

BRECON BEACONS NATIONAL PARK



WOOD FUEL HEATING SYSTEMS IN THE BRECON BEACONS

OVERVIEW

This information sheet is for individuals who are considering the installation of wood fuel heating systems on their property. The NPA acknowledge the significant environmental benefits of energy efficiency and renewable energy and believe that

their potential is vast and under utilised. We recommend that energy efficiency improvements should always be considered before fitting renewable energy.

HOW DO THEY WORK?

Wood can be burned directly to provide heat in a central heating boiler or a room heater. Wood can also be burned to run a turbine and generate electricity.

Modern wood-fired heaters are highly efficient (keeping the heat inside the house much longer) and burn the wood more completely and cleanly than older systems or open fires. Wood pellets and wood chips are small and have a uniform size and shape so they are suitable for automatic feed systems such as hoppers or screw-feeds, which are more convenient than hand-feeding.

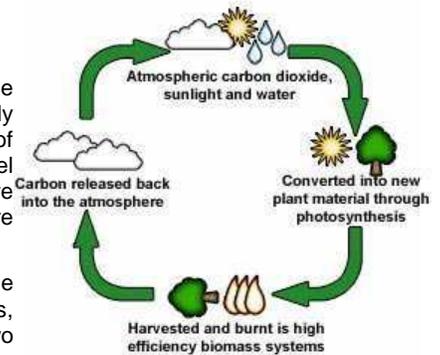
Refined wood fuels, such as wood briquettes or pellets made from compressed sawdust, are now readily available. Using these dense fuels more units of energy can be moved in

each lorry-load of wood, reducing the cost and impact of transport

What system should I choose?

There are a range of micro and small-scale biomass heating systems commercially available in the UK across a wide range of sizes, combustion technologies and fuel sources. Domestic biomass boilers require more room than standard boilers and are unlikely to fit into small properties.

For domestic applications of biomass the fuel usually takes the form of wood pellets, wood chips or wood logs. There are two main ways of using biomass to heat a domestic property; stand alone stoves and boilers connected to the central heating and hot water systems.



Above: The Carbon Cycle

Below: Wood Pellets and Woodchip fuel

WHY OPT FOR BIOFUEL?

The NPA is keen to encourage Biofuel heating systems as it offers both environmental and economic benefits. Biomass is a growing sector and offers significant potential for locally sourced heat generation in Wales. Biomass has an advantage over intermittent renewable energy sources, such as wind and solar, as biomass can be stored and power generated when required. This makes it one of the most viable and reliable micro-renewable technologies. However, unlike other sources of renewable energy, biomass typically requires on-

going payments to be made for the fuel. Biomass is most effective when a local fuel source is used, thus reducing transport impacts ensuring that the carbon benefits from using biomass are not lessened by emissions created when transporting it, and also reducing the financial costs associated with transporting the fuel. Using a local source also results in local investment and employment. Bio-energy also has the potential to create and sustain jobs in rural areas.



COST AND MAINTENANCE

Wood Fuel heating systems vary in price considerably to the different requirements of each house. Wood Pellet systems tend to be more expensive than woodchip, but are also slightly more efficient. Individual room heaters are priced according to their output and design.

Grants

A number of grants are available for biofuel heating systems. Please contact the NPA for current information.

Which installer do I choose?

The NPA has a list of certified local installers on their website. Alternatively please contact the NPA on the number below for further information.

For further information contact:

Brecon Beacons National Park Authority

Plas y Ffynnon, Cambrian Way, Brecon, LD3 7HP

Tel: (01874) 624437

www.beacons-npa.gov.uk

