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Biffa Municipal press release

27th May 2011

Top recycling councils use AWC, co-mingling and wheeled bins

New independent research has shown that local authorities can significantly boost their household recycling, divert more waste from increasingly expensive landfill, and cut costs by alternate weekly collections of co-mingled¹ dry recyclables and refuse from wheeled bins.

The research, conducted by environmental experts from global consultancy WYG, and supported by collections contractor Biffa Municipal, found that these service elements were used by most of the top 30 councils in the kerbside dry recycling league table for 2009-10, as compiled by WYG from government published data.

Of the 13 councils who improved their recycling diversion by more than 1kg per household per week 11 moved to a wheeled bin service for dry recycling.

Len Attrill, WYG project director, said: "The report adds unbiased, objective evidence to the compendium of knowledge that local authorities should, indeed must, use to inform their decision-making on how to improve local recycling."

He added: "The findings highlight that changing to a fully co-mingled dry recycling collection service using a wheeled bin has brought about yield increases of up to 270 per cent in dry recycling."

He cited the most improved dry recycling council, Biffa-serviced Surrey Heath Borough Council, which changed its recycling service and increased its dry recycling yield by 270 per cent, adding 130 kg to reach 178 kg per household per year (kg/hh/pa). It switched from weekly sack collections of two-stream recyclables and refuse to alternate week collections (AWC) of fully co-mingled dry recyclables and refuse from wheeled bins.

Another Biffa customer, South Oxfordshire District Council, had the second-highest overall dry recycling yield, 271 kg/hh/pa, after launching a new recycling and refuse service focused on AWC, co-mingled

¹ Co-mingled collections are where all recyclables are collected together and taken to a sorting facility. Other systems involve operatives sorting materials at the kerbside into separate vehicle compartments.

recyclables and wheeled bins. Combined with weekly food and fortnightly green waste collection, this has enabled South Oxfordshire to hit a recycling and composting rate of over 70%, probably the best in the UK.

Biffa has seven councils in the top 30 list: South Oxfordshire at No 2, Stratford-on-Avon at No 3, Mole Valley (5), Woking (14), Blackburn with Darwen (20), Melton at 29 and Tandridge, 30. In the most improved table, the company had several council customers – Surrey Heath at No 1, Barrow in Furness at No 6, and South Oxfordshire (10).

Mr Attrill continued: “The evidence is irrefutable. Factors like co-mingling, wheeled bins and fortnightly refuse collection can and do markedly lift recycling performance while often saving costs.

“In today’s tough climate of budget austerity, it’s vital that councils make sound decisions about important local services.”

He pointed to government agency WRAP, whose recent change of position has bolstered the case for co-mingling. “Its previous reports on recycling collections had consistently endorsed kerbside-sort. However, a 2011 report on Welsh recycling admits that, all other factors being equal, average yields for co-mingled collections are expected to be nearly 12 per cent more than with kerbside sort for weekly collections, and over 22 per cent more than kerbside sort for fortnightly collections.”

WRAP had previously implied that the difference in yields between co-mingled and kerbside sort collections may be due to co-mingling being more prevalent in affluent areas. WYG researchers assessed the impact of affluence or deprivation on recycling rates under the different systems.

More affluent areas do tend to produce higher recyclate yields as residents generate more waste materials and are perhaps more committed to recycling. However WYG found that, co-mingled consistently outperforms kerbside sort across the affluence / deprivation spectrum.

Analysis of official WasteDataFlow information showed England had the authority with the highest dry recycling yield, 278 kg/hh/pa. Wales recorded a maximum of 218 kg/hh/pa, Scotland 200, and Northern Ireland 161 kg/hh/pa.

According to the data, submitted by all councils and officially validated before being analysed by WYG, the highest waste diversion performance comes from:

- collecting fully co-mingled dry recyclables every fortnight from wheeled bins;
- collecting refuse fortnightly from wheeled bins;
- and collecting at least five of the main dry recyclable materials – paper, card, and glass, plastic and metal containers.

Wheeled bins of 240 litres capacity are recommended for co-mingled recyclables as they can easily hold five times more than a recycling box, making fortnightly collections fully viable. Reducing wheeled bins to

180 or 140 litres for refuse, or collecting refuse fortnightly, also stimulates more recycling, as illustrated by the top improvers.

Wheeled bins for both refuse and recycling have the added benefit of reducing litter from split or ripped sacks, or materials blowing out from boxes. Attrill explained: “A recent WYG study found that litter in residential areas reduced by nearly 40% when an authority switched from sacks and boxes to wheeled bins.”

He emphasised that, ultimately, councils have to choose what is best for their local needs. “For example, wheeled bins may not be appropriate for densely populated urban areas lacking in external storage space. Adopting one or other collection system does not guarantee high performance as one size does not fit all.”

