

Briefing Note on Commingled Recycling Collection System (O&SC Action No. 217.2)

Purpose

This briefing note sets out the reasons for and benefits of the adoption of a commingled recycling collection system as part of the new Waste Services contract, for consideration/tabling at the Overview & Scrutiny Committee meeting on 9th May 2011.

Background

A Scrutiny review into Waste, Recycling, Collection and Disposal was completed in April 2008, which made a number of recommendations aimed at improving performance across various waste management activities. The Cabinet responded to the recommendations in July 2008, drawing on the Council's comparison of source-separated and mixed material recycling collection methodologies that was undertaken for the Recycling Strategy 2006. This found that a mixed material (commingled) collection system was more cost effective for Haringey.

In a further Scrutiny Report in July 2009 the Panel made revised recommendations, including that the Council commission a report on commingled and source separation collection methods, including separate glass and paper collection, as part of the procurement process for the new Waste Services Contract, which should consider the costs and benefits, environmental impacts and carbon dioxide emissions of both collection systems.

The Cabinet response in October 2009 proposed that this recommendation would be met through the procurement of the new Waste Services Contract which would be utilising the competitive dialogue process. This was on the basis that the selected process would involve engaging with short-listed bidders to identify detailed solutions for the provision of recycling services, with the objective of delivering the most cost-effective and environmentally beneficial service possible within the Council's affordability envelope.

Progress of the dialogue was reported through regular reports to Procurement Committee and to the cross-party member steering group in place to oversee the procurement.

The dialogue process allowed the Council to be informed by the expertise of the market, enabling bidders to propose and justify the most advantageous solutions for Haringey, taking into account cost, carbon footprint and recycling performance. These solutions, which considered the full range of collection systems for dry recycling were subject to rigorous evaluation through the various stages of the procurement.

Veolia were awarded the contract by Cabinet in December 2010. As part of the overall solution, a commingled collection system will operate for dry recycling. Whilst details of the solutions put forward by each shortlisted bidder on different collection systems must remain commercially confidential this note is focussed on the rationale for the commingled recycling system opted for.

Rationale for Commingled Recycling Collections

The Cabinet Report recommending contract award noted that Veolia would deliver a more sustainable solution by reducing the service's carbon impact and increasing recycling rates, in line with our Greenest Borough Strategy.

The final Veolia proposal put forward, involving the commingled collection of dry recycling, will deliver the following outcomes:

- Reduction in carbon footprint of service by 40% within 4 Years.
- Increase in recycling rates to at least 40% resulting in an estimated reduction in disposal costs of £1 million per annum with carbon equivalent savings of 12,000 tonnes.

The key benefits of a commingled collection system for Haringey and the factors that make it the most appropriate system given the local geographic and socio-economic characteristics of the borough are summarised below:

1. Suitability to Haringey

- Commingled is the only feasible recycling system for flats above shops and other properties without space to store containers, allowing all materials to be mixed in a single sack. It is also the most suitable solution for estates and blocks of flats with limited space, minimising the number of shared containers required.
- The above, combined with it being the most suitable system for kerbside properties (as outlined further below), allows the provision of a universal system across all property types, enabling the communication of a single, clear message on recycling for all residents.
- This is viewed as especially valuable given the challenges of communicating messages to residents who do not have English as a first language.

2. Facilitating Participation in Services and Maximising Recycling Rates

- Commingled requires no pre-sorting by residents making the scheme as easy and hassle-free for residents to use as possible and maximising recognition of materials and participation rates.
- In this way it is most likely to encourage behavioural change amongst residents not already recycling.
- Commingled allows the use of a wheelie bin for recycling because the contents can be emptied directly into a collection vehicle and sorted later. This increases capacity for recycling (a 240L bin has equivalent capacity to four boxes) and can remove behavioural barriers to recycling more (limited storage capacity, i.e. boxes, may prevent residents from recycling all suitable materials which then end up being put out as refuse).
- The increased capacity provided by wheelie bins is also a key requirement enabling a move to fortnightly refuse collections, which is central to the strategy to achieve a major increase in the recycling rate.

