

## **Consultation on Household and Business Recycling Collections in England**

### **AMDEA response due 13 May 2019**

By email to: [recycling@defra.gsi.gov.uk](mailto:recycling@defra.gsi.gov.uk)

AMDEA is the UK trade association for manufacturers of domestic appliances, from large white goods through vacuum cleaners to the vast range of small appliances on the market. Our 36 members represent over 80% of the UK domestic appliance market, rising to 95% for large white goods.

In terms of household waste our members' products are covered by the Waste Electrical and Electronic Equipment Regulations, but we have responded to the recent consultations on packaging EPR and the proposed plastics tax.

AMDEA members include the majority of domestic refrigeration manufacturers and for these companies extending the safe life span of food stored in homes is a key research and development objective.

Our reason for responding to this consultation is that some of our members manufacture food waste disposers (FWD) and we have, for some years now, been campaigning for better recognition of the benefits that such appliances can offer to both sewerage undertakers and local authority household waste collection schemes.

Our dedicated website [www.food-waste-disposer.org.uk](http://www.food-waste-disposer.org.uk) gives details of the vast evidence base available and we know that at least one of our members is submitting their own detailed response to this consultation.

We are therefore reiterating the key points that they have made in relation to the questions about separate food waste collection.

### **In general**

There is a body of evidence which clearly demonstrates that any ambitious target for separate collections of household food waste needs to consider the scope for domestic FWD, not only to capture this difficult waste stream but also to recover its embedded value.

As we embrace the concepts of a more circular economy there are multiple studies around the world that continue to show that any policy that exclusively promotes separate kerbside collection of household food waste risks losing the significant

potential for the recovery of valuable resources, not only because of consumer disinterest but also because it is a decaying waste stream in the way that dry recyclates are not.

We need solutions that do not only reduce the alarming volume of food waste going to landfill but also allow the full potential of this waste stream to be realised in terms of recovery of biogas and fertilizer,

There is no one size fits all solution. Recent studies have used Life Cycle Analysis and Multi-Criteria Decision Analysis to assess the relative performance of using FWD compared with other options, such as kerbside collection. Such approaches can compare the amounts of energy and nutrients recovered and also the magnitude of any environmental impacts. Several new studies have shown that the use of disposers in conjunction with anaerobic digestion at waste water treatment plants can, depending on the application, be the best option<sup>1,2</sup>.

Even in countries with high levels of consumer awareness of environmental issues the capture rate for kerbside food waste only reaches 47%, making a target of zero waste to landfill unrealisable.

Waste water treatment has also proven to be a key source of vital resources<sup>3</sup> -- biogas, soil nutrients, phosphates, nitrates and clean water. There is a growing understanding that the substrate in food waste enhances the efficiency of recovery of energy and nutrients from other waste water sources.

The key role that FWD can play in preparing unavoidable food waste for maximum recovery is also an incentive to encourage food waste recovery among those householders unwilling or unable to participate in separate kerbside collection.

An often-reiterated concern that food waste entering the sewage system via FWD may cause blockages and/or lead to a build-up of fat, oil and grease (FOG) is unfounded. Ongoing research by the University of Sheffield has already defined the characteristics of food waste particles emitted by FWDs for a wide range of typical foods and how they are transported through the sewers<sup>4</sup>. Even in countries and

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<sup>1</sup> Edwards J., et al (2018) Life cycle assessment to compare the environmental impact of seven contemporary food waste management systems. *Bioresource Technology* 248 (2018) 156–173.

<sup>2</sup> Iacovidou, E. & Voulvoulis, A multi-criteria sustainability assessment framework: development and application in comparing two food waste management options using a UK region as a case study *N. Environ Sci Pollut Res* (2018) 25: 35821. <https://doi.org/10.1007/s11356-018-2479-z>

<sup>3</sup> Ambulkar A. (2018) The Emerging Era of Wastewater Valuables. *Water and Wastewater Treatment*. <https://wwtonline.co.uk/Blog/the-emerging-era-of-wastewater-valuables>

<sup>4</sup> Legge A., et al. (2018) Modelling of Food Waste Disposer particle transport through a sewer network. *Proc. Urban Drainage Modelling Conference*. Palermo, Sicily. September.

regions where use of FWD is as high as 50%, there has been no change in the hydraulic loading of collection systems or increase in blockages. Likewise field studies analyzing changes in water use when FWDs are installed have found that their impact is negligible. We can provide further details if required.

