

1. In Gateshead and Newcastle there is no food waste collection and it doesn't seem a priority. How can I lobby my local council to introduce food waste collections?

The Government's Resources & Waste Strategy includes a proposal that all households in England are provided with a separate weekly food waste collection from 2023. Assuming that this proposal becomes legislation then your local council will be required to provide you with such a collection.

2. Hi, can you please clarify that carbon saving for food waste collections? 1.5T??

*I'm afraid there was an error with the poll result on the webinar, the correct answer is: **Every one tonne of food waste recycled saves 0.75 tonnes of CO2, when compared to landfill.** This data has recently been updated by WRAP. Apologies for any confusion caused.*

3. How much % goes to aerobic digesters compared to anaerobic digesters?

I'm afraid we don't have that information to hand. However, anaerobic digesters are the norm in the UK. There are very few working examples of aerobic digesters in this country.

4. What is the difference in carbon savings between sending it to a modern EfW compared to an AD plant?

Our modelling suggests that the answer is not clear cut, as it is critically dependent on the proportion of fugitive methane from the AD plant, and no industry average figures for this have ever been published.

The most up to date reference from [IEA Bioenergy](#) provides a range of fugitive methane emissions for different parts of the process. The general picture is one of low, but variable and not reliably quantified, emissions in a range of 1.5% to 2.5% for a well-designed and performing plant. These levels seem to be readily attainable provided that:

- a) Everything is well maintained – there were a few outliers with high emissions due to things like leaks etc.*
- b) All feedstock inputs and digestate outputs are kept in sealed, airtight conditions (no lagoon storage etc.)*
- c) Engines used for generation are gas spark ignition type (Liebetrau suggests compression ignition engines are associated with about 2-3% CH4 in the exhaust emissions).*
- d) Biogas is used without upgrading to biomethane (which is associated with variable but often high emissions).*

The modelled break even point (at which AD is approximately equivalent to EfW from a GHG perspective) is 2.85% fugitive emissions. Our modelled footprint for EfW is approximately -92kg CO2e / tonne input (based on food LHV of 5.65 MJ/kg and a generation efficiency of 31% electricity and 4% power across UK infrastructure; based on Tolvik UK Energy from waste statistics 2017).

For AD, we estimate the following relationship between fugitive methane rate and GHG emissions:

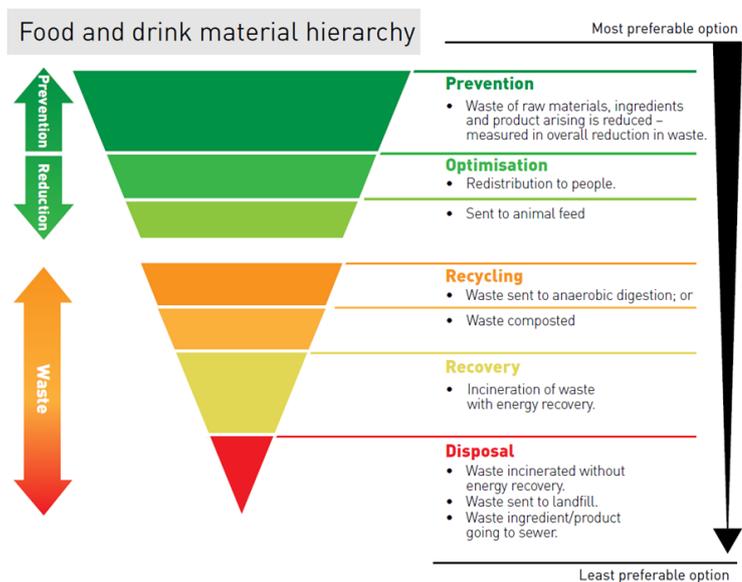
<i>Rate</i>	<i>Emission (kg CO2e/tonne input)</i>
<i>2%</i>	<i>-108</i>

3% -89
5% -51

Our current modelling for DEFRA assumes a fugitive emission rate of 1.95%, based on an analysis of what a high-performing plant looks like in the Liebetrau report. This results in a GHG emission of -109 kg/t.

5. Is the environmental impact of sending food waste to landfill the same as putting the same food waste on my own compost heap outside? Are the decay processes at work the same? This way there is no lorry and diesel impact.

The food waste hierarchy places composting at home above a landfilling household food waste, in part because of the reasons you have suggested.



