

Stern Review on the economics of climate change
Evidence from the Environmental Services Association

The Environmental Services Association ("ESA") is the sectoral trade association representing the UK's managers of waste and secondary resources, a sector with an annual turnover of around £5 billion. ESA's Members seek to align economic and environmental sustainability through delivering compliance with relevant EU waste and environmental legislation.

Introduction

The Government has consistently failed to grasp the opportunity to put into place a coordinated policy framework that would reduce the UK's net carbon emissions, while at the same time help the UK comply with EU waste legislation.

The waste management sector has the potential to deliver a significant contribution towards the UK's carbon reduction targets both through renewable energy generation and through carbon sequestration. It will however only be able to do so in a policy framework that allows the optimal carbon management infrastructure to be developed. EU waste legislation requires the UK to develop new infrastructure during the next few years: this presents a simultaneous opportunity to reduce net CO₂ emissions at virtually no additional cost.

Background

The EU Landfill Directive requires the UK to divert biodegradable municipal waste from landfill and towards alternative processing and disposal options.

The UK has historically relied on landfill as its primary waste management option and strong economic signals are required to incentivise landfill diversion. The Government has sought to accomplish this through the application of landfill tax, and the imposition of limits on the amount of biodegradable waste local authorities can send to landfill.

The Pre Budget Report 2005 recently announced that landfill tax will rise to £21 per tonne of waste in 2006/07. This however is still far too low to make alternative disposal routes competitive. Industry estimates suggest that landfill tax needs to be £35/t for alternative disposal options, such as incineration, to become competitive.

Alternatives

The waste management industry wants to achieve the Government's targets for recycling and composting. However, even if targets are met, large amounts of residual waste will need to be processed and/or treated.

There are several different technologies that extract renewable electricity -and potentially renewable heat- from waste ("EfW"). Such generation has the potential to offset significant fossil-fuel based energy production.

Other treatment processes such as Mechanical Biological Treatment ("MBT") produce an output, such as refuse-derived fuel ("RDF"). Currently there is a lack of markets for such outputs (which, broadly, need to be incinerated in infrastructure which, like EfW facilities, complies with the Waste Incineration Directive's strict emission limits), although the Government has announced the introduction of enhanced capital allowances to try to stimulate investment in this area. Such outputs present another potential energy resource for the UK but as markets are underdeveloped, it is likely that residues will instead be landfilled.

Missed opportunity

A report commissioned by the Institute of Civil Engineers¹ in 2005 concluded that the potential energy recovery from residual waste could deliver as much as 17% of total UK electricity consumption by 2020. This is a carbon-neutral source of renewable energy, which therefore has the potential to offset a significant amount of fossil-fuel based generation, accruing a large carbon benefit for the UK economy.

Such potential will however not be delivered without enabling policies.

Significant barriers

The major barriers to the development of an optimal low-carbon/high-energy waste management infrastructure are planning difficulties and negative perception in some sections of the public.

Unfortunately local planning authorities have difficulty in making decisions necessary to overcome public perceptions relating to waste management, while central Government has only recently explicitly acknowledged the role that EfW can play as part of an integrated waste management solution.

We welcome the Pre Budget Report's recognition of the planning issue. Without significant improvements to the current planning regime it will be extremely difficult for necessary waste management infrastructure to be developed in time to meet waste management objectives and avoid punitive EU fines.

Potential areas of investigation

In the context of wider economic impacts from climate change, the waste management sector has the potential to provide low cost carbon reductions which would in turn reduce the burden on other sectors of the economy, both in terms of emission reductions and in terms of adaptive behaviour required.

In order to fully assess the relative costs and benefits associated with different responses to climate change, we suggest the review considers:

- how much carbon reduction could be achieved from exploiting the opportunity presented by the waste management sector?
- what would be the additional costs?
- to what degree would this reduce the burden on other sectors of the economy, both in terms of emissions reductions and in terms of adaptive behaviour to climate change?
- how is current policy affecting the incentives to pursue the optimal carbon management option?
- what alternative policy framework could be put in place to maximise the waste management sector's contribution towards combating climate change?
- how could emerging best practice in the UK best be shared in other countries?

The waste management sector has the potential to contribute significantly towards the optimal response to climate change. The answers to these questions, which could be provided during the course of your investigation, would clarify this potential.

¹ Oakdene Hollins: "Quantification of the Potential Energy from Residuals (EfR) in the UK"

Conclusions

The EU Landfill Directive requires the UK to develop a new infrastructure for a significant proportion of its waste management requirements in a short period of time. If the Government puts a suitable policy framework into place, this new waste management infrastructure has the potential to deliver significant domestic carbon benefits at virtually zero additional cost to the UK economy.

ESA therefore hopes that this potentially high-benefit/low-marginal cost option is given due consideration when seen in the context of aligning waste management and energy policy.