

FOOD WASTE UPDATE
(Project Director)

1 INTRODUCTION

- 1.1 The purpose of this report is to provide feedback on a report commissioned by WRAP to look at how food waste can be collected, source separated and processed.

2 RECOMMENDATION

- 2.1 **That the Board note the content of the report and resolve not to proceed with food waste treatment until the situation warrants such action, when a further report will be presented.**

3 SUPPORTING INFORMATION

- 3.1 A recent waste analysis highlighted that as much as a third of all waste that ends up in landfill is food waste. A report was commissioned by WRAP to look at how food waste can be collected, source separated, and processed thereby diverting approximately 15,000 tonnes of food waste from landfill.

- 3.2 There are two elements in dealing with food waste, the first being source separation and collection, and the second being processing the waste.

3.3 Benefits

There are a number of potential benefits in collecting and processing food waste:

- Generation of heat and power through anaerobic digestion (AD) linked to combined heat and power plant or through use as a direct fuel;
- Reducing greenhouse gas emissions by removing the putrescent content from landfill sites;
- Contributes towards targets (including LATS) by diverting biodegradable waste from landfill and improving recycling rates;
- Reducing waste disposal costs as landfill costs increase;
- Reducing environmental impacts associated with landfill (toxicity in leachate, landfill gas emissions, etc);
- If processing plant is local, waste miles are reduced;
- Production of compost and liquid fertilisers for use as soil improvers;
- Produces CO² savings; and
- If collections are alternate-weekly, odorous fraction can be collected weekly.

Collection

- 3.4 There are two ways of separately collecting food waste as follows:

- 1) Vehicles solely dedicated to collecting food waste, and
- 2) Vehicles which have a dedicated pod within an existing vehicle either collecting residual or recycling waste.

3.5 Both of these methods carry an approximate cost of collection per tonne as follows:

- 1) Dedicated vehicle - £175 per tonne average across the partnership
- 2) Pod vehicle - £398 per tonne average across the partnership

These prices include:

- The cost of providing a 20 litre collection container for those taking part.
- The capital costs of the vehicles.

These are indicative prices and would be subject to detailed operational pricing/tendering if this issue is pursued.

Food Waste Processing

3.6 A typical layout of an Anaerobic Digestion Plant (c. 1.5 ha plus digestion storage) is illustrated in Appendix 1.

3.7 The minimum commercial size of an AD plant would be around 25,000 delivered tonnes per annum which would mean that, along with re3's expected 15,000 tonnes, a third party would need to provide 10,000 tonnes. The **capital** involved in building such a plant is estimated at **£10 million** with an ongoing operational cost of £700k per annum and a potential income of £1.4million. This would result in a gate fee for anaerobic digestion of approximately £50 net per tonne excluding transport and other charges. Such a development could be completed within an estimated **30 months** after planning permission.

3.8 Indicative Comparative costs of Collection and Treatment:

	Total cost per tonne
Food Waste - Cheapest Option	£225
Landfill cost (based on Wokingham BC)	£121
Energy from Waste Cost	£130 -> £170

3.9 It can be seen that currently the cost of collection and treatment of food waste would not provide value for money.

4 CONCLUSION

4.1 The re3 authorities entered into a PFI arrangement which provides for the achievement of all known legal obligations in October 2006. There are facilities within the agreement to allow for this type of change but the additional costs to the Authorities would be significant. There are environmental benefits to processing food waste, and they are likely to become more prominent as time goes on. However, the PFI procurement process rejected food waste treatment on the grounds of affordability and value for money, and the conclusion of that assessment, in consideration of the collection and treatment systems currently operated by the re3 Councils, still appears to be relevant.

4.2 It is therefore proposed that officers be required to report back on this issue if the cost of food waste treatment becomes financial viable.

BACKGROUND PAPERS

WRAP Food Waste Reports - September 2008 and October 2009

CONTACTS FOR FURTHER INFORMATION

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Appendix 1 - Typical Layout – Anaerobic Digestion Plant