However, do bear in mind that not all citizens have access to a garden (at all or large enough) to accommodate a compost heap, and our research found that many people say home composting is difficult to manage. In addition, certain food waste such as meat and fish are not recommended for home composting as these foods attract vermin.

6. Why is Wales a frontrunner in terms of food waste collection ? Are there special incentives for local authorities in order to introduce food waste collection?

There are many reasons for the success of recycling in Wales, and one of the key ones is that the Welsh Government has prioritised recycling, including food waste recycling. It has a very clear policy framework in place to deliver recycling services which has included funding and advisory support to Welsh local authorities.

7. AD is currently subsidised through the renewables obligation, so isn't this all false economics?

The Introducing food waste collections webinar includes an example to illustrate the underlying principles associated with household food waste collections. The AD 'gate fee' cost to local authorities will vary as a result of both the future subsidy regime and market conditions.

8. Prevention is always best - once a food waste collection is introduced the pressure is on to keep a minimum yeild. Am I right in assuming this limits the space for prevention campaign work somewhat?

No, prevention and recycling are not mutually exclusive. Instead they are complimentary. A food waste recycling collection will help promote and stimulate prevention as householders become more aware of the food waste they are producing. However, there will always be some food waste that is 'unavoidable', so in WRAP's opinion it's a not a question of prevention or recycling. We need both.

9. Have you got any advice for moving to weekly separate collections, from fortnightly commingled in terms of messaging? Is this covered in the guide?

[WRAP's Household food waste collection guide](#) includes a section on communicating the introduction of a new food waste collection. However, it doesn't provide any specific guidance on the messaging required for moving from an existing mixed food and garden waste service to a separate weekly collection. Assuming that the proposal for separate collections becomes legislation, there will be a large number of authorities communicating such a switch to their residents. Guidance tailored to their needs will most likely be required.

10. Is there a drive to enforce the restaurant and high street food suppliers to also segregate the waste food and send it to AD?

Yes, the proposals in the Resources & Waste Strategy include a proposal for separate food waste collections from food waste-producing businesses such as restaurants (see Proposal 18 in the ['Consultation on consistency in household and business recycling collections in England'](#)).

11. You highlighted the lower food waste yield in accordance to the deprivation levels - have there been any studies to determine if these communities are producing less food waste overall, in comparison to more affluent households?

WRAP's 2009 food waste recycling trials report includes an analysis of the relationship between yields and deprivation (see section 4.1.2 and Appendix 2): <http://www.wrap.org.uk/node/14212>

12. Do the additional costs of food waste collection currently being discussed include provision of free caddy liners?

The Government has not yet provided any details of what funding will be available. However, the following wording is contained in the consultation document: "Given the additional costs involved in separate food waste collection, the government will ensure that local authorities are resourced to meet new costs arising from this policy, including upfront transition costs and ongoing operational costs".

13. Does WRAP have any data on business customers' willingness to adopt food waste collections?

I'm afraid we don't have this data. However, the experience of mandatory commercial food waste recycling in Scotland and Northern Ireland is being reviewed and may provide some useful lessons for England.

14. If more people collect food waste and councils send them to AD, would the UK have enough AD plants to recycle the food waste?

There's currently an excess of AD capacity in England. However, if the proposal to separately collect food waste from all households becomes legislation, then additional capacity will be required. The AD industry has long campaigned for what it's called 'mandatory collections' so one has to assume that the industry is ready to meet that challenge.

15. What % of HHs who have a collection scheme use it?

Whilst that will depend on the quality of the service, it's unrealistic to expect the same levels of participation that you would expect to see in a dry recycling collection. Typical participation levels in good performing food waste collections would be in the region of 60%. 'Set-out' levels will be lower as not all residents will present their food waste for collection every week.

16. Do you have any info/facts on commercial food collections?

Yes, please refer to the guide for the collection of commercial food waste for recycling:

<http://www.wrap.org.uk/content/commercial-food-waste-collection>

17. What happens with the food that is not recycled on AD? Is it going to general waste?

*Local authority collected household food waste = 4.6 Mt p.a.
Food waste collected in the residual stream = c.4 Mt p.a.
Food waste collected for recycling = 600,000 tonnes p.a.*



If you have any further questions for our local authority team, get in touch via <mailto:lasupport@wrap.org.uk>