

Energy from waste

Key issues

- We generate a large amount of municipal waste which must be managed.
- Local authorities collected 30.9 million tonnes of municipal waste in England and Wales in 2006/07. This included 27.5 million tonnes of waste from households, representing around 509 kg per person per year.
- The main route for municipal waste disposal in the UK has traditionally been landfill. However, to comply with the requirements of the European Landfill Directive, England and Wales must landfill no more than about 12 million tonnes of biodegradable municipal waste by 2009/10, 8 million tonnes by 2012/13 and 5.5 million tonnes by 2019/20.
- We must urgently find affordable ways of managing municipal waste that cannot be recycled and maximise its use as a resource.

Our position on energy from waste

- We believe that we need to create less waste, recycle more and maximise the use of residual waste in a safe and environmentally friendly way.
- We believe that recovering energy from waste can contribute to a balanced energy policy.
- We consider that it may be appropriate for local authorities to include energy from waste in their strategies and plans provided that:
 - it does not undermine preventing or minimising waste, re-use, recycling or composting;
 - it forms part of a properly considered and appraised regional or local strategy.
 - it is consistent with the statutory aim to establish an integrated and adequate network of waste disposal installations and enable waste to be disposed of in one of the nearest appropriate installations.
- We also consider that energy generated by incineration should be recovered as far as practicable, for example using Combined Heat and Power (CHP) schemes, consistent with the requirements of Best Available Techniques (BAT).

Our role

- We will not issue an environmental permit for any industrial site, including energy from waste plants, if we consider they will cause significant pollution to the environment or harm human health.
- We will make sure that the standards used in designing, maintaining and operating energy from waste plants are at least as good as the agreed European standards.
- When we receive an application for an environmental permit to operate an energy from waste plant we consult members of the local community, the local authority and the public health bodies for their views on the potential effect on the environment and public health.
- We regulate the performance of energy from waste plants by:
 - Requiring continuous emissions monitors to be used to measure concentrations of pollutants such as sulphur dioxide, oxides of nitrogen, hydrogen chloride, carbon monoxide, total organic compounds and particulate matter;

- Requiring twice yearly monitoring of hydrogen fluoride, heavy metals and dioxins, dioxin like PCBs (polychlorinated biphenyls) and PAHs (polyaromatic hydrocarbons);
- Carrying out check monitoring of pollutants using our own independent contractors, normally once a year or carrying out on-site auditing of operator monitoring;
- Inspecting sites regularly and carrying out unannounced inspections; and,
- Requiring Operators to inform us within 24 hours if any of the emission limits set in the environmental permit are exceeded, or if they fail to comply with any of the operating conditions.
- If the energy from waste plant operator does not comply with its environmental permit we will take action in line with our Enforcement and Prosecution Policy.

Strategic Waste Planning

- In England the regional assemblies set out the high-level spatial planning framework for waste in their regional spatial strategies.
- In Wales, Regional Waste Plans determine overall policy for the management of waste in land use terms, including the number and type of the different facilities required. The policy is transposed at a local level into the Local Development Plans for implementation.

Local authority's role

- As the waste disposal authority, local authorities determine how municipal waste should be managed, including whether energy from waste is needed and, if so, how much is needed.
- As the waste planning authority, local authorities decide where an energy from waste facility should be built.
- We provide our views on the environmental impact of energy from waste plants through input to draft spatial plans and responding to consultation on planning applications.

Public Health Bodies' role

- We consult the local public health bodies (the Primary Care Trust in England or the Local Health Board in Wales) on an application for an environmental permit for an energy from waste plant.
- We ask them to comment on the potential health impacts of the proposed plant and take their views into account when we decide whether to grant a permit.

Background

- The Government's Waste Strategy for England 2007 says that 'recovering energy from waste which cannot sensibly be recycled is an essential component of a well-balanced energy policy.' It expects energy from waste to account for 25 per cent of municipal waste by 2020.
- Wales Waste Strategy "Wise about Waste" is currently under review, although the Welsh Assembly Government have stated that energy from waste is the best method to deal with non-recyclable waste but only where the maximum level of energy from waste required automatically mirrors minimum recycling levels. It currently proposes that the maximum amount of energy from waste should be 30% by 2024/25
- The number of energy from waste plants needed depends on the rates of recycling and composting achieved, the use of other treatment methods, the growth in municipal waste and the size of any proposed energy from waste plants.
- In 2004, Defra published a report entitled "*Review of Environmental and Health Effects of Waste Management: Municipal Solid Waste and Similar Wastes*". This

report concluded that "Published studies of the health of communities living in the vicinity of incinerators have failed to establish any convincing links between incinerator emissions and adverse effects on public health; specifically no impact was demonstrated on the incidence of cancer, respiratory health symptoms or reproductive outcomes."

- The main outlets for residual waste in Europe are shown in the following table (taken from Source publication: [e-Digest of Environmental Statistics](#), published February 2006 Department for Environment, Food and Rural Affairs). This demonstrates that high levels of recycling can be compatible with high levels of incineration.

	landfill	recycled/compost ed (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