed below:

Solar heating

The UK climate enables solar thermal panels to be used for capturing the sun's energy for a large part of the year and can account for up to 60% of the annual energy needed to produce domestic hot water. For household purposes, solar heating is best linked into a hot water storage tank or a thermal store, which would otherwise be heated solely by your boiler. The advantage being that the sun contributes to raising the temperature of water, which means the oil boiler will use

less fuel to increase the temperature of the water within the cylinder to its required storage level. In some regions, funding is available to assist with the installation and running cost of solar thermal systems. (see overleaf)

Air source and ground source heat pumps

Heat pumps use the thermal energy present in the air or ground to provide heat for your home - they work a bit like a fridge in reverse. Ambient heat present within the air or ground is absorbed into a refrigerant gas. The gas is then compressed to increase its temperature where it then transfers the increased heat into the heating system water. Heat pump systems generally operate at lower temperatures than a traditional oil boiler system and are best suited to well insulated homes with low heat demand. Heat pumps, particularly air source heat pumps, work well when combined with an oil condensing boiler

