



# Energy efficiency and the recovery status of incineration

## The situation

Just how efficient are Energy Recovery Facilities (ERFs)? It's a question that can sometimes be difficult to answer, simply because of the way that energy efficiency is expressed. That's because the engineering terms that are applied to this field are often contradictory.

Typical fossil fuel power stations achieve around 30-35% efficiency. This may sound like a low percentage, but it's limited by the physical laws that govern the steam cycle, which is how we recover energy. Municipal waste that can't be recycled has an energy value of around one third that of coal and an ERF efficiency is limited to around 25-30%.

So have ERFs reached their energy efficiency limits? ERF technology has not stood still and innovation in materials and technology means they're constantly improving. What's more, ERF plants can improve their thermal efficiency by connecting to a district heating system, utilising some of the steam to heat the sustainable cities or businesses of the future, rather than just generating electricity.

**The seven key issues**

1. Food waste collection and processing
2. Mixed material (co-mingled) collections
3. Mixed plastics collections
4. Management of hazardous waste
- 5. Energy efficiency and incineration**
6. Renewable energy and district heating
7. The End of Waste criteria

If we can't understand the energy efficiency figures, the general public has no chance.

Where we **Stand.**



We believe that **achieving R1 Recovery Status** is essential. All our UK facilities meet or exceed the R1 standard and are designated as Recovery facilities.

The irony is that many so called Advanced Thermal Treatments (ATTs) enjoy significant state subsidies, yet are unable to achieve these same high energy efficiencies. We feel this is unfair as it constitutes rewarding disposal instead of recovery, an anomaly in policy that the Government should address as soon as possible.

Our stance is that using thermal treatment plants for the disposal of waste must be actively discouraged. We would also urge the Government to consider introducing a tax on this disposal method to encourage better alternatives and reward recovery processes.

Combined Heat and Power solutions also present a far more energy-efficient solution for the sustainable cities of the future. We also operate one of the most extensive district heating schemes in the UK in Sheffield and are preparing to develop a significant scheme in London.

What's more, we have plans at each of our ERFs to provide heating schemes wherever they are viable, and to underpin new, local sustainable businesses. It's initiatives like ours that will contribute most to sustainable city planning and enhance the appeal of our cities in the future.



**Where do you stand?**

Join the debate at:

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