3. Maximising Cost Effectiveness and Minimising Environmental and Traffic Impact

- A commingled system delivers the most cost-effective and resource-efficient collection service because it requires the smallest fleet (i.e. fewer rounds and consequently less labour), minimises the number of vehicle movements, and reduces idling time and the number of operatives needed in the process of emptying containers (as no sorting is undertaken at the point of collection).
- The number of vehicle movements is limited because collecting dry recycling together enables the collection of food and garden waste on the same vehicle (using a twin compartment vehicle) and this type of vehicle enables the partial compaction of materials, allowing more material to be carried on each collection run and less need for a vehicle/crew to return to an area to finish off a collection round.

- The result of this is a reduced environmental impact in terms of carbon emissions and local air quality, as well as on traffic and congestion. This is especially important given Haringey has many of the characteristics of an inner London borough in terms of high density housing along narrow roads.

4. Benefits to Street Cleanliness

- The use of wheelie bins as part of a commingled solution and the lack of sorting recyclables at the kerbside delivers wider streetscene management benefits, reducing wind-blown litter associated with boxes (as lids can be blown off or lost) and improving overall street cleanliness.
- The replacement of boxes with wheelie bins for recycling will represent a more efficient use of space and improve the appearance of streets where properties currently have multiple boxes.

5. Health & Safety Benefits

- The Health & Safety Executive has recognised the health and safety issues related to the collection of boxes and sacks in waste collection schemes, due to the repeated bending, lifting and twisting associated with this.
- Wheelie bins greatly reduce this risk and should minimise manual handling injuries/sickness.

6. Material Processing

- The use of a Material Recovery Facility (MRF) for commingled materials, through North London Waste Authority, avoids the requirement for the Council to identify suitable space to deposit and bulk materials were these collected in a source separated system (which would need to be considerable to handle the quantity of recyclates if target recycling rates are to be reached), and the additional costs associated with bulking and transporting materials.
- MRF technology has improved continuously over the past decade and Haringey has benefited from this. NLWA's MRF contractor has been able to accept and separate drinks cartons (tetra paks) and mixed household plastic containers of all sorts since 2009. In order to collect and separate this range of different plastics the use of some form of onward processing is required (eg. through a MRF or plastics recovery facility), regardless of the method of collection at the kerbside.
- Haringey receives an income from the sale of recyclates separated by the MRF, due to the quality of the MRF process, which offsets the cost of collection and treatment.
- Where incorrect (i.e. unrecyclable) materials are put out by residents in their recycling, these can be extracted by the MRF process.
- MRF technology and performance will continue to develop; for example the capability to separate glass by colour which would support re-processing into new bottles is under development.

Conclusions

The procurement was designed to allow the market to apply its expertise to the local circumstances in Haringey in order to develop solutions that would most effectively meet the Council's objectives, which through the evaluation criteria placed a clear emphasis on finding the optimal environmental solution within the limits of the Council's affordability.

This has resulted in a collection system based on the commingled collection of dry recycling, mixed food and garden waste and a fortnightly collection of refuse. The main benefits include:

- Quick, efficient collections minimising number of vehicles required, number of vehicle movements and hence time on the streets and potential to cause congestion. This will support a positive impact on public perception.
- Minimising carbon impact and air quality issues linked to collection vehicle movements.
- The ability for residents to put all recycling into a single container avoiding the need for residents to separate materials into different containers, to limit the range of materials and the consequent impact on participation this could involve.
- Use of wheelie bins for recycling, which in practice is limited to commingled systems, provides more capacity and is a mode of containerisation which is shown to encourage use and therefore increases recycling.
- Health and Safety - the use of wheelie bins for recycling is limited to commingled systems in practice. The associated reduction in manual handling is better for crews when compared to the lifting of boxes.

Through the partnership approach adopted in the contract with Veolia the Council will benefit from a level of flexibility to make future changes for which there is a business case. This could apply to the recycling collection system employed in the borough in future and will be essential in allowing the Council to adapt to potential changes to waste policy, and to take advantage of future innovations and technological improvements in the waste industry, such as in developing MRF technology.