

Are you heating your listed property the most energy efficient way?



Grade II listed Pusey House Oxfordshire has a ground source heat pump to provide heating and hot water

Listed properties come in a vast array of shapes, ages and sizes. The one thing they often have in common is that they are generally considered hard to heat. Simply the number of different options available to owners of listed properties is often enough to cause decision atrophy. Isoenergy's Edward Levien helps by explaining the process through which you can get a clearer idea on what is right for your home and gives an overview of the main technologies.

FIRST, STOP THE DRAUGHTS

If you have a draughty house this will prove any heating system to be ineffectual. Stopping draughts, as far as is possible, is vital.

CONSIDER YOUR CURRENT HEATING SYSTEM

Does your property already have some form of central heating system? Is all the house heated adequately? Are there cold areas or rooms? Are there radiators or heat emitters in every room and, most importantly, what would you like to achieve? When considering renewable heating systems, it is often thought that you need underfloor heating in place. This is simply not true. The vast majority of radiator systems we come across are suitable for lower flow temperature heating systems such as ground source heat pumps.

CONSIDER THE FUEL YOU HAVE ON SITE

The fuel you have on site can have a big impact on the cost of heating your property in the short and longer term. If you are served by the national gas grid, then you are already likely to be on the cheapest form of traditional heating fuel. However, if your property is heated by fuel oil or LPG then your bills are likely to be considerably higher and much more susceptible to fluctuating prices and longer term uncertainty of supply. For example the price of fuel oil rose from 35 pence per litre to 55 pence per litre between July and December 2017, a rise of just under 60%.

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HOW DO YOU OPERATE YOUR HEATING?

Older listed properties tend to have solid walls and whilst these buildings may not be the most thermally efficient they have a large thermal mass and hold the heat well. The traditional heating method of on in the morning, off in the middle of the day and back on at night will always make an older building harder to heat. Changing your strategy to running the heating all day with a heating temperature related to the outdoor temperature will turn the building into a thermal energy store, keeping the building and more importantly its occupants warm.

WHAT OPTIONS DO YOU HAVE; HAVE YOU CONSIDERED RENEWABLES?

The options available are greater than you think. On top of the standard fossil fuel options there are various renewable technologies that could provide heating and domestic hot water to your property.

Biomass can provide a replacement for a traditional high temperature heating system but you would still be dependent on fuel deliveries and fluctuating prices.

Heat pumps, both ground source and air source, can provide your heating and hot water requirements extremely efficiently and run on electricity. Installing a ground source heat pump is often the solution of choice for listed property owners and they often have

adequate land available for installing a heat collector array. Heat for a heat pump can come from a range of sources. The lowest capital cost of ownership is an air source heat pump which uses heat in the outside air to provide your heating and hot water. The downside of air source heat pumps can be the location of the unit. They are not silent and need to be sited in accordance with planning constraints.

Ground or water source heat pumps do not need planning permission and are virtually silent compared to air source units. When installed correctly, they offer a much higher efficiency factor, often producing four times as much energy as the electricity they use.

Other renewable technologies such as solar photovoltaic and solar thermal are available and can also provide additional add-ons to boost the system efficiency.

CAN I REDUCE MY RUNNING COSTS?

Yes: look at the technology you use. If you operate a traditional fossil fuel boiler then you could consider changing this for a more modern condensing unit with better control. This will be the cheapest short-term option. If you want to look mid- to long-term and negate rising fuel prices and market volatility then renewable energy sources such as a heat pump will reduce running costs and attract a subsidy from the government in the form of the Renewable Heat Incentive (RHI).



**Pusey House's
plantroom**

WHAT ARE YOUR LOCAL RESOURCES?

If you have land readily available, or perhaps a water course on your property then heat pumps can provide you with an excellent long term, highly efficient and cost effective solution to heating your property. Perhaps you have acres of managed woodland, in which case a biomass boiler may be the best solution for you.

Whatever your situation there is a solution to help increase efficiency, reduce bills and more importantly keep you warm. 

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