Food waste is a particularly difficult waste stream, which can present health hazards to susceptible people and more generally if mismanaged. Its mixture of wet, organic and animal content make it challenging to store and transport, and costly to process. Householders therefore need different options to manage their food waste in ways that suit their particular level of environmental commitment, type of home, available space and location.

Our answers to the consultation questions related to food waste are grouped as follows:

## **Consultation questions on dry recycling**

### **Summary response to questions 5 -17**

We agree that in principle local authorities should be required to collect a core set of dry recyclables, although it is unclear if the initial intention is separate or mixed collection.

However, while we understand the desire to simplify the number of systems in operation, we do not see that it is possible to insist on full harmonisation across all authorities, not least because such matters are devolved responsibilities and Defra is not in a position to impose requirements on the whole of the UK.

We consider that local authorities do require a degree of choice, possibly from a very narrow range of options but with sufficient flexibility to choose one that fits their local conditions.

A long-term, sustainable strategy to recover dry recyclables will require this flexibility, as its success will be affected by local variables such as the characteristics of the local housing stock, available storage space, commitment and culture of local residents, traffic conditions etc.

For instance high density urban areas will need a different approach from dispersed rural villages, and residents of tower blocks, flats above commercial premises, terraced houses and detached mansions each have their own challenges. We already know that separate kerbside collections do not work well for apartment dwellers, regardless of their economic status or commitment to recycling.

We cannot justify public spending on a single solution that does not work in practice.

While it may be sensible to monitor the market for dry recyclables, with a view to subsequent adaptation, this overlooks the fact that local authorities with long-term contracts with waste processing companies cannot modify their strategy without incurring significant costs. Residents also need time to become accustomed to changes or they will not engage.

## **Consultation questions on separate food waste collection**

### **Summary response to questions 18- 23**

For food waste management to be effective we need to offer a range of options to suit the characteristics of individual communities. The provision of separate food waste collections does not guarantee participation in all circumstances over the long term.

Impoverished local authorities will not wish to set up and maintain a regime that is not widely used. Low levels of participation render such collections economically and environmentally unviable.

In densely populated urban areas where there are space and traffic constraints, ageing populations or disabled vulnerable residents, the storage of food waste and the requirement to carry it to the kerbside are too challenging. Food waste cannot be stored indefinitely (indeed the basis for weekly household waste collections was the lifecycle of the common housefly). Even emissions from composting can be hazardous to vulnerable individuals.

Local authorities should therefore have a degree of flexibility in choosing options to promote greater recycling. Imposing mandatory weekly food waste collections on multi-occupancy city properties or flats over commercial premises does not increase those residents' storage capacity, agility or willingness to participate. Providing additional funding to local authorities for infrastructure would no doubt be welcome but it will not assist residents of tower blocks or those with serious medical conditions to segregate their food waste.

Commercial AD is currently subsidised with no immediate prospects of profitability. Even assuming maximum participation it is unlikely that kerbside collected food waste would become a viable option any time soon and requirements for further public funding to support this option could extend for many years to come.

In conclusion we do not believe that it would be sensible to mandate all local authorities in England to offer a separate kerbside food waste collection. Some may choose to offer such an option where they believe that it suits their local conditions but it is clear that in other areas there are other waste streams that would benefit more from increased

resources.

Experience in other Northern European countries is demonstrating that successful policy requires the flexibility to adopt new technologies as they evolve and AMDEA would welcome the opportunity to discuss the latest evidence on source separation and recovery of value from unavoidable food waste with the Department.

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