Of the top 30 dry recycling councils in 2009-10:

- Three-quarters (23) collected 75 per cent or more of their dry recyclables co-mingled;
- Three-quarters (23) collected recycling each fortnight;
- 70 per cent (21) collected refuse fortnightly;
- Over half (56 per cent), including all the top 10, collected both refuse and recycling fortnightly;
- The vast majority used wheeled bins (86 per cent);
- All collected at least five of the main dry recyclable materials.

Taken as a whole, alternate week collections, co-mingling and wheeled bins can deliver meaningful cost savings through fewer vehicles and crew, reduced mileage, increased income from MRF gate payments and reduced landfill fees and tax.

Councils are urged to use up-to-date MRF costs, rather than historic data, when they are costing recycling and refuse collection options. The research found that MRF fees have reduced noticeably, with negative gate fees becoming the norm.

This challenges earlier cost models that were based on historic data and used by WRAP and the Welsh Assembly Government to support their argument for kerbside-sort.

WRAP’s cost modelling has assumed local authorities need to pay between £27 and £33 for every tonne of material sent to a MRF. In contrast, recent procurement exercises have seen MRF operators paying local authorities £30 for every tonne of fully co-mingled recyclables – a reversal of the WRAP figures.

The habit of using historic data about MRF fees and costs can significantly mislead procurement decisions, as Len Attrill pointed out. “MRFs are central to the co-mingling proposition, and it’s only right, fair and reasonable that cost comparisons should use accurate, current information.

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“With cost information that reflects the reality of today, not yesterday, councils can be more confident about making sound decisions on how to allocate hard-pressed budgets.”

Savings also arise from co-mingling’s proven record at diverting more tonnage from landfill. For example, a council whose fortnightly kerbside-sort collection achieves a dry recycling yield of 160 kg/hh/pa would conservatively expect an increase of 20 per cent, or 32 kg, to 192 kg/hh/pa by switching to fortnightly collections of fully co-mingled dry recyclables in wheeled bins.

Across 100,000 households, this would mean an extra 3,200 tonnes are diverted from landfill annually. By not having to pay landfill tax of £56 per tonne or a landfill gate fee of, for example, £24 per tonne, the local authority would save £80 for every tonne diverted from landfill. This saves around £256,000 in costs, apart from any payments by MRF operators for recyclables.

The landfill diversion saving will increase as landfill tax rises by £8 every year. This and payments from MRF operators and any operational savings achieved by switching from kerbside-sort to co-mingled collections will benefit council coffers on an increasing scale.

Attrill concluded: “Procurement of recycling and waste services lets councils challenge themselves, and suppliers, to make significant step-changes in operational performance and economy. Those changes are just as achievable with a council’s workforce as with an outsourced contractor. But it is essential that local authorities take into account their own circumstances before making any decisions about changing collection arrangements.”

The WYG research report, ‘Review of Kerbside Recycling Collection Schemes in the UK in 2009/10’ is available as a free download from www.wyg.com/recyclingreview or by email from waste.enquiries@wyg.com

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WYG Notes to Editors

We are an established global management and technical consultancy to the built and natural environment that collaborates with clients in over 40 countries to help them realise their corporate and project ambitions. We are focused on providing high quality, high value professional services by optimising our skills in design, engineering, environment, transportation, project management, planning and socio-economic needs.

As part of our environmental services, we have a specialist waste team to help clients develop new waste and resource management strategies, systems and facilities. Since the year 2000, WYG has delivered over 200 projects for 20 London Boroughs, 20 Unitary or Metropolitan Authorities, 5 County/District Partnerships and 88 District or Borough Councils, in addition to private sector and other public sector clients.

Biffa Municipal Notes to Editors

- The municipal division of recycling, waste and renewable energy business Biffa (www.biffa.co.uk) currently provides high quality, efficient recycling, refuse, street cleansing and grounds maintenance services for over 40 local authorities in England, Wales and Scotland.
- The division expanded considerably in late 2010 when municipal services specialist Verdant Group, and its 24 local authority contracts, joined Biffa when Greenstar UK was acquired.
- The municipal business makes over 2½ million collections per week, and employs in excess of 2,500 staff who use over 1,000 vehicles.
- Its notable successes include helping South Oxfordshire District Council achieve a recycling and composting rate of 70% during 2010, placing the council second in Defra's 2009-2010 league tables for overall recycling, composting and reuse and winning a LARAC Award for the most improved recycling authority.
- The first months of Vale of White Horse District Council's new service saw its recycling and composting rate match that of its South Oxfordshire neighbour, while a redesigned service for Surrey Heath Borough Council doubled its recycling and composting rate to almost 65%, helping it meet its 2025 target almost 15 years early.