

Consultation on petition P-04-341 Waste and Incineration  
Response from Caerphilly County Borough Council

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Mr. M. Williams

January 11, 2012

Dear Madam,

**RE: PETITION RELATING TO RESIDUAL WASTE DISPOSAL**

I refer to your letter dated 16<sup>th</sup> November 2011 requesting responses to the above petition. I have therefore outlined the response from Caerphilly County Borough Council below:-

**Question 1**

There are numerous technologies within the Waste Management Industry which are capable of effectively disposing of residual (non-recyclable) wastes. Consequently the determination of "best method" is simply not possible as there are a number of factors which would influence the decision to choose a particular technology (such as waste composition, market conditions, deliverability, fit with national strategy, planning, environmental permitting, best value etc).

**Question 2**

As with any waste or, industrial manufacturing process environment, health & local economy issues can be emotive and contradictory matters.

All well designed well operated and properly regulated waste treatment facilities are likely to have little or no negative impacts on the overall communities and the employees working within them with strict EU and UK legislation ensuring environmental and health effects are kept to a minimum. All waste plants are far more stringently regulated than some other types of plants where waste is treated and/or disposed of.

Energy from Waste or other combustion technologies must comply with the Waste Incineration Directive which ensures that the gases produced and released into the atmosphere are thoroughly cleaned and constantly monitored. This level of regulation far exceeds other combustion processes such as coal fired power stations or other industrial combustion processes.

Energy from Waste plants can generate enough electricity to supply significant numbers of households and businesses with electricity and heat. Energy from Waste plants provide an option to Industry, commerce and communities that would otherwise have to buy power from conventional power plants. Energy from waste plants can provide a valuable socio economic presence, providing high payed employment, as well as generating clean, renewable energy.

Other advantages include:

- The footprint of energy from waste requires a minimum of land compared to the dimensions of waste disposal sites such as landfill;
- The weight of the waste is reduced to 25% and its volume is reduced to almost 10% of the initial value;
- The flue gas, which contains heavy metals and other substances after the incineration process, is cleaned and emitted through the stack in an environmentally friendly form compared to the existing practice where un-recyclable waste is deposited untreated in landfill polluting ground waters and emitting green house gases;
- Energy from waste plants can be located close to residential areas, which are the centres of the production of waste, and this helps to reduce the volume of traffic, pollution, noise and of course the costs for waste transportation;
- Bottom ash from energy from waste can be used for environmental construction saving the use of primary aggregates, lowering construction costs and reducing environmental impacts of aggregate generation;
- The incineration of waste provides two possibilities of using the produced energy (this is known as combined heat and power):
  - District heating can be produced with the help of hot water.
  - Electricity can be generated by means of steam turbines.

Disadvantages include:

- The air pollution controls required in energy from waste plants are extremely expensive. Very often up to one half of the costs of a plant are due to air pollution control facilities. As environmental laws can change there are possible future updates in the air pollution controls which could lead to higher costs in the future;
- Energy, produced by energy from waste plants is not likely to be practical for small communities. Therefore such plants have to be situated in areas where power connection to the National Grid or industrial power and/heat or district heating networks can easily be connected to;
- The extremely high technical standards of the plants require skilled workers, which leads to the fact that rather high wages have to be paid (*although this could also be considered an advantage in terms of green jobs and local community economic investment*);
- The residues from the flue gas cleaning can contaminate the environment if they aren't handled appropriately and therefore they must be disposed of in controlled and well operated landfills to prevent groundwater pollution;
- The acceptance of waste treatment and disposal plants in any form is very poor and therefore people fight hard to avoid the construction of such plants in their neighbourhood;

Furthermore Combined Heat and Power (CHP) schemes will also offer more stringent emissions control at a single centralised plant than is possible at heat/power sources for individual organisations or buildings. CHP also avoids the CO<sub>2</sub> omissions from local boilers or coal fired power stations.

### **Question 3**

There are considerable advantages for Local Authorities and Welsh tax payers in Local Authorities working collaboratively to procure/provide infrastructure for waste treatment and disposal.

This Authority has significant experience of attempting to procure waste infrastructure on its own with the result that the eventual contract was unaffordable even after a long, complex and very expensive procurement process. Consequently, the economies of scale and shared procurement cost burdens linked to working collaboratively are unquestionably beneficial.

In terms of Prosiect Gwyrdd, the procurement has been technology neutral and the 2 final solutions (at the call for final tenders stage) are technologies that the waste management industry is confident in and has brought forward to satisfy the key criteria (landfill diversion, value for money, deliverability, etc, etc).

I trust that the above clarifies the Authority's position in relation to the petition.

Yours sincerely,

**Mark Williams**  
**Head of Public Services**