

# HOW CAN I USE WOOD ENERGY IN MY HOME AND BUSINESS?

## Fact Sheet 6

Wood fuel can offer a cost effective and environmentally friendly alternative to fossil fuels.

[www.woodenergybusiness.co.uk](http://www.woodenergybusiness.co.uk)



## Could I use wood energy in my home or business?

Energy generation schemes using wood fuel can range in size from modern log or pellet burning stoves, which heat a single room, to automatic wood fuelled boilers heating public and commercial buildings such as hospitals or schools. Heat and/or electricity can also be sold across the surrounding district, and electricity can be sold to the local grid. The local nature of these schemes can provide benefits to communities in terms of increased employment, reduced fuel costs and an improved local economy. Individual energy generation schemes collectively have the potential to make an important contribution to meeting the UK's energy needs and establishing a sustainable timber market.

The key factors determining the size of a project are likely to be the:

- availability of fuel in the area
- market for the heat and/or electricity
- nature of the local environment

## How much does it cost?

Wood fuel energy will have to compete economically with any system it is going to replace. The running costs of wood fuelled systems are comparable with most fossil fuel alternatives. However, wood fuel boilers are generally more expensive than equivalent fossil fuel boilers. To overcome this problem, Forestry Commission Wales have established a Wood Energy Business Scheme which will pay up to 50% of the boiler and installation costs. In a new build situation with a grant a wood fuel system, with this grant, can be very competitive with oil, LPG and electricity. But even then wood fuel is competitive compared to LPG. In many areas of Wales where mains gas is not available, wood fuel may be the most cost effective source of heat.

## Is my building suitable?

Virtually all buildings, whether domestic, business or for leisure activities, require heat. The more constant the heat demand, the greater the economic benefits offered by a wood fuelled system. Examples of buildings which

generally require constant heat include:

- hospitals
- hotels
- leisure facilities
- shopping centres
- glasshouses

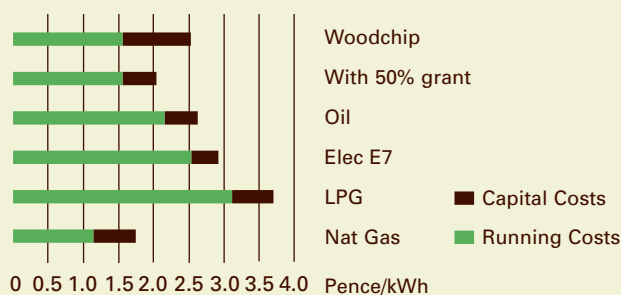
Buildings not requiring constant heat but with predictable intermittent demand include:

- theatres and cinemas
- schools and colleges
- community centres and other public buildings
- industrial units

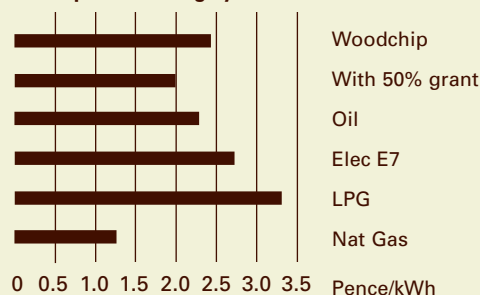
## Will I get my hands dirty?

No. Most people will buy their fuel from a wood energy business, who undertake to provide a regular and reliable supply of wood fuel. This is agreed under a fixed-term contract, just like fuel oil or gas. In many cases the same company will manage the conversion to wood fuel (including boiler supply and installation) and handle all servicing and maintenance needs.

Comparative heat costs for new installations



Comparative heat for where Wood Fuel will replace existing system



## Example: Costs of heating a 300 kW system such as a small school, leisure centre or office complex

		Woodchip	Woodchip with 50% grant	Oil	LPG	Electric off-peak	Mains gas
<b>New installation</b>							
Running costs per heat unit	p/kWh	1.6	1.6	2.2	3.3	2.6	1.3
Capital costs per heat unit	p/kWh	1.0	0.5	0.5	0.5	0.4	0.5
Total life-cycle cost per unit	p/kWh	2.6	2.1	2.7	3.8	3.0	1.8
<b>Boiler replacement only</b>							
Unit cost, including capital cost	p/kWh	2.6	2.1	2.4	3.5	2.9	1.4

Source: Dulas Ltd

## Why should I consider wood fuel?

**There are a number of reasons, including:**

Benefits the global and local environment

Shows customers your “green” credentials

Supports local businesses and keeps energy revenue in Wales

Supports sustainable woodland management in Wales

To meet the targets of both the UK and Welsh Assembly Governments

## What is the Climate Change Levy (CCL)?

Electricity from wood energy is not subject to the climate change levy. If you switch from heating with electricity to wood energy you are no longer subject to the climate change levy on heating.

More pressure will be exerted in the future on companies to adopt energy policies that take account of this emerging legislation and wood fuel will be an appropriate, practical alternative to fossil fuel use.