

The National Waste Plan – a course to sustainable resource use?

*Submission to the Environment and Rural Development Committee Inquiry
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Summary:

- **The National Waste Plan provides an opportunity to set Scotland on a path towards sustainable resource use.**
- **The scope for waste minimisation should not underestimated, increasing recycling rates alone will not deliver sustainable waste management, and the environmental injustice associated with the disparity of resource use in an international context will continue.**
- **Large scale incineration projects based on poorly segregated waste stream material will inhibit the development of a sustainable resource use strategy for Scotland.**
- **The role of technologies as used elsewhere in Europe for example Mechanical Biological Treatment (MBT) and anaerobic digestion should be pursued.**

Introduction

This briefing has been prepared as a summary prior to provision of oral evidence to the Committee on Wednesday 17th September. More detailed written evidence will be submitted to the Committee by the requested date of 3rd October 2003.

The development of the National Waste Plan provides Scotland with the opportunity to drastically improve waste management. The commitment to 25% recycling and composting by 2006 and 55% by 2020 accompanied by introducing segregated kerbside collections to 85% of households by 2010 is welcome. However the critical step is to ensure that the Plan is used to maximum advantage to set Scotland on a path towards sustainable resource use through maximising resource efficiency and embracing the concept of zero waste.

1) Areas for action: Minimisation

The volume of waste produced in Scotland is estimated to be increasing at 2% per year, the National Waste Plan opts to accept increasing waste arisings until 2010, only aiming to stabilise volumes at this point. Without a more ambitious commitment this risks offsetting the benefits of increased recycling. A number of schemes elsewhere have demonstrated the potential minimization achievements possible. A composting and recycling scheme in Wye, Kent has reduced residual waste arisings put out for collection by 75% (a quarter of the UK average).

2) Areas for action: Technology

We are beginning to see many more real examples in the UK of the practical possibilities of sustainable waste management which reduce landfill dependency and avoid incineration:

“It is entirely possible to achieve the Landfill Directive without using incineration, using a flexible ‘pick and mix’ option. Such an option would utilise source separation, kerbside collection, composting, recycling and mechanical

screening to deal with municipal waste in a way that actively contributes to the economic, social and environmental goals of sustainable development'

Peter Jones, Director, Biffa Waste Services.

Incineration

Several areas in Scotland are currently considering the development of large scale incineration facilities. These will not assist the development of a sustainable resource strategy in the longer term for Scotland:

i) No incentive for waste minimisation:

Building new incinerators works against waste minimisation and increasing re-use and recycling rates. Contracts with incinerator operators simply act to lock local authorities into long term commitments to provide huge amounts of waste each year.

Incinerators must operate at or near capacity throughout their 25-30 year lifetime if capital investments are to secure a return – once built this incinerator would act as a structural impediment to significantly reducing waste arisings.

ii) Incompatible with the proximity principle:

As an example the incinerator proposal currently under consideration by Aberdeen Council would be based on burning 160,000 tonnes of waste per year, this does not accord with the scale of the projected waste arisings in Aberdeen and the commitment in the Aberdeen City Waste Strategy Guidance commitment to reduce waste arisings set out as:

'Aberdeen City Council is committed to reducing the amount of household waste being generated by 1% year on year, to reducing 40% of it going to landfill and to achieving a minimum of 25% recycling and composting by 2005.'

Aberdeen City Waste Strategy

Given that in 1999 Aberdeen City Council collected 123,700 tonnes of waste (90,000 from households and remainder from local businesses), 94% of which was landfilled the proposed incinerator would burn more rubbish than all the shops, businesses and homes in Aberdeen actually produce.

Assuming the commitments to waste reduction and recycling are met the facility would be between 3 and 4 times over capacity by 2020, yet the council would be locked into a contract to supply waste.

iii) Reliant on continued landfill disposal for ash:

Incinerators do not eliminate the need for landfill – they achieve a maximum of 70% reduction in mass of waste incinerated and produce contaminated ashes that have to be landfilled or 'recycled'.

iv) Air quality and health concerns:

House of Commons Environment Select Committee in March 2001 stated that: *"concern about the impacts of emissions from incinerators upon human health" cannot be dismissed while "emissions standards are still based on what can be measured and*

what is technologically achievable, rather than what is safe”.

In the UK in 1999 and 2000 10 incineration plants exceeded pollution limits 540 times. Whilst newer facilities may have technical ability to perform to improved emission standards, emissions, and hence risks to health are also dependent on the standard of operation and the precedent is not good.

Alternatives to Mass Burn Incineration.

i) Increase recycling/composting

Local Authority Waste Arising Survey in Scotland 2000/2001:

50% of household waste is potentially recyclable (paper, card, some plastics, textiles, glass and metals).

40% can be composted (organic waste and some paper, card, textiles etc.)

Opinion surveys show that more than 80% of people would participate in kerbside recycling if the necessary facilities were in place. Source separated kerbside collection offers the best opportunity to significantly increase recycling rates.

Internationally many cities have achieved reductions in landfilling of up to 70% without incineration and in time periods of 5 years or less. Mechanical screening systems and composting can exceed the reductions in mass and volume achieved by incinerators.

ii) Anaerobic Digestion/composting

- In-vessel composting systems -capital costs of typically £4 million per 20,000 tonne throughput.
- Vertical composting units -10 units are capable of processing up to 15,000 tonnes, with capital costs of about £1 million.
- Anaerobic digestion - produces biogas and soil conditioner or liquid fertilizer, over 70 facilities operating around the world using municipal solid waste.

iii) Mechanical and Biological Treatment (MBT)

Stabilise and reduce volume of residual waste avoiding co-disposal of toxic recyclable and organic material together. Follows maximum source separation of recyclable and compostable material is followed by mechanical source separation of remaining, followed by a biological stage to make any remaining organic materials inert.

- Halifax, Nova Scotia (350,000 citizens) – diversion rates increased to 61% as a result of use of system.
- Edmonton in Alberta (900,000 citizens) achieved 70% diversion using such a system.

3) Areas for action: Closing the Loop

To ensure that the National Waste Plan contributes towards the delivering of sustainable resource use strategy a holistic approach is required which considers:

What resources are used for what purposes, how these can be recycled locally, what investment in the infrastructure to process uplifted material is required and how markets can be stimulated for recycled products.

4) Areas for action: Looking to Europe

Several European Directives will shortly impact on Scotland's waste stream both in terms of reducing mixed waste arising volumes and requiring recycling/collection facilities. National Waste Plan implementation decisions must reflect the implications of these directives:

i) EC Directive on Packaging and Packaging waste requires Member States to recover 50% of packaging waste from June 2001.

ii) EC Directive on Waste Electrical and Electronic Equipment (WEEE) requires Member States by August 2005 to adopt "appropriate measures in order to minimise the disposal of WEEE as unsorted municipal waste and to achieve a high level of separate collection of WEEE". With a target of 4 kg per capita and proposal to increase this in 2008.

5) Areas for action: Planning and the Development Process

Waste plans must not override the development plan process, every application must be judged on its own merits and is not automatically granted because the waste plan contains plans for the technology. It is conceivable that if this issue is not tackled inappropriate developments would result.

6) Areas for action: Beyond municipal waste

The focus of the National Waste Strategy is to tackle domestic waste, however 75% of the waste arisings in Scotland derive from industrial/commercial sources and an ambitious strategy which sets out how this will be tackled is urgently required.

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