

Thermal Recovery Facility (TRF)

There is one Thermal Recovery Facility that is part of the overall recycling and waste solution for across Greater Manchester. The facility creates enough energy to power 7,000 homes.



What is Thermal Recovery?

Thermal Recovery is a process by which the energy produced from burning waste is used to create electricity. The Bolton TRF generates enough power to operate the plant, plus approximately seven megawatts of electricity, which is then transferred to the National Grid for use in our homes.

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How does it work in Greater Manchester?

When waste arrives at the plant it is tipped into a large reception hall where a mechanical shovel is used to move the waste into a pit. A large claw-like grab is used to mix the waste, helping to prevent too much of one type of material being burned at once.

The waste is transferred to the furnace where it is burned. The furnace reaches temperatures of over 850°C and reduces the waste to ash. This falls out of the bottom of the furnace and is passed under a magnet to remove any ferrous (iron-based) metals, which can be recycled. The remaining ash is either used in construction materials or sent to landfill.

The heat generated from the furnace is used to boil water, which creates steam. The steam is then used to power a turbine that turns a gearbox and drives the generator to produce electricity.

Ammonium, lime and activated charcoal are added to neutralise acid gases and other potential air pollutants. The gases then pass through a bag filtration system which removes the additives and any other particles. This is known as “fly ash” and it is sent for safe disposal.

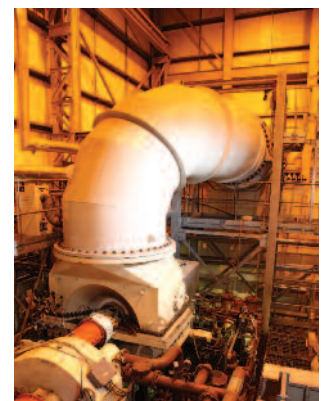
What are the advantages of Thermal Recovery?

The main advantages of a Thermal Recovery Facility are:

- Thermal Recovery is important for sustainable waste management as it reduces the amount of material going to landfill.
- It allows the further recovery of ferrous metals for recycling and the possibility of using the ash in the construction industry.
- Thermal Recovery is a proven technology, with over 20 plants in the UK and over 1,000 around the world.

How do we compare to the rest of Europe?

Several European countries incinerate a higher proportion of their waste than the United Kingdom. “Currently, the incineration rate of municipal waste in the UK is 9%. This compares with: Belgium 34%, Netherlands 38% and Germany 35%. These three countries also have a recycling and composting rate of 60% or over, proving that higher incineration rates do not necessarily have a negative impact on recycling levels.” (Eurostat 2007)



For more information, please visit : www.recycleforgreatermanchester.com or contact:

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