Friends of the Earth Cymru
Briefing to the National Assembly for Wales Petitions Committee

No to Incineration – Petition text
"We call upon the National Assembly for Wales to urge the Welsh Government to revise its planning policy and policy on residual waste to provide a presumption against the building of incinerators, which send most of the carbon from waste into the air as CO2, emit ultra-fine particles that can be damaging to health, and create toxic ash. We believe that incineration is bad for the environment and bad for people."

Background note

This briefing outlines Friends of the Earth Cymru's concerns about incineration; economically, environmentally, technologically and within the context of the ambition of Wales' waste strategy 'Towards Zero Waste'.

We hope that the committee will fully consider this petition and the significant amount of support the topic has received either directly with online signatories or more broadly by the emergence of anti-incineration campaign groups wherever proposals have emerged in Wales, including Cardiff, Newport, Merthyr Tydfil and Rhymney, Neath Port Talbot and north Wales.

We would be pleased to give further information to the committee or provide expert advisers during the course of its discussions.

Climate change

Incineration sends most of the carbon from waste into the air in the form of Carbon Dioxide (CO_2)[i]. A study by consultancy Eunomia shows that among waste processing options incineration rank worst in climate change impacts.[ii] With large incinerators this is compounded by the emissions from transporting the waste to the facility, which can mean hundreds of lorries a day on the road.

The embedded carbon that is lost by burning resources instead of reusing or recycling them should also be taken into account.

Toxic emissions and air pollution

Even modern incinerators emit toxic chemicals and produce toxic ash. There are large concentrations of dioxins in the residues that often emerge during start-up and shut-down periods. Of particular concern to health are the ultra-fine particles that can escape pollution control equipment and can be carried several kilometres by the wind. These can be inhaled by humans, causing chest complaints as well as eaten by grazing animals and passed through the food chain.

Toxic fly-ash from incinerator stacks would have to be transferred to a hazardous waste site, none of which exist in Wales, and tonnes of bottom ash would have to go into landfill.

Disincentive to recycling and waste reduction

The most energy efficient way of managing waste, as laid out in the waste hierarchy and European Waste Framework Directive,, is "reduce, reuse, recycle". The Welsh Waste Strategy 'Towards Zero Waste' sets targets to reduce waste 65% by 2050 and

recycle a minimum of 70% by 2025, the latter being a statutory requirement in the Waste (Wales) measure 2010. The amount of waste we produce in Wales is already going down and local authorities are meeting targets in the Landfill Directive.

Major incinerators would act as a disincentive to any further improvement in waste reduction and recycling due to commitments to supply the incinerator with waste. The maximum 30% energy from waste limit in 'Towards Zero Waste' is already being used to justify large facilities such as those proposed by Viridor at Cardiff and Covanta at Merthyr Tydfil. However, once these are built it would be extremely difficult to secure lower thresholds in future or meet the waste reduction and recycling targets beyond 2025 necessary for the One Planet Wales goal.

Inefficient energy production

Incinerators are described as 'energy from waste' plants and even as producing 'renewable' energy. But in practice they're only about 25% efficient if the heat isn't utilised. Incineration also uses 10 times more energy to destroy material than to recycle them. There are technologies such as Anaerobic Digestion which generate energy from waste much more efficiently.

As recycling rates increase, the composition of the waste available for incineration changes and the fraction of waste which is non-biogenic in origin is likely to rise, further undermining the claim of incineration as a source of renewable electricity.[iii]

Economics and inflexibility

For large incinerators to pay their way long contracts are needed where Councils and other bodies are tied in to provide them with waste to burn for 25-30 years. This goes against efforts to recycle and reduce waste and would lead to heavy financial penalties if contractors don't provide the incinerator enough waste to burn[iv]. For example, Stoke on Trent City Council were sent a demand for £400,000 from Hanford Waste Services, in respect of the city council failing to achieve minimum tonnage levels in 2009/10 for the Sideway incinerator[v].

Job creation and socio-economic effects

Research by Friends of the Earth shows that recycling creates 10 times more jobs than incineration, and can be a hub for other local green jobs.[vi] Incineration, perceived as a 'dirty industry' can be off-putting for job creation in green industries such as tourism and have a negative effect on the socio-economic health of an area.

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[i] 'Dirty truths – Incineration and climate change' http://www.foe.co.uk/resource/briefings/dirty_truths.pdf
[ii] Greenhouse Gas Balances of Waste Management Scenarios, Eunomia Consulting report to the GLA www.london.gov.uk/mayor/environment/waste/docs/greenhousegas/summaryreport.rtf, January 2008
[iii] Appendix 1, Friends of the Earth Cymru Response to 'Towards Zero Waste' http://www.foe.co.uk/resource/consultation_responses/waste_consultation_wales_july09.pdf
[iv] 'Long waste contracts' http://www.foe.co.uk/resource/briefings/long_contracts.pdf
[v] 'Council faces £400,000 claim over incinerated waste shortfall' http://www.thisisstaffordshire.co.uk/Lack-waste-burning-issue-incinerator/story-12584593-detail/story.html
[vi] 'More jobs, less waste' http://www.foe.co.uk/news/waste_jobs_25198.html