

Briefing Note

What is biomass?

Biomass is biological material derived from living, or recently living organisms. In the context of biomass for energy this often used to mean plant based material, but biomass can equally apply to both animal and vegetable derived material.

What is wood fuel?

Using wood to produce electricity and/or heat is technically proven. Wood can be burned and the heat used to provide hot water or to raise steam for direct industrial use or for electricity generation. There are 3 main types of wood fuel used in modern systems in the UK, Europe and elsewhere:

- 1) **Logs:** the traditional form of wood fuel which can be easily stored, air dried and burnt in a wide range of appliances from open fires to modern automated boilers.
- 2) **Wood Chip:** is widely use in other European countries as a fuel for heating and in combined heat and power systems, particularly in countries with a strong forestry tradition such as Scandinavia and Austria.
- 3) **Wood Pellets:** Wood pellets are a highly compressed standardised product made from sawdust.

What is the purpose of this event?

With Ashford's growth agenda of providing 31,000 new homes and 28,000 jobs by 2031, we need to think extremely carefully about how we can deliver this in a sustainable way. Wood fuel has the potential to play a key role in meeting our energy demands as Ashford is ideally placed to take maximum advantage of this; within a 25mile radius of Ashford there is at least 10,000 tonnes of wood fuel available per year in the short term and significantly more within a few years.

Why are we promoting wood fuel?

Environmental benefits:

- Wood is a renewable and sustainable resource that can be grown and managed as part of existing forestry or agricultural systems.
- Much of the woodland in the UK is semi-natural and benefits from being managed. The eco-systems that exist in these woods today depends on continuing management for their continued survival.

- Using wood instead of fossil fuels helps to reduce carbon dioxide (one of the main greenhouse gases contributing to climate change) and other potentially damaging emissions. When wood is burned, it only puts back into the atmosphere the CO₂ that it absorbed from the atmosphere while it was growing.
- Even processed wood fuel such as wood pellets still have an advantage over fossil fuels because the amount of energy used in their production and transport is very small, compared to the overall amount of carbon emissions saved.
- Wood is also a very clean and safe fuel. Unlike oil and nuclear fuel, wood fuel presents no risk if it is accidentally released into the environment. Emissions from burning wood fuel are also very low compared to burning fossil fuels. Wood contains almost no sulphur and very little nitrogen.
- The ash produced when burning wood is also an excellent fertiliser and presents none of the economic and environmental costs of conventional alternatives.

Economic benefits:

- Biomass can be sourced locally, on an indefinite basis, contributing to security of supply.
- There is a huge untapped resource of woodlands in the Borough, originally very productive woodland producing a wide range of timber products. This market has disappeared and a new market needs to be found for this potentially valuable resource.
- The establishment of local networks of production and usage, allows financial and environmental costs of transport to be minimised.
- A demand for wood fuel may encourage farmers to plant short rotation coppice crops – an important opportunity for diversification, which could help to supplement farm incomes.
- Building and operating wood-fired heat or power plant can create jobs and increase demand for local goods and services in rural communities.

Useful Websites

- www.nef.org.uk/logpile

The Log Pile project is run by the [National Energy Foundation](http://www.nef.org.uk) to promote and aid the use of wood as a source of renewable energy and sustainable heating.

- www.biomassenergycentre.org.uk

The BIOMASS Energy Centre (BEC) is owned and managed by the Forestry Commission, via Forest Research, its research agency. BEC aims to be a one stop shop able to provide advice and guidance - signposting to other specialised sources of advice as necessary - on a wide range of biomass fuels and conversion technologies.