

Consultation on petition P-04-341 Waste and Incineration  
Response from Environment Agency Wales

**Environment Agency Wales' response to the Petitions Committee's consultation on waste policy and incineration**

Thank you for the opportunity to respond to your letter dated the 16 November 2011 regarding Prosiect Gwyrdd and national waste policy. Our responses to your specific questions are set out below.

Background

Environment Agency Wales is the body responsible for regulating waste facilities in Wales. We issue a permit for a waste facility if we are satisfied that the plant will be designed, built, operated and maintained in such a way that human health and the environment are protected.

We provide advice and evidence to Welsh Government (WG) whose role it is to develop policy.

The main route for waste disposal in Wales has traditionally been landfill. To comply with the requirements of the European Landfill Directive, the amount of biodegradable municipal waste sent to landfill must be reduced by 50% of 1995 levels by 2013 and 65% by 2020. In Wales, we have relied on landfill disposal for residual waste. Our landfills now have limited future capacity and we must move to alternative methods for disposing of residual waste.

In summary the points we would like to make are:

1. As a society, we need to create less waste, recycle more and maximise the use of residual waste (what's left after reuse and recycling) in a safe and environmentally friendly way. The WG has set the ambition of becoming a high recycling nation by 2025 and a zero waste one planet nation by 2050.
2. The best options for managing residual waste include an element of energy from waste but these initiatives should not replace the need for minimising waste at source, reuse or recycling.
3. Wales needs an integrated network of waste management facilities to deal with the waste we all produce.
4. A national infrastructure plan could facilitate proactive and strategic decisions to be taken to ensure waste infrastructure is located where it will have the least impact and where opportunities can be realised.

Q1. What in your view is the best method for disposing of non-recyclable waste?

In 2007, we completed life cycle and sustainability studies at Welsh Government's request for the three regional waste planning groups. These studies compared 18 identified options for managing residual waste and ranked them according to their environmental and sustainability impacts. The results were used in the first review of the regional waste plans. The life cycle and sustainability appraisals were accepted by all of the 22 Local Authorities comprising the regional waste planning groups, at both an officer and member level. An assumption was made that all options considered for treatment of residual waste had already had a high level of resource recovery through recycling and composting prior to becoming residual waste. All the

top scoring options for managing the residual fraction of the waste included some element of energy from waste. The best options were:

- high temperature thermal processes with energy recovery following Mechanical Biological Treatment (MBT) or Mechanical Heat Treatment (MHT),
- high temperature thermal process with energy recovery without pre-treatment of the waste.

The worst scoring option for management of residual waste was landfill following pre-treatment by Mechanical Biological Treatment (MBT).

Energy from waste initiatives should not be viewed as a substitute for the prevention or minimisation of waste, re-use, recycling or composting. They can form part of an integrated network of waste installations for disposal of residual waste and the recovered energy can make a useful contribution to our energy needs. Energy generated by incineration should be recovered as far as practicable, for example by recovering it to produce electricity and/or process heat. The efficiency of a plant can be greatly increased when operating as a combined heat and power (CHP) scheme, which is one of the Best Available Techniques (BAT) for incineration plants.

## Q2. What are the advantages and disadvantages (in terms of environment, health and local economy) of incineration?

Our statutory role is to safeguard the environment and human health from all processes and activities that we regulate, including waste incineration plants. Any authorised process must comply with statutory emission limits set out in European and UK legislation. Compliance with existing environmental standards guarantees a high level of protection to the local environment.

When applying for a permit to operate an Energy from Waste plant, the developer must include sufficient information to satisfy us that the plant will not have an adverse effect on the local environment or human health. When considering the application we will:

- compare emissions with industry best practice and limits set by regulations. The Waste Incineration Directive has strict limits that should prevent any unacceptable impact;
- look in detail at what the Energy from Waste plant will release and how this could impact on the local environment;
- consider proposals for how emissions will be monitored and reported;
- consider expert scientific opinion from specialist bodies like the Food Standards Agency and Health Boards;
- look at the proposed management of the facility, including maintenance and staff training;
- involve local communities to listen to and take on board their concerns;
- ensure that there is efficient use of raw materials, water and energy.

If we decide to issue a permit, we regulate the incineration plant to ensure it operates in line with the conditions and limits set out in the environmental permit. We inspect the plant, review their monitoring data and investigate any breach of permit condition. We can take enforcement action against any operator who fails to prevent or minimise harm to the environment or public health.

We have an important role to play in protecting health as part of our legal duties. We are not health professionals, and so we work closely with the recognised medical and public health experts. These expert bodies review studies relating incineration to health and, where necessary, recommend further research. The Health Protection Agency (HPA) provides authoritative advice to government, agencies and the public. The HPA has published a position statement on incineration of municipal solid waste that states “Modern, well-managed waste incinerators will only make a very small contribution to background levels of air pollution” and “provided they comply with modern regulatory requirements, such as the Waste Incineration Directive, they should contribute little to the concentrations of monitored pollutants in ambient air”. This opinion is based on comprehensive review of available research.

Q3. Do you think it's a good idea for local authorities to collaborate on waste policy, which could lead to resource saving, or is it more important for them to find the most appropriate solution for their locality? What are the reasons for your answer?

Greater consideration needs to be given to putting waste infrastructure in a place where it is right for industry, communities and the environment. Achieving the right sustainable solutions for waste requires collaboration between local authorities and for them to work with business, the regulators, Welsh Government and civil society, using evidence to inform the decision making process.

Wales needs a system which allows consideration of location and the environmental impact at a Wales national scale. Proactive and strategic decisions will help to get waste infrastructure in the right location. Historically, the market has determined the location. This has the potential to result in missed opportunities to find the most sustainable option e.g. locations where it is not possible to utilize combined heat and power.

A National Infrastructure Plan could help to deliver Welsh Government policies on sustainable development and climate change. To help achieve this, it would need to be informed by environmental evidence and decision making tools, such as Welsh Government's Natural Environment Framework (NEF), the National Ecosystem Assessment tool and other plans and strategies, such as Towards Zero Waste.

### Conclusion

Environment Agency Wales does not determine what treatment methods for residual waste are most appropriate or where they are located. Our role is to ensure that waste treatment facilities do not have an adverse impact on the environment. Energy from waste facilities will often provide a better method of treating residual waste than landfill. Energy from waste initiatives however, should not be viewed as a substitute for the prevention or minimisation of waste, re-use, recycling or composting.

If you require any further information, please contact Nadia De Longhi on [nadia.delonghi@environment-agency.gov.uk](mailto:nadia.delonghi@environment-agency.gov.uk)

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