

Energy from waste – Key facts

What is energy from waste?

Energy from waste (EfW) or incineration is where waste is burnt at high temperatures to reduce its volume and to produce heat and/or electricity.

Like all other combustion plants burning solid and liquid fuels, the incineration process produces the following emissions:

- acid gases, particulates, dioxins and heavy metals to air
- ash residues (these arise from the non-combustible materials present in the incoming waste)

If solid ash residues are handled and disposed of correctly, air emissions are the main way people and the environment can be affected by emissions.

Energy from waste – the facts

- In 2006/07 11 per cent of municipal waste in England and 2 per cent in Wales was incinerated with energy recovery (expected to rise to 25 per cent in England by 2020 and 30 per cent in Wales by 2025).
- Currently there are 18 energy from waste plants in England and Wales with a total capacity of over three million tonnes a year.
- Since the end of 2005 all energy from waste plants have been subject to the European Waste Incineration Directive, with much tighter controls on emission limits and improved technology.
- All energy from waste plants are new or have been significantly modified since 1996, with substantial cuts in emissions.

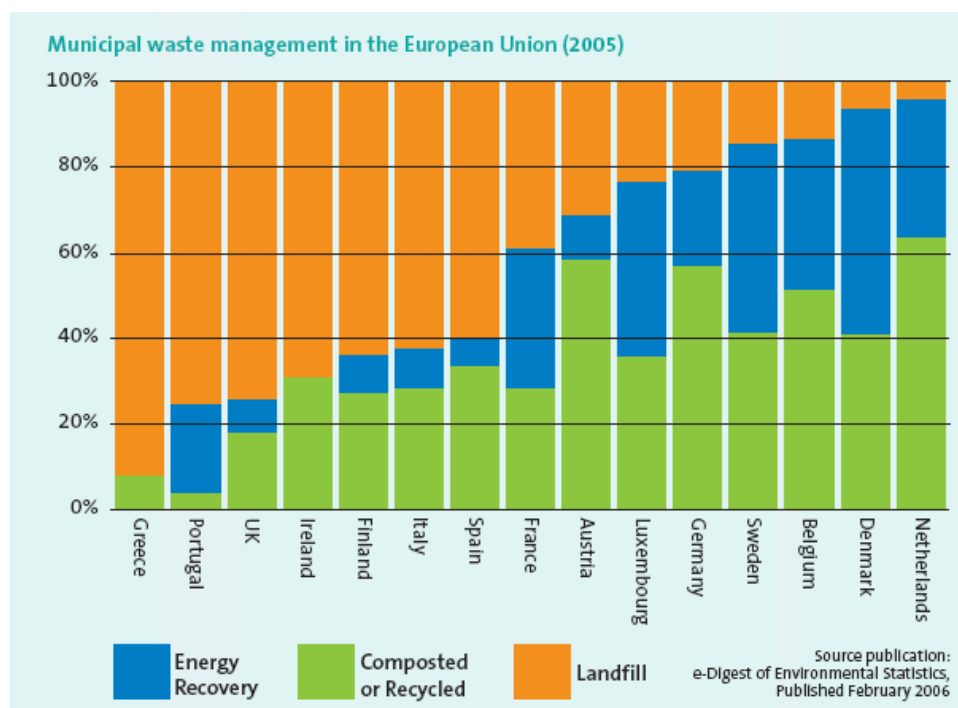
Energy from waste and health

- A number of scientific studies have investigated the impact of energy from waste emissions on human health.
- Much research was based on emissions from older incinerators that had much higher emissions of pollutants.
- We are not aware of any studies that conclusively link adverse health outcomes to energy from waste plant releases.
- The 2004 Defra report "*Review of Environmental and Health Effects of Waste Management: Municipal Solid Waste and Similar Wastes*" concluded that there are no convincing links between energy from waste plant emissions and adverse effects on public health.

Incineration – the European picture

Municipal waste management in the European Union

	landfill	recycled/compos- ted (and other)	incineration	municipal waste generated per capita / kg
Greece	91.8	8.2	0.0	428.0
Portugal	74.8	3.5	21.7	452.0
United Kingdom	74.0	18.0	8.0	592.0
Ireland	69.0	31.0	0.0	732.0
Finland	63.3	27.6	9.1	450.0
Italy	61.8	28.9	9.4	523.0
Spain	59.3	34.2	6.6	609.0
France	38.1	28.2	33.7	561.0
Austria	30.0	59.3	10.7	610.0
Luxembourg	22.6	35.7	41.6	658.0
Germany	19.9	57.2	22.9	638.0
Sweden	13.6	41.4	45.0	471.0
Belgium	12.6	51.8	35.7	446.0
Denmark	5.0	41.2	53.8	675.0
Netherlands	2.7	64.4	32.9	599.0
eu 15	44.9	36.4	18.7	577.0



Source publication: [e-Digest of Environmental Statistics](#), published February 2006
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