





Hydrogen gas produced by the Pyroformer™ Gasifier can be separated and stored for applications in the 'Hydrogen Economy'.

process does not require expensive pre-processing as the technology is able to process pellets and briquettes.

Farm Slurries



Municipal

Waste

BIOMASS



Industrial

The Pyroformer™ is able to transform organic wastes and residues

(biomass) into heat, power and other marketable products. It is able to

handle a wide range of feedstocks, including traditionally 'hard to treat'

materials such as residues with high water content (up to 40%). The





Agricultural Food Residues Residues

Combustable

Gas

Howthe roformer

PYROFORMER™ GASIFIER

Pyrolysis gases produced in the Pyroformer[™] can be fed directly into a Gasifier to upgrade the gases into clean and efficient gaseous fuels for Gas Engines.

PYROFORMERTM

EBRI's patented Pyroformer™ technology uses intermediate pyrolysis to pyrolyse and chemically process waste material in a single step. The reaction temperature for this process is around 450-500°C. The controlled thermal treatment and chemical reforming process produces a vapour stream that is free from particulates and tars and eliminates the need for expensive filtrations systems.

pellets and oriquettes ANAEROBIC DIGESTION

H₂0

Digestate from anaerobic digestion can be dried for use as a feedstock for the Pyroformer™ as a sustainable alternative to land-use applications.

WATER

The water fraction produced by the Pyroformer[™] can be recycled to the digester tank to increase the biogas yield.

Bio-Activated POWER Fuels Reactor DUEL

FUEL CHP

Pyrolysis oils are struck with diodiesel to produce a fuel for CHP engines. Tar and particulate-free gas can be fed directly into engines without the need Oil for hot-gas filtration processes. **Components Components**

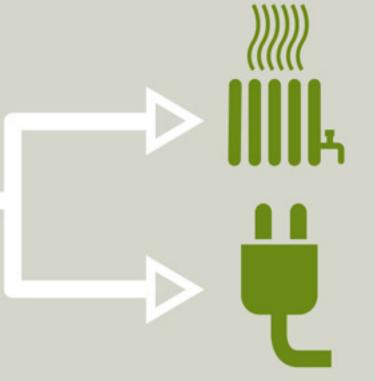
PLASTICS PYROFORMER-BAF

Pyrolysis gas from the Pyroformer[™] can be used to undertake the thermo-chemical 'cracking' of plastic. Pyrolysis gas reacts with the hot long-chain molecules in the molten waste plastics, resulting in the thermal and chemical 'cracking' of the hydrocarbon molecules (at a significantly ower temperature than thermal cracking alone) to produce high-quality engine fuels.

Gas Engine

(BIO) CHAR

The Pyroformer™ produces a physical residue in the form of a biochar (charcoal). The biochar has market value in excess of £1,000 per tonne for use in soil enhancement or carbon sequestration. Char can also be used for co-firing in power stations.



COMBINED **HEAT & POWER**