

biomass  
power 

POWER WITH RESPONSIBILITY



The Biomass Power Advantage

Our aim is to own and operate biomass power stations with our venture partners. This approach is unique to BPL as we combine financial investment with the most up to date gasification steam cycle technology. Biomass Power Ltd will work within its partnerships making our joint aspirations possible.

BPL's highly optimised process of staged gasification with steam cycle ensures that we meet the criteria of advanced conversion technology without the technology risk. Biomass Power has developed standard modules which

produce green energy from a range of fuels segregated from commercial, industrial and domestic waste streams. Also simpler fuels like waste wood, agricultural residues and purposely grown biomass are suitable, offering greater future fuel flexibility than any of our competitors.

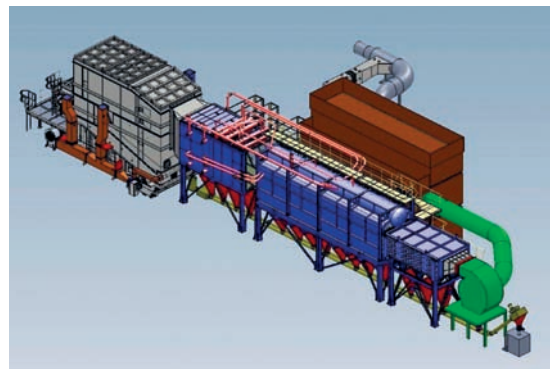
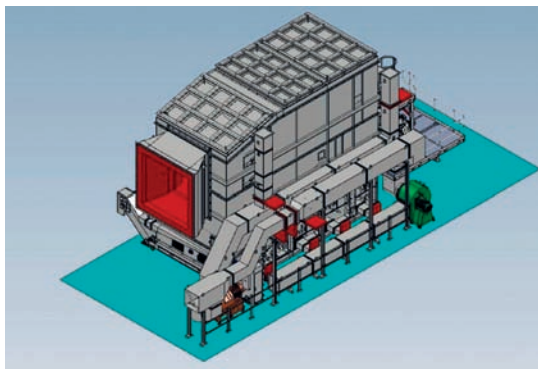
Once we have completed our business review and helped the partnership to answer all the investor community's standard questions, the investment will be made by our broad spectrum of investment partners who have invested into our projects before.

Biomass Power In-house Engineering

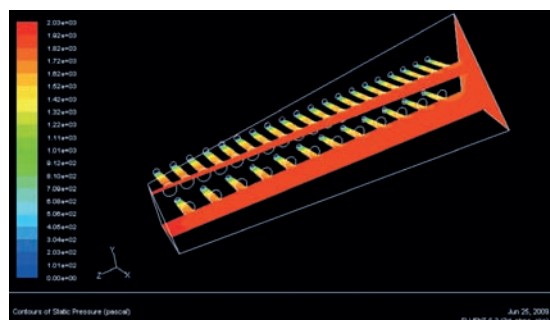
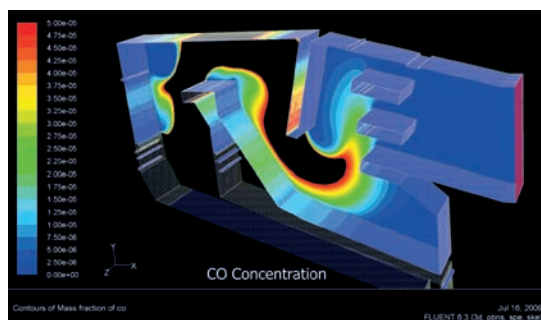
We use a range of tools to assist in the engineering of process including Computerised Fluid Dynamics; Computer Aided Design, three dimensional design and virtual reality simulations. Our Biomass Power engineers provide unrivalled expertise. Our board of directors can

boast reference sites that have been handling waste and producing green power via a system of primary gasification and combustion to steam cycle for over 15 years with these designs still operating successfully and commercially today.

3D arrangement drawings of typical Biomass Power Plant:



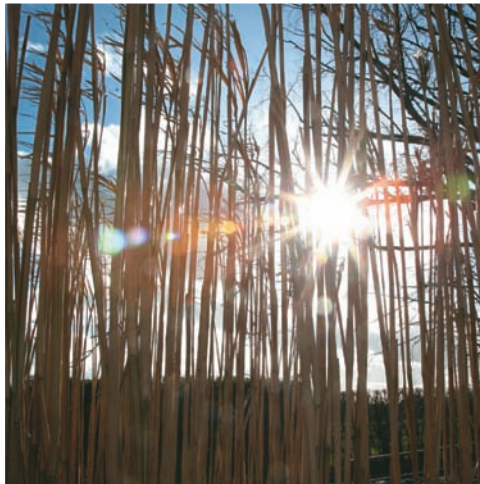
Computerised fluid dynamics:



Biomass power is a market leader in the design, manufacture, installation and operation of Biomass Power Stations.

Through our highly developed and well proven process of gasification followed by secondary gas combustion to steam cycle, BPL can generate green energy from the biomass rich fraction of segregated feedstock, energy crops, and agricultural & forestry residues.

This combined with our willingness to financially invest into all our opportunities makes BPL the perfect choice as your biomass power plant provider.





Efficiency

Biomass Power have handled almost every type of solid fuel from straight forward chipped trees, energy crops and agricultural residues, to the segregated biomass rich fraction of municipal, industrial and commercial waste streams.

The main factors which affect the efficiency of the plant are fuel type and plant size.

When designing the plant, the fuel will affect the quality of the steam, the higher the quality of steam the more power it will produce. Efficiency gains can also be achieved through turbine selection, the more stages a turbine has, the more efficient it is. Hence larger plants can deliver greater efficiency. Biomass

Power can produce guaranteed electrical efficiency 'fuel to buzz bar' using well proven robust steam boiler technology.

Biomass Power Ltd will be able to select the correct Technology for the particular size of site and the type of feedstock available.

Biomass Power systems can be engineered to produce **Pure Power Generation (PPG), Combined Heat and Power (CHP) and Combined Cooling Heat and Power (CCHP).**

Also if required Biomass Power can future proof this by planning for future change and saving re-engineering later on.

Environmental Advantage

BPL has the local and global environment at the heart of its company policies and any BPL power plant development considers first and foremost local sensitivities, global emission standards and CO₂ reduction targets.

BPL's system design and highly optimised control strategy ensures compliance with any national or international emissions standards and boasts market place proof of meeting all the challenges that modern day society demands.

- **Buildings have been constructed from 10-15m in height**
- **Emissions achieved on working plants are half of what the allowable limits of the national environmental standards dictate**
- **Noise has been attenuated from ambient noise levels as low as 35dBA**

Global carbon reduction needs addressing by all who demand energy to fulfil their lifestyle choice.

The Biomass Power team is already responsible for reducing carbon annually by 124,000 tonnes from power plants designed, installed and commissioned by the board of directors since 1996.

Combined Heat & Power

Combined Heat and Power is a very efficient way of utilising the energy released from steam. Via the turbine for power and by extracting heat from the uncondensed, condensed or indirectly heated water of the steam cycle.

Rather than producing as much power as possible, the approach is combined to ensure that power is produced at the correct voltage, and heat at the temperature required to be used by the developer at their discretion.

This method can be adopted across the range of 1 MWe to 20 MWe modules. Electrical output will reduce in

accordance with the heat required, the lower the grade of heat needed the more power you will produce.

Biomass Power's specifically market developed power plants have the facility to produce as much power as possible from the steam cycle. However, if you require heat to be extracted proportionally according to load, Biomass Power can integrate this function on installation to be used as required.



Modular System

All parts of the biomass power plant are factory fitted and skid mounted to ensure a tested, quality assured sum of process parts that are delivered as an 'easy fit' assembly. This modular approach ensures an economical, efficient, perfect fit to suit all requirements.

BPL's standard range of market designed modules with outputs from 1 MWe to 20 MWe can be combined to create any size power station.



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