

# Comparing the cost of alternative waste treatment options



Waste at landfill site.

## Introduction

WRAP's (Waste & Resources Action Programme's) Gate Fees Report, presents a summary of gate fees charged for a range of alternative options for the treatment and disposal of waste, together with an analysis of the factors likely to influence future gate fees and comparison with last year's report.

The report is based on WRAP's gate fee survey – an update on last year's pilot study. The survey aims to raise price transparency and, through improving the flow of information, enhance the efficiency with which the waste management market operates. A lack of market information may reduce a local authority's ability to make informed decisions on waste treatment options in terms of both economic and environmental costs.

This survey of facilities in England, Wales, Scotland and Northern Ireland was conducted during winter 2008-9 and covered both those procuring waste disposal services (primarily local authorities) and service providers (including waste management companies (WMCs), materials recovery facilities (MRFs), reprocessors and composters).

## Summary information on gate fees

Treatment	Grade / material / type of facility	Median <sup>1</sup>	Range
<b>MRF</b>	Cans/plastic/paper/card	£24	£6 - £50
<b>Composting</b>	Open-air windrow (OAW)	£23	£12 - £49
	In-vessel (IV)	£38	£15 - £70
	Anaerobic Digestion <sup>2</sup> (AD)	£52	£40 - £65
<b>Landfill</b>	Gate fee only	£22	£8 - £42
	Gate fee plus landfill tax <sup>3</sup>	£54	£40 - £74
<b>Incineration</b>	All facilities <sup>4</sup>	£68	£24 - £141
	Post-2000 facilities	£83	£68 - £141
<b>MBT</b>		£62	£42 - £82
<b>Wood reprocessors<sup>5</sup></b>	Grade A	£20	£0 - £45
	Grade B	£31	£25 - £38
	Grade D	£35	£25 - £47

<sup>1</sup> Comparison with last year's summary information may be distorted by the sample; in this study there was a higher response rate from local authorities but a decreased response rate from facility operators. Therefore, lower/higher gate fees may not be a true reflection of the market.

<sup>2</sup> Information for AD is based on evidence obtained outside the gate fees survey.

<sup>3</sup> Gate fee plus landfill tax (excluding transport costs). At the time of the survey the standard rate of landfill tax was £32 per tonne, this increased to £40 per tonne on April 1 2009.

<sup>4</sup> Caution is necessary in interpreting the 'all facilities' figure because the majority of gate fees collected refer to long term contracts with older facilities.

<sup>5</sup> Both spot market and contract gate fees were included for wood reprocessors. Contracts tended to be short (ie. less than a year). Recovered wood was categorised into: A (clean wood which attracts PRNs (Packaging Recovery Notes), B (mixed grades/painted), D (chipboard, MDF, plywood).

*The aim of this study is to raise price transparency and, through improving the flow of information, enhance the efficiency with which the waste management market operates.*

### Key findings

Gate fees for similar treatment options can vary substantially – both across and within regions. For example, spot and contract gate fees can differ depending on spare capacity and local market conditions (markets are localised to some extent by haulage costs). Indeed, the factors which determine specific gate fees at a facility are complex ranging from the size of a facility, the nature and duration of contracts to technology, the age of facility and possible revenues from sale of recovered materials.

Notwithstanding these variations, the ranking of gate fees for different treatments remains similar to that in last year's report. Gate fees at material recovery facilities (MRFs) and landfill sites are substantially lower than those for incineration. Similarly, open-air windrow (OAW) gate fees are lower than those for In-vessel Composting (IVC) or mechanical biological treatment (MBT) facilities. Information on gate fees for Anaerobic Digestion (AD) facilities (on a commercial scale) remains sparse.

### Looking forward

Respondents were asked what they considered as key drivers for future change to gate fees. The most common response across facilities was RPI (Retail Prices Index), or more generally contract indexation which is expected to gradually push up gate fees.

Greater local competition was cited as a possible reason for lower gate fees by reprocessors and MRFs. However, there was a lack of consensus regarding future gate fees at composting facilities. Some composters thought that they might be affected by stricter legislation and higher permitting costs which could increase their gate fees.

### MRFs

- Little change in gate fees compared to last year but the range of gate fees identified has narrowed.
- The higher gate fees in Northern Ireland are thought to reflect limited local competition and a lack of domestic reprocessing capacity.
- Factors affecting gate fees include: recovered materials value, competition, contract increases, final prices, quality and quantity of materials received, operating costs and the market value of the sorted materials

### Composting

- OAW gate fees in the East of England and in London tended to be higher than elsewhere in the UK, median gate fees were lower in Yorkshire and the Humber.
- Gate fees tend to depend on the composition of the input. For OAW, higher gate fees are charged for garden waste mixed with cardboard compared to garden waste alone. For IV, higher gate fees for food waste on its own and lower gate fees for green waste alone.



A food and green waste composting process.

- For facilities that also took part in the 2008 survey, comparisons for OAW operators indicated a slight increase in their gate fees whereas IV facilities saw a decline for mixed food and garden waste.
- Local authorities reported that the main factors behind higher OAW gate fees were: limited local competition, the low value of the compost produced, contractual increases, higher operational costs and the low quality of the input material. IV operators indicated that landfill tax was the main driver of gate fees, although capacity and operating costs were also mentioned.

## Landfill

- Gate fees tended to be lower in the North East of England compared to the rest of the UK but highest in Northern Ireland and Wales.
- The majority of local authorities cited contractual increases (mainly RPI indexing) in gate fees. But, for local authorities and/or landfill operators taking part in both surveys, the increase in gate fees was much higher at an average of £7 per tonne.
- The overall cost of disposal to landfill is set to continue to rise sharply owing to the annual £8 per tonne landfill tax escalator.

## Incineration

- The age of the facility appears to be a key factor: older facilities tend to have much lower gate fees compared to newer facilities.
- One local authority indicated that their gate fees had increased because of a change in their waste composition which resulted in a lower calorific value. However, most local authorities indicated that the gate fees they were charged reflected a contractual payment mechanism linked to RPI or other indices.
- No incinerator operators responded to this survey so it wasn't possible to confirm factors affecting the gate fees that they charged.

## Wood reprocessors

- Gate fees at most wood treatment facilities have increased since last year's survey. However, some reprocessors reported lower gate fees citing the recession and a decline in waste arising from the construction and demolition sectors as a key factor<sup>6</sup>.
- Gate fees charged tended to be higher where the quality of wood received was lower.
- Factors driving increased gate fees included: material quality, site costs and the lack of a thriving UK market since costs are increased if the material has to be exported.



Kerbside collections.

*Greater local competition was cited as a possible reason for lower gate fees by reprocessors and MRFs.*

## Feedback

If you wish to comment on these findings or take part in the next WRAP gate fees survey, due to begin in November 2009, please e-mail [gatefees@wrap.org.uk](mailto:gatefees@wrap.org.uk) or call 0808 100 2040 (note existing participants do not have to re-apply).

<sup>6</sup> These mixed findings are closer to feedback obtained in an interview with the Wood Reprocessors Association. The lack of a clear trend is possibly due to the timing of the survey.

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