

Proven Technologies

Five technologies being evaluated:

All offer significant benefits including renewable power, reducing the amount of waste sent to landfill, reducing greenhouse gas emissions and reducing the environmental impacts of landfill

Anaerobic digestion

TECHNIQUE: Bacterial decomposition

PRODUCT: Compost
Biogas → electricity



Combustion

TECHNIQUE: Converting waste to heat by burning at high temperatures in a furnace

PRODUCT: Heat (steam) and electricity
Bottom ash → roadbase
Recovered metals



Gasification

TECHNIQUE: Converting waste to synthesis gas by using heat and limited air supply in a gasifier

PRODUCT: Synthesis gas → electricity or fuel gas
Bottom ash → roadbase
Recovered metals



Plasma (if in conjunction with combustion or gasification or pyrolysis)

TECHNIQUE: Melting waste at very high temperatures in a gasifier

PRODUCT: Synthesis gas → fuel gas (ethanol)
Inert slag → Roadbase
Recovered metals



Pyrolysis

TECHNIQUE: As for gasification but in the absence of air

PRODUCT: Synthesis gas and pyrolysis liquid → Bio fuel
Bio-char
Recovered